



Key Challenges and Professional Tasks in the Field of Machine Translation Post-Editing

Denis Pshenichnikov

Translator, International Monetary Fund, Washington DC, USA.

Abstract

The article is devoted to the study of the main challenges and professional tasks in the field of machine translation post-editing. The relevance of this work lies in the fact that post-editing has become a dominant mode of production in the translation industry, requiring new professional competencies. The novelty is expressed in a comprehensive analysis of tasks faced by post-editors, from linguistic corrections to technical and analytical responsibilities in AI-driven workflows. Within the research, the evolution of the translator's role is described, while difficulties such as cognitive load, adequacy errors, and stylistic inconsistencies are examined in detail. Special attention is given to how professional standards and training programs are adapting to the rise of MTPE. The study sets the objective of identifying the skill set necessary for effective post-editing and outlining the implications for translator education and industry practices. To achieve this goal, comparative analysis, content examination, and synthesis of scholarly and professional sources were applied. In conclusion, the article describes how MTPE is reshaping the profession and why human expertise remains indispensable. The study will be useful for researchers, practitioners, educators, and policymakers seeking to understand the transformation of translation work, its challenges, and opportunities in the digital age.

Keywords: Machine Translation, Post-Editing, Translation Quality, Neural MT, Professional Tasks.

INTRODUCTION

In recent years, machine translation (MT) technology – especially neural MT – has improved dramatically, leading to its widespread integration into professional translation workflows. Today, instead of replacing human translators, MT serves as a tool that translators routinely post-edit to meet quality standards. Post-editing of machine translation (often abbreviated MTPE) refers to the process where human linguists review and correct raw MT output to produce a polished translation. This practice has evolved from a marginal step in early MT systems into a mainstream professional service with its own international standard (ISO 18587:2017). The role of the translator has consequently shifted: translators are now frequently expected to act as skilled editors of machine-generated text, rather than translating everything from scratch. This shift raises important questions about the new challenges translators face and the tasks they must perform in the MTPE era.

The aim of this article is to examine the main challenges and professional tasks associated with machine translation post-editing. Objectives:

- 1) To identify the key transformations in the translator's role caused by the widespread adoption of machine translation technologies.
- 2) To examine the typical tasks performed by professional post-editors and the practical difficulties they face in ensuring translation quality.

- 3) To assess the skill set and competencies required for effective post-editing, highlighting the implications for translator training and industry standards.

METHODS AND MATERIALS

For the preparation of this article, a wide range of scholarly and professional works was analyzed in order to provide a balanced and comprehensive perspective. L.N. Vieira [5] explored the professional practice of post-editing and its integration into translation workflows. V. Alonso and L. Bywood [7] introduced the concept of post-editing in practice and networks. Y. Yang, R. Liu, and X. Qian [8] studied the performance and perception of novice translators when engaging in post-editing of Chinese-English news texts. H. Béchara, C. Orăsan, C. Parra Escartín, M. Zampieri, and W. Lowe [1] examined the role of quality estimation in MT post-editing workflows. A. Guerberoof Arenas and A. Toral [3] analyzed the impact of MTPE on creativity and reading experience. S. Hickey [4] presented industry-level data on MT service usage and practices. Q. Shi [6] investigated the development of post-editing skills in translation education. C. R. Sánchez-Gijón and O. Torres-Hostench [2] provided an academic view of post-editing challenges.

To address the research objectives, a comparative method, document analysis, and synthesis of empirical findings were applied. The materials allowed the identification of key professional tasks, error types, and skill requirements in MTPE. In summary, the methodology combined theoretical

perspectives, empirical studies, and industry reports to form a multi-dimensional analysis. The individual contribution of each author referenced above ensured that linguistic, technical, cognitive, and educational aspects of post-editing were adequately covered, creating a robust foundation for the conclusions of this study.

RESULTS

Machine translation post-editing has become nearly ubiquitous in the language services industry over the past five years. Its popularity stems from substantial advances in MT quality and efficiency. Modern neural MT systems can produce reasonably fluent translations, but they are “far from being a perfect alternative to professional translators,” often containing errors or inaccuracies that require human intervention [8]. Post-editing has therefore emerged as a crucial step to “improve the quality of machine translation output to an acceptable level”, making the raw MT usable for its intended purpose [8]. By the early 2020s, post-editing is offered by the majority of translation service providers, and reviewing MT output for quality has become a “common practice... to ensure quality and adherence to tone and style” in delivered translations [4]. Indeed, industry analyses show that MTPE is now firmly established as a dominant mode of production for many language service providers and global enterprises [4]. In other words, using MT with human post-editors has become the new normal for handling large volumes of content under tight deadlines.

This rise in MTPE is closely linked to the improvements in MT engines. The adoption of neural networks has

greatly enhanced fluency and grammar, making machine outputs more natural. However, even high-quality MT systems frequently make mistakes that a human would not, such as subtle mistranslations, omissions, or cultural misappropriateness. These shortcomings mean that human expertise is still required to achieve publishable translation quality. Notably, MT errors can range from surface issues (spelling, punctuation, word order) to deeper accuracy problems (incorrect word sense, meaning shifts, or untranslated segments). Some of the most troublesome errors in state-of-the-art MT are not blatant grammatical mistakes but rather adequacy errors – the translation may appear fluent but conveys a wrong or incomplete meaning. Identifying and fixing such errors is a critical task for post-editors, underscoring why professional linguistic judgment remains essential.

The translator’s role in an MTPE workflow is often described as more similar to an editor or reviser than a traditional translator. In practice, post-editing involves a series of specific tasks aimed at ensuring the final text meets all the quality criteria of a human translation. These tasks include correcting grammatical errors, improving awkward or literal phrasing, adjusting sentence structure, fixing terminology or word choice mistakes, and enforcing consistency in tone and style according to client guidelines [1]. The distinction between light and full post-editing has become a cornerstone of industry practice, shaping how professionals allocate effort depending on the text type and quality requirements. This distinction is summarized below (Table 1).

Table 1. Classification of Post-Editing Levels in Machine Translation (compiled by the author based on [3, 5, 6])

Level of Post-Editing	Process Characteristics	Typical Outcome	Areas of Application
Light (minimal)	Correction of only critical errors, no stylistic polishing	Understandable text with noticeable “machine” style	Internal documents, low-priority texts
Full	Correction of all errors, including grammar, style, and lexical choices	Output approaching professional human translation	Publications, marketing and official content

Post-editors also must ensure the translation is culturally appropriate and contextually accurate – for example, checking that idioms or colloquial expressions are translated in a way that makes sense to the target audience. In essence, the post-editor performs all the quality assurance steps a translator would for a human-produced draft but starting from a machine-produced draft. According to professional guidelines, the extent of required editing can vary depending on the purpose of the text. Light post-editing (also called minimal editing) focuses only on critical errors, aiming to make the MT output “understandable and correct without polishing style” when speed is a priority. In contrast, full post-editing involves “correcting all errors to bring the translation closer to the quality of human translation”, including finer stylistic improvements for publishable texts [6,8]. In industry terms, light post-editing might be applied to low-stakes content or internal documents, whereas full post-editing is required for customer-facing or high-importance texts.

Crucially, post-editors are expected to deliver high quality efficiently. Studies have shown that, under the right conditions, post-editing can significantly increase translator productivity while maintaining quality. For instance, leveraging MT typically allows translators to translate more words per hour than translating from scratch, since they are often editing a decent draft rather than generating every sentence themselves. One foundational report noted that “post-editing can improve translating productivity as well as target-text quality relative to translation carried out from scratch” [5]. This productivity gain has been observed in various experiments and real-world projects, especially when the MT output is of reasonable quality to begin with. In professional settings, it is common for organizations to measure the time saved due to MTPE and to adjust pricing or turnaround expectations accordingly. That said, the productivity boost is not universal: if MT output is poor, post-

editors may spend as long as (or longer than) translating manually, which nullifies the benefits. A key professional task is therefore evaluating the raw MT – deciding quickly how much of it is usable and which segments might be faster

to retranslate from scratch. To understand the range of difficulties encountered in MTPE, it is useful to group error types according to their impact on the editor's effort and workflow. This categorization is shown below (Table 2).

Table 2. Types of Machine Translation Errors and Their Impact on Post-Editing (compiled by the author based on [1, 3, 6])

Error Type	Typical Manifestation	Detection Difficulty	Impact on Post-Editing
Surface-level	Spelling, punctuation, word order	Low	Quick corrections
Lexico-semantic	Wrong sense, false friends	Medium	Requires source-text verification
Stylistic	Literal phrasing, unnatural expressions	Medium	Reduces text readability
Cultural	Inadequate idioms, incorrect cultural references	High	Demands deep adaptation
Adequacy-related	Fluent sentences with distorted meaning	Very high	Most critical errors

Post-editors constantly make such judgments to balance quality and efficiency. Alongside its benefits, MTPE brings a set of challenges that translators must navigate. One major challenge is ensuring accuracy and completeness of the translation. Because neural MT outputs are often smoothly fluent, errors in meaning can be harder to detect. Professional post-editors must read source and target texts carefully to catch nuanced mistranslations or missing content. Research has highlighted that certain MT error types (e.g. omitted nuances or subtle semantic errors) have a high impact on post-editing effort, as they require the editor to reconstruct the correct meaning that the MT missed [8]. Missing a serious accuracy error is perilous – it can result in a mistranslated fact or phrase remaining in the final product. Thus, maintaining sharp attention to detail is a core challenge: the post-editor must not become over-reliant on the machine's apparent fluency. This need for vigilance can increase the cognitive load on translators. Several studies in translation process research indicate that post-editing, while faster, can be cognitively demanding because the translator is simultaneously reading, evaluating, and editing text, often in a stop-and-go rhythm distinct from conventional translation [6,7]. The mental effort of constantly comparing source and MT output, and deciding on corrections, can lead to fatigue. Effective post-editors develop strategies to manage this load, such as taking short breaks or using quality estimation tools to flag likely errors.

Another challenge relates to maintaining consistency and style. MT systems may produce inconsistencies – for example, using different translations for the same term in different sentences – or a mix of styles if trained on heterogeneous data. The post-editor's task is to impose uniform terminology and style appropriate to the text's genre or client specifications. For instance, if an MT engine oscillates between formal and informal tone, the editor must choose one and edit the text accordingly to ensure cohesion. This requires the translator to have strong editing skills and an awareness of stylistic conventions. As one recent analysis put it, post-editors must ensure the text has cohesion and coherence, not just sentence-level correctness [1]. Achieving a natural, human-like style in the final output can be difficult if the MT output is overly literal or bland. In creative domains such as literary or

marketing translation, this becomes especially challenging – the post-editor might need to significantly rewrite parts of the machine output to restore the tone, emotion or creative flair of the original. Notably, a study on literary translation found that purely machine-translated text scored lowest on creative measures, and even post-edited text was judged slightly less creative and engaging than human translation, highlighting the artistic gap that can remain when relying on MT [3]. This suggests that for texts requiring a high degree of creativity, translators may choose to perform a “full” post-edit or even revert to human translation for the best result, rather than doing minimal edits.

The human factor and acceptance are another important challenge in MTPE. The introduction of MT into translators' workflows has at times been met with skepticism or resistance from practitioners. Experienced translators who honed their craft on manual translation can perceive post-editing as a less satisfying or even de-skilling task. Early surveys showed that attitudes toward post-editing were often negative, with professionals citing frustration at correcting machine errors and concern that widespread MT use could drive down translation quality or translators' remuneration [7]. Some of this negativity was due to earlier MT systems producing very poor output, which made post-editing tedious. As MT quality improves, surveys suggest translators are gradually more open to using MT, but acceptance still varies widely. A challenge for the profession is redefining the translator's identity and motivation in the era of AI-assisted translation. Instead of viewing the MT as a competitor, translators are learning to see it as a tool – albeit one that requires their expertise to be useful. There is also an adjustment in terms of quality perception: translators must calibrate what level of imperfection in the MT is acceptable after editing, especially under tight deadlines, and communicate with clients about realistic expectations for MTPE outputs versus purely human translation.

The shift toward MTPE has prompted a reevaluation of the skill set that professional translators need. Traditional translation expertise – superb bilingual proficiency, subject matter knowledge, writing skills – is still foundational. However, additional competencies are now equally important.

Post-editors must have keen editing and proofreading skills to efficiently correct MT output. They need to be able to spot errors quickly and decide on the minimal effective fix, especially in light post-editing scenarios. Technical skills are also increasingly in demand. Translators today often work in computer-assisted translation (CAT) environments that feature MT suggestions, translation memory matches, and terminology databases together. Being proficient with such tools and knowing how to adjust settings (for example, controlling an MT engine's formality level if possible, or feeding glossaries into an MT system) can significantly improve post-editing efficiency. Moreover, translators benefit from a basic understanding of how MT systems operate – sometimes referred to as MT literacy. This includes knowing common weaknesses of MT (for instance, certain language pairs might mistranslate gender or tense systematically) so that they can pay special attention to those issues.

Given the rise of MTPE, translator training programs have begun to incorporate post-editing instruction. There is recognition that “cultivating post-editing skills has become a crucial component of translation education” [6]. Such training often covers error typologies, post-editing guidelines, and simulated workflows where students practice revising machine output under time constraints. Research indicates that certain cognitive abilities like critical thinking and self-monitoring play a role in post-editing performance [8]. Translators must constantly decide whether to accept an MT suggestion as-is, modify it, or retranslate it entirely. This decision-making benefits from a critical mindset – questioning the MT output rather than trusting it blindly – and from strong self-editing habits. Additionally, professionals now may take on ancillary tasks around MTPE. Some experienced linguists work as MT evaluators or engine trainers, assessing the quality of different MT engines for specific projects or

providing feedback to improve engine output. Others may develop post-editing guidelines for their organizations, defining the do's and don'ts (for example, instructing post-editors not to overly polish the text beyond the client's quality requirement in light PE). All these tasks require a combination of linguistic skill and strategic thinking about the translation process.

Finally, the landscape of MTPE is continuously evolving with technology. One contemporary development is the advent of AI-assisted post-editing tools. For example, researchers and companies are exploring automatic post-editing (APE) tools that can fix certain MT errors automatically, as well as quality estimation (QE) systems that predict which segments of an MT translation are likely incorrect [2]. The post-editor of the near future might work in concert with such tools – overseeing an AI that pre-corrects trivial errors and flags dubious passages for human review. Early studies with large language models (like GPT-based systems) suggest they can assist in post-editing by offering alternative phrasings or even performing a first-pass edit, but they still fall short of human accuracy on complex texts [1]. This indicates that rather than replacing human post-editors, advanced AI will serve as another assistive tool, handling routine corrections and allowing human experts to focus on the challenging segments. Nonetheless, integrating these technologies smoothly into workflows is a challenge in itself, and translators will need to adapt once more, learning to supervise and fine-tune AI suggestions. The overarching trend is that the professional tasks in MT post-editing are becoming more diverse – ranging from pure linguistic editing to analytic and technical roles – as the field matures. The professional profile of post-editors is expanding as AI tools reshape translation workflows. Emerging responsibilities extend far beyond traditional linguistic correction, as shown below (Table 3).

Table 3. Emerging Professional Tasks for Post-Editors in the Age of AI (compiled by the author based on [5, 6, 8])

Task Category	Nature of Activity	Objective	Example Tools
Linguistic	Editing text, checking style and terminology	Achieve publishable quality	CAT systems, glossaries
Analytical	Assessing MT quality, identifying systematic errors	Optimize workflow efficiency	Quality Estimation, APE tools
Technical	Configuring engines, integrating terminology and style rules	Enhance MT relevance	MT engines, APIs
Educational	Designing guidelines, training novice editors	Establish professional standards	ISO 18587, in-house protocols

This classification highlights how post-editors are evolving into multi-faceted professionals, combining linguistic expertise with analytical, technical, and educational responsibilities, thereby reinforcing their central role in AI-driven translation workflows.

DISCUSSION

The above results paint a comprehensive picture of how machine translation post-editing has reshaped the translation profession. In the discussion that follows we delve into the implications of these findings. One clear theme

is the transformation of the translator's role. The translator is no longer simply a language converter but now also an evaluator and editor of machine output. This paradigm shift has both positive and negative implications. On the one hand, post-editing can be seen as empowering translators to handle much larger volumes of text in less time, potentially increasing their productivity and throughput. The data indicating productivity gains and cost savings in MTPE workflows suggest that, when managed well, translators can translate more content without a proportional increase in effort. This can be especially beneficial for projects with

massive scale (think of e-commerce product descriptions or user-generated content) where fully human translation would be prohibitively slow or expensive. In such contexts, the translator's expertise is efficiently leveraged to polish machine output, enabling information to be made available across languages at an unprecedented scale.

On the other hand, the quality and satisfaction aspects of the job are nuanced. The challenge of maintaining high accuracy highlights that the translator's responsibility for quality is as great as ever, if not greater. There is a risk that the fluent veneer of neural MT might lure translators into a false sense of security, allowing errors to slip through. Professional pride and ethical standards compel post-editors to deliver translations that are not just fast, but also correct and idiomatic. The evidence that human-translated text can still outperform post-edited text in certain qualitative dimensions (like creativity or cultural nuance) suggests that translators must sometimes compensate for what MT lacks. In creative translation tasks, for example, a post-editor might end up rewriting large portions of the text, essentially doing a human translation while using the MT output only as a rough draft. This raises an interesting question: at what point does heavy post-editing turn into traditional translation? The boundaries can blur, and translators need to exercise judgment about the most efficient approach for a given text. If an MT output is so imperfect that virtually every sentence needs retranslation, a professional may decide to translate from scratch instead – a decision that hinges on their assessment of MT quality versus the desired final quality.

The discussion must also acknowledge the human and economic factors. Translator attitudes towards MTPE are gradually shifting from resistance to cautious acceptance, but the transition has been bumpy. The early negativity noted in prior studies cannot be dismissed as mere technophobia; it often reflected real issues such as low MT quality and concerns about remuneration (since some companies initially tried to pay less for post-editing under the assumption it was less work). As the field stabilizes, there is a growing understanding that post-editing is a skilled task deserving of appropriate compensation and recognition. The ISO standard and professional guidelines reinforce this by requiring qualified translators for post-editing – a strong statement that post-editing is not a trivial mechanical task, but a high-level linguistic service. From a management perspective, companies and clients are learning that effective MTPE requires investing in translator training and tool support. If translators are well-trained in post-editing techniques and have access to good MT engines and supportive tools (for example, an interface that easily shows source-target alignments, or QA checks for common MT errors), their performance and satisfaction improve. Indeed, improving the user experience of post-editing has been a focus of research and development, as seen in projects that introduce features like interactive MT (where the MT engine updates its suggestions in real time as the translator types). These innovations aim to make the process feel more like

a partnership with the machine, giving the translator more control and reducing frustration.

Another important angle is the broader impact on the profession and future outlook. As MTPE becomes standard, translators are diversifying their roles. In addition to pure post-editing, experienced linguists may become involved in evaluating MT systems, developing domain-specific MT engines, or managing workflows that combine human and machine efforts. This trend is essentially moving translators into a more consultative and quality management role. Rather than directly translating every sentence, they might oversee a translation pipeline where MT does the first pass, junior linguists or the translators themselves do post-editing, and then perhaps senior translators do a final review. Such stratification of tasks could improve efficiency but also requires careful quality control mechanisms. It also means translators must collaborate with engineers or computational linguists more than before, bringing translation knowledge into the development of MT systems (for example, by providing feedback on error patterns or supplying parallel texts for training). In scholarly discussions, this synergy is sometimes framed as translators becoming "MT literate" and MT developers becoming more aware of translation subtleties.

Crucially, the profession is responding by updating training curricula and standards. The finding that post-editing skill development is now integral to translator education is significant. New translators are being taught not only how to produce high-quality translations, but also how to work effectively with MT outputs. They practice scenarios of both light and full post-editing, learn to use post-editing tools, and even study ergonomics and cognitive techniques to handle the intensive focus that post-editing demands. Additionally, soft skills like critical thinking, problem-solving, and adaptability are emphasized, aligning with research suggesting their importance in post-editing performance. In essence, the professional translator's skill set is broadening to encompass a spectrum from pure translation to various degrees of editing and technology use.

Looking ahead, one can anticipate both challenges and opportunities. On the challenge side, an over-reliance on MT could potentially erode certain translation skills if translators are not careful – for example, constantly editing machine output might reduce a translator's practice in formulating translations from scratch, which could impact creativity or phraseological richness in the long run. It will be important for translators to maintain their core translation abilities, perhaps by working on projects that require original translation alongside MTPE projects. Another challenge is the risk of post-editing fatigue and burnout; some translators report that post-editing for many hours is monotonous or mentally taxing in a different way than creative translation. Diversifying task types and using tools to automate the tedious aspects (like automatic correction of repetitive errors) can help mitigate this.

On the opportunity side, MTPE allows translators to take on projects that would be impossible to tackle manually due to scale. It may also open new market niches: for instance, post-editing of user-generated or real-time content (such as social media or customer support chats) is a burgeoning area, where speed is essential and imperfect but rapid translation is acceptable. Translators who are adept at very fast turnarounds using MTPE can find new professional avenues here. Moreover, as machine translation penetrates domains like medical or legal settings, the need for high-quality post-editing in those sensitive areas is growing. This elevates the importance of domain-specialist translators who can post-edit with subject matter expertise, ensuring that critical nuances (e.g. legal terminology or medical instructions) are correctly handled by the machine output. The social impact of MT in such fields has been a topic of recent research, underlining that human oversight is essential to maintain accuracy and trust.

In summary, the discussion underlines that MT post-editing is not a simple binary of “machine vs human” but rather a complex collaborative process. The main professional tasks revolve around error correction, quality assurance, and adaptation of machine output, while the main challenges include maintaining fidelity and quality, coping with the cognitive demands, and redefining professional values in light of AI assistance. The translation profession is actively adapting, developing standards and best practices to address these challenges. As MT technology continues to evolve (with improvements in context handling, style adaptation, etc.), the nature of post-editing will also evolve – ideally towards higher-level editing where machines handle the grunt work and humans focus on fine-tuning and creative decisions. The findings and analysis presented here contribute to understanding this evolution and preparing translators and organizations to navigate the changing landscape of machine-assisted translation.

CONCLUSION

The adoption of AI and neural machine translation has undoubtedly transformed the work of language professionals. This article examined the main challenges and professional tasks in the field of machine translation post-editing, drawing on recent studies and industry developments. Several key conclusions can be drawn. First, post-editing has become a mainstream practice from 2018 through 2023, fundamentally changing the translator’s role from sole creator to a hybrid author and editor of machine outputs. The translator’s work now heavily involves reviewing machine translations, correcting errors, and polishing text to a human-quality standard. This shift has enabled greater productivity and scalability in translation workflows, confirming that when MT output is of sufficient quality, a skilled post-editor can produce final translations faster than by translating from scratch. At the same time, the necessity of post-editing affirms that human expertise remains indispensable: even the most advanced MT systems require a human touch

to ensure accuracy, nuance, and appropriateness of the translated content.

Second, the main challenges identified in MTPE revolve around quality control, cognitive load, and maintaining professional standards. Post-editors must vigilantly catch and fix a wide spectrum of errors, including subtle mistranslations that machines still commonly make. They face the mental challenge of concentrating on dense text revision, often under time pressure, which can be taxing over long periods. The role also demands a strong sense of responsibility, as post-editors are the last line of defense against errors – the success of an MT-enhanced workflow hinges on their ability to ensure the final output is flawless. Our review highlighted that achieving stylistic naturalness and consistency is a significant part of this challenge, especially when MT output may be uneven or “translationese” in style. In creative and highly specialized domains, this can require substantial edits or even retranslation, blurring the line between post-editing and translating. Moreover, translators have had to adjust their mindset to embrace working with MT. While early skepticism is fading, ongoing efforts are needed to align compensation, training, and tool support with the realities of post-editing so that it is sustainable and satisfying as a profession. Third, this study underlines the new competencies and tasks that have gained prominence in the MTPE era. In addition to linguistic prowess, translators now need excellent editing skills, technical aptitude with CAT and MT systems, and even analytical abilities to evaluate MT quality. The profession recognizes these needs: standards like ISO 18587 emphasize formal training for post-editors, and translator education is incorporating MTPE training modules. Many translators are expanding their roles to include tasks such as engine evaluation, development of post-editing guidelines, and the use of auxiliary AI tools (like automatic quality estimators). This points to a future where the translator’s role is more multifaceted – not diminished by MT, but rather augmented. Translators effectively become curators of translation quality in a man-machine partnership.

In conclusion, the rise of machine translation post-editing represents a significant evolution in the translation field. It offers practical benefits in meeting the growing global demand for fast, large-scale translation, but it also raises important challenges in ensuring quality and in safeguarding the professional stature of human translators. The findings of this article highlight that successful integration of MTPE relies on human expertise to guide and correct AI: translators are adapting by acquiring new skills and strategies, and the industry is gradually putting frameworks in place (standards, best practices) to support this collaboration. From a scientific perspective, understanding the cognitive and linguistic aspects of post-editing enriches our knowledge of human-AI interaction in language tasks. From a practical standpoint, the insights here provide guidance to translators and organizations on what competencies to develop and what pitfalls to avoid when implementing MT post-editing. As we

project into the future, it is likely that machine translation will continue to improve, yet the *translator-editor* will remain a crucial agent to ensure that communication across languages is not only fast but also accurate, meaningful, and culturally appropriate. The ongoing challenge and opportunity for professionals is to continually redefine their role in tandem with technology – to let the machines do the heavy lifting of literal translation, while humans concentrate on the higher-level work of crafting excellent translations that truly resonate with readers in the target language. This synergy, if managed well, promises a future in which translators and AI together can achieve what neither could accomplish alone.

The views expressed in this paper are those of the author and do not necessarily represent the views of the IMF, its Executive Board, or IMF management.

REFERENCES

1. Béchara, H., Orăsan, C., Parra Escartín, C., Zampieri, M., & Lowe, W. (2021). The role of machine translation quality estimation in the post-editing workflow. *Informatics*, 8(3), 61. <https://doi.org/10.3390/informatics8030061>
2. C. R., Sánchez-Gijón, P., & Torres-Hostench, O. (2017). Chapter 9: The challenge of machine translation post-editing: An academic perspective. In *Trends in E-Tools and Resources for Translators and Interpreters*. Brill. https://doi.org/10.1163/9789004351790_011
3. Guerberof Arenas, A., & Toral, A. (2021). The impact of post-editing and machine translation on creativity and reading experience. *arXiv*. <https://arxiv.org/abs/2101.06125>
4. Hickey, S. (2023). *Machine translation: Types of MT services offered and average usage by LSPs*. Nimdzi. <https://www.nimdzi.com/machine-translation-types-of-mt-services-offered-and-average-usage-by-lsps>
5. Nunes Vieira, L. (2019). Post-editing of machine translation. In M. O'Hagan (Ed.), *The Routledge Handbook of Translation and Technology* (1st ed., pp. 319–335). Routledge. <https://doi.org/10.4324/9781315311258>
6. Shi, Q. (2023). Development of post-editing skills in machine translation. *Region - Educational Research and Reviews*, 5(3), 125. <https://doi.org/10.32629/rerr.v5i3.1325>
7. Vieira, L. N., Alonso, E., & Bywood, L. (2018). Introduction: Post-editing in practice – Process, product and networks. *The Journal of Specialised Translation*, 31. https://jostrans.soap2.ch/issue31/art_introduction.php
8. Yang, Y., Liu, R., Qian, X., & others. (2023). Performance and perception: Machine translation post-editing in Chinese-English news translation by novice translators. *Humanities and Social Sciences Communications*, 10, 798. <https://doi.org/10.1057/s41599-023-02285-7>

Citation: Denis Pshenichnikov, “Key Challenges and Professional Tasks in the Field of Machine Translation Post-Editing”, *Universal Library of Languages and Literatures*, 2024; 1(1): 45-51. DOI: <https://doi.org/10.70315/uloap.ulli.2024.0101007>.

Copyright: © 2024 The Author(s). This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.