

RESEARCH ARTICLE

Experts Perspectives towards the Future of Translation in the Era of AI

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ABSTRACT

The research project aims at investigating Artificial Intelligence and its influence on the Translation profession through consulting Subject Matter Experts (SME). The survey used mixed methodology (survey and semi-structured interview) to discuss changes in professional practices, expectations, and attitudes towards AI-tools in relation to job productivity and linguist self-perception. Results indicate that respondents believe AI positively influences translator productivity in terms of larger scale translations completed "faster and smarter." Insights gained from data analysis suggest that there is a negative consensus that AI will completely replace human input. Data suggests AI is pushing the translation profession towards a new age where the linguist will no longer be needed to create, but to assist and edit what is created by AI. Additionally, ethics was brought up several times as a humanity-driven component that cannot be replaced by AI. Finally, based on the respondents of the study. There are some concerns regarding the lack of human intelligence, creativity, and instinct in AI responses. Also, the need for understanding AI, continuous learning, and versatility when working with smart technologies has been highlighted. The study ends with some recommendations that should be taken into consideration when teaching, training and researching translation and translators.

KEYWORDS

Artificial Intelligence (AI), translation profession, machine translation, translator productivity, Human-AI collaboration

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I. Background

Translation has witnessed one of the major transformations in its entire history since it is no longer defined exclusively by human effort; rather, linguistic competence. With recent advances in translation technology, the field of translation has experienced one of the most rapid transformations in its existence. Prior to the computerization of translation arts and processes of translation, translators worked to cultivate linguistic and analytical skill sets that would allow them to interpret meaning from one language to another. While computer-assisted translation (CAT) tools made translation faster and influenced translation professional practice, the emergence of large language models (LLMs) driven by artificial intelligence (AI) is the newest translation frontier (Bowker & Fisher, 2010; O'Hagan, 2016). Eszenyi et al. (2023) share that because of technological advancements, students and professionals in the field can translate more texts in a given amount of time than a human translator. Thus, students and professionals have more time to focus on revising and upholding quality.

Alkodimi et al. (2024) point to real-time translation as one of AI's biggest benefits. Ye (2024) explains that one of the many functions of ChatGPT is its ability to translate languages in real-time when the input is correct. As AI continues to grow more sophisticated, fears of AI replacing translators are growing. Translation is still widely viewed as an act of transferring meaning based on knowledge, cultural intelligence, and awareness of grammatical and idiomatic conventions. Bijker, Hughes, and Pinch's (1987) socio-technical theory of technology allows us to view translation as being constructed by both people and materials, including language systems but also institutions, other technologies, and cultural norms. In short, people create technology and technology is embedded within social systems.

On the contrary, many experts agree that AI will not replace translation professionals. Corpas Pastor and Defrancq (2023) suggest that translators have gained new opportunities through technology rather than being replaced by it. Downie (2022) expresses a similar view by explaining that translators must constantly assess their clients' needs to decide if human translation is necessary, if a human-in-the-loop model would be best, if they should use CAT tools, or if full automation is sufficient. Shormani (2023) takes this one step further by suggesting that humans and AI work together to translate. As many translation professors teach their students, AI can create rough drafts, but humans must check for accuracy, fluency, and cultural references. This act is referred to

as post-editing and is one example of human–AI collaboration. Jung et al. (2024) offer a similar conclusion by discussing how hybrid models allow AI to complete tasks that are repetitive or less creative, while human translators do the more difficult or nuanced portions of a translation project. Therefore, AI technology can be used to split up translation work.

While there are many benefits to using AI, some researchers have suggested that translators should understand how to properly use these tools. Falempin and Ranadireksa (2024) recently found that although AI could increase productivity by automating simple tasks, translators must be ethically aware and informed when using AI technologies. Human translators are still needed in the industry because of various linguistic phenomena that AI is yet unable to master. Things such as cultural connotations, emotional subtext, and even pragmatic meaning cannot be automated. Akdogan (2023) recently found that translators already selectively use machine translation. According to her study, translators use machine translation to work more quickly and check consistency. While AI is improving every day, machine translation is not perfect and will not likely replace human translators. Tosun (2024) and Dugonik et al. (2023) both predict that AI and human translators will work together to increase productivity.

In summary, AI will allow translators to work more quickly, but that does not mean human input will be obsolete. Jiménez-Crespo (2020) and Wang Ning (2021) suggest that AI is causing a “technology shift.” While AI has improved translator productivity, it also alters how we think about translators as professionals. AI impacts the way translators view their role as intellectuals, authors, and professionals. At the linguistic level, there are still several issues with machine translation. Shormani discusses how AI cannot perfectly translate from one language to another because languages are systematically and typologically different. This creates semantic problems for translators. Polysemous words, or words with multiple meanings, are difficult to translate using either RBMT or NMT approaches. Bowker (2002) offers another limitation of AI in translation. She explains that raw machine translation should never be shared with audiences. Artificial intelligence lacks the ability to consider context outside of the sentence or phrase being translated. Machine translation often takes sentiments out of their meaning in prose because meaning can change across discourse.

Moreover, NMT has increased the contextual integrity of translated text, but still falls short in many areas. Recent articles support these claims by highlighting NMT’s capabilities and limitations. According to Mosa (2025), NMT is fast and can be used to translate large volumes of data. David (2025) explains that NMT is great for taking on repetitive tasks and completing larger projects. However, both articles agree that humans are still necessary to oversee NMT outputs. Moneus and Sahari (2024) highlight the inability of AI to perfectly replicate human intuition when it comes to language. Machine translation cannot be trusted around sensitive materials. For this reason, Belhassen and Hamda (2023) state that AI cannot work independently of human translators. To achieve accuracy, AI must have a human in the loop to catch cultural inaccuracies and provide ethical and creative decisions. According to David (2025), HITLs allow AI to assist humans when creating translations. David further explains that AI can make translations error-free, efficient, and culturally competent when paired with a human translator.

Lastly, literature provides insight into how translators should respond to new technology. Though many clients may believe translation is becoming fully automated, companies are still hiring translators. Translators should seek to improve their technological know-how and soft skills while also specializing in their field of expertise. Łukasik (2024) found that many translators and students are not using generative AI due to poor quality. Łukasik encourages institutions to modernize translation curriculums to account for new technologies. Including AI-based assignments and topics such as ethical and legal issues could help future translators better adopt AI. In short, the literature strongly suggests that AI will not be replacing human translators. As AI continues to develop, it will become better at working quickly and consistently. However, only humans can understand implied meaning, adjust for cultural accuracy, and make ethical decisions. Translators should not fear AI but should learn how to work with it.

The literature reviewed above analyzed how artificial intelligence can benefit language education specifically translation. However, and to gain a comprehensive understanding of the problem, the authors decided to seek the opinions of translation experts regarding the future of translation in the era of artificial intelligence.

II. Method

1. Research Design and Participants

The descriptive survey design was used in the study. Both quantitative (survey) and qualitative (semi-structured interview) methods were combined to collect data from 146 participants that were experts in translation industry, language teaching, or applied linguistics. A purposive sampling technique was employed to select participants for this study since the aim is to elicit data from the prior knowledge and experience of the participants. Demographic information including gender, age, highest qualification, field of specialization, years of experience, and primary workplace were also gathered since the researchers truly believe in their importance in shaping the experience and knowledge of the participants.

2. Research Questions

Four research questions were formulated to guide the study:

1. In what ways do experts think AI will impact the translation industry regarding efficiency, cost, and accessibility?
2. What are the experts' opinions on the need for human translators and how their role may be changed due to AI?
3. How would experts rate the ability of AI to accurately capture cultural, contextual, and creative information. What ethical considerations, if any, do experts have about AI translation?
4. What skills do you believe translators will need to work alongside AI?

3. Data Collection Tools

The following data collection tools were used:

1. Survey: Structured questionnaire with 37 items were first created and reviewed for clarity and relativity by 15 experts in the field. After the review process ended, 30 items were selected and measured on a 5-point Likert scale from 1 = strongly disagree to 5 = strongly agree. There were four sections with each section corresponding to one of the research questions. Section 1 included items about the impact of AI on the translation industry. Section 2 inquired about human translators and AI collaboration. Section 3 touched on the limitation of AI in translation. The last section queried participants on what skills translators will need in the future. The survey was uploaded to Google Forms, and the link was distributed to the participants. Moreover, Cronbach's alpha was calculated to determine internal consistency. α was found to be 0.87 indicating high reliability.

2. Interviews: Semi-structured interviews were conducted with 8 participants and the interview questions to triangulate the survey data. They provided qualitative data that supported and added context to quantitative findings.

4. Data Analysis

Descriptive statistics were used to analyze quantitative data obtained from the survey. Mean, standard deviation, and percentage were reported for each item. For easier interpretation, responses were grouped into three categories; Agree/ Strongly Agree, Neutral, and Disagree/ Strongly Disagree. Content analysis was used to organize qualitative data gathered from interviews. Interviews were coded and applicable responses were used to further explain or provide examples for quantitative findings. Both quantitative and qualitative data were integrated at the interpretation stage. A convergent parallel design was used.

III. Results

The purpose of this study was to investigate the opinions of translation professionals regarding the future of translation in the age of AI. Survey and interview data were gathered from 146 translators working in academic, professional, and freelance settings. Respondents were asked about their opinions related to four research questions: (1) how AI will change translation, (2) if translators will still be needed, (3) how AI will impact the speed, accessibility, and cost of translation, and (4) what skills future translators will need to succeed and how they will work. The remainder of this chapter is broken down by these research questions, each containing the results of the survey data, interview data, and discussion.

Research Question 1: How is AI transforming the translation industry?

Table 1: Experts' Perceptions of AI's Transformative Impact

Statement	Mean	SD	Agree (%)	Disagree (%)
AI is significantly transforming the translation industry	4.3	0.8	87%	13%
Machine Translation tools have improved in quality in recent years	4.1	0.9	82%	18%
AI enables real-time translation that benefits global communication	3.9	1.0	76%	24%
AI creates new opportunities for collaboration between humans and machines	4.0	0.9	79%	21%

Survey responses show that experts strongly believe AI will transform translation practices, as all mean scores were over 3.9. Responses to the interview questions supported this trend; participants reported completing translations faster using AI while also remarking that AI opens markets to translations that otherwise would not be possible. When asked about how AI will impact translation practices, one participant stated: "Our jobs as translators won't be the same when it comes to large projects. We have to start treating AI as one of our teammates."

Another pattern that emerged both in the survey data and the interview responses was that although AI can help with speed and quantity, there will always be a need for human translators. Many of the interview responses focused on topics such as ethics in translation, quality control, and other issues that AI may not be able to overcome fully. The convergence of data from the survey and interviews reveals that translators believe AI will change the way they work by forcing them to adapt and work with AI.

In conclusion, translation experts agree that AI is transforming the translation field. This is similar to Garcia's (2023) findings and Toral and Way's (2022) findings that although AI can help with speed and productivity, humans are still needed to edit IT translations. However, translators will need to find ways to work with AI instead of allowing AI to work for them.

Research Question 2: Will human translators remain essential despite AI advancements?

Table 2: Experts' Perceptions on the Continued Role of Human Translators

Statement	Mean	SD	Agree (%)	Disagree (%)
Human translators will always be needed despite AI advancements	4.5	0.7	91%	9%
Human translators will mainly act as editors of AI-generated translations	4.1	0.8	83%	17%
AI translations often lack cultural and contextual accuracy	4.2	0.9	85%	15%
Creative and literary translation will remain largely human-driven	4.3	0.8	87%	13%

Both the survey and interview data indicate that humans will not be replaced by machine translation. When asked about the role of the human translator in the age of AI, respondents indicated that they saw humans taking on roles such as editing machine translation and adding creativity. The survey results revealed that 95% strongly agree/agree that there will always be a need for human translators, and 94% strongly agree/agree that human translators will be responsible for ensuring accuracy. One translator wrote, "Technical topics are fine but if you want literature or anything with deeper meaning you need a human touch." Another translator said "Editing MT is not a easy thing to do. You have to know the subject and be aware of the cultural context and ethics."

Combining the graphs and the quotes from the interviews, it can be concluded that there is not enough creativity and knowledge of cultural nuances for AI to take over the human translators' position. The statistical results show that respondents believe machines will not replace human translators. They strongly agree or agree that there is always a need for human translators ($M = 4.57$). Furthermore, translators strongly agree or agree that human translators will be responsible for checking the accuracy of translations ($M = 4.52$). The interviews support this finding by showing how some translators believe their role is changing.

This finding supports Koehn's (2020) findings that even though machines will be able to do some tasks that translators do now, there will always be a need for human translators when it comes to interpretation, cultural awareness, or creativity (p. 179).

Research Question 3: How has AI affected translation efficiency, accessibility, and cost?

Table 3: Experts' Perceptions on AI's Impact on Efficiency and Accessibility

Statement	Mean	SD	Agree (%)	Disagree (%)
AI has made translation faster and more accessible	4.2	0.9	84%	16%
AI reduces the cost of translation services	3.8	1.1	73%	27%
AI enhances the efficiency of professional translators	4.1	0.8	82%	18%
AI tools support translators in handling large volumes of work	4.0	0.9	79%	21%
AI helps in achieving consistency in terminology	3.9	0.9	77%	23%

Survey results indicate that most experts agree that AI saves time and increases accessibility. Interview data collected qualitative data that experts agreed that sometimes speeds things up and can take care of higher volume. "What took you days can now be done in hours. AI is your superpower multiplier if you know how to use it. (I use it for) technical translation." There are risks of relying too heavily on AI such as losing critical thinking skills and decreasing work for human translators.

Overall, the results suggest that while AI may save time and cost, it does not replace the need for human translators. Including qualitative data allowed me to see how translators can use AI to their advantage and where humans are still needed. Accuracy, nuance, and ethics are all jobs for humans. The data is somewhat mixed when saving costs is concerned. These results support the findings of previous research done by (Somers (2021) and Flores and García (2022) that showed AI can save time and take care of higher volume but does not replace the need for a human translator. Experts agree that AI should be used to save time on operations and leave quality and cultural checks to humans.

Research Question 4: What skills and collaboration models will future translators require?

Table 4: Experts' Perceptions on Future Skills and Collaboration

Statement	Mean	SD	Agree (%)	Disagree (%)
Future translators will need strong AI literacy skills	4.4	0.7	89%	11%
The future of translation lies in human-AI collaboration rather than replacement	4.5	0.6	92%	8%
AI will positively reshape the role of translators	4.1	0.8	83%	17%
Over-reliance on AI may reduce the demand for human translators	3.6	1.0	68%	32%
Ethical concerns exist regarding AI's impact on intellectual property	3.9	0.9	77%	23%

Additional findings from our survey provided answers to questions regarding future skills. The responses showed that translators believe working with AI literacy and collaboration skills will be prioritized. During our interviews, this theme emerged as well with descriptions of the future working conditions pointing to “translator-technologist” type roles. Additional comments included ideas such as assisting AI with decision-making and evaluations, applying ethical skills/judgment, and utilizing multimodal communication. As stated by one academic respondent, “We have to teach our translation students that they are not only going to be translating languages. They will need to know how to work with these AI tools.”

Worries about becoming too dependent on AI and its ethical use also emerged as themes during the interview portion of data collection. Technology is only as good as the people who are willing to adopt it and learn how to use it.

The conclusions that can be drawn from these findings include the future of translator professional development will include training on AI tools, collaborating with others, and applying ethical decision-making. The percentages from the chart above show that translators agree that AI literacy and human-AI collaboration will be needed. The interviews mirror this by providing examples of what translators think the future work environment will look like with AI tools.

The findings in this study support the conclusions made by Pym (2021) and Garcia (2023) that AI literacy and collaboration will be two fundamental skills of translators going forward. Translators in the future will need to understand how to successfully implement AI and collaboration in order to achieve great results. Speed and efficiency will come from AI, while critical thinking, interpreting semantics, and creative skills will come from human translators.

IV. Discussion and Suggestions for Future Research and Practice

Responses to all the research questions showed a consensus that AI is changing the industry for translators, while reiterating the need for human skill. For RQ1 and RQ3, all respondents noted that AI allows translators to work faster, smarter, and more collaboratively while translating large amounts of text simultaneously in real-time. However, all respondents could not envision AI replacing the human skill of translation due to the need for human judgment, creativity, and cultural knowledge. Responses from the interview portion supported the survey data by adding context and specific examples to the ideas presented in the survey.

The compiled data from both methods aligns with previous research and/or literature (Garcia, 2023; Pym, 2021; Toral & Way, 2022; Somers, 2021) about the translation industry moving towards a hybridized space that includes both AI and human translators. Topics including ethical practices, AI literacy, and collaborative work were noted to be important topics of discussion for preparing the translation industry for AI.

In conclusion, the data collected suggests that the translation industry is undergoing a period of change. Humans will still be needed to translate, but how they translate may change due to AI. As such, skill sets may need to become more adaptive to allow for collaboration with AI. While AI can help translate, there is still a need for humans to ensure translation quality, and ethically and appropriately translate language based on cultural knowledge. The synthesized data can be interpreted through the following points:

a. AI is changing the translation industry

This study’s findings agree with other studies showing that AI is changing how translation companies and freelance translators operate. Respondents believed that AI has allowed translators to work more efficiently and translate in real-time which allows for more accessibility to global markets.

(Garcia, 2023) supports this by stating that although AI can help make translation more efficient, there is still a need for human translation as AI does not possess the knowledge and ability to form judgments on ambiguous sentences and be creative in its work.

The Society of Authors (2024) found that when surveying translators, over 75% of respondents believed AI would have a negative impact on their future income. While AI can help make work more efficient, there is still a strong need for human translators.

b. AI is not replacing the need for human translators.

As mentioned before, although AI can help make translation more efficient, there is still a strong need for human translators. This was supported by The Society of Authors (2024), who found that when surveyed, over 75% of translators believed AI would have a negative impact on their future income.

Many experts noted that although there are benefits to how AI can change translation, there is still a need for human brainpower. The interviews conducted helped to show that although AI can help translate faster, there will always be a need for human translators to assure quality. While the survey data tells us that AI is changing the translation industry, the interviews can tell us how it is changing the industry.

c. AI is allowing translations to be done more quickly and with more consistency.

AI has allowed translators to work more efficiently; however, AI is not meant to completely replace humans in the translation process. (Blend, 2025) mentions that although AI has been able to help improve workflow, it has not reduced costs. This can relate to translation because although AI can help translate quickly, there is still a need for humans to ensure translation quality.

Both the data collected from the survey and the interviews have shown that although AI allows translations to occur faster and more consistently, there is still a need for human translators. However, one thing that was not consistent between the two data collection methods was whether AI would help reduce costs. While some translators may believe that AI can help reduce costs, others may not.

d. Skills/Talent Shifts, and Collaboration will change how translators work

Due to new AI technology, translators will need to know how to work with AI to translate. (Pym, 2021) and (Garcia, 2023) discuss how translators will need to know how to collaborate with AI in order to be successful when submitting translations. If companies want to work faster and more efficiently, translators will need to know how to collaborate with AI as well as how to properly translate when needed.

The survey data indicates that translators know their work will need to include the knowledge of AI and how to collaborate with it. When speaking to experts about how AI would change the way translators work, they all mentioned that translation students should be taught how to collaborate with AI. An academic said, "We need to teach translation students not just languages, but how to work with AI tools." When talking about how AI can affect translation, some translators brought up concerns about becoming too dependent on AI. Collaborative skills, and ethics will need to be taught along with AI.

Suggestions for future research and implementation

Here are some suggestions for future research and topics to consider implementing based on the discussion above.

An important theme emerged in the results of the study was that the quality of translation. How will AI translations compare to human translation? Even though AI has been said to create translations that are on par with human translation, (Lokalise, 2025) more research can be done to determine if this is true for all languages and/or fields.

The issue of training students on the use of AI in translation students is another issue. Designing courses that show how AI can be used by translators and interpreters can achieve the purpose. For example, there is a free course on Udemy called "Basics of AI & AI Prompting for Translators & Interpreters" (TranslaStars, 2025) where the creator explains how AI can be used for translation and localization.

Ethics is a serious problem in the use of AI in translation. A need for researchers to verify how can we prevent unethical translations from being published when using AI? Research can be done to create laws and regulations on what is ethical and what is not in the process of using AI in translation. Moreover, and while (Society of Authors, 2024) did a great job showing that 63% of translators have seen income reduction due to AI. Research can be done to show the overall economic impact of AI on the translation industry.

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