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## **ABSTRACT**

Artificial Intelligence (AI) continues to develop rapidly in today's world, specifically in the Language Industry. This paper examines the concerns about whether the need for human translators and interpreters will decline in the face of AI and technological development, as well as beginning to assess whether it will ever be possible for those in this field to depend solely on Machine Translation. This study also aims to contribute to the existing literature on this topic. To achieve this, qualitative data was obtained through interviews with representatives from translation industries and questionnaires from freelance translators/interpreters. Results indicated that human translators and interpreters do not face the possibility of being replaced by Machine Translation (MT).

**Keywords:** Artificial Intelligence (AI), Machine Translation (MT), Language Translation, Human Translation

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## INTRODUCTION

In today's global digital world, the expeditious expansion and development of Artificial Intelligence (AI) is undeniable. According to Haenlein and Kaplan, artificial intelligence (AI), for more than fifty years, was a field of comparatively little scientific significance and little practical application (5). However, machines and technology have become a significant part of our daily lives in the 21st century. One of these dependent areas is Language and Language Translation. Bouguesmia clarifies that Soviet scientist, Peter Troyanskii, "made the first attempt" in exploring "the use of machines for translation" in 1993 (87). Presently, artificial intelligence (AI) has brought about a notable major transformation in the Translation industry. Various AI models, such as Google Translate and Linguee, are able to identify errors, misunderstandings and inconsistencies in written material, a task that could be difficult for "human assessors" (Akan et al, 908). This research paper examines the present and future role AI plays in Language Translation through investigating AI's limitations, strengths and function.

Furthermore, this study was also made possible by its applicability to the evolving technological environment. The investigation of AI from the viewpoint and perspective of a human translator is of particular interest. Pizazza compares a human language translator to "applied linguists, competent writers, diplomats and educated amateurs"<sup>1</sup>. Thus, active investigation into AI's impact on human translators and interpreters is necessary. This study offers a valuable opportunity to improve documentation and carry out additional research on the effects of AI in the language industry of Trinidad.

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<sup>1</sup> Piazza, Nicole. "What Is the Role of a Language Translator?" What Is the Role of a Language Translator?, 9 Mar. 2017, [www.lingualinx.com/blog/language-translator-role](http://www.lingualinx.com/blog/language-translator-role). Accessed 01 Apr. 2024.

The research presented was developed within carefully selected parameters. The participant database comprised five (5) participants: three (3) representatives from Trinidad-based translation agencies and two (2) freelance translators/interpreters. The study was undertaken during the first semester of the 2023-2024 academic year.

### *Rationale*

The principal aim and goal of this research is to assess the current and potential role of Artificial Intelligence (AI) in the Language Translation Sector in Trinidad. It is impossible to dispute AI's rapid and unstoppable advancement in modern society and its impact on a wide range of industries, including language service providers. The continual development and evolution of these technological tools often leads to a rise in misconceptions and the diffusion of misinformation. As a result, the findings of this study can be an aid in informing and educating many human translators (and those who plan to enter into this industry) about the truth about AI tools and allaying any fears, worries or concerns of job replacements in this specific domain, particularly in light of the country's growing Venezuelan immigrant population and hence, the increasing demand (now more than ever) for translators. Findings from this study will have significant implications on translation agencies, independent, ambitious and yearning human translators and interpreters in Trinidad who are seeking answers to their concerns on this subject.

### *Significance*

As a Modern Language student who desires to enter into the Language Service Provider Industry, it is fundamental to comprehend the advancements and present-day changes in this particular field of work.

### *Research Objectives*

Both interviews and questionnaires serve as data collection tools with the aims of:

1. Identifying the advantages, challenges and risks of utilizing Artificial Intelligence (AI) in Language Translation
2. Assessing the accuracy and validity of Machine Translation (MT)
3. Determining the future of the Translation Industry in Trinidad: are human translators' and interpreters' jobs in jeopardy?

### *Research Questions*

To achieve the aforementioned aims, the following research questions are posed:

1. Is Artificial Intelligence (AI) currently being incorporated in any translating or interpreting services/processes?
2. How accurate and efficient is Machine Translation (MT) compared to Human Translation?
3. Do translators feel threatened by the constant advancement and utilization of Artificial Intelligence (AI) and Machine Translation (MT)?

### *Thesis Statement*

With the above information and in employing the necessary methodological processes, the aforementioned research questions are counter parted with the following hypothesis:

- Despite the continuous development and progress of today's Artificial Intelligence (AI), specifically in Machine Translation (MT), human translators and interpreters in Trinidad do not face the possibility of being substituted.

### *Methodology*

In order to carry out the aforementioned research objectives and to gather the necessary data, this study utilized a qualitative approach and research method of interviews and questionnaires with open-ended questions, which was deemed appropriate. Additionally, secondary sources, such as blogs written by well-known translators, academics, persons versed in the topic of translation and artificial intelligence, YouTube videos and prior similar research which have already been conducted, were employed and discussed.

*Research Participants*

Three (3) Translation organizations were chosen to participate in this study, specifically to be interviewed: COSTAAT: The Translation and Interpreting Unit, STA- Caribbean Interpreting and Translation Bureau and RMC Language Consultancy Limited, as well as two freelance translators and interpreters, who completed a questionnaire. I selected organizations and participants that provide both translation and interpretation services in a multitude of languages, inclusive of French, Spanish, German, etc. I asked one representative from each organization to take part in an interview, asking them all the same questions so as to prevent any one organization from being overrepresented. To obtain as much information as possible, people in a variety of roles—from coordinators to managing directors—were asked to participate in the interviews.

Initially, four organizations were contacted (as there are few organizations of this type in this country) via email and the other participants via telephone. While three organizations agreed to participate, one declined due to the fact that they no longer have a branch in Trinidad.

*Interviewing Process*

Interviews were conducted from the period of December 2023 to March 2024. On average, the interviews lasted approximately thirty (30) to forty (40) minutes. Due to convenience, two interviews were held online at times chosen by the interviewees and one physically, at the respective agency. In order to ensure accuracy, all of the interviews were either recorded or transcribed by me or the interviewee.

The interview process was guided by a set of general questions about the respective Organizations and then specific questions that allowed me to examine concerns about Artificial Intelligence and its effects on this Industry in this country (See Appendix A).

### *Questionnaire*

Questionnaires were distributed virtually from the period of December 2023 to March 2024. On average, this questionnaire took participants approximately ten (10) to fifteen (15) minutes to complete.

The questionnaire incorporated both open format questions (questions asking about one's opinions and experiences with Artificial Intelligence, etc), giving the participants the opportunity to express freely their thoughts and allowing me to gather insightful information, and closed format questions (multiple choice questions, etc.) (See Appendix B)

Both of these methods of data collection assessed the participants' attitudes and views toward machine translation, extracted details about the progress and future directions of AI in this specific domain, disclosed their ideas, thoughts and opinions regarding the possible dangers AI may pose to human interpreters and translators, and depicted their responses to the application and use of AI.

### *Limitations*

The small sample size of this study was one of its primary limitations. There are not many reputable companies in this nation that offer translation or interpreting services. Moreover, a number of organizations are either non-existent or difficult to get in touch with, as are other independent translators. Having said that, it is possible that different viewpoints would have been provided by other organizations, translators, or interpreters.

Furthermore, the duration of the data collection procedure constituted an extra constraint. This study would not have included interviews or participation from anyone other than Trinidadian organizations, translators, and interpreters. Consequently, it is not possible to draw broad conclusions about both islands, which adds another restriction to the single focus on one island. Results from a comparable study in Tobago might differ.

This study consists of three chapters. Chapter 1 presents a critique of existing literature pertaining to this research topic. This chapter reviews the literature on Artificial Intelligence (AI), Human Translation, and Technology, as well as evaluates previous studies carried out in the field. Chapter 2 presents the findings of this research paper and data acquired through interview and questionnaire questions are examined in detail. Chapter 3 offers a discussion of findings of this research paper and relates it to previous work carried out by other researchers. Limitations as well as future recommendations for future work are also provided.

## CHAPTER ONE: LITERATURE REVIEW

This chapter presents a critical review and analysis of the pre-existing literature pertaining to the use of Artificial Intelligence (AI) in Language Translation. It is crucial to acknowledge the conspicuous lack of literature pertaining to this topic in Trinidad. The knowledge that has already been acquired on this research topic is illustrated by highlighting earlier studies on artificial intelligence and its application to language translation. Additionally, this chapter also aims to determine the contribution that this current research can make to knowledge and to identify gaps in the body of existing literature. Much of the previous research centered on the different types of AI-based translation software, the two kinds of translation and its processes.

### *Artificial Intelligence*

Throughout the years, artificial intelligence (AI) has become an infamous topic of conversation that has infiltrated almost every sector, from academia and politics, banking and logistics, healthcare and manufacturing to entertainment and retail. The vanguard of technological advancement, AI continues to influence and frame the future of society in almost every field. According to Hamet and Tremblay, the introduction of this term dates back to the invention of robots, the word (robot) being introduced to society by playwright Karel Capek in *Rossum's Universal Robots*, a play published in 1921 (36). Professor Christopher Manning explains that this is a term coined in 1955 which can be defined as “the science and engineering

of making intelligent machines"<sup>2</sup>. Today, it is understood and considered to be “the theory and development” of computer systems that can carry out operations that previously required human intelligence<sup>3</sup>, like reasoning, problem-solving, text editing, and task completion. It is a field of engineering that applies cutting-edge ideas and solutions to address and solve difficult issues.

Various forms of artificial intelligence, such as Machine Learning (ML) and Deep Learning (DL), are purported to exist. The technology used to create “computer algorithms” that can stimulate human intelligence is known as Machine Learning (ML). According to a number of studies, this term describes the process of repeatedly exposing computers to examples of their environment in order to teach them to perform tasks “intelligently that go beyond basic math operations”. (El Naqa and Murphy, 5-6). Deep Learning (DL), as defined by Mohamed et al, is another area of artificial intelligence that centers on using neural networks to efficiently extract complex patterns and representations from datasets (25556).

Regarding the current state of the AI race, Google’s Chief Executive, Sundar Pichai, expresses both optimism and concern. In order to avoid “profound risks to society”, he has warned organizations and businesses to put a hold on the creation and development of powerful AI systems for several months<sup>4</sup>. Hamet and Tremblay even claim that one day, computers can possibly become as intelligent as humans if companies continue to develop and evolve its “electronic speed, capacity and software programming” (37).

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<sup>2</sup> See *Artificial Intelligence Definitions*, Stanford University Human-Centered Artificial Intelligence.

<sup>3</sup> “What Is Artificial Intelligence? Definition, Uses, and Types.” Coursera, [www.coursera.org/articles/what-is-artificial-intelligence](https://www.coursera.org/articles/what-is-artificial-intelligence). Accessed 01 Feb. 2024.

<sup>4</sup> Roose, Kevin. “Google C.E.O. Sundar Pichai on the A.I. Moment: ‘You Will See Us Be Bold.’” *The New York Times*, 31 Mar. 2023, [www.nytimes.com/2023/03/31/technology/google-pichai-ai.html](https://www.nytimes.com/2023/03/31/technology/google-pichai-ai.html). Accessed 02 Feb. 2024.

### *Human Translation*

Coviello explains that human translation employs “human translators who are highly qualified in translating languages”<sup>5</sup>. For millennia, professional translation services have utilized linguists and the proficiency and commitment of human translators guarantee “high-quality results.” There are several steps involved in this process. First, the original text is translated by a human translator into a version that accurately conveys the original’s meaning while employing a tone and style deemed appropriate for the intended reader. Second, this translated work is edited by a qualified editor to ensure that it is flawless and employs the correct grammar, punctuation and other elements. Finally, the document is then prepared for delivery to the client after a qualified project manager reviews the completed work to ensure that it is formatted correctly<sup>6</sup> (Racoma).

### *Machine Translation (MT)*

Machine Translation (MT), according to Wyant<sup>7</sup>, is almost instantaneous and continues to “improve by leaps and bounds” daily thanks to the use of AI. Zong defines Machine Translation as a sub-branch of “computational linguistics” that studies the process of translating text or

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<sup>5</sup> Coviello, Danilo. “Human Translation.” Espresso Translations US, 28 Mar. 2024, [www.espressotranslations.com/human-translation/](http://www.espressotranslations.com/human-translation/). Accessed 03 Feb. 2024.

<sup>6</sup> Racoma, Bernadine. “What Is Human Translation and Why Is It Important?” Day Translations Blog, Day Translations, 17 Aug. 2023, [www.daytranslations.com/blog/human-translation-important/](http://www.daytranslations.com/blog/human-translation-important/). Accessed 05 Feb. 2024.

<sup>7</sup> See “Machine Translation vs Human Translation.” Smartling, [www.smartling.com/resources/101/machine-translation-vs-human-translation/](http://www.smartling.com/resources/101/machine-translation-vs-human-translation/).

speech between languages using software. First introduced in the 20<sup>th</sup> century, this technology has undergone three stages of development: “early dictionary-matched machine translation to corpus-based statistical computer-aided translation, and then to Neural Machine Translation (NMT)” in more recent times, where artificial intelligence is the primary technology (2). Yandex Translator, Microsoft Bing Translator, DeepL and Google Translate are a few examples of MT software available at one’s fingertips today. Due to their ability to understand intricate linguistic patterns and contextual cues, machine learning (ML) and deep learning (DL) have both made substantial contributions to the field of language translation. This has increased their ability to produce translations that are accurate and cohesive (Mohamed et al, 25556). Bujanowicz states that, when compared to manual translation, MT saves time and effort. It makes international communication easier and aids in overcoming language barriers<sup>8</sup>. She does, however, note that the various grammatical rules, idioms and cultural allusions found in different languages can confuse these algorithms and make it difficult to generate accurate translations.

This chapter reviewed the available literature on artificial intelligence and translation. Previous research presented the current state of AI and highlighted various historical developments. The following chapter presents the findings obtained from the interview with the three representatives of the translation agencies as well as the responses from the questionnaire.

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<sup>8</sup> Bujanowicz, Monika. “Everything You Need to Know about Machine Translation.” ATL, 30 June 2023, [www.atltranslate.com/blog/machine-translate](http://www.atltranslate.com/blog/machine-translate). Accessed 02 Feb. 2024.

## CHAPTER TWO: PRESENTATION OF DATA

The chapter relates the qualitative findings of the research conducted. Three (3) representatives from three (3) different translation agencies were interviewed and two (2) freelance translators responded to a few questions on a questionnaire, created on the platform Google Forms. The obtained results are given in textual form. Verbatim responses are included to supplement the qualitative findings and guarantee an authentic portrayal of the participants' viewpoints. A sample of this interview can be found in Appendix A and a sample of the questionnaire can be found in Appendix B.

### *Presentation of the interview data*

**Question:** *With the increase and advancements in Artificial Intelligence (AI) and technology, what role does it play in Language Translation? Is it used, currently, to assist your professional translators?*

This question seeks to investigate the utilization of Artificial Intelligence (AI) in the Translation Industry in Trinidad.

### *Responses from participants*

In response to this question, two out of the three participants claimed that their company incorporates the use of Artificial Intelligence in order to aid in performing their respective services, such as producing translated documents. One interviewee disclosed that AI is not a

novel or an unheard of topic in their Organization. They expressed that their company has been utilizing AI tools, such as Machine Translation Post-Editing (MTPE), Translation Memories (TMs) and Term Bases (TBs) through Computer Assisted Translation (CAT) tools, for many years. Large language models (LLMs), such as Chat-GPT, are among the newest iteration of AI which companies are now learning to understand and grapple with. Additionally, another interviewee shares the same sentiment in expressing that AI has been used in their company for numerous years. One interviewee explains that the use of Neural Machine Translation (NMT) and/or Technology, such as Trados and Phrase (formerly known as Memsource), has played a key role in making the translation process more efficient for many years. Interestingly, although this interviewee states that many Language Service providers presently incorporate AI features into their software (given AI's output), they expressed that AI is currently not being used at their institution. Given the nature of many documents, AI in its current format presents many challenges and difficulties for the translators at this organization to use in order to generate output. Therefore, they strictly and solely employ their own templates.

**Question:** *In your opinion, how accurate is Artificial Intelligence in Language Translation? Is it recommended that we use AI in Language Translation?*

This question intends to disclose the advantages and disadvantages of Artificial Intelligence in Language Translation.

*Responses from participants*

Each interviewee expressed that, despite the fact that AI-based translation software proves itself to quicken the translation progress, it is not always accurate. One participant explained that AI-generated translations are not perfect. In some interactions with AI, errors have been observed and literal translations have been produced, which makes the text stilted. They did say, however, they can be quite close to acceptable depending on the quality of what it is generated from. The reason that AI sounds natural many times is due to the output that is based on the input created by humans, hence the constant need for human translators. In terms of interpreting, this is even more the case as spoken language poses other challenges in terms of accents, comprehension, jargon and dialects. There have already been reports of problems occurring with AI-generated interpreting cases, such as legal and medical interpreting. Additionally, another interviewee stated that while AI is cost-effective, speedy and handles volume, it is not 100% accurate as there are many nuances that it does not capture. While they affirm that AI is not static and continues to grow and improve, these tools are not very culturally sensitive, often miss certain things and interpret something in the wrong context.

**Question:** *Does AI have the power to replace human translators in the future? Should the translation industry be worried/concerned or afraid?*

This question seeks to determine if Artificial Intelligence presents itself as a threat to the job security of human translators in Trinidad.

*Responses from participants*

This question resulted in mixed perspectives, opinions and thoughts and therefore, different answers. While two interviewees affirmed that AI does not possess the ability to replace human translators and interpreters, one interviewee expressed their uncertainty. Said interviewee clarifies that the replacement of human translators is dependent on how AI continues to develop, evolve and perform. They expressed that there lies the possibility of translators' jobs changing from the "main translator" to being an editor or proofreader. Therefore, translators still need to be highly skilled and possess the professional qualifications necessary so that they can effectively edit/proofread if this is the way that their jobs are modified. However, another interviewee makes it clear that this specific industry is not at the stage where machines can become its substitution, due to the fact that the technology is still fairly new and human input is still needed. There is a lot of misunderstanding about LLMs and this creates a lot of fear from those who do not understand the downsides of using raw output from such tools without the trained eye of specialists in their field (not just translators) but in any field that is now incorporating LLMs. Finally, the third interviewee shares the same sentiment- that there is still need for human intervention and that AI replacement is not nearly a possibility in Trinidad . specifically. They expressed that humans possess discernment and intuitive capacity- something that AI lacks currently. They revealed that, despite AI being cost-effective (such as free or cheap online applications) and clients may turn to these tools instead of a human, clients still seek the aid of a human translator due to errors made by the AI tool. From research into its capabilities, the standard is not as high as translation generated by a high-quality certified translator. They also added that, regarding Trinidad, the country is "completely behind" with regard to AI-based technology and explains that there is a lack of any regulation of AI.

Each interviewee commented that AI and human translators should work together; not against each other. One participant suggested that AI and other NMTs could be used to enhance and quicken the translation process. They went on to say that it could be especially useful when translating huge amounts of documents for a specific entity, to ensure consistency of jargon/terminology. However, there would still be the need for proofreading of things such as punctuation- something that, though not always taken seriously, can change the meaning of entire sentences. Another interviewee expressed that technology does not present itself as a temporary phenomenon; therefore, it should be considered a helping tool rather than a threat. They continued by saying that this particular industry must learn to implement AI as a part of their workflow, automating tasks and making their work more efficient.

#### *Presentation of the questionnaire data*

**Question:** *Have you personally used any AI-assisted translation tools or platforms? If yes, please share your experience.*

The purpose of this question is to learn more about Trinidad's translation industry's use of artificial intelligence.

#### *Responses from participants*

In response to this question, one participant shared that they sometimes use AI-based translation software to assist them while they other claimed that they do not. Participant one (1) explained that they sometimes use software, such as DeepL and Google Translate, to assist them in

translating documents. They do not employ these tools as a replacement of their own work but rather as a more efficient means of proofreading their work before sending the final product to their clients. Applications, such as WordReference and Linguee, are also employed in order to verify vocabulary and to further contextualize words. Often, however, they rely on their own knowledge of the language.

**Question:** *In your opinion, what are the primary advantages of AI in the translation industry?*

The purpose of this question is to reveal the benefits of artificial intelligence in language translation.

#### *Responses from participants*

Unlike the interviewees, these participants had little to say regarding the advantages of these tools. One expressed that these technologies could lend additional support while the other stated that solely time efficiency, mainly for written documents, would be the greatest asset. However, other than that, they admit that they do not see any other advantages that a human translator or interpreter cannot provide.

**Question:** *From your perspective, what are the main limitations and challenges of AI in the translation industry?*

This question intends to highlight the drawbacks of using AI for language translation.

*Responses from participants*

In response to this question, both participants pointed out the issue of accuracy. One participant expressed that the accuracy of information and lack of flexibility are major drawbacks. Furthermore, the other participant said that AI is not able to capture the cultural and linguistic nuances of a language, which is a main factor in communication.

**Question:** *How do you perceive the quality and accuracy of translations generated by AI compared to human translators?*

This question aims to compare the work of human translators with the work produced by AI-based translation software.

*Responses from participants*

While one participant claims that AI seems to be fairly accurate, the other expresses that it is based on the context. They disclosed that while AI translations have been quite accurate recently compared to the past they believe that human translators perform a better job at accuracy. Depending on the situation, a certain level of sensitivity is required in translation and only a human is capable of delivering that.

## CHAPTER THREE: DISCUSSION

In this section, key themes and common issues, which arose from the interviews, questionnaire responses and secondary sources, are discussed.

### *The usage and role of Artificial Intelligence in the Translation Industry*

The first research question was centered on the evaluation on the role of Artificial Intelligence in Trinidad and Tobago. The data obtained reveals that a significant portion of participants (human translators and interpreters, whether freelance or employed full-time) utilize AI-based translation software in order to generate translations. The findings indicate that software, including Linguee, WordReference, Neural Machine Translation (NMT), Machine Translation Post-Editing (MTPE), etc. has been employed in this domain for many years. Interestingly, however, two participants indicated that they do not use AI to perform their respective language services; one due to its challenges and limitations. Sharabi explains that machine learning and translation technology can be used to support the work of human translators as it can automate more basic translation tasks<sup>9</sup>. Furthermore, Benmansour and Hdouch assert that machine translation has developed into a useful tool that enhances human translator's abilities and enables them to work more productively and produce translations of greater quality (32).

### *Advantages and disadvantages of using Artificial Intelligence in this field*

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<sup>9</sup> Sharabi, Corinne. "Ai Translation: The Role of AI in the Future of Translation." Localization Services by BLEND, 6 Feb. 2024, [www.getblend.com/blog/ai-translation-2/](http://www.getblend.com/blog/ai-translation-2/). Accessed 21 Feb. 2024.

The second research question focused on the benefits and risks of using AI in this industry. The advantages listed by the participants of this study reflect what has been mentioned in previous studies and research. According to Osoblivaia<sup>10</sup>, who concurs, the primary advantage of machine translation is speed as AI algorithms are able to process large amounts “of text in real-time”. This facilitates nearly instantaneous communication across various languages. She continues by saying that machine translation is more affordable than employing a human translator, easily accessible to the common man and does not experience the same levels of fatigue or stress as a human does, which results in more consistent translations. The participants of this study expressed the time consuming and efficient factor of AI-based translation software, with one expressing it as its greatest asset specifically when translating documents. An experiment carried out in 2023 to compare the benefits and disadvantages of AI and human translations found that “AI translations are already readable and acceptable to readers”. For instance, AI translations in business English use extremely formal, succinct language that largely avoids colloquialisms (Wang, 5).

The main disadvantage discovered, according to the interviewees and participants of this study, is the issue of inaccuracy, bias and the incapability of translating cultural and linguistic nuances. Language can be described as “complex and nuanced”, according to Osoblivaia<sup>11</sup>, which means that AI algorithms frequently have trouble accurately translating vocabulary, such as “idioms, slang, or regional dialects” or even complicated grammar rules in certain languages. She continues by adding that the meaning of the translated text can become complicated to

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<sup>10</sup> Osoblivaia, Tatiana. “The Potential Use of Artificial Intelligence in Language Translation.” PoliLingua, 14 Apr. 2023, [www.polilingua.com/blog/post/potential-use-of-artificial-intelligence-in-language-translation.htm](http://www.polilingua.com/blog/post/potential-use-of-artificial-intelligence-in-language-translation.htm). Accessed 04 Mar. 2024.

<sup>11</sup> See previous footnote.

comprehend as the translations can be less “intuitive” or “natural-sounding” than those produced by a human translator. Additionally, in a study conducted by Moneus and Sahari in 2024 to investigate concerns about whether the need for human translators will decline due to AI development, five categories (accuracy, competency, content language and style) were assessed in an AI translation of an Arabic passage. It was concluded in addition to mismatching and missing several words, the translations “lacked legal terms” and were not competent (9).

Overall, AI possesses both advantages and drawbacks that primarily rely mostly on the particular requirements and demands of the translation task at hand.

*Perceptions around the possibility of Artificial Intelligence replacing human translators*

The third research question dealt with the potential threat of AI substituting human translators in the future. Regarding this concern, the data obtained from this current study supports much of the available literature. Di Laurea reveals that the belief that the improvement and advancement of AI poses a threat to the employment of human translators should be dispelled as it should be welcomed as a “great opportunity”. The benefits of the collaboration between human translators and machine translators suggest that the human translator would only have to “post-edit and not translate from scratch”, saving a significant amount of time and, as a result, reduces “visual and mental fatigue” associated with translation (108). The human translation industry has been predicted, by pessimists and those who lack the proper and in-depth knowledge of this subject, to collapse. They also claim that interpreters are superfluous

and that jobs of human translators will be lost. However, Argondizzo<sup>12</sup> discloses that the sector “has only grown by leaps and bounds.” Similarly, Sharabi reveals that while AI-powered translations are becoming gradually more reliable, “there is still a margin for error” that requires the assistance of human translators<sup>13</sup>. She suggests that, at the very least, thorough editing and proofreading would be necessary. The previously mentioned benefits and drawbacks of AI-based translation tools have led many of this study’s participants to view them as a form of assistance and support rather than a threat.

Based on the discussion above, this study’s most significant findings are as follows:

- AI-based translation tools and software, with its continuous evolution and development, is currently employed by many Translation agencies and human translators and interpreters.
- While AI and Machine Translation (MT) is capable of producing the desired results for a translated document depending on the context, oftentimes, the translation generated is inaccurate and cannot capture linguistic nuances, idiomatic expressions or complex grammatical rules and structures.
- Although AI continues to develop and advance, human translators and interpreters in Trinidad perceive it as a collaborator rather than a threat to their jobs.

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<sup>12</sup> Argondizzo, Peter. “The Impact of AI on Translation.” Argo Translation, Argo Translation, Inc., 24 July 2023, [www.argotrans.com/blog/impact-of-ai-on-translation](http://www.argotrans.com/blog/impact-of-ai-on-translation). Accessed 06 Mar. 2024.

<sup>13</sup> See footnote 9.

The aforementioned hypothesis suggested that human translators and interpreters do not face the threat of being replaced by AI and/or MT. The findings and discussion of this study has proven that to be true.

## CONCLUSION

This research sought to investigate not only a local but an international concern, which is the impact of Artificial Intelligence (AI) on human translators' job security in Trinidad and Tobago, by examining whether or not Translation Organizations and independent translators/interpreters are threatened by the current role of AI in language translation and its possible development.

Despite the significant advancements that Artificial Intelligence has and continues to make throughout recent years and its ability to produce rapid and cost-effective translations on its own, it still possesses many limitations and problems, including inaccuracy and mistranslation.

All things considered, the objective of Artificial Intelligence and Machine Translation should be viewed as an enhancement, addition or amplification in the language translation domain; not as a substitution. Translation agencies in Trinidad and Tobago would profit from a collaborative approach where AI tools assist human translators and interpreters in their work, increasing productivity and consistency while also generating more accurate translated texts in a shorter amount of time. For nuanced, intuitive, accurate and culturally sensitive translations, the demand for human translators and interpreters is still crucial.

The research conducted faced various limitations. One restriction was the scarcity of earlier studies on this subject, specifically in Trinidad. Although related research and experiments have been conducted across the world, international nations have received the

majority of the focus and attention. Additionally, the study was limited to a small sample size of participants.

By presenting qualitative findings that outline the function, benefits and drawbacks of AI-based translation tools as well as whether they pose a threat to the human translation industry, this study aimed to expand the body of knowledge regarding the present and future effects of AI on Trinidad's translation sector. Therefore, it is hoped that this work will serve to both further the conversation on this topic and denounce the myths and misconceptions surrounding AI technology in this particular field.

To further expand on this topic, it is suggested that studies be carried out with a wider range of human translators and interpreters, not only in Trinidad but in Tobago. Moreover, comparisons of results can be made through the inclusion of other Caribbean islands.

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## **APPENDIX A: SAMPLE INTERVIEW QUESTIONS**

### General Questions

1. What services are provided by this company/institution?
2. When was this company/institution established?
3. Can you comment on the Language Translation Industry specifically in Trinidad? The flaws, the need for more companies, the disadvantages, etc.

### Specific Questions

4. With the increase and advancements in Artificial Intelligence (AI) and technology, what role does it play in Language Translation? Is it used, currently, to assist your professional translators?
5. In your opinion, how accurate is Artificial Intelligence in Language Translation? Is it recommended that we use AI in Language Translation?
6. The future of AI: does AI have the power to replace human translators in the future? Should the translation industry be worried/concerned or afraid?

## **APPENDIX B: SAMPLE QUESTIONNAIRE**

### The Impact of Artificial Intelligence (AI) on the Translation Industry in Trinidad.

My name is Keriese Franklyn. I am a Final Year student at the University of the West Indies, St. Augustine Campus and, as a part of my final year, I am required to conduct research for my Caribbean Studies Research Project. To begin, I would like to thank you for taking the time to answer the following questions on the impact of Artificial Intelligence (AI) on the Translation Industry in Trinidad. Finally, there are no risks associated with participating in this study; however, beneficial information will be obtained regarding the future of this industry in this country.

#### General Questions

1. Please indicate your age.

☐ 18-24

☐ 25-34

☐ 35-44

☐ 45-54

☐ 55-64

2. Approximately how many years of experience do you have in professional translation/interpretation?

3. What language pairs (or more) do you work with?

4. How familiar are you with Artificial Intelligence (AI)?

- ☐ Very familiar
- ☐ Somewhat familiar
- ☐ Not at all familiar

5. Have you noticed any changes in the demand for human translation/interpretation services since the introduction of AI technologies?

- ☐ Yes
- ☐ No
- ☐ Not sure

#### Specific Questions

6. Have you personally used AI-assisted translation tools or platforms? If yes, please share your experience.

7. In your opinion, what are the primary advantages of AI in the translation industry?

8. From your perspective, what are the main limitations and challenges of AI in the translation industry?

9. How do you perceive the quality and accuracy of translations generated by AI compared to human translators?

10. Do you believe that AI technologies have the ability to replace human translators/interpreters in the future?

☐ Yes

☐ No

☐ Maybe

☐ Not sure

11. Is there anything else that you would like to share concerning your experiences or observations regarding the impact of AI in the translation industry?