

TRANSLATION AND TRANSLATORS IN THE AGE OF ARTIFICIAL INTELLIGENCE: CONFRONTING THREATS AND CONNECTING OPPORTUNITIES

By

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Abstract

The advent of Artificial Intelligence (AI) has ushered in a transformative era for translation, fundamentally altering its practices and challenging the traditional role of human translators. This paper explores the complex interplay between AI and translation, examining both the significant threats and substantial opportunities this technological shift presents. It identifies key challenges such as potential job displacement, quality assurance issues, and the diminishing perception of human expertise. Conversely, the paper highlights emerging opportunities for translators, including collaboration with AI through post-editing, new specialisations, and the use of enhanced computer-assisted tools. By analysing the historical evolution of translation practices and current AI-driven platforms, the study argues that the future of the profession lies not in competition but in a synergistic human-AI collaboration. It concludes that translators must adapt by embracing technological literacy and continuous learning to leverage AI as a powerful ally, thereby ensuring their indispensable role in preserving cultural nuance and achieving high-quality, context-aware communication in a globalised world.

Preamble

Something consequentially profound and significantly symbolic in the world of translation happened to two Nigerians in the Middle East in late 2024. At the 10th Iteration of the Sheikh Hamad Award for Translation and International Understanding held at the Marsa Malaz Kempinski Hotel in Doha, Qatar, in December 2024, two Nigerian scholars, Prof. Mashood Mahmood Jimba of Kwara State University, Molete, and Dr Sharafudeen Raji Gbadebo of the Islamic Centre, Ogbomoso, were among the winners of the

prestigious awards dedicated to celebrating excellence in translation and promotion of global understanding through linguistic and cultural exchange. Some 35 countries participated in the event and the winning entries from Nigeria were the translations of D. O. Fagunwa's book, 'Ogboju Ode ninu Igbo Irunmole' into Arabic by Prof. Jimba and 'Bulugul Marami' and other books into Yoruba by Dr Gbadebo.

On that occasion, it was stridently established that translation is not merely the transfer of words from one language to another but a noble art and a meticulous task that requires not only a deep understanding of cultures but also a commitment to faithfully and clearly conveying meaning. One fundamental truth about life is all about creating and sharing meaning and a meaningless life is a useless life (Adedimeji, 2017). According to Stephanie Dujols, who addressed the gathering and identified the symbolism of the award as a recognition to translators and a homage to their sublime mission, translation is a bridge that stretches between peoples of the world building platforms of understanding and illuminating paths to dialogue and cooperation (QNA, 2024).

This implication of that singular development for translation and translators is of immense significance. Apart from the global recognition and monetary reward in tens of thousands of US dollars for the recognised translators, translation is now universally acknowledged as not just a means of making authors' ideas available to a wider audience, it is essentially a practical skill of promoting global cooperation, world peace and intercultural understanding. By the time the literatures of different peoples in the world are available to others in their languages, there is a high potential of appreciating our commonalities and understanding our diverse views and worldviews. In such a situation, the potential for conflict would be reduced and the world would be a haven of peace, not a theatre of war and violent conflicts as it is being witnessed across many regions. Afterall, two of the assumptions of communication are that all the problems of this world are communication problems and all the problems of this world can be solved by effective communication in the context of translation being a form of communication (Adedimeji and Abdulbaqi, 2008).

Introduction

Communication is an integral part of life without which life would be like the Shakespearean tale-told by an idiot, full of sound and fury, signifying nothing. For several centuries thus, the field of translation has served as a vital conduit for cross-cultural communication, enabling diverse speakers of languages and members of various cultures to connect and interact meaningfully. Traditionally, human translators across historical epochs have played an essential role in bridging linguistic gaps, fostering understanding and preserving the nuanced intricacies that characterise different cultures and societies.

However, the advent of Artificial Intelligence (AI) has ushered in a transformative era for translation practices, fundamentally altering how translation is conceptualised, executed and integrated into various domains. So crucial is the relationship between translation and AI that the former even features in the conceptualisation of the latter. As Adeyanju (2025) posits, AI is “the theory and development of computer systems able to perform tasks usually requiring human intelligence, such as visual perception, speech recognition, decision-making, and translation between languages” (emphasis mine).

AI has been defined as the ability of a digital computer or computer-controlled robot to perform tasks commonly associated with intelligent beings. According to Adeleke (2024 p. 21), “it is the constellation of technologies that enable machines to act with higher levels of intelligence and emulate human capabilities to sense, comprehend and act.” While Oloyede (2024 p.18) construes AI as the simulation of human intelligence processes by computer systems and these processes include learning (the acquisition of information and rules for using it), reasoning (using rules to reach approximate or definite conclusions), and self-correction, it is to Aliyu (2024 p.50) all about “the development of computer systems capable of exhibiting human-like intelligence, encompassing tasks such as problem-solving, speech recognition and streamlined decision-making processes.” Once a subject of science fiction, AI is now a reality that permeates various facets of our lives and its potential in education, translation and other domains of life is nothing short of amazing (Adedimeji, 2025a).

Without doubt, AI technologies have made significant strides in recent years, prominently influencing many aspects of life, including communication studies and the discipline of translation. Within the realm of translation, Machine Translation (MT) and Natural Language Processing (NLP) have emerged as powerful tools that facilitate the rapid and cost-effective translation of texts and contents across languages. Services like Google Translate and Meta AI exemplify the speed and accessibility of AI-driven translations, making it easier than ever before for individuals and businesses to communicate globally. While these advancements provide considerable benefits in terms of efficiency and speed, they also raise critical questions about the implications for human translators and the future of translation as a profession.

In this paper, the aim is to explore the complex interplay between translation and AI while exploring the challenges or threats confronting it and highlighting options or opportunities that this transformative development presents to translators today. There is no doubt that the interface of AI and translation presents a palpable conundrum that requires serious interrogation. This is because on the one hand, there are genuine concerns regarding the potential obsolescence of human translators as AI models become increasingly sophisticated, raising questions about job security, quality and the erosion of linguistic and cultural richness. On the other hand, the integration of AI technology into translation practices offers new avenues for growth, efficiency, proficiency, standardisation and specialisation.

Through a detailed examination of historical practices, technological advancements and the human dimension of translation, this lecture seeks to identify the threats and opportunities inherent in the use of AI in translation. By also examining the implications for translators, the paper ultimately serves to illuminate the evolving nature of translation in the age of AI, ultimately underscoring the importance of adaptability, collaboration and the continued value of human expertise in a world that is increasingly becoming synonymous with automation.

Historicising the Context of Translation Practices

Translation has a long and chequered history that reflects the complexities of human interaction and cultural exchange. It is a science and art that dates back to thousands of years, with some of the earliest known translations taking place in ancient civilisations that were characterised by multilingualism due to trade and conquest. It is important to appreciate this historical context as it provides the background to the evolution of translation practices leading to the present day, especially in the face of emerging technologies like Artificial Intelligence.

The field of translation is not static; it is a dynamic discipline influenced by linguistic, cultural and technological changes. Using the eras of Industrial Revolution (1IR, 2IR, 3IR, 4IR and 5IR) in which five eras have emerged as a framework, scholars have identified five epochs in the evolution of translation, each of which has specific features, methodologies, technologies and cultural contexts. Understanding these eras provides insights into the ongoing transformation of translation practices, the impact of technology and the challenges faced by translators in today's age of Artificial Intelligence.

The five distinct eras are Translation, Translatio, Translatio, Translatio, and the discussion of which follows:

The Human-centric Era

This is the traditional era when translation was a manual and often subjective process, heavily reliant on the translator's language proficiency and cultural understanding. Translation 1.0 represents the earliest form of translation, where human translators were the sole agents responsible for transferring meaning between languages. The established methodologies were oral forms and word-for-word translation, which adhered closely to the source text. Accuracy was valued but cultural nuances were often overlooked to achieve basic communication. The focus here was primarily on literary works and religious texts with some scholarly works.

One of the earliest examples of this era is the translation of the *Epic of Gilgamesh*, which was rendered from Sumerian into Akkadian in ancient Mesopotamia (Gottman, 2020). Such translations were often performed by scribes and scholars who were well-versed in multiple languages.

The Rise of Technology

With the advent of the printing press as a major technological breakthrough in the 15th century, translation practices began to evolve significantly. The ability to reproduce texts rapidly and distribute them widely transformed the landscape of translation with translated works becoming more increasingly accessible to the people across spectra (Lefevere, 1992). The period marked a shift from oral translation traditions to written forms, with translators like Martin Luther, who translated the Bible into German, playing a critical role in the promotion of indigenous languages. The first translation of the Qur'an was first done into Latin by Robert of Ketton in 1143 while the first English translations were done by George Sale in 1734 and Sir William Muir in 1883.

Translation 2.0 further evolved with the digital age, a turning point for the field, which began in the late 20th century with the introduction of Computer-Assisted Translation (CAT) tools. These tools enabled translators to enhance efficiency through memory-based translations and glossaries while maintaining consistency across large projects. Although still predominantly reliant on human translators who remained essential as they brought cultural insights, stylistic nuances and cultural understanding that machines could not replicate to bear on the task, this era marked the beginning of human-computer collaboration in translation workflows.

The 20th century witnessed significant technological advancements, particularly during and after World War II, when the need for quick and accurate translation of military documents led to the development of early forms of CAT technologies. These initial tools aimed to enhance the productivity and accuracy of human translators by providing them with resources like translation memories and glossaries (Meyer, 2012).

The Internet and Crowdsourcing Revolution

The transition to Translation 3.0 was accelerated by the evolution of the internet in the late 20th century and its proliferation in the early 21st century. This development saw to the rise of Machine Translation (MT) systems, beginning with rule-based approaches and gradually moving toward data-driven methods, particularly the Statistical Machine Translation (SMT), which marked a significant transformation in the field. These advancements marked

a significant watershed in the field, allowing for increasingly accurate and fluent translations. Nevertheless, while these technologies offered faster translation options, they also sparked important debates about the quality and reliability of machine-generated text.

This period also saw the rise of crowdsourcing models, where volunteers contributed to translation projects, often with the help of online platforms and social networks. Notable examples include Wikipedia and various open-source initiatives. The focus shifted from traditional translation agencies to collaborative models that allowed for faster and more democratic translations, though the quality control processes were varied. This era emphasised community, accessibility and the democratisation of knowledge.

AI and Automation

Translation 4.0 is characterised by the rapid advancement of Artificial Intelligence (AI) and Machine Translation (MT). With the launch of systems like Google Translate and advancements in Statistical Machine Translation (SMT) and Neural Machine Translation (NMT), automated systems began to significantly outperform previous translation technologies. AI-enabled translations become context-aware as they manage linguistic nuances more effectively. However, concerns about accuracy, particularly with idioms and cultural contexts, continue to persist. The role of the human translator in Translation 4.0 is becoming transformed into that of a post-editor, who only improves machine-generated translations to ensure they meet quality standards.

The Integration of Emerging Technologies

The most recent and still evolving era, Translation 5.0, signifies a convergence of various emerging technologies with the goal of enhancing translation quality and accessibility. This era leverages AI, Big Data, Natural Language Processing (NLP) and even augmented and virtual reality (AR/VR) platforms. Technologies like voice recognition, real-time translation devices and advanced emotional AI are reshaping how languages are communicated in real-time scenarios, such as international conferences or virtual meetings. This era prioritises not just accuracy but also user experience, cultural context and immediate application in multilingual settings.

Essentially, it is clear from the foregoing that the journey from Translation 1.0 to Translation 5.0 reflects a profound evolution driven by human creativity, technological advancements and shifting societal needs with each era contributing its unique methodologies and practices, thereby shaping the translation landscape that is prevalent today. It is the responsibility of translators who are still operating at Translation 1.0 to know that the world has left them behind and acquire the technological skills that would make them operate at Translation 3.0 and 4.0 while they struggle to catch up with Translation 5.0. What is certain is that understanding these eras invites further exploration into how technology and human expertise can coalesce to make translations achieve their purposes in a globalised world.

The Roles of AI in Translation

The integration of Artificial Intelligence (AI) into the field of translation marks a major transformation in how linguistic conversion is approached and executed. AI technologies, particularly in the areas of Machine Translation (MT) and Natural Language Processing (NLP), have revolutionised both the quality and accessibility of translation services. Some of the dimensions of AI's role in translation are seen in AI Technologies in translation and major AI-driven translation networks.

AI Technologies in Translation

AI encompasses a range of technologies designed to simulate human cognitive functions, such as learning, problem-solving and language comprehension. In translation, key AI methodologies are prominently featured, including Machine Translation (MT) and Natural Language Processing (NLP), the rubrics of which are briefly highlighted further.

Machine Translation (MT)

MT is basically the automatic translation of text from one language to another without human intervention. There are several types of MT, some of which include ***Rule-Based Translation (RBT)*** ***Statistical Machine Translation (SMT)*** and ***Neural Machine Translation (NMT)***. For RBT, its early systems employed linguistic rules and dictionaries to translate text; though accurate in structure, the systems struggled with idiomatic expressions and contextual nuances. While SMT, introduced in the early 2000s, relies on vast amounts of

bilingual data to identify correspondences between words and phrases, effectively using probability to generate translations though it often produced translations that are disjointed and incoherent, NMT, the most recent evolution, utilises artificial neural networks to provide more contextual and fluent translations. The approach of NMT, which has largely surpassed earlier approaches in both accuracy and quality, is to model entire sentences rather than individual phrases, leading to more natural-sounding output (Adedimeji, 2025b).

Natural Language Processing (NLP)

NLP involves the interaction between computers and human language, encompassing tasks such as language understanding, sentiment analysis, and even speech recognition. In translation, NLP techniques are employed to analyse the structural and semantic properties of languages, enabling machines to understand context and subtleties in text. This enhances the machine's ability to produce translations that resonate with native speakers (Manning & Schütze, 1999; Adedimeji, 2025b).

Major AI-Driven Translation Platforms

Several AI-driven translation platforms have emerged as dominant forces in the translation industry, each utilising state-of-the-art AI technologies to deliver services. Some of the most notable are Google Translate, Microsoft Translator and DeepL Translator:

Google Translate: Launched in 2006, Google Translate initially used simple statistical methods but has since transitioned to NMT, significantly improving translation quality. It supports over 100 languages and utilises vast datasets from the web, offering users immediate access to translations across diverse contexts.

Microsoft Translator: This platform employs deep learning techniques to enhance translation accuracy and speed. Microsoft has also integrated its translation services into various applications (e.g., Word, Outlook), thus expanding the utility of AI translation across professional settings.

DeepL Translator: Launched in 2017, DeepL has gained acclaim for its high-quality translations, primarily due to its advanced neural network

principles. It focuses on fewer languages but emphasises quality over quantity, currently covering European languages and producing translations that many users find more satisfactory than those from larger players. New AI technologies like Meta AI and Gemini AI among others also offer translation services. It is as easy as just prompting them to translate a text into a target language and the translation is done with a high level of accuracy.

Threats Posed by AI to Human Translators

With the advances being made in AI technologies, the translation industry faces significant challenges that will reshape its landscape. While there is no doubt that these technologies promise enhanced efficiency and accessibility at all times, they also pose threats to the role of human translators, raising concerns about job displacement, quality assurance and the shifting demand for skills within the profession. Some of the threats to human translators are briefly examined as follows:

The Possibility of Job Displacement Concerns

AI has significantly advanced machine translation (MT) systems, notably through technologies such as Google's Neural Machine Translation (GNMT) and OpenAI's GPT models, especially CHATGPT. One of the most critical concerns about the rise of AI generally and in translation especially is the potential for job displacement with automated machines replacing humans. As organisations increasingly adopt AI-driven translation solutions, the demand for human translators may decline. The efficiency of machine translation systems allows businesses to reduce costs and expedite processes, leading some to question whether the need for human involvement will diminish (Doherty, 2018). This will lead to reduced opportunities for individual translators especially in less specialised fields.

Diminishing Positive Perception

The rapidity and convenience of AI-driven translation can lead to a perception that machine-generated translations suffice for many applications. This diminished perception of the value of quality human translation poses a risk to established professionals who rely on their expertise and nuanced understanding of languages to produce culturally and contextually appropriate translations. As clients gravitate towards cheaper, faster AI solutions, the

market for high-quality human translation may contract, impacting income and job stability. Yet, studies show that human translations typically outperform AI in terms of accuracy, coherence and the ability to convey subtleties inherent in languages (Torres & Marí-García, 2021).

Quality Assurance

Research indicates that while AI translations can be fast and efficient, they often compromise on quality, particularly with complex texts. Relying solely on AI could result in misunderstanding and errors, particularly in sensitive contexts such as legal or medical translation (Adedimeji & Ayuba, 2012).

Skills Obsolescence and Changing Demand

As AI technologies become more prevalent in the translation field, there is a tendency for the obsolescence of certain skills traditionally associated with human translators. This will engender shifts in required skills, where skills that were once essential, such as comprehensive linguistic knowledge and the ability to produce texts with cultural sensitivity, which will shift toward proficiency in using technology to enhance translation processes. It will also result in emerging specialisations, where reliance on AI leads to new specialisations and tougher career progression (Dreyer, 2021).

The threats posed by AI to human translators are real. As the industry evolves, it becomes increasingly essential for human translators to embrace continuous learning and adapt to the changing landscape in order to ensure that they can coexist with AI tools while preserving the unique human elements of translation that machines cannot replicate. Translators have to change and align themselves with the trends or be completely and pushed out of the industry by machines.

Opportunities for Translators in the AI Era

While the rise of AI in translation presents threats or challenges to human translators, it also opens up a spectrum of new opportunities. These opportunities include the enhancement of translation tools, the emergence of new roles and specialisations, and the potential for professional growth through the integration of technology and others briefly examined thus:

Enhanced Tools and Resources for Translators

The integration of AI technologies in translation processes has led to the development of advanced tools that improve the efficiency and effectiveness of human translators. These tools are largely Computer-Assisted Translation (CAT) Tools and Post-Editing Opportunities. While on the one hand, modern CAT tools incorporate AI capabilities, such as machine translation engines and translation memories, with tools like SDL Trados and MemoQ allowing translators to access previously translated segments, ensuring consistency and accuracy throughout the project]. This allows translators to focus more on refining their translations instead of starting from the scratch, thus increasing productivity. On the other hand, post-editing opportunities abound as the use of Machine Translation (MT) requires the need for skilled human translators to perform post-editing tasks on machine-generated translations. The implication of this is that translators have the opportunity of working collaboratively with AI to ensure that the final output meets quality standards while maintaining relevance to the target audience (García, 2020).

New Roles and Specialisations

The AI-driven transformation of the translation sector has given rise to new roles and specialisations that capitalise on technological advancements in specialised translation service (there is an increasing demand for specialised translations in fields such as legal, medical, and technical translation, where translators who can navigate the complexities of specialised terminology and contexts are becoming invaluable), localisation and cultural adaptation (many businesses require not just translation but localisation or domestication and translators who can leverage AI tools in localisation practices, while integrating cultural insights, will provide services that machines cannot replicate) and AI training and supervision (with the evolution of MT technologies, there is a need for translators to help train AI systems through refining algorithms and correcting biases inherent in these tools as it is the translators who understand both linguistics and machine learning that can fulfill this important role, contributing to the development of better AI translation systems (Rizvi, 2020).

Lifelong Learning and Professional Development

With the expanding landscape of AI in translation, translators have the opportunity to engage in lifelong learning and professional development, ensuring they remain relevant in a rapidly changing environment. This is especially so in the areas of technological literacy, where workshops, online courses and certification programmes focused on the latest technologies in translation can empower translators to effectively navigate new tools and methods, networking and collaboration, where the AI era encourages translators to collaborate across disciplines, forming networks with professionals in tech, marketing, and content creation, industry leadership, where engaging with AI technologies allows translators to assume leadership roles within the industry and translators have the opportunity to influence the direction of the industry and contribute to the evolution of translation standards (Venuti, 2019; Gambier, 2018).

Bridging Language Gaps

AI-powered translation tools have the potential to democratise language access, breaking down barriers in communication across diverse languages and dialects. This capability can be particularly beneficial in globalised markets, enabling businesses and governments to reach a broader audience. Translators can position themselves as facilitators in this process, offering essential supplementary services that AI tools alone cannot provide, such as contextual understanding and interpersonal communication facilitation.

Collaboration with AI

The right attitude to AI is to deem it a friend and collaborator, not an enemy or competitor. As such, translators have the opportunity of using it collaboratively and as a tool to enhance their creative processes. Training in AI literacy can empower translators to effectively integrate these technologies into their activities, enhancing their linguistic dexterity while harnessing AI capabilities to generate innovative solutions. This partnership would ultimately redefine the translator's role, allowing for the co-creation of high-quality translations.

In essence, there are two sides to a coin and there are two ways of considering AI from the positive and the negative angles. Given that regardless of what the

conservatives may think, AI is here and it is better to embrace it as a friend and ally so that it would serve its collaborator well. By leveraging enhanced tools, embracing new roles, committing to lifelong learning, and taking on leadership initiatives, translators can not only adapt to the AI era but also thrive within it. As the profession continues to evolve, the synergy between human expertise and AI can only lead to a more dynamic and resilient translation landscape.

The Impact of AI on Translation Practices

The translation industry is being impacted so much by AI and there are examples of the increasingly penetrating integration of AI technologies in translation practices. The development has led to transformations that have made translation much easier and impact-driven. The examples in this regard include Google Translate, DeepL Translator and Unbabel.

Google Translate

Google Translate is one of the most widely used AI-driven translation tools globally. Launched in 2006, it began as a statistical machine translation system but has since become a neural machine translation (NMT) model, significantly improving the quality of its translations. The tool has democratised access to translation, allowing users around the world to engage with content in multiple languages instantaneously. This tool has become particularly valuable for travelers and businesses seeking to communicate across language barriers (Wu et al., 2016).

Google Translate engenders quality improvement as the switch to neural networks has reduced errors and improved fluency in translations though there are still challenges remain. For example, while it performs well with straightforward texts, it struggles with idiomatic expressions or culturally specific content. Therefore, while individuals may rely on Google Translate for basic communication needs, professional sectors still require human translators to ensure accuracy and contextual relevance.

DeepL Translator

DeepL, launched in 2017, uses advanced neural machine translation technology and has gained popularity for its high-quality translations,

particularly in European languages. The company markets itself as a more capable alternative to other translation tools based on user feedback and comparative studies. The platform allows companies and individuals to provide feedback on translations, which it uses to develop and refine its AI models continuously (DeepL, 2020). This feedback loop helps enhance translation quality over time.

In terms of its emerging customisation features, DeepL provides a pro version which allows user-specific customisation of translations. This is particularly beneficial for businesses with specific terminologies and stylistic preferences. The focus on tailored solutions presents a valuable opportunity for translators to offer enhanced services in collaboration with DeepL. Though DeepL focuses on fewer languages, this is a strength and it demonstrates its commitment to quality and it has carved a niche for itself in the translation market. Human translators still play a critical role in ensuring that translations resonate with cultural contexts and professional standards (Chua & Ramasamy, 2021).

Unbabel

Unbabel is a company that combines AI and a community of human translators to provide translation services, particularly for customer support and e-commerce. Its model emphasises the synergy between machine learning and human editing. What Unbabel does is to use machine translation to generate initial drafts, which are then polished by human post-editors. This approach leverages the speed of AI while maintaining human quality control.

By providing a quick turnaround alongside human oversight, Unbabel has empowered businesses to offer multilingual support to global customers while enhancing the overall user experience. The feedback from human translators not only improves the quality of individual translations but also trains the AI models to handle phrases, terminologies, and stylistic nuances better over time, thus creating a robust system that evolves with user needs (Rizvi, 2020).

Ethical Considerations in AI Translation

As AI continues to reshape the translation landscape, ethical considerations regarding its use become increasingly critical. These considerations encompass issues of intellectual property, transparency, bias, cultural

sensitivity, and the implications of machine-generated translations on society. The major ethical challenges associated with AI translation and the importance of addressing these concerns to uphold the integrity of the translation profession are important.

Intellectual Property Issues

The use of AI in translation raises significant concerns regarding intellectual property (IP) rights. As AI models are trained on vast datasets that often include copyrighted material, questions arise about ownership and attribution of translated content. For example, who own translations? When translations are generated by AI systems, determining who holds the rights to the resultant text can be complex. If a machine translates a copyrighted work, is the output considered a derivative work, and who should receive credit or compensation? These issues are central to discussions around the legal ramifications of AI-generated content (Bohannon, 2020).

Also, to what extent can consent and fair use can be determined? The use of proprietary texts to train machine translation systems without the consent of the authors raises ethical concerns about fair use and respect for creators' rights. There is no doubt that ensuring ethical practices in data sourcing and model training is essential to maintain the integrity of the translation process (Cohen, 2021).

Transparency in AI Processes

Transparency regarding how AI translation systems operate is crucial for users to understand and trust the technology. Users should be informed about how machine translation algorithms produce their outputs, as this can help mitigate concerns about mistranslations or biased interpretations. Transparency can foster trust among users who rely on these tools for critical communication, particularly in legal, medical, or diplomatic contexts. Besides, educating users on the limitations and potential biases of AI translation systems is vital. Users should be made aware that while AI can produce rapid translations, it may not always convey the intended nuances or cultural context, especially in sensitive areas like advertising and public relations (Sullins et al., 2021).

Bias and Inaccuracy

AI translation systems can inadvertently perpetuate biases present in the training data or algorithmic design, leading to translation outputs that reinforce stereotypes or discrimination. One area concerns language and cultural bias. Here, machine translation systems are trained on data that may reflect societal biases, leading to outputs that reinforce harmful stereotypes or cultural inaccuracies. For example, studies have shown that gendered language can be biased in translations, often under-representing female subjects (Vanmassenhove et al., 2020). Another area concerns handling sensitive topics, where ethical concerns arise when AI translations deal with such topics as gender identity, race and culture. Machine-generated translations may lack the subtleties needed to handle these subjects appropriately, leading to potential harm or misinterpretation.

Preservation of Languages and Cultures

The use of AI translation technologies can impact the preservation of linguistic and cultural diversity, raising ethical considerations about the role of human translators in protecting these elements. A major issue here concerns the endangerment of minority languages, where AI technologies may enhance the visibility of widely spoken languages at the expense of minority and less widely spoken languages. Therefore, when machine translation resources are concentrated on major languages, there is a danger that smaller languages could become further marginalised. Another issue relates to cultural sensitivity as translators not only convey words but also cultural contexts. In effect, AI translation lacks the nuanced understanding of cultural subtleties, which can lead to mistranslations that are culturally insensitive or contextually erroneous. The role of human translators in preserving cultural fidelity is vital, as they can ensure that translations respect and reflect cultural norms and practices (Pym, 2019).

The ethical implications of AI in translation are multifaceted and they require careful consideration as translations tools evolve. Ensuring ethical practices is essential not only for maintaining the integrity of the translation profession but also for fostering trust among users, safeguarding cultural diversity and promoting equitable communication.

Future Perspectives: The Evolution of Translation in the Age of AI

If the future of translation is projected, what is clear is that the interplay between AI technologies and human translators will shape it in remarkable ways (Oloyede, 2024). Key future perspectives are the evolving roles of translators, the integration of AI in translation education and collaborative human-AI models which have implications for translation quality and efficiency.

The Evolving Role of Human Translators

The role of human translators will continue to evolve in response to the increasing capabilities of AI-driven translation technologies. Rather than becoming obsolete, translators are expected to adapt and embrace new responsibilities that leverage their unique strengths.

Qualitative Assurance and Cultural Context: While AI translation systems offer speed and efficiency, they often lack the ability to capture cultural nuances and emotional subtleties inherent in language. Human translators will play a crucial role in ensuring that translations resonate with the target audience and maintain cultural context, particularly in sensitive areas such as marketing, diplomacy, and literature. As AI continues to handle more routine tasks, human translators may focus on high-value translation projects where contextual understanding is paramount (Hewson, 2020).

Post-Editing as a Standard Practice: The practice of post-editing machine-generated translations is expected to become more entrenched as AI translation systems improve. This will create a demand for skilled translators who can efficiently edit and refine AI outputs, ensuring that the final product meets professional standards (Doherty, 2018). Translators may evolve into roles that emphasise the combination of technology and human insight, serving as critical gatekeepers of translation quality.

Diverse Specialisations: With AI handling general translation tasks, translators may increasingly pursue specialisations in niche fields that require expert knowledge, such as legal, medical, or technical translation. The ability to effectively navigate complex terminologies and contexts will be invaluable, and those who can combine subject-matter expertise with technological skills will find themselves in high demand (Schäffner, 2020).

Integration of AI in Translation Education

As AI technologies become integral to the translation industry, educational institutions will need to adapt their curricula to prepare future translators for a changing landscape especially in such areas as curriculum development, interdisciplinary approaches and lifelong learning.

Curriculum Development: Academic programmes in translation studies will evolve to incorporate AI training, equipping students with the skills needed to work in tech-enhanced environments. Future translators will benefit from courses that teach not only traditional translation skills but also the effective use of CAT tools, machine translation, and post-editing techniques (Freitag & Krawutschke, 2021).

Interdisciplinary Approaches: The future of translation education will also adopt interdisciplinary approaches, merging translation studies with fields such as computer science, linguistics and cultural studies. This will provide students with a comprehensive understanding of both the technological and cultural aspects of translation (O'Brien, 2019).

Lifelong Learning Opportunities: Given the rapid pace of technological advancements, lifelong learning opportunities for established translators will become increasingly important. Continuous professional development programmes, workshops, and online courses will help translators stay up-to-date with the latest tools and practices, allowing them to adapt and thrive in a world that is constantly evolving (Doherty, 2018).

Collaborative Human-AI Models

The future of translation will be marked by collaborative models that leverage the strengths of both human translators and AI systems, creating synergies that enhance overall translation quality and efficiency especially in the areas of hybrid workflows, real-time translation and assistance as well as ethics and accountability.

Hybrid Workflows: As AI technologies advance, hybrid workflows that combine machine translation with human oversight will become standard practice. In these models, AI can handle initial drafts and basic translations,

while human translators refine and localise the output, with the collaboration optimising time and resources while maximising quality (García, 2020).

Real-Time Translation and Assistance: The development of real-time translation tools, powered by AI, could revolutionise how people communicate across languages. Technologies such as on-demand interpreting or live captioning could facilitate smoother interactions in multilingual settings (Feng et al., 2018). Human interpreters will remain key in ensuring that linguistic subtleties, humour, and complex content are accurately conveyed, enhancing the AI-generated real-time output.

Ethics and Accountability: As collaborative models evolve, ethical considerations will take centre stage as previously highlighted. These are areas that will continue to shape the future of translation in the age of AI.

Recommendations

Based on the discussions so far on the threats and opportunities that underpin translation and translators in the age of AI, we can recommend as follows to translators, institutions, governments and stakeholders:

Embrace collaboration: While AI can handle repetitive and simple translations efficiently, human translators provide contextual understanding, cultural nuance, and creativity that machines cannot replicate. Therefore, those who do not fall in line with AI are liable to fall by the wayside.

Invest in Training: Institutions and institutes should develop training programmes to help translators become proficient in using AI tools. Understanding how to effectively incorporate AI into their work will certainly enhance translators' productivity and accuracy.

Prioritise Quality Control: Institutions and organisations should implement robust quality control processes and programmes where human translators review and edit AI-generated translations. This ensures accuracy and maintains the linguistic and cultural integrity of the translated content.

Promote cross-disciplinary research endeavours: Translators should support research initiatives that bridge translation studies and AI development. Such collaborations can lead to more sophisticated AI translation models that reflect cultural sensitivities and contextual richness.

Address ethical considerations: Governments and institutions should address ethical concerns related to AI in translation, such as issues of data privacy, bias in AI models, and the potential displacement of human translators. Developing and constantly reviewing ethical guidelines for AI deployment in translation is important in navigating the undulating terrain of the AI era.

Expand Language Accessibility: The opportunities provided by AI should be used to advance language development and make lesser-known languages more accessible. AI can help in developing resources for languages with limited translation tools, fostering greater global communication.

Highlight Unique Human Skills: Stakeholders should emphasise the importance of human skills that AI cannot replicate, such as emotional intelligence, understanding of humour and creativity. These should be positioned as complementary to AI tools in translation work.

Monitor Technological Advancements: Translators should keep abreast of trends in technology as they emerge and stay informed about rapid advancements in AI. Translators and industry stakeholders should be willing to adopt new tools and adapt themselves to new approaches that improve translation processes and outcomes.

Support Inclusive AI Development: Translators should initiate and support advocacy for AI models that are trained on diverse datasets representing varied dialects, sociolects and cultural contexts. This will help create more inclusive and representative translation tools.

Foster a Community of Practice: Create platforms for translators to share experiences, insights and best practices on using AI in their work. Bodies such as the Nigerian Institute of Translators and Interpreters (NITI) and Association for Translation Studies in Africa (ATSA) as well as the Association for Translation Studies in Nigeria (ATSN) should work more together to advance the discipline and serve as support networks for practitioners (Bariki, 2022).

It is our belief that implementing these recommendations will go a long way in deepening and advancing AI in translation studies and practice.

Conclusion

With the reality of Artificial Intelligence in today's world, there are concerns about what the future holds for many disciplines and professions with translation being a case in point. However, during her lecture at the African School of Economics, Abuja, in February 2025, Economist Susan HayesCulleton noted, "AI will not take your job. The one who will take your job is the one who has learned to use AI to increase productivity" (HayesCulleton, 2025). What is evident is that the interface between human expertise and machine efficiency is reshaping the landscape of communication. Translators, once gatekeepers of language, now find themselves at a crossroads, facing both challenges and opportunities posed by AI-powered tools. Yet, AI is a partner in progress and collaborator, not a rival.

As the world is poised for this remarkable era of collaboration and integration in Translation 5.0, it is crucial to appreciate that translation is an act of linguistic expression but its essence transcends mere words. It is an art form rooted in culture, emotion and context. It is for this reason that translators that lack cultural, emotional and contextual affinity with materials they translate are not fully trusted. As the role of the translators is evolving, it is important they appreciate that they are now more than interpreters of text, they are cultural ambassadors, tasked with bridging gaps in understanding across languages and societies as highlighted at the the 10th iteration of the Sheikh Hamad Award for Translation and International Understanding held in Doha, Qatar, in December 2024.

The age of AI compels translators not only to adapt to new tools but also to assert their invaluable role in ensuring that communication remains nuanced, empathetic and culturally relevant. The future of translation is not a battle of man versus machine; it is an exciting new chapter where both will coexist, enhancing the way we communicate in the increasingly globalised world.

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