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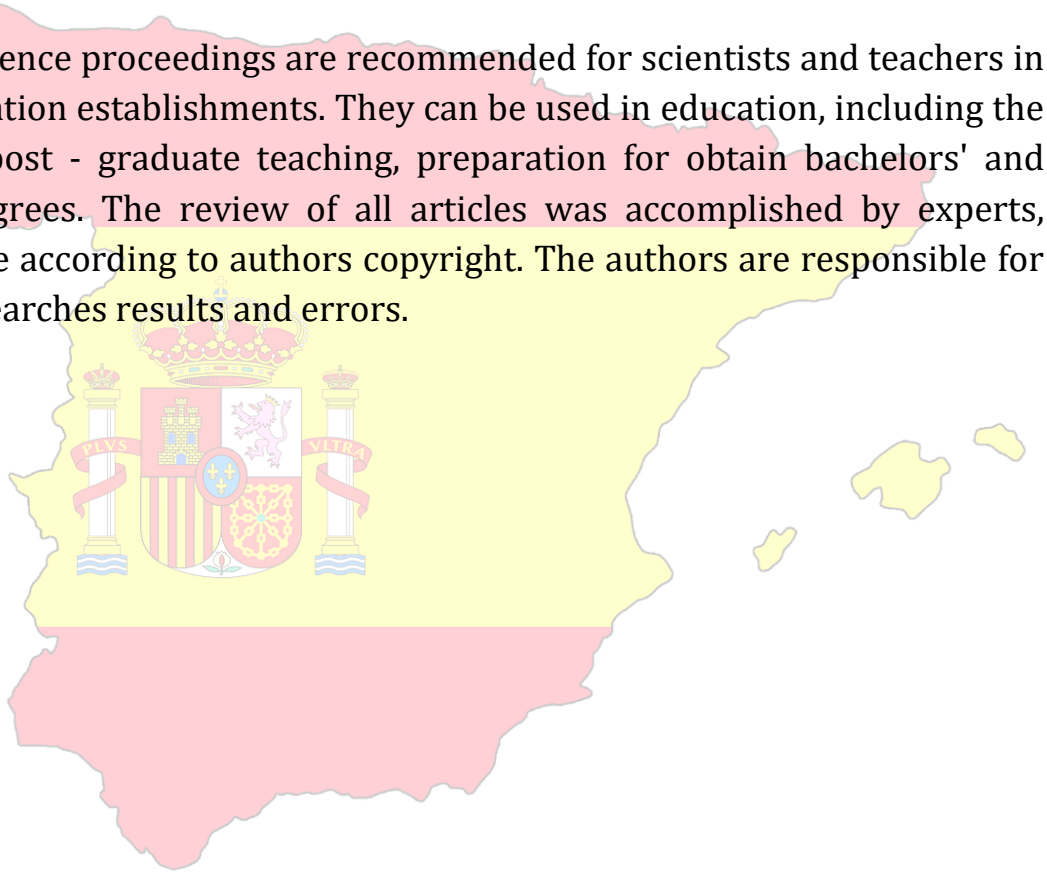

HUMAN–AI COLLABORATION IN TRANSLATION: THE RISE OF THE POST-EDITING PARADIGM

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Abstract: This thesis examines the transformation of the translator's professional role in the age of artificial intelligence (AI). It argues that neural machine translation does not render human translators obsolete but reorganises their work around a collaborative, post-editing paradigm. Through a conceptual review of recent developments in machine translation and translation studies, the study describes the hybrid workflow in which AI generates a rapid draft while the human translator ensures meaning, style, terminology, cultural appropriateness and ethical acceptability. It identifies the new competencies — post-editing, AI-tool literacy, terminology management and ethical awareness — that define the modern translator, and concludes that the most productive future of translation lies in cooperation rather than competition between human and machine.

Keywords: artificial intelligence, neural machine translation, post-editing, human-AI collaboration, hybrid translation workflow, translator competence, translation quality.

Introduction. The rapid improvement of neural machine translation (NMT) has revived an old anxiety in the language professions: that automated systems will eventually replace human translators. The fluency of modern transformer-based models (Vaswani et al., 2017) reinforces this impression, since their output is often grammatically smooth and immediately usable. Yet fluency is not the same as adequacy. A translation must preserve not only grammar and vocabulary but also meaning, function, tone and communicative intention (Nida, 1964). This thesis argues that AI has not eliminated the translator's role but redefined it, shifting the profession from the production of translations toward the supervision, correction and cultural validation of machine-generated drafts. Its aim is to describe this emerging post-editing paradigm and the competencies it demands.

1. From full automation to the hybrid model. Early expectations of "fully automatic high-quality translation" have given way to a more realistic hybrid model. In this model, the AI system produces an initial draft quickly and at scale, while the human translator revises it. This division of labour reflects the comparative strengths of each party: machines excel at speed, consistency and the processing of large volumes of text, whereas humans excel at interpretation, contextual judgement and cultural sensitivity. Rather than competing for the same

tasks, human and machine occupy complementary positions within a single workflow (Koehn, 2020).

2. Post-editing as the central new competence. Within the hybrid model, post-editing — the systematic revision of machine-translation output — has become a core professional skill. The post-editor corrects mistranslations, resolves ambiguity, repairs terminology, adjusts register and ensures that the target text is culturally and ethically appropriate. Post-editing differs from traditional translation in that the starting point is not a blank page but a machine draft that may be fluent yet subtly wrong; detecting such errors requires a high level of linguistic vigilance and bilingual competence.

3. New professional competencies of the translator. The collaborative paradigm broadens the definition of translator competence. In addition to linguistic and cultural mastery, the modern translator increasingly needs digital literacy, the ability to select and operate AI tools, terminology- and corpus-management skills, and ethical awareness regarding bias, confidentiality and transparency. The translator thus evolves into a multi-skilled language professional who manages technology rather than being displaced by it (Venuti, 1995).

4. The limits of automation and the value of human judgement. Human oversight remains indispensable in high-stakes and culturally sensitive domains — legal, medical, diplomatic, literary and religious translation — where a single error may carry serious consequences. In these areas, AI can accelerate the process, but final responsibility for meaning, accuracy and ethical acceptability must remain human. The post-editing paradigm therefore institutionalises human judgement as a permanent, value-adding component of the translation process rather than an optional final check.

Conclusion. Artificial intelligence has reorganised, not abolished, the translation profession. The dominant model of the future is collaborative: AI provides speed, scalability and consistency, while the human translator provides cultural competence, critical judgement and ethical responsibility. Post-editing, AI-tool literacy and terminology management now stand alongside traditional translation skills as defining competencies of the field. Preparing translators for this future requires integrating these competencies into translator-training curricula, so that the next generation can lead the human-AI partnership rather than be marginalised by it.

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THESIS 2

CULTURAL AND FIGURATIVE MEANING AS THE BOUNDARY OF MACHINE TRANSLATION: IDIOMS, LITERARY TEXTS AND LOW-RESOURCE LANGUAGES

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Abstract: This thesis investigates the cultural and figurative dimensions of meaning that constitute the principal boundary of contemporary machine translation. While neural systems and transformer architectures have substantially improved grammatical fluency, they continue to struggle with idioms, humour, metaphor, literary style and culturally specific meaning. The study also addresses the additional difficulty posed by low-resource languages, for which limited digital corpora reduce translation quality — a problem directly relevant to language pairs such as English–Uzbek. It argues that the gap between grammatical correctness and communicative-cultural adequacy can be narrowed but not closed by technology alone, and that human cultural competence together with the expansion of open language resources remains essential.

Keywords: machine translation, cultural context, idioms, figurative language, literary translation, low-resource languages, English-Uzbek translation, communicative adequacy.

Introduction. Neural machine translation has achieved impressive grammatical fluency, yet language is far more than grammar and vocabulary: it also encodes

culture, history, emotion, social norms and identity. Consequently, a machine translation may be grammatically correct while remaining culturally inappropriate or stylistically weak. This thesis focuses on the cultural and figurative dimension of meaning as the most resistant frontier of automated translation, and on the related difficulty of low-resource languages. Its aim is to clarify why these challenges persist despite technological progress, and what is required to address them, with particular attention to the English–Uzbek language pair.

1. Grammatical fluency versus communicative-cultural adequacy. Translation quality cannot be measured by grammatical correctness alone. A faithful translation must preserve meaning, function, tone, cultural value and communicative intention (Nida, 1964). AI systems recognise statistical and semantic patterns in data, but they do not possess lived experience, emotional intelligence or cultural intuition. This produces a characteristic gap: output that reads fluently yet fails to convey what the source text actually communicates within its cultural setting.

2. Idioms, humour and literary style as persistent challenges. Idioms, humour, sarcasm, metaphor and proverbs remain especially difficult for machine systems, because their meaning is not compositional — it cannot be derived from the individual words. An expression such as “break the ice” is mistranslated when processed literally rather than idiomatically. Literary translation intensifies the problem: rendering poetry, prose or philosophical texts requires sensitivity to rhythm, symbolism, authorial voice and stylistic nuance, qualities that pattern recognition alone cannot fully capture (Baker, 1992).

3. The low-resource language problem. The quality of neural machine translation depends heavily on the volume and quality of the training data available for a given language. Low-resource languages, which lack large digital corpora, therefore receive weaker translation support (Koehn, 2020). This is directly relevant to English–Uzbek translation: differences in grammatical systems combine with limited parallel corpora to reduce accuracy, particularly for idiomatic, literary and culturally specific material. The result is a digital inequality in which speakers of well-resourced languages benefit far more from AI translation than speakers of under-resourced ones.

4. Narrowing the gap: human competence and language resources. The cultural-figurative boundary can be narrowed but not eliminated by technology alone. Two complementary responses are required. First, human translators with cultural competence and interpretive judgement must remain responsible for figurative, literary and culturally sensitive material. Second, the digital foundation of under-

resourced languages must be strengthened through the expansion of multilingual datasets, the creation of open-access language resources and the inclusion of culturally diverse materials, so that AI translation becomes more accurate and more inclusive.

Conclusion. Cultural and figurative meaning marks the principal boundary of machine translation. Transformer-based systems translate grammar well, but idioms, humour, literary style and culturally specific meaning continue to expose the gap between fluency and adequacy. For low-resource languages such as Uzbek, this gap is widened by the scarcity of digital corpora. Progress therefore depends on a dual strategy: preserving the role of the human translator as the guardian of cultural meaning, and investing in open, inclusive language resources. Only by combining human cultural competence with richer data can AI translation move closer to communicative-cultural adequacy across all languages.

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