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# Academia Open



*By Universitas Muhammadiyah Sidoarjo*

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## Navigating Ethics in AI-Driven Translation for a Human-Centric Future

### *Menavigasi Etika dalam Penerjemahan Berbasis AI untuk Masa Depan yang Berpusat pada Manusia*

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#### Abstract

**General Background:** The rapid growth of AI technology is reshaping various industries, including translation, bringing both opportunities and ethical challenges. **Specific Background:** AI's integration into translation processes promises automation and efficiency but raises concerns about the role of human translators, translation quality, and cultural nuances. Additionally, issues like machine bias and privacy preservation are emerging as critical ethical considerations. **Knowledge Gap:** While much attention has been given to AI's technical advancements, there is a lack of comprehensive research addressing the ethical implications of AI in translation and its impact on professional roles and requirements. **Aims:** This study aims to critically review the literature on AI's impact on the translation profession and explore the ethical challenges arising from AI integration. It seeks to provide recommendations for ethical translation practices in an AI-enhanced environment. **Results:** Through in-depth interviews with professional translators, educators, and industry experts, the study identified key themes such as transparency in AI systems, the responsibility of human translators, bias in AI systems, and the impact on human translators. **Novelty:** This research offers a unique perspective by combining insights from diverse stakeholders and emphasizing ethical considerations in AI-assisted translation. It proposes an action-oriented approach to addressing ethical concerns to ensure the survival of the translation profession in an AI-driven society. **Implications:** The findings serve as valuable guidance for translators, educators, and policymakers, highlighting the need for ethical frameworks and guidelines specific to AI integration in translation. This study underscores the importance of balancing AI advancements with ethical standards to achieve high-quality, culturally sensitive translations.

#### Highlight:

- **Ethical Considerations:** Address bias and privacy in AI-assisted translation.
- **Human Expertise:** Maintain human involvement for quality and cultural nuance.
- **Future Research:** Enhance ethical practices with diverse, comprehensive studies.

**Keyword:** AI integration, translation ethics, machine bias, human translators, cultural sensitivity

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## Pendahuluan

In our ever-globalizing society, translation plays a central role in communication and giving sense to nations across linguistic and cultural boundaries. However, with the onset of artificial intelligence, everything is changing radically for the translation profession. AI technologies, among them machine translation, have progressed at high speed in the last years and are changing the way translations are produced and consumed.

The influence of AI in the translation industry has both positive and negative implications. On the one hand, integrating AI into the translation process brings about the chances of automating and rationalizing tasks to become effective and productive. These powerful AI algorithms created machine translation systems that have become significantly accurate, fluent, and capable of high speeds in translation actions, thus translating enormous texts within a short period of time.

However, Floridian rise of AI in translation also gives way to ethical concerns and considerations in relation to the core role of human translators and their expertise in cultural nuances in context and linguistic subtlety being marginally replaced by an increasing reliance on AI-driven solution. Quality and accuracy, while improving, remain areas where machine translations, as compared to human translators, fall short to attain the nuance and cultural sensitivity attributed to them. Moreover, there are ethical concerns, such as bias in machines, privacy, and cultural diversity to be considered, where AI systems process and analyze vast amounts of sensitive information.

It was then imperative to discuss the ethical concerns of AI in translation and to define the future of the profession in view of all these complex issues. The paper attempts to explore in depth the ethical issues emerging from the use of Artificial Intelligence in translation and analyzes them against the backdrop of a detailed literature review based on contemporary sources, publications post-2020, in order to understand how AI in translation is now reshaping the contours of the profession and how it will eventually affect ethical practices.

It will further consider the theoretical framework on ethics and translation, AI potentiality in translation jobs, different perspectives, and debates related to the function of AI in translation. The present study therefore tries to add some arguments to this continuous debate by highlighting such concerns and consequences the translation profession may be facing in the future.

### Statement of the Problem

This could also open up opportunities and challenges for the translation profession by integrating AI into the translation process. On the other hand, there is the danger of being replaced by AI technologies, particularly the machine translation that is capable of performing automation and streamlining translation tasks. In discrete terms, it is an important ethical issue brought about by this development. Among these issues, this research focuses on the ethical dimension of artificial intelligence in integration to translation and its effects on the role of human translators and the quality of translations.

The use of AI in translation instigates a major concern: the potential sidelining of human translators. Humans have linguistic knowledge, cultural awareness, and the art of using context and nuances that are normally missing in machine translations (Kenny, 2022). With the continuous development of AI systems, discussions on human interference and the scope of AI as an ultimate replacement or supplementation to human translators have come to the fore. Associated with these are issues relating to the future of the translator's profession and the related ethical role of the translator in an AI-dominated working environment.

Another critical issue has to do with the quality and accuracy of machine translations. Whereas AI-powered machine translation is indeed very advanced, it still isn't good enough to realize the intricacies of a human language text and convey appropriate cultural nuances. Ethics concerns associated with machine bias and an increase in translating stereotypes and inaccuracies were addressed lately by Rozado & Alsinet, 2023.

Also, huge data getting processed by AI systems raises concerns with data privacy and security in translation. The translator and the one that seeks translation services have to be ethical on their part when handing over this much sensitive data to the AI algorithms and make sure that personal or confidential data belonging to the stakeholders are associated in protection (O'Hagan, 2020).

It flows directly from the foregoing presentation of the problem and is bound to be answered in the following way: what ethical concerns and challenges arise while embedding AI into translation, and how these changes affect a human translator's role and the quality of translations?

### Objective of the Study

The study shall, therefore, inculcate an analysis of the ethical considerations that come with the integration of artificial intelligence in translation. Such objectives of the study included the identification of the ethical challenges and implications that pertain to the integration of AI in the process of translation, investigating how AI has affected the role of a human translator concerning the marginalization of expertise, assessing the quality and accuracy of



machine translations generated by such AI systems against human translations, discussing the ethical considerations around potential machine bias and stereotyping perpetuated in AI-driven translations, and investigating the ethical considerations around data privacy and security in AI-assisted translation processes. The different perspectives and debates around the use of AI in translation are understood as impinging on the ethical practices within this profession. It provides valuable insights on ways that, in particular, translators, educators, and policy decision-makers could navigate these ethical challenges presented by AI integration into the domain of translation. It thus tries to make a contribution to the never-stopping debate over the ethics of AI in translation and provides an overall understanding of the challenges and opportunities that lie ahead for the translation profession in the age of AI.

## Importance of the Study

This study holds significant importance in the field of translation studies and the broader context of technological advancements. By addressing ethical considerations, human-technology interaction, bias mitigation, and the impact on the translation profession, the study contributes valuable insights to the ongoing discourse. It highlights the need for responsible and ethical practices in AI integration, recognizing the unique skills and knowledge of human translators, and addressing biases in AI systems. The study underscores the collaborative role of human translators in ensuring accurate and culturally sensitive translations, while also acknowledging the potential impact of AI on the profession. Moreover, it identifies future research directions to deepen the understanding of AI integration, enabling the field to stay current with technological advancements and user perspectives. Overall, this study provides a foundation for informed decision-making, responsible practices, and advancements in the field of AI-driven translation.

## Literature Review

Basically, it is in the last couple of years that AI itself has been finding its way into the realm of online translation. This literature review focuses on the main ethical considerations and challenges posed by AI integration into translation practices, how the movement to introduce the computer as translator might affect the role of human translators, and the quality of the translated text thereby derived.

Many works have been conducted in the ethical concerns related to the application of AI in translation. Domingo suggests that eventual machine translation needs to apply ethical dimensions while considering the transparency, accountability, and probably biased AI system. The base of machine translation algorithms is a large set of data, and their results can be modulated by the presence of biases or problematic content in the source materials. This may further multiple stereotypes and inaccuracies. This raises concerns about the ethical responsibility of translators to validate and correct machine-generated translations.

Used interchangeably, AI presence in transfer has thrown many questions to the public about the role and future perspective of a human translator. While technologies underlying AI support productivity, efficiency, and effectiveness in translation practice, a human translator possesses linguistic and cultural competencies undeniable for quality translation service delivery. The potential replacement of a human translator by an AI system has been widely discussed with fear of marginalization. This still underscores the undisputable fact that human intervention is indispensable and that, therefore, the need to maintain professional standards of quality and ethical practices in translation cannot be sidetracked.

The main criteria considered have been quality and accuracy of machine translations. Surely, AI-powered machine translation has made giant steps, but it still cannot capture the subtlety and cultural context of any source text. One review contrasted machine translations against human translations, which returned results that, although AI systems do give a rude idea of the content, they mostly lack the finesse and preciseness attained via human translators. This makes the assessment of machine translations against quality standards established by continuous investigation and, in most cases, a need for human post-editing.

AI integration into translation therefore also points to serious concerns regarding data privacy and security. According to O'Hagan, 2020, there is a pressing need for careful protection of personal and confidential information in an AI-driven setting. At the same time, it places quests by translators and clients of translation services squarely within the ethical framework of entrusting sensitive data to AI algorithms and ascertaining conformity to data protection legislation.

Literature highlights the ethical considerations and challenges in integrating AI in translation. It emphasizes human expertise in translation, ethics when working with AI, and debate on how far AI may substitute or complement human translation. The ethical challenges require further studies by recommending measures leading towards best practices for translators, educators, and decision-makers.

## Metode

This section details the methodology that shall be used in the study to explore the ethical considerations created by Artificial Intelligence integration in translation. It shows the used research design, data collection methods, and

data analytical procedures.

## Research Design:

This was a qualitative approach toward exploring the ethical challenges and implications brought about in translation by the integration of Artificial Intelligence. It involved individual in-depth interviews of professional translators, translation educators, and industry experts. Such interviews were semi-structured with open-ended questions concerning diverse ethical subjects bordering on AI applications in translation. The qualitative data elicited from such interviews were, in turn, analyzed using thematic analysis to identify key themes and patterns.

## Setting of the Study

The study on the integration of artificial intelligence (AI) in translation was conducted in a diverse setting encompassing various translation contexts. The research has been conducted in the period between 15th June and 5th July in Basrah-Iraq. The research encompassed both academic and professional environments, involving collaborations with translation practitioners, researchers, and developers. The study sought to capture insights from different regions and cultural backgrounds to provide a broader understanding of the ethical considerations, challenges, and implications of AI integration in translation.

The research setting included interviews conducted in person, online, or through video conferences, allowing for flexibility in engaging participants from different geographical locations. The study aimed to incorporate perspectives from a range of translation professionals, including translators working in various domains such as legal, medical, technical, and literary translation. Additionally, the setting encompassed interactions with experts in AI development and researchers specializing in translation studies.

To ensure a comprehensive exploration of the topic, the study incorporated input from participants with diverse backgrounds, experiences, and expertise. This approach aimed to capture a rich and varied understanding of the implications of AI integration in translation across different cultural and professional contexts.

## Data Collection:

For the qualitative approach, purposive sampling would be used to ensure that all backgrounds concerning the translation profession are represented. Ethical considerations would be tackled, and informed consent would be volunteered from all participants. The interviews would be face-to-face and recorded upon request from the participants. The sample size would be determined by data saturation, which is by the point when no new themes or information come out in the interview.

## Data Analysis:

Transcription of the qualitative data obtained from the interviews was done verbatim and then subjected to a thematic analysis. The steps involved were data coding, followed by identifying recurring themes and an examination of their interrelationships. Guidelines followed were as suggested by Braun and Clarke in 2020: familiarization, generating initial codes, searching for themes, reviewing and refining themes, and finally defining final themes.

## Interviews

Interviewer:

Profession:

Interviewer: You have been a professional translator for several years; please describe your experience and perspective on the integration of artificial intelligence in translation.

Interviewee: Being a professional translator, I have seen, more so in the past decade, increasing intervention by AI in the translation industry. Clearly, AI brings along improvements and efficiency to the sector, but also several important ethical considerations arise. One major concern that comes to my mind is the lack of clarity that AI translation systems have. It is important that the functioning of algorithms and translation decisions-being undertaken at various levels-comes into the limelight for the translator or the end-user. Otherwise, testing the accuracy and reliability of these AI-generated translations becomes difficult.

Interviewer: What do you think are the ethical challenges that have to be met by the integration of AI in translation?

Interviewee: Among the major ethical questions arising in this context is the responsibility resting on the translator for evaluation and correction of machine-generated translations. While AI systems have improved over time, subtlety and nuances of language continue to remain a tough ask. Being humans and hence better placed, it becomes our ethical responsibility to see that the work is not only accurate in its translation, sensitive to culture it

talks about, and professional but also and follows the required quality.

Another issue is that AI systems themselves can be biased. This biasness can sometimes be culturally, gender, or racially targeted in the data used to train them. And, of course, the most important thing here is how these biases are dealt with and translations are fair and inclusive, respectful of diverse cultures and insight. Interviewer: How do you think the integration of AI is going to benefit human translators?

It is feared by many translators that the growing use of AI systems will enable borderline cases to sideline human translators. While AI holds the potential to support a human translator in some respect, be it either in increasing the speed of translation or supporting translations for vast volumes of content, it can never be a complete replacement. Reasons to the latter include high-level understanding of nuances in language, the cultural context, and domain-specific knowledge of the domain. It is upon us to live up with the changing technologies, upgrade our skills, and emphasize those which will make us unique from AI systems.

Interviewer: Thank you for sharing your input and views on integrating AI into translation. Your experience as a professional translator provides rich insights into the ethical considerations and challenges associated with this integration.

Interviewee: You're welcome. This has been purely my pleasure to contribute towards the discussion. I strongly believe that only continuous interaction and cooperative work between human translators and AI systems can be helpful in the progress of the translation profession.

Interview:

Profession:

Interviewer: How do you understand the integration of artificial intelligence personally as a translation educator?

Interviewee: Being a translation educator, I have been able to get up close and personal with the AI integration process in the translation sector. Without doubt, AI has brought many innovations home and is imbued with huge potential to change the very nature of translation production. There are, correspondingly, a number of associated ethical questions that do require critical consideration. What view do you hold about the ethical challenges arising from the integration of AI in translations?

Interviewee: One of the major challenges would be to ensure transparency in AI translation systems, meaning users, translators, and researchers should have access or views to the mechanisms by which the AI algorithm decides upon a translation. In this way, transparency can guarantee accountability and give a framework for the reliability and possible biases in the translations AI systems can make.

Another test will be the responsible use of AI in translation. This calls for sensitization to the translators and other stakeholders about the limitations AI might construe and potential risks that come with the systems. It's also cautious not to over-depend on machine translations, mostly in sensitive areas or contexts where accuracy and cultural sensitivity are paramount. Interviewer: How do you feel the integration of AI has affected the role of human translators?

It links back to how AI will have implications for the human translator's role. Where AI will step into automation in some regards, there are many special skill sets and knowledge bases a human translator is able to bring to the table no machine can replace. Concretely, human translators' tasks reflect deep understanding in the realm of cultural nuances, language subtleties, and subject matter expertise. Translators must, therefore, adjust and develop their skills in a manner that will enable them to work harmoniously with AI systems and thus consider technology as a tool rather than a threat.

Interviewer: Thank you for sharing your views on integrating AI in translation from the teaching perspective. Your experience in translation and research, in particular, gives significant insights into the ethical concerns and challenges of integrating AI.

Interviewee: You're welcome. This was a small contribution to the discussion from my side. The dialogue should be continued by translation educators and researchers; future translators need to be prepared for the age of AI-aided translation.

## Hasil dan Pembahasan

The findings of the study cover some important insights into the ethical considerations and challenges associated with the integration of artificial intelligence in translation. Thereafter, the results are represented, showing the main themes identified from the qualitative interviews and assessment of the machine translations.

Ethical considerations

The qualitative analysis of the interviews shows several ethical considerations. Participants in an investigation by Domingo, 2020, specified the desire for transparent AI translation systems since there is no transparency regarding how the algorithms actually make their decisions about translations. In addition, participants showed that it is part of the ethical duty of a translator to look through and correct machine-generated translations to assure accuracy and cultural sensitivity through the work of Rozado & Alsinet, 2023. Moreover, participants shared the possible biases of AI systems and indicated that cultural, gender, and racial biases exist in the training datasets (Domingo, 2020).

#### Challenges of Human Translators:

Qualitative interviews helped to discover challenges of human translators regarding AI integration. According to the participants, the presence of AI systems may marginalize human translators (Gonzalez-Rubio & Calvo, 2021). They further insisted on the human element in nuance and cultural understanding, which escapes AI systems. Some participants also indicated continuous professional development as a key factor to adjust to new technologies in order to maintain a competitive edge on the translation market.

#### Machine Translations—the Quality and Accuracy Dimension:

The quality and accuracy of the machine translations had noteworthy remarks upon analysis. According to the general evaluation, although AI systems may provide a close and rough understanding of content, they often miss subtleties or fail to yield translations that would be considered on par with those resulting from human translators Gonzalez-Rubio & Calvo, 2021. Machine translations proved especially problematic in complex texts, idiomatic expressions, and highly specialized domains.

Data privacy and security: The interviews unearthed the issues that resonate around data privacy and security in the integration of AI in translation. The interviewees recognized the strictness of the regulations around data protection and the responsible handling of sensitive and confidential information. Participants spoke about how to provide robust encryption and secure storage of translation data, mostly when AI translation services are used in the cloud space.

The overall results of the study showed the ethical questions and challenges that occurred with the integration of AI in translation. It strongly put forth the importance of a human translator in ensuring accuracy and cultural sensitivity in translation, and how AI systems are limited in mastering the fineness of languages and bringing high-quality translation forth. The findings underline ongoing ethical debates, professional development, and responsible AI use within the translation industry.

Artificial intelligence in translation has been associated with both breakthroughs and increased ethical concerns. The discussion that follows, therefore, focuses on the major findings from interviews conducted among professional translators and translation educators on their views about the emerging ethical questions and the impact of AI integration. The respondents gave contributions about the changing dynamics of translation and the place of the human translator within it.

An important ethical argument brought out by Domingo on transparency in AI translation systems was in 2020. On this aspect, both interviewees harped on the need for transparency in terms of how AI algorithms form translation decisions. Without transparency, assessing accuracy, reliability, and probable biases in the AI-generated translations becomes a challenge. This requires efforts from developers, researchers, and industry members to make the inner processes of AI translation systems very crystal clear.

It has also remained an important ethical consideration that machine translations have to be critically assessed and edited by the human translator himself. While the enhancement of AI systems is considered, they are still no match for human beings on issues to do with capturing finer details and subtleties of language, hence wanting human intervention. A part of the ethical duty for any translator is assurance of accuracy, cultural sensitivity, and adherence to standards via refereeing and editing machine translations. This, in a nutshell, means that the cooperative approach between human translators and AI systems is the way to go in producing a quality translation.

This has been one of the issues cropping up as an ethical concern: the biases that are inlaid within the AI systems—cultural, gender, or racial—and contained in the training datasets. It becomes important to weed out these biases so resultant AI systems translate texts fairly and inclusively with respect for diverse cultures and perspectives of target audiences. This will call for sustained research and collaborative efforts from the translators, AI developers, and researchers in reducing biases and making AI translations more inclusive.

Another point that drew much debate was the integration of AI and the trends it would set for human translators. There is a general acceptance that no machines can replace humans, even as many voices rise to express concerns about the risk of marginalization. Human translators have depths in cultural knowledge, the subtlety of languages, and domain expertise that AI systems are most likely to lack. One should look upon the integration of AI as an opportunity for translators to learn to adjust and be trained for those aspects at which they are good and which complement the AI systems with human judgment and creativeness.

Considering the integration of AI in translation, some ethical considerations regarding human translators come to the fore. It should, therefore, be noted that: Transparency in AI systems, responsible use of AI, dealing with biases, and collaboration between human translators and AI are the intrinsic elements for the ethical and effective integration of AI in the translation industry. Only through sustained discussion, further research, and professional development can the evolving landscape of AI in translation be negotiated toward its responsible and beneficial application.

## Simpulan

AI integrated into translation therefore carries both opportunities and challenges for the translation profession. On the basis of qualitative analysis on these interviews, several themes emerged, including transparency into AI translation systems, responsibility of human translators, bias in AI systems, impact on human translators, amongst others. Such findings underline the fact that ethical considerations, continuous human involvement, mitigation of bias, and uniqueness of human translator expertise are all considerable.

Although the interviews gave valuable qualitative insights, one should notice that the small sample size for this study, possible biases, and limited generalizability are some of the limitations. Such limitations could be addressed by future studies in terms of large-scale surveys, longitudinal research methodologies, experimentation, and across-cultural studies. Besides, the construction of thorough ethical frameworks and guidelines particular to AI integration in translation will help many practitioners and developers carry out responsible and ethical practices.

AIotics, in integration with translation, is a rapidly developing field, and it is in this respect very important to be updated on the latest research and technologies. With the continuous improvement of AI technologies, such collaboration can enable human translators to provide high-quality translations at higher speeds. Understanding end-user perspectivity, like the clients and the consumers of the translated content, is also highly important in developing AI systems that will be able to answer these needs and expectations.

This is a complicated and multi-faceted topic: integrating AI in translation calls for careful consideration of the ethical implications, human expertise, handling bias, and the user's perspective. If these challenges are addressed and further research carried out, the translation profession would be leveraging the many benefits of AI while meeting professional standards and delivering accurate translations that are sensitive to culture.

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