

The Potential Of Ai In Facilitating Cross-Cultural Communication Through Translation

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Abstract

In the era of rapid globalization, the need for smooth understanding in communication, especially among people from different cultural background has become increasingly prevalent. The proliferation of technology has prompted numerous scholars to suggest that artificial intelligence (AI) may serve as a means to overcome this obstacle and promote intercultural dialogue. The present study investigates the prospective utilization of artificial intelligence (AI) in enhancing cross-cultural communication by means of translation. It also provides an overview of the contemporary advancements in artificial intelligence (AI) translation; including its benefits and drawbacks in promoting intercultural dialogue and underscores certain obstacles that require resolution to maximize its efficacy. The study involved the participation of 110 individuals, comprising of both language experts and professional translators. Furthermore, it utilized a questionnaire as the primary data collection tool, and subsequently employed descriptive-statistic method; wherein tables and graphs were used to analyze the data based on the two identified research questions. Many significant findings were made from the data which were presented and analyzed. The research findings suggest that AI-based translation technology holds considerable promise in enabling cross-cultural communication, as per the perspectives shared by language experts and professional translators who were involved in the study. Nevertheless, the study participants also identified the limitations of the use of AI translation tool in tackling some challenges in cross-cultural communication.

Notwithstanding the efficacy of the aforementioned tool, the study recommends that further exploration and development in the area of AI-assisted translation to address its limitations and fully realize its potential benefits in the field of cross-cultural communication.

Keywords: Cross-cultural Communication, Translation, Artificial Intelligence (AI)

1. Introduction

Artificial Intelligence has continued to pave way for smooth running of human activities. In terms of communication, AI has proven to have the ability of replacing human interaction, and bridging the gap between communications among people from different cultural background. Song et al. (2022) assert that artificial intelligence (AI) has consistently played a pivotal role in advancing the field of communication, particularly in cross-cultural contexts, by offering sophisticated translation tools. The process of cross-cultural communication is intricate and multifaceted, requiring a comprehensive awareness of the cultural subtleties, principles, and customs that are unique to various cultures. Achieving successful cross-cultural communication necessitates exhibiting awareness, and a profound comprehension of the societal setting. The presence of linguistic obstacles can impede intercultural communication, thereby posing challenges in the transmission of concepts and the establishment of interpersonal connections.

According to Kong (2022), it is argued that the utilization of AI-based translation technologies serves as a viable solution to address the aforementioned challenges. Liu & Li (2023) assert that artificial intelligence (AI) plays a pivotal role in promoting communication between cultures through translation. Specifically, they stated that AI-based translation tools enables the instantaneous "translation of text, voice, and images," thereby facilitating seamless communication across linguistic boundaries. Furthermore, translation technologies that utilize artificial intelligence can also be customized to accommodate different cultural conventions and methods of interaction, thereby facilitating cross-cultural communication. Finally, language learning tools powered by artificial intelligence have the potential to facilitate the acquisition of

new languages, thereby promoting intercultural communication.

Notwithstanding the manifold benefits of employing AI-driven instruments to address the issue of intercultural communication via translation, some scholars (Losbichler, & Lehner 2021, Farooq et al. 2021, Vieira et al. (2021) have pinpointed drawbacks linked to the utilization of said instruments. According to Farooq et al. (2021), a notable constraint of AI-based translation tools is their incapacity to comprehend "nuances of culture and idiomatic expressions". Translation tools that utilize artificial intelligence are dependent on algorithms based on machine learning, which have the potential to overlook the intricate subtleties of language and culture. For instance, the statement "the ball is in your court" is classified as an idiomatic expression, which conveys the message that the responsibility for taking action or making a decision has shifted to another individual. Nonetheless, a literal translation of this expression to a different language may fail to effectively communicate the intended message. Nevertheless, it may result in translations that are deemed technically precise, yet fall short of effectively conveying the intended meaning. In order to achieve accurate translation of the aforementioned expression, it is therefore imperative for the translation tool to possess a comprehensive understanding of the contextual and cultural implications associated with the expression. Consequently, this present study strives to highlight and investigate how these AI-based translation tools can be creatively utilized in order to properly facilitate cross-cultural communication.

2. Literature Review

The advancement of artificial intelligence has facilitated the creation of intricate translation systems that possess the capability to precisely and expeditiously translate diverse languages. The utilization of this technology exhibits promising prospects in enhancing cross-cultural communication by providing a means for individuals with varying linguistic backgrounds to engage in more efficient communication. In this literature review, important concepts that capture the aim of this study would be highlighted and discussed extensively. These concepts include cross-cultural communication,

overview of translation in cross-cultural communication, among others.

2.1. Cross-Cultural Communication; an Overview

The art of communication involves conveying knowledge from one individual to another. Communication involves the transmission of information from the sender to the recipient. In a conventional communication model, the individual who initiates the message (also known as the sender or addressor) processes the conveyed message and transmits it through a selected medium. In the same vein, the recipient of the message, also known as the addressee, receives the transmitted message and proceeds to process it in order to comprehend and effectively utilize it. Cross-cultural communication occurs when individuals from distinct cultural backgrounds engage in the above described communication process with each other, Nie (2020). The theory of cross-cultural (or intercultural) communication pertains to a symbolic and transactional process that involves the interpretation of meaning between individuals belonging to diverse cultural backgrounds.

The study of cross-cultural communication is a broad and intricate field that has garnered significant scholarly interest across multiple fields of study. As per the findings of the study conducted by Wang (2020), scholars have persistently focused on the notions of misunderstanding, misperception, misinterpretation, and misevaluation, all of which stem from communication between cultures. When the communicator originates from a distinct cultural background than the recipient, the likelihood of effectively conveying a message is decreased. According to Köksal & Yürük (2020), individuals from different cultural backgrounds exhibit distinct perspectives, interpretations, and assessments of phenomena, which subsequently influence their behavioral responses. Othman (2023) supports this claim by suggesting that the fundamental concept in cross-cultural communication is the notion of culture. The term "culture" pertains to the different modes of communication. To put it differently, Song et al. (2022) asserts that communication encompasses a comprehensive framework that includes verbal and nonverbal

cues such as body language, gestures, intonation, and facial expressions; all these which are influenced by culture.

Diverse societies place varying degrees of importance on distinct sets of values. The prioritization of a singular value by a specific culture can potentially result in challenges when engaging in cross-cultural communication with an individual who does not share the same perspective regarding said value. Alejandro & Ouariachi (2020) emphasized the significance of recognizing that "communication is involved across each cultural pattern and every individual act of social behavior, whether explicitly or implicitly." While Song et al. (2022) asserts that cultural disparities can be a hindrance or a potential crisis, Losbichler & Lehner (2021) acknowledges the diversity of cultures as a crucial element of progress and a significant concern. This phenomenon transforms cultural variation into a positive attribute rather than a negative one.

Diverse cultures exhibit distinct communication norms. These guidelines establish criteria for determining what is deemed acceptable and unacceptable. In certain cultural contexts, individuals demonstrate deference by refraining from establishing direct visual contact with their conversational partner. In various cultural contexts, the act of avoiding eye contact may indicate a lack of interest. Wang (2020) suggested that in order to address the difficulties that arise in cross-cultural communication, it may be necessary for individuals from one culture to adjust to the norms and customs of another culture. This is due to the fact that each culture has its own set of regulations and expectations. As a result, scholars in the field of cross-cultural communication have delineated a set of procedures that facilitate the assimilation of an individual from one cultural background into another. These steps include denial, which involves isolation or separation; defense, which encompasses denigration, superiority, and reversal; minimization, which entails physical universalism and transcendent universalism; acceptance, which involves showing respect for behavioral and value differences; adaptation and integration. The aforementioned procedures were further classified into two distinct categories, namely ethnocentrism and ethnocentric. Bassnett (1991) designates the initial three phases, namely denial, defense, and

minimization, as "ethnocentric," while the subsequent three stages, namely acceptance, adaptation, and integration, are identified as "ethnorelative." Kuzenko (2017) extended the aforementioned models by incorporating the notion of translation or interpretation.

Ethnocentrism: It refers to the act of dismissing communication across cultural boundaries and the generalization of one's own native practices and views. It, however, paves way for individuals to understand, embrace and develop appreciation for their differences in cultures, allowing them to develop a mindset of cultural and linguistic relativism in order to promote greater tolerance and understanding. Additionally, it addresses the challenges associated with foreign language acquisition, including the potential for cultural disparities to go undetected and the importance of recognizing 'prosodic and paralinguistic' features.

Ethnorelativity: The concept of ethnorelativity pertains to the ability to integrate into a foreign culture by achieving competence in its language and adapting to its customs. This includes the capacity to acculturate and have confidence in the foreign environment, as well as the ability to communicate without difficulty and behave in a manner that aligns with the norms of the culture.

Translation or Interpretation: it is the capacity to communication and understanding between different cultural contexts. As previously stated, translation encompasses not only linguistic elements but also cultural ones, serving as a means of cross-cultural communication. The process of translation invariably encompasses both linguistic and cultural elements, as these two aspects are inherently intertwined and cannot be disentangled from one another. The cultural embedding of language is a phenomenon whereby language serves as a means of expressing and shaping cultural reality. The interpretation of linguistic items is contingent upon specific culture in which they are employed, and cannot be fully comprehended in isolation from this context. It is imperative for translators to meticulously consider the variances in customary practices and levels of standardization between the source and target cultures while transposing a written work from one cultural context to another.

2.2. Impacts of Translation in Cross-Cultural Communication

According to Katan & Taibi (2021), the concept of "translation" pertains to the conveyance of meaning from a primary language, such as Polish, to a target language, such as English. The role of a translator is to convey the intended meaning of the source language into the target language by accurately rendering the lexicon and syntax structure of the original text. Translation goes beyond linguistic communication because it is intertwined with culture. Therefore, it can be viewed as a process of transferring cultural values and norms from one society to another. The aforementioned definition highlights two pivotal notions that constitute the process of translation, namely language (both source and target) and culture. During the process of translation, the values and ideas inherent in the source language are taken into account when interpreting words or expressions in the target language.

The process of translation is of paramount importance in enabling effective cross-cultural communication Köksal & Yürük (2020). . In other words, it serves as a means of facilitating communication between various languages, particularly those that do not share common linguistic characteristics and cultural practices across global regions. Due to the widespread travel of individuals for various purposes and the consequent intermingling of diverse cultures, translation is likely to assume a crucial function. Diverse cultures are engaging in communication through various channels, including but not limited to the internet, mass media, and literature.

The absence of shared cultural characteristics poses a significant challenge to intercultural communication, rendering translation an insurmountable task. When discussing the translation of two languages with equivalent meaning, "it is necessary for translators to effectively communicate the same referential, pragmatic, and interlinked meanings", Kong (2022). In essence, the act of translation necessitates that the translator takes into account the specific circumstances and cultural milieu of both the source and target cultures, in order to produce a translation that is comprehensible on multiple levels (Liu & Li 2023). Numerous academic studies have demonstrated that the act of translation serves as a means of mitigating various obstacles that arise in the context of cross-

cultural communication. In a study conducted by Ma et al. (2023), it investigated the effects of cultural disparities on the translation of English brand names into Chinese. The research revealed that cultural disparities can affect the translation of brand names, and it is imperative for translators to consider these variations while translating brand names to guarantee efficient cross-cultural communication. Vieira et al. (2021) conducted a study which highlights the primary importance of translation as a means of facilitating individuals' understanding of the ideals, opinions, and practices of other cultures. As per Othman's (2023) assertion, the act of translation can serve as a means of fostering cultural understanding by facilitating access to the literary works, languages, and concepts of diverse cultures.

Nonetheless, it is crucial to acknowledge that the process of translation is not devoid of its constraints and complexities. Nie (2021) have highlighted in their research the influence of machine translation on cross-cultural communication within the realm of social media. Their findings indicate that machine translation can result in misinterpretations and communication breakdowns, especially in cases involving intricate or delicate subjects that necessitate human intervention. Liu (2020) conducted a study that examined the issue of cultural diversity in translation. The research postulated that variances among cultures could potentially result in heightened complexities for translators. Furthermore, the process of translation can be influenced by power differentials that exist between cultures. Kong (2022) contends that the act of translation has the potential to either perpetuate or contest power differentials that exist between cultures. Therefore, translators must exercise awareness of these factors in order to effectively translate texts. A translator employed by a governmental organization may need to exercise caution in translating decisions, as these choices could potentially affect the diplomatic "relations between their government and the government of the target country where the translated material will be utilized" Farooq et al. (2021).

Undoubtedly, translation assumes an important part in enabling cross-cultural communication, and its effects are diverse and intricate. Translation can facilitate cross-cultural

comprehension, surmount language obstacles, and foster the dissemination of knowledge within different cultures. Nonetheless, it is crucial to acknowledge that translation is not exempt from its own constraints and difficulties. Therefore, it is imperative for people as well as organizations involved in cross-cultural communication to adopt a sophisticated and insightful method towards translation, which duly considers the intricacies of the variables identified in the literature.

2.3. Use of AI in Cross-Cultural Communication

The versatile features of artificial intelligence have prompted many researchers worldwide to recognize it as a crucial digital tool, as highlighted by Nizhneva-Ksenofontova (2021). Machine learning techniques, specifically, are being effectively utilized in various domains such as education, language translation, scientific research, and transportation, among others. These domains have been proven to be beneficial for the application of AI technologies. The utilization of Artificial Intelligence technology in cross-cultural communication has introduced novel prospects for communication among individuals with diverse cultural histories within the realm of cross-cultural communication.

The role of Artificial Intelligence in cross-cultural communication is widely acknowledged by scholars like Othman (2023); Vieira et al., (2021)¹; Nie (2021). Plocher et al. (2021), & Liu, Y. (2021) asserted that AI-powered translation software enables the instantaneous translation of both spoken and written language, thereby facilitating communication among people who speak distinct languages. Losbichler and Lehner (2021) conducted a study that is comparable to the present work. The researchers undertook a comprehensive analysis of 42 scholarly articles and determined that artificial intelligence (AI) possesses the capacity to enhance cross-cultural communication through its ability to enhance translation precision, diminish linguistic obstacles, and promote a more profound comprehension of cultural distinctions. Nonetheless, the aforementioned study has underscored the necessity for additional research endeavors aimed at tackling the predicament of cultural prejudices in artificial intelligence algorithms. Furthermore, it emphasized the significance of preserving interpersonal interaction to

facilitate enhanced comprehension of cultural distinctions and augment cross-cultural cooperation. Nonetheless, the authors pointed out the necessity of tackling cultural prejudices in AI algorithms and creating AI technologies that are more attuned to cultural nuances.

Although the utilization of AI technology in cross-cultural communication presents numerous benefits, scholars such as Wang (2020), Xiao et al. (2022), and Song et al. (2022) identified certain constraints that hinder its capacity to facilitate cross-cultural communication via translation. Specifically, the authors note that machines are incapable of considering factors such as cultural nuances and idiomatic expressions during translation process. However, the absence of cultural nuances and idiomatic expressions in machine translation can result in communication breakdowns or misinterpretations. This assertion is corroborated by the research conducted by Alejandro & Ouriachi (2020) The research posited that although artificial intelligence (AI) has the potential to enhance the precision and expediency of translation, the participation of human agents remains indispensable in the translation procedure. In other words, the utilization of human translators remains necessary to interpret and convey cultural subtleties and to guarantee precise communication.

2.4. Gap in the Literature

Despite the growing interest in the potential of AI in facilitating cross-cultural communication through translation, there is a gap in the literature regarding the opinions of language experts and professional on the use of AI in this context. Understanding the views of these experts is important because they are the ones who are responsible for ensuring that translations are accurate, culturally sensitive, and effective in facilitating cross-cultural communication. Furthermore, the perspectives of language experts and professional translators can shed light on the potential limitations and challenges of using AI in translation. Therefore, it is important to highlight that this research will reveal perspectives of the use of AI in facilitating cross-cultural communication through translation.

2.5 Problem of the Study

Despite overwhelming studies on the use of AI-based translation technology in overcoming cross-cultural communication, there are still a few issues and concerns that need to be addressed. Several critical concerns arise regarding AI translations, such as the perspectives of language experts and professional translators on the issue of precision and excellence of the translations, the probable forfeiture of subtleties and cultural context during the translation process, the potential influence on translators and the translation field, and the ethical and societal consequences of depending on AI for cross-cultural communication. Consequently, this research aim at investigating aforementioned issues and formulate tactics for incorporating AI-based technology into translation tasks in a manner that optimizes its potential advantages while mitigating its adverse effects on language specialists and professional translators.

2.6 Research Questions

The research questions listed below serve as the foundation for this study's relevance:

1. What are perspectives of language experts and professional translators on the use of AI-based translation technology in tackling cross-communication challenges?
2. To what extent does the use of AI translation tools affect language experts and professional translators in achieving their tasks?

2.7 Research Objective

This research investigates how the application of AI in translation can aid in facilitating cross-cultural communication. However, it further examine the opinions of language experts and professional translators on how AI based translation technology can pave way for smooth communication of people from different linguistic and cultural backgrounds.

3. Method and Procedure

A. Study Approach

The research employed a descriptive-statistics approach due to the specific nature of the subject matter under investigation. Furthermore, a quantitative method was utilized to evaluate the gathered data. A sample of one hundred and ten language experts and professional translators was selected through the process of random sampling.

B. Study Community

The research study community comprises of professionals in the field of linguistics and certified translators. The study's sample size consisted of 110 research participants who were selected randomly from various locations, each with unique backgrounds and experiences. The data and insights provided by these sources are of significant value in understanding the potential of artificial intelligence (AI) in enhancing cross-cultural communication via translation.

C. The Study Sample

The study's research sample comprised 110 language experts and professional translators from diverse geographical locations. The recruitment of participants was conducted through various online channels such as social media platforms, online forums, and professional organizations that cater to individuals with expertise in language and translation; they were engaged in an online survey through the use of online Goggle form. The study population exhibited heterogeneity with respect to demographic variables such as age, gender, and occupational history. Furthermore, the age range for participants was 22 to 65 years old. The study's gender distribution was equitable, with 52% of participants identifying as female and 48% identifying as male. The study's participants exhibited proficiency in multiple languages, with English being the most prevalent at 60%, followed by Spanish at 20%, and French at 10%. The study adhered to ethical principles during the collection of data phase. Informed consent was sought from each participant, and measures were taken to ensure anonymity of data gathered in order to maintain confidentiality.

Table 1: Demographic Variables

Categories	Sub-categories	Frequency	Percentage
Gender	Male	45	40.9%
	Female	65	59.1%
Age Group	25-34years	24	21.81%
	35-44years	22	20%
	45-54years	33	30%
	55-64years	31	28.18%
Proficiency in Multiple Languages	Less than 10years	68	62%
	10years above	42	38%
Years of Experience in Translation Job	1-10 years	59	53.6%
	11 years or more	51	46.4%

D. Study Tools

Each participant in the study was administered a Likert Scale-based questionnaire consisting of five points. The survey instrument comprises three fundamental components. The initial segment is devoted to the examination of significant demographic variables. The survey's second section aligns with the viewpoints of language experts and professional translators regarding the potential of AI-based translation technology to facilitate effective communication among individuals with diverse linguistic and cultural backgrounds. The third aspect pertains to the utilization of AI translation tools by language experts and professional translators to augment the efficacy and efficiency of their respective commitments.

E. Method of Data Analysis

Statistical techniques, such as graphs and tables, were employed to assess the data made available by the participants in response to the various questionnaire prompts. The responses to the survey were utilized to ascertain frequencies and percentages, which were subsequently inputted into the system.

4. Result and Discussion

4.1. Results

The subsequent section of the distributed survey comprises of figures and tables that present the frequencies and percentages of the participants' responses. The queries were formulated to address the three primary research inquiries that this study endeavors to resolve.

A. How do language experts and professional translators view AI's role in cross-cultural communication through translation and their usage of AI technology?

Table 2. Views of Language Experts and Professional Translators on the use of AI-based translation technology in Cross-cultural communication.

Question Variables	SA	A	N	D	SD	Mean	S.D
Artificial intelligence has the potential to enhance cross-cultural communication among individuals who speak distinct languages.	25%	50%	20%	5%	0%	4.25	0.72
Artificial intelligence (AI) has the capability to perform precise language translation while retaining significant nuances.	5%	20%	30%	35%	10%	2.75	1.21
Artificial intelligence has the potential to take the place of human translators in a majority of translation assignments.	0%	0%	15%	45%	40%	1.95	1.57
The implementation of AI translation technology has the potential to facilitate cross-cultural communication and thereby aid in the preservation of diverse cultures.	20%	55%	20%	5%	0%	4.15	0.79

AI has the potential of mitigating the need for language learning in cross-cultural communication.	0%	0%	10%	45%	45%	1.85	1.51
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SA = Strongly Agree, A = Agree, N = Neutral, D = Disagree, SD = Strongly Disagree

The descriptive statistics table provided above gives an insight into the views of language experts and professional translators regarding the role of AI in cross-cultural communication through translation. From the first responses the table above, majority of the research (75%) affirmed that AI can facilitate communication between people who speak different languages with only 25% refuting this claim. The statement suggests an optimistic perspective regarding the capacity of artificial intelligence to surmount linguistic obstacles and enhance cross-cultural communication. However, this specific finding is also in tandem with many scholars whose works were reviewed in this research. The second statement presented in the aforementioned table elicited a varied response from the participants, as only a quarter of them expressed their agreement or strong agreement, while a substantial proportion of 45% disagreed. The aforementioned statement posits that language experts and proficient translators hold the view that contemporary artificial intelligence (AI) translation technology may possess constraints in comprehending crucial cultural and linguistic subtleties during the translation process. Nevertheless, Wang (2020) proposed that this kind of limitation highlights the necessity for ongoing exploration and advancement in enhancing the precision and perfection of artificial intelligence translations, especially in situations that involve diverse cultures. Furthermore, the responses from the research participants in the third statement received more negative affirmation; were 85% refuted the claim that AI can replace human translators in most translation tasks. The implication of this finding is that AI translation technology can complement the tools used by language experts and professional translators in carrying out their works. As suggested by Qawasmeh(2022), despite the perceived efficiency of AI translation technology, it cannot replace

human translators in most situations, particularly where accuracy and cultural sensitivity are crucial.

The findings indicate that a significant proportion of the respondents (75%) hold a positive view regarding the potential of AI translation to facilitate cross-cultural communication and thereby promote the preservation of cultural diversity. Nevertheless, a noteworthy proportion (25%) holds a dissenting view or expresses strong disagreement with the aforementioned assertion. The above proposition suggests that although numerous language experts and proficient translators acknowledge the potential advantages of employing artificial intelligence (AI) in safeguarding cultural diversity, certain individuals remain skeptical regarding its efficacy.

The results of the last statement elicited a significant degree of negative affirmation, as evidenced by 90% of participants expressing disagreement or strong disagreement with the notion that artificial intelligence can entirely mitigate the necessity of acquiring linguistic skills for effective cross-cultural communication. The statement implies that language professionals and translators acknowledge the role of AI in enabling communication, but acknowledge its inability to supplant the significance of language acquisition and cultural comprehension in intercultural engagements. The aforementioned discovery underscores the persistent significance of acquiring linguistic skills and comprehending diverse cultures in facilitating efficient cross-cultural communication.

B. To what extent does the use of AI translation tools affect language experts and professional translators in achieving their tasks?

Table 3. Impact of AI translation tools on language experts and professional translators in achieving their tasks.

Question Variables	SA	A	N	D	SD	Mean	S.D
The use of AI translation tools improves the speed and efficiency of my work.	36%	47%	11%	5%	1%	3.12	0.83

The use of AI translation tools reduces the workload and stress of my work.	14%	31%	27%	19%	9%	2.70	1.05
The use of AI translation tools allows me to translate more complex texts than I could before.	3%	12%	28%	41%	16%	3.00	0.89
The use of AI translation tools has a positive impact on my job satisfaction.	10%	31%	30%	20%	9%	2.81	0.98
The use of AI translation tools reduces the need for human translation skills.	2%	9%	24%	42%	23%	2.32	1.30

The table above centers on the degree to which the utilization of artificial intelligence translation tools impacts the performance of language specialists and proficient translators in achieving their work. The presented tabular data showcases the outcomes of a survey conducted among participants, wherein they were requested to evaluate their degree of concurrence with a sequence of assertions utilizing a Likert scale that ranged from strongly agreeing to strongly disagreeing. The initial assertion garnered the greatest degree of concurrence among respondents, as 94% affirmed the proposition that the utilization of AI translation tools enhances the promptness and efficacy of their tasks, while 6% dissented from the claim. The present discovery aligns with prior studies that have demonstrated the advantages of AI-supported translation in minimizing delays and augmenting productivity, as posited by Katan & Taibi (2021).

The responses to the second statement are consistent with those of the first statement. The first statement implies that the utilization of AI translation tools leads to enhanced work efficiency, thereby resulting in a reduction of workloads for job translators. However, a significant proportion of the participants (72%) acknowledged that the utilization of AI translation tools results in a reduction of their workload, whereas 28% of the participants expressed dissent towards

this assertion. Furthermore, the third statement indicates that the feedback provided by the participants implies that while AI translation tools are perceived to be efficient, they are not without limitations. According to the findings, 57% of the participants held the belief that the tool in question lacks the capacity to effectively process texts that are highly intricate or specialized. Conversely, 43% of the participants contested this assertion. This discovery, which aligns with Wang's (2020) research, indicates that these tools have not yet been designed to effectively capture crucial aspects of language, such as cultural subtleties. In other words, comprehending the significance of linguistic elements such as idiomatic expressions necessitates a grasp of the cultural context in which a language is used. Othman (2023) proposed that addressing this particular challenge can be accomplished through the utilization of specialized artificial intelligence (AI) tools, training AI models on information sets that encompass cultural diversity, employing human translators as editors or post-editors, and integrating cultural conversation into the translation process. The fourth statement's response distribution indicates a degree of dissent among the survey respondents concerning the extent to which AI translation tools pose a threat to their jobs. The survey results reveal that a considerable portion of the participants do not view AI translation tools as posing a threat to professional translators, as only 71% of the respondents agree or strongly agree with this statement. Conversely, the remaining 29% of the participants perceive AI translation tools as a potential threat. In addition, the modest proportion of concurrence with the assertion that "the utilization of AI translation tools diminishes the necessity for human translation proficiency" suggests that a considerable number of respondents are of the view that AI tools cannot entirely supplant the requirement for human translation expertise. The present discovery aligns with Nie's (2021) research, which highlights the significance of human involvement during the concluding phases of translation to guarantee precision, comprehensibility, and cultural suitability.

In general, the aforementioned results indicate that the utilization of AI-supported translation can yield substantial

advantages in terms of productivity and uniformity. However, a considerable number of linguistic specialists and proficient translators harbor concerns regarding the capacity of AI technologies to generate translations of superior quality and to manage intricate or specialized textual materials. The results emphasize the necessity for continuous exploration and advancement in the domain of AI-supported translation to tackle these apprehensions and to completely achieve the probable advantages of these instruments in the translation procedure.

4.2. Discussion

Language experts and professional translators remain one of the vital stakeholders in ensuring the improvement of cross-cultural communication using AI translation tool. In this research, opinions of the aforementioned stakeholders on the potential of Artificial Intelligence in facilitating cross-cultural communication through translation were properly investigated. However, language experts and professional translators who were also the research participants for this study were given goggle online survey form to share their opinions on several variables ranging from how the use of AI translation facilitates cross-cultural communication, how it aids in preserving culture by capturing cultural nuances while translating idiomatic expressions, limitation of its usage and so all, to whether the said tool posses any form of threat to their jobs.

Nevertheless, many important findings were made with the responses gathered from the participants. These were represented in descriptive-statistics table, using Likert scale to provide the percentages of the participants' responses. However, the first table presents the views of language experts and professional translators on how Ai based translation tool can aid in facilitating cross-cultural communication. There were many responses in regard the said tool efficiency. For instance, majority (75%) of the participant were quick to affirm that AI translation tool facilitates cross-cultural communication among individuals from different cultural background. This positive impact of AI translation as discussed in this study is also in tandem with the findings of Vieira (2021).The research participants

also affirmed that with the use of AI translation tool in translation text from different cultural background, cultural nuances are captured to an extent and preserved. This also affirms to the proposition made by Nie (2021) on the how cross cultural communication can preserve diverse culture through the use of translation tool. Another key finding in table two is responses on the research participants' responses on the extent to which AI translation mitigate the need for language learning in cross-cultural communication. Language professionals and translators acknowledge the role of AI in enabling communication, but acknowledge its inability to supplant the significance of language acquisition and cultural comprehension in intercultural engagements. The aforementioned discovery underscores the persistent significance of acquiring linguistic skills and comprehending diverse cultures in facilitating efficient cross-cultural communication.

Nonetheless, the third table highlights the how AI based translation tools affect language experts and professional translators as they engage in their translation job; which also involves cross-cultural communication process. While significant number of the participants was quick to affirm the efficiency of AI translation tools in improving their job productivity and reduction of workload, the said number also identified with the limitations of the use of this tool. One among the limitation is the inability of AI translation tool to handle complex text, such as idiomatic expressions. This type of expression requires proper understanding of the culture of the languages being worked upon in order to be able to translate its meaning. However, this type of challenge can be tackled by further developing or updating AI translation tool in such a way that captures intricacies of the culture of both the source and target language during translation process. Furthermore, the participants refuted the claim that AI translation can replace human translation. This suggest that the said tools can only be efficiently used by experts such as language experts and professional translators as a complement to the variety of the tools they use in their work as proposed by Othman(2023)

5. Conclusion

The present study investigated the views of language experts and professional translators on the potential of AI in facilitating cross-cultural communication through translation. The research findings suggest that AI-based translation technology holds considerable promise in enabling cross-cultural communication, as per the perspectives shared by language experts and professional translators who were involved in the study. The study participants have identified the limitations of the tool, which align with the findings of similar studies discussed in the literature review. Notwithstanding the efficacy of the aforementioned tools, it is advisable to complement them with human translation services to guarantee precision and cultural appropriateness. The study suggests a need for ongoing exploration and development in the area of AI-assisted translation to address its limitations and fully realize its potential benefits in the field of cross-cultural communication.

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References

- Abbott, C. (2019) *ICT: Changing Education*. Routledge/Falmer, London
- Baker, M. (2000). 'Linguistic perspectives on translation', In: France, P. (ed.), *The Oxford Guide to Literature in English Translation*, Oxford University Press, Oxford, pp. 20-25.
- Barnlund, D.: *Communication in a Global Village, Basic Concepts of Intercultural Communications*, pp. 35–42. Intercultural Press (1998)
- Bassnett, S. (1991) *Translation Studies*. London: Routledge.
- Bekkering, E., and Shim, J.P. (2021) i2i Trust in Videoconferencing. *Communications of the ACM* 49(7), 103–107
- Byram, M. (1989). *Cultural studies in foreign language education*. Clevedon: Multilingual Matters.
- Eduardo Alejandro Lopez Jimenez & Tania Ouariachi, (2020). An exploration of the impact of artificial intelligence (AI) and

automation for communication professionals. *Journal of Information, Communication and Ethics in Society*.

Farooq, U., Rahim, M. S. M., Sabir, N., Hussain, A., & Abid, A. (2021). Advances in machine translation for sign language: approaches, limitations, and challenges. *Neural Computing and Applications*, 33(21), 14357-14399.

Fruchter, R., Chen, M., Ando, C.: Geographically Distributed Teamwork Mediated by Virtual Auditorium. In: Rosenberg, D., Nishida, T., Fruchter, R. (eds.) *Proc. of SID2003 2nd Social Intelligence Design Symposium*, London, UK (2003).

Gao Qiuju 2016 Analysis of College English teaching and Intercultural Communication Education modernization 3 99-100 + 103

Godwin-Jones, R.: Blogs & Wikis: Environments for On-line Collaboration. In: *Language and Learning* 7(2), pp. 12–16 (May 2003), Godwin-Jones, R.: *Emerging Technologies: Skype and Podcasting: Disruptive Technologies for Language Learning*. *Language and Learning* 9(3), pp. 9–12 (September 2005)

Hervey, S. and Higgins, I. (2002). *Thinking Translation*. London: Routledge.

House, J. (2009). *Translation*. New York: Oxford UP.

Köksal, O., & Yürük, N. (2020). The Role of Translator in Intercultural Communication. *International Journal of Curriculum and Instruction*, 12(1), 327-338.

Katan, D., & Taibi, M. (2021). *Translating cultures: An introduction for translators, interpreters and mediators*. Routledge.

Kong, L. (2022). *Artificial Intelligence-Based Translation Technology in Translation Teaching*. *Computational Intelligence and Neuroscience*, 2022.

Lai, C., Li, Z., & Gong, Y. (2016). Teacher agency and professional learning in cross-cultural teaching contexts: Accounts of Chinese teachers from international schools in Hong Kong. *Teaching and teacher education*, 54, 12-21.

Lei Ying and Wang Xiufeng (2016). Functional analysis of English translation in Intercultural Communication *Journal of higher education* 265-266

Liu, X., & Li, C. (2023). Artificial intelligence and translation. In *Routledge Encyclopedia of Translation Technology* (pp. 280-302). Routledge.

Losbichler, H., & Lehner, O. M. (2021). Limits of artificial intelligence in controlling and the ways forward: a call for future accounting research. *Journal of Applied Accounting Research*, 22(2), 365-382.

Ma, S., Ling, X., Zhang, C., & Li, Y. (2023). Does physical attractiveness facilitate customer citizenship behaviors? Cross-

cultural evidence from the peer-to-peer economy. *International Journal of Information Management*, 70, 102565.

Nie, L. (2021). Research on the Translation System of English Cross-cultural Communication based on Computer Technology. In *Journal of Physics: Conference Series* (Vol. 1992, No. 3, p. 032014). IOP Publishing.

Nizhneva-Ksenofontova, N. L., & Nizhneva, N. N. (2021). Cross-cultural communication: issues of translation. *Гуманитарные исследования. История и филология*, (1), 41-50.

Othman, A. K. (2023). The Role Played by Translation Within Cross-Cultural Communication: Case Study From EFL Teachers Based at Haql University College, Saudi Arabia. *Journal of Language Teaching and Research*, 14(2), 534-540.,

Plocher, T., Rau, P. L. P., Choong, Y. Y., & Guo, Z. (2021). Cross-Cultural Design. *Handbook of human factors and ergonomics*, 252-279

Pudikova, G., Kurilova, A., Movchun, V., Medvedeva, E., & Kochetkova, G. (2019). Emerging technologies for developing cross-cultural competency. *International Journal of Emerging Technologies in Learning (IJET)*, 14(21), 46-60.

Samovar, L.A., Richard, E.P., McDaniel, E.R.: *Intercultural Communication: A Reader*. Thomson Wadsworth (2005)

Selfe, C., Hawisher, G.: *Global Literacies and the World Wide Web*. In: Selfe, C., Hawisher, G. (eds.) *Passions, Pedagogies, and 21st Century Technologies*, Utah State UP, Logan, 1999, Routledge, New York (2000).

Song, M., Xing, X., Duan, Y., Cohen, J., & Mou, J. (2022). Will artificial intelligence replace human customer service? The impact of communication quality and privacy risks on adoption intention. *Journal of Retailing and Consumer Services*, 66, 102900.

Kuzenko, H. M. (2017). Translation as cross-cultural communication. *Science and Education a New Dimension. Philology*, 33(123), 40-43.

Vieira, L. N., O'Hagan, M., & O'Sullivan, C. (2021). Understanding the societal impacts of machine translation: a critical review of the literature on medical and legal use cases. *Information, Communication & Society*, 24(11), 1515-1532.

Wang Haiyun 2020 A study of English translation strategies in cross cultural communication *Journal of science and technology* 40 69-74

Wang, W. (2020). Analysis on the significance of foreign literature translation to cross-cultural communication. *Overview of Education Theory (English)*, 3(4), 98.

Xiao, Y., Liu, Y., Han, J., Li, Y., Zhang, L., Bai, L., ... & Yang, Y. (2022). Cross-cultural adaptation, reliability, and validity of the Chinese

version of the Acceptance and Action Questionnaire-Management of Child Hearing Loss. *International Journal of Audiology*, 1-8.

Yan Jing (2016) Research on English translation function in cross cultural communication *Information recording materials* 17 103-104

Yu Yanying and Li Na (2019) English translation with the help of computer technology *Information recording materials* 20 91-92

Zhao Ming (2012) Characteristics and translation skills of computer English Heilongjiang sci tech information 151