Koletnik, M. (2026). Translators' language competence in technology-mediated contexts: Building on past conceptualizations and charting future directions. *Current Trends in Translation Teaching and Learning E,13. https://doi.org/10.51287/cttle20264*

Translators' language competence in technology-mediated contexts: Building on past conceptualizations and charting future directions

Melita Koletnik
University of Vienna

Abstract: Language competence is the driving force behind and the basis for advanced translation competence, yet rapid technological change requires it to be reconsidered in light of current professional realities. Against this backdrop, the article discusses the past and present conceptualizations, definitions, and changing manifestations of translators' language competence, with particular emphasis on technology-mediated contexts, including revision, machine translation post-editing, AI-supported translation, and potential future developments. It argues that communicative language competence remains foundational, while the competences needed to analyse, explain, evaluate and manage linguistic problems in human and technology-generated texts are becoming particularly salient. Among these, diagnostic competence, conceptualised as a part of a broader analytical competence, assumes particular importance. On this basis, the article proposes a tentative, technology-neutral definition of translators' language competence and identifies directions for future research.

Keywords: translators' language competence, communicative language competence, analytical competence, diagnostic competence, technology-mediated translation contexts

1. Introduction

In 2026, it is difficult to write an article in applied Translation Studies (TS) that does not begin with a statement that the professional landscape has changed considerably because of technological advances. Whether these changes are sustaining, as argued by Kenny (2018), or disrupting and/or disruptive, as feared by translation service providers who are losing work to AI (Macaulay, 2024), has yet to be seen. It is undeniable, though, that the very nature of the translation[1] profession, which has withstood the test of millennia, has changed considerably and is further transforming as we speak. So much so that industry jargon now suggests renaming translation practitioners "language specialists" (Wyndham, 2023), while also promoting new terms for companies offering such services, shifting from "Language Solution Providers" to "Language

[1] The focus of this article is translation in a broad sense (encompassing both written and oral/sight translation), although statements regarding the language competence of "translators" can often be generalised to apply to interpreters as well. (In the context mentioned here, however, interpreting seems to be less affected by technological changes (see, e.g., Kirov & Malamin, 2022), although this, too, is beginning to change).

Solution Integrators", or recasting the entire industry as the "localization" industry.[2] Whether one agrees with these decisions, or would rather retain the term "translation," e.g., with the argument that "the ultimate ethos of translation is to help communication flow between humans" (do Carmo & Moorkens, 2021, as cited in Massey & Ehrensberger-Dow, 2025, p. 5), is a matter of personal preference (if not dictated by someone else). What is less contestable, though, is that translators increasingly work across a continuum of workflows in which language is produced, suggested, revised, evaluated, or otherwise shaped through technological mediation.

This article tackles an issue that is often overlooked or treated as self-evident in translation and TS, though it should not be: the nature and definition of the language competence of translators. While the language/linguistic (bi)lingual (sub-)competence[3] is "a sine qua non condition for professional translation" (Cerezo Herrero, 2023, p. 531) and mentioned by all influential translator/translation competence models (Kiraly, 1990; Kelly, 2005; PACTE Group, 2003; Göpferich, 2009; EMT Board, 2017, 2022) and recent projects, e.g., the NACT/EFFORT project (cf., e.g., Hurtado Albir & Rodríguez-Inés, 2022, 2023), it has rarely been analysed nor described in much detail.

At the same time, it has become increasingly relevant to reassess and potentially reconceptualize the role of language/linguistic/communicative competence[4] within contemporary translation settings. In the context of rapid technological transformation, Faes and Massey (2024) argue that "only professionals with high levels of domain and language expertise, combined with appropriate technological and prompt engineering competence, will provide the added human value" (p. 27) required to work with generative artificial intelligence (AI), and only those will remain in high demand. In this article, translators' language competence will be given consideration based on existing literature, compared to the requirements of the latest technology-mediated contexts, and a technology-neutral definition will be provided.

---

[2] Before the 2026 WorldReady Globalization and Localization Association (GALA Global) conference, the organization sent out a survey to the participants, enquiring about a possible new name for the industry. The suggestions included, among others "Global Experience (GX)", "LangOps" or "Global Product Development".

[3] These terms are used by TS scholars interchangeably. For the purposes of this article, the term "language competence" will be used, based on the terminology of the Common European Framework of Reference for Languages (CEFR).

[4] In line with AI-transparent use of technology, we declare that while writing this article, AI was used to check the accuracy and stylistic appropriateness of the English language as well as, to a limited extent, to help with the analysis. It was also used during the revision stage.

The article is structured in five main chapters: the second chapter reviews influential conceptualizations of language competence(s) within (applied) linguistics and TS; the third chapter discusses how definitions of competence are being reshaped in technology-mediated contexts, and the fourth chapter summarises and debates these findings and offers a tentative definition of translators' language competence for technology-mediated contexts. The article concludes with suggestions for further research.

2. Conceptual foundations of translators' language competence

Scholars from various fields agree that the concept of competence is central across disciplines, although it remains challenging to define precisely. At the same time, the use of the term has given rise to "considerable confusion" (Kennedy et al., 2009, p. 1).[5] In TS, the influential PACTE and EMT models have defined it as "a system of underlying knowledge and abilities" (PACTE Group, 2003) and as "proven ability to use knowledge, skills and personal, social and/or methodological abilities, in work or study situations and in professional and personal development" (EMT Board, 2022, p. 3). The related notion of expertise has likewise been discussed in TS as sustained, deliberate practice oriented towards improved performance (cf. Risku, 2010; Göpferich, 2013; Hurtado Albir, 2017a; Risku & Schlager, 2022).

In this article, we adopt a broad conceptualization of competence, following Schäffner and Adab's (2000, p. x) argument that competence may encompass various related terms, such as knowledge, skills, awareness, and expertise. Also useful is Weinert's 2001 definition, where competence is "a roughly specialized system of abilities, proficiencies or skills that are necessary or sufficient to reach a specific goal" (as cited in Lesznyák, 2007, p. 168). Regarding other definition(s) of competences and sub-competences that have been proposed in the past and will be discussed here, no single one can be regarded as the only valid or definitive one; instead, different definitions will be referred to as they become relevant.

From a methodological perspective, the developments in TS since its emergence in the 1960s have generated a wide range of approaches[6] to studying translation competence and the role of language competence within it. These range from simple definitions to complex models,

[5] A systematic review in education (Tahirsylaj & Sundberg, 2020) identified 42 generic definitions of competence across its sample (58 papers that defined the term out of 84 total sampled). The term has been used inconsistently across international organisations, national contexts and educational research.

[6] Campbell (2014, p. 6) suggests the term *approaches* to investigating translation competence because approaches are quite distinct in their methodology and objectives.

moving from minimal to multi-componential frameworks that usually involve a set of interrelated sub-competences (cf. Pym, 2003). Importantly, these developments also signal "a shift from theoretical to empirical approaches, as well as from a knowledge-oriented to a process-oriented characterisation of competence" (Risku & Schlager, 2022, p. 12). Consequently, the central research gap addressed here lies not in the absence of language competence from established translation competence models, but in the limited theoretical engagement with what constitutes translators' language competence and, increasingly important, with the activities through which translators examine, explain, evaluate and remediate linguistic choices. These activities have always formed part of translation, revision and translator education, but they become especially poignant when translators work in technology-mediated contexts.

2.1 Insights from linguistics

The starting point shall be the question of what constitutes translators' language competence, as conceptualised by the relevant disciplines over time. The relationship between language and translation has always been complex and, at times, contested. Since early TS both emerged from and relied on insights from linguistics, while simultaneously seeking to establish itself as an independent discipline, let us begin by examining the contributions of linguistics. It is interesting (and not coincidental) that developments in TS mirrored, to some extent, the developments in linguistics, albeit frequently with a delay of some years. The historical overview that follows is selective and serves as a conceptual baseline rather than an exhaustive account. Its purpose is to identify the elements that have shaped the conceptualizations and remain indispensable to translators working in technology-mediated contexts.

The first major development relevant to this discussion is the shift from viewing language primarily as an organised system to understanding competence as the ability to use language appropriately in context. Structuralist and other early linguistic approaches (cf., e.g., Saussure, 1959/1919; Bloomfield, 1970/1933; Sapir, 1949) foregrounded the systemic character of language. Departing from structuralist approaches, Chomsky (1965) distinguished linguistic competence, i.e., the idealised speaker-hearer's knowledge of language, from actual linguistic performance. Hymes (1972) considered this conceptualization too narrow for applied purposes, and introduced communicative competence, incorporating the sociocultural appropriateness of language use. This broader perspective also drew on Firth's (1968) emphasis on the relationship between language and situational context. In parallel, Lado's (1961) four-skills model (listening, speaking, reading and writing) provided a performance-oriented framework for language assessment.

Later communicative frameworks consolidated this broader orientation. Canale and Swain (1980), Canale (1983) and Bachman (1990) distinguished grammatical, sociolinguistic, discourse and strategic language competences. These developments are important for TS because they established that formal correctness is necessary but insufficient: successful language use also depends on text, purpose, situation and cultural conventions.

Developed by the Council of Europe, the Common European Framework of Reference (CEFR) (Council of Europe, 2001, 2020) introduced a standardized, policy-driven framework for describing communicative language competence. It organized competence around linguistic, sociolinguistic and pragmatic resources, which are mobilized through communicative language activities – reception, production, interaction and mediation – and the strategies used to perform them. The CEFR's action-oriented approach marked an important shift from the communicative theories by distinguishing between competences and their practical realization in task-based contexts (Piccardo, 2014). Competences are understood as internal resources that language users draw upon, activities as the manifestation of these resources in action, and strategies as the procedures linking competences to the successful completion of tasks.

The action-oriented approach is particularly relevant to TS because it shifts attention from language competence as abstract knowledge to the purposeful mobilization of resources in situated tasks. Translators can thus be understood as social agents who draw on linguistic, sociolinguistic, pragmatic, cultural and other competences to perform concrete acts of mediation. From this perspective, translation is not merely the production of an equivalent target text, but a goal-oriented activity shaped by its audience, purpose, genre, context and institutional constraints.

Finally, the CEFR's plurilingual and pluricultural perspective is also relevant because translators mobilize interconnected linguistic and cultural repertoires rather than separate systems. Plurilingual and pluricultural competences therefore reinforce the view of translation as a form of mediation in which meaning is actively negotiated across linguistic, cultural and contextual boundaries.

2.2 Insights from Translation Studies

Pre-communicative and structurally oriented TS theoreticians, e.g., Vinay and Darbelnet (1958), Jakobson (1959) and Catford (1965), did not explicitly address translators' language competence, but their predominantly linguistic conceptualizations of translation implicitly associated it with mastery of language systems and the relations between them. However, as research in TS has progressed, it has become increasingly evident that language competence is no longer to be

conceptualised as purely linguistic but, in line with developments in linguistics, more broadly as communicative competence. This context extended beyond structural knowledge to encompass the translators' ability to use language appropriately in context, considering categories such as register, text function, culture, etc. At the same time, as TS progressively operationalized these insights, its focus moved beyond language to other factors influencing translation, such as translation purpose and target audience.

The language sub-component nevertheless remained a prominent, overarching element in the conceptualizations of translation [7] competence developed in the 1970s and early 1980s. Accounts by Wilss (1976, 1982) and Koller (1979, 1997) relied on the connection between two linguistic systems. Thus, Wilss' concept of a translation "supercompetence" remained essentially an "interlingual competence" (p. 120). It relied on an extensive command of both languages and integrated the two monolingual competences on a higher, textual level. Similarly, Koller initially defined translation competence as the ability to combine competence in two languages but later reconceptualized this as the ability to produce a target text that satisfies specific equivalence requirements, while maintaining that it was qualitatively distinct from language competence and that (contrastive) linguistic phenomena belonged to linguistics rather than TS (Koller & Berg Henjum, 2020).

From the mid-1980s, multicomponent models treated language competence as one constituent of translation competence. Delisle (1984, 1988, 1992) placed asymmetric but deliberate bilingualism at the centre of translation competence and later combined language competence with interpretive analysis and extralinguistic knowledge. Similarly, Roberts (1984) proposed a five-component model in which linguistic competence included the ability to assess the quality of expression in the target language (as cited in Kelly, 2005, pp. 28–29). Nord (1988, 1991) integrated linguistic and cultural competence in both languages with text reception, analysis and production, linking translation-oriented text analysis to comparative grammar, stylistics and text linguistics.

In the early 1990s, further models and conceptualizations continued to refine the role and place of language competence within translation competence. Hewson and Martin's (1991) variational approach treated bilingual proficiency and acquired interlinguistic competence as essential but insufficient foundations of translation competence. Bell (1991), similarly, viewed translators as bilingual communicators whose source-language, target-language and text-type knowledge was underpinned by

[7] There is, or rather, there was, a relative terminological disarray in naming this competence: terms ranged from *translation* to *translational*, *translator competence*, *abilities,* skills, etc. (for more, see, e.g., Hurtado Albir, 2017b, p. 18). As of 2025, the consensus seems to be on the term translation competence.

linguistic knowledge.[8] For translation into L2, Campbell (1991, 2014) modelled disposition and development of bilingual proficiency, later defining proficiency as the ability to produce natural, genre-appropriate target texts.

Drawing on Chomsky's distinction between competence and proficiency and Bachman's model of communicative language ability, Cao's (1996) account is among the most detailed conceptualizations of translational language competence. She divides "translational" language competence into organisational competence (grammatical and textual) and pragmatic competence (illocutionary and sociolinguistic). Together, these cover mastery of language code, cohesion and rhetorical conventions, acceptable language functions and contextually appropriate use across dialect, register, naturalness, cultural references and figures of speech.

Post-2000 theories increasingly addressed translator training through institutional and pedagogical models. Schäffner and Adab (2000) proposed a six-pronged model of translation sub-competences, which included linguistic, textual and domain/subject specific competences. While focusing on linguistic structure and communicative use, Schäffner (2000) emphasized the importance of knowledge of language structure and function and of basic linguistic concepts, as well as dedicated semantics and sociolinguistics concepts. Neubert (2000) likewise acknowledged that language competence is a sine qua non of translation, particularly near-perfect command of the mother tongue and knowledge of grammatical, lexical and specialized-language conventions. Presas (2000) related competence to directionality, modality and language combination, while Kelly (2005) linked communicative and textual competence to students' levels and intended outcomes. Finally, building on PACTE, which will be described in more detail below, Göpferich (2009, 2013) defined "communicative" competence as lexical, grammatical and pragmatic knowledge in at least two languages, including genre- and situation-specific conventions and the receptive competence required to monitor semantic equivalence.

The final part of this section examines translators' language competence in institutional and pedagogically oriented models. The influential PACTE model regarded "communicative" language competence in two languages as an independent component of translation competence. This was defined as "underlying systems of knowledge and skills necessary for linguistic communication" (Hurtado Albir, 2017a, p. 36). Following Canale (1983), it comprised linguistic, discourse, and socio-linguistic elements. Later, it was renamed bilingual sub-competence and conceptualized as the predominantly procedural knowledge and skills required for linguistic communication (PACTE Group, 1998, 2001, 2003; Hurtado Albir, 2017a). The pragmatic component was separated and

[8] He does not use the term competence.

added to socio-linguistic, textual, grammatical, and lexical knowledge. PACTE models also assumed a professional translator should control interference while switching between the languages.

Similarly, the EMT Wheel of Competence and later Framework recognized language competence as the driving force behind other translation competences. Its 2009 version defined its core element as the comprehension and use of grammatical, lexical, idiomatic, graphic and typographic conventions, together with sensitivity to language change (EMT Board, 2009). Although the 2017 version reaffirmed the centrality of language (and culture), it represented a step back by removing the separate categorization of competences in this domain and offering little further detail (EMT Board, 2017). The 2022 framework expanded the conceptualization slightly by emphasizing language variation, cultural references, and genre and rhetorical conventions (EMT Board, 2022). The forthcoming 2026/2027 version should give language competence even greater prominence, once again recognizing its importance in traditional and technology-mediated contexts.

The NACT (2015-2018) and EFFORT (2021-2024) projects adapted the CEFR's staged structure to translators' language competence within their translation framework, which addresses competences across five specialized domains. They define language competence procedurally as the "capability to apply reading comprehension skills in the source language and written production skills in order to translate" while avoiding interference (Hurtado Albir & Rodríguez-Inés, 2023, p. 9). Both projects follow the structure of the CEFR, albeit of its older model and terminology, while tailoring descriptive categories specifically to translation. However, the definitions across domains are repetitive and relatively broad, emphasizing terminology, phraseology, collocations, genre conventions, and linguistic variation without specifying these elements in more depth.

All these models established a strong theoretical foundation, yet their broad placement of language competence inside a larger translation-competence architecture leaves many internal processes under-specified. In particular, they do not always distinguish between successful language use and the analytical resources through which translators inspect, explain, classify and remediate linguistic problems. This distinction is not irrelevant to traditional translation but becomes especially salient when translators work on an existing proposal rather than producing every formulation from the outset.

The more recent models developed for translator education offer useful resources for addressing this gap. Adapting the PACTE model, Cerezo Herrero (2019) developed a six-component model, having at its core the linguistic and communicative sub-competence. This component combines textual and discursive analysis, genre awareness, and acquisition of broad general vocabulary and specialized terminology. "Communicative" competence also receives special attention in

Schmidhofer's (2020) model. Important for our discussion here is that it emphasizes expert command of linguistic systems and the ability to explain and justify terminological, stylistic and structural choices, subsumed under separate metalinguistic and monitoring competences. Monitoring is defined as a meta-competence and a critical mechanism for continuous planning, observation and error detection. Both pedagogically oriented models therefore conceptualize translators' language competence as multilayered and translation-oriented, extending beyond general communicative ability.

Taken together, the models reviewed above establish a durable communicative foundation for translators' language competence, encompassing formal linguistic knowledge, textual organization, and pragmatic and sociolinguistic appropriateness. They provide valuable insight into traditional conceptualisations of language competence within general and specialised translation competence models, most of which were developed largely with human-centred translation practices in mind. The following section examines how translators' language competence is being refined and challenged in technology-mediated contexts.

3. Translators' language competence in technology-mediated contexts

The use of (neural) MT and (generative) AI has significantly altered the translator's interaction with their own language and the skills required for translation. Rather than producing translations entirely from scratch, translators now commonly engage in machine translation post-editing (MTPE) or AI-supported translation. According to the latest ELIS report (ELIA et al., 2025, p. 28), e.g., MTPE constitutes a large part of the service mix offered by language service companies: 27% of the total revenue is generated from this source. It is somewhat surprising that this has not led to a corresponding drop in human translation, which also increased and amounted to 37%. At the same time, translators (i.e., independent language professionals) report that they are more willing to engage with technology and use it in their everyday practice. Thus, 69% of them say they voluntarily use MT in their work, which is an increase of almost 10% over the previous year (p. 35). Consequently, it seems that the role of language competence has not diminished but reoriented across technological modalities that differ in how texts are generated, evaluated and ultimately validated.

The following two subsections examine these implications in greater detail, beginning with revision and MTPE. At a general level, Nitzke and Hansen-Schirra (2021) emphasize that professional translators are expected to possess a comprehensive set of competences, including bilingual, extralinguistic, and research competence, in addition to translation competence. According to Lafeber (2022), who examined translators' competence in institutional settings, some of the highest

impact, yet frequently deficient language skills among translators include the ability to interpret obscure passages in the source text, convey nuanced meanings in the target text, and ensure coherence, naturalness and fluency even when the source text itself lacks these. Equally important, but often underdeveloped, are achieving the appropriate tone and register and demonstrating an extensive target-language vocabulary alongside mastery of the finer grammatical points. This raises the more specific question of which language-related problems translators are expected to encounter in neural MTPE and other forms of AI-supported translation.

3.1 Language competences for revision and MTPE

Although MTPE shares certain similarities with translation from scratch and revision (Koponen et al., 2020), it also entails specific considerations that call for a partly distinct competence profile. In the model developed by Nitzke et al. (2019), bilingual competence is a subsidiary sub-competence that underpins the core PE competences: risk assessment, strategic, consulting and service competences. They point out, "a post-editor has to have proficient knowledge of the source and target language, as monolingual PE always bears the risk that content mistakes are not recognized" (p. 249). In this respect, Voita et al. (2019) identify deixis, ellipsis and lexical cohesion as three main sources of MT inconsistency. Their findings foreground linguistic competence as a prerequisite for identifying errors and ensuring that post-edited texts remain both accurate and coherent.

In a similar vein, Torrejón and Rico (2012) identify three main categories of competences for post-editors: core competences, i.e., the ability to deal with subjectivity and uncertainty in defining and applying PE specifications; instrumental competences related to technical skills; and linguistic skills. In their model, linguistic skills correspond to the traditional requirements of translators: excellent command of source and target languages, strong communicative and textual competence, as well as familiarity with PE guidelines. They extend this category beyond purely linguistic knowledge to encompass cultural and intercultural awareness as well as subject-area expertise.

These competence models are broadly consistent with professional standards. The ISO 18587:2017 standard (International Organization for Standardization, 2017), which specifies requirements for full, human PE of MT output and post-editors' competences, also includes linguistic and textual competence in the source and the target languages. This covers the understanding of the source language, fluency in the target language, and general or specialized knowledge of text-type conventions. The ISO 18587:2017 further presupposes not only linguistic knowledge (competence) but also the ability to apply it in practice (proficiency) when producing target-language texts or other content.

Revision provides a useful point of comparison. Under the ISO 20539:2023 standard (International Organization for Standardization, 2023), revision, understood as bilingual editing, constitutes "examination of the entire target language content (3.1.6) against the source language content (3.1.5) to ensure linguistic accuracy and faithfulness to the source language content". It follows that language competence (including source-language understanding, target-language fluency and knowledge of text-type conventions) is central to both processes.

This continuity between translation and revision is also reflected in the bilingual sub-competence, which constitutes an essential part of the 2017 model of translation revision competence proposed by Robert et al. (2017). The authors, nevertheless, acknowledge not "dealing with" it in more detail since it is known from previous translation competence models and is "expected to be the same in both TC [translation competence] and TRC [translation revision competence] models" (p. 13). As O'Brien et al. (2014) point out, post-editors' language skills crucially impact comprehension in PE, alongside source-text characteristics and topic, i.e., subject-matter knowledge. This highlights the centrality of language competence in PE, not only for reception but also in production. Moreover, language competence is among the key skills required for quality assurance. A survey on MT by Gaspari et al. (2015) revealed that human evaluation remains the most common approach to QA in human and machine translation alike, much to the dissatisfaction of their participants. At the same time, automatic MT-evaluation metrics such as COMET and automatic PE are increasingly shaping workflows in which translators may have progressively less access to full source texts. This development further changes the conditions under which their language competence is mobilized for quality assurance.

3.2 Language competence beyond revision and MTPE

Beyond revision and MTPE, (generative) AI-supported translation further changes how translators interact with texts and mobilise their language competence. Massey and Ehrensberger-Dow (2017, 2025) argue that translation processes that incorporate generative AI shift the focus from writing to reading, evaluating and editing. As Ehrensberger-Dow et al. (2023) show, however, raw MT output still exhibits linguistic shortcomings: problems with accuracy (omissions and repetitions), inadequate adaptations (e.g., mistranslations of proper nouns), coherence issues (e.g., incorrect or inconsistent pronoun use), and violations of linguistic conventions (e.g., incorrect word forms, punctuation, or abbreviations) (p. 395), although this is changing with the rapid advancement of technology.

These errors once again highlight the central role of language competence in detecting and correcting the flaws that automated systems are prone to generate; i.e., language competence is becoming a workflow-specific

diagnostic and corrective skill in technology-mediated contexts. The translator therefore increasingly acts as a specifier and curator who must detect not only linguistic and textual problems but also omissions, unsupported additions, inconsistencies and failures of genre, register or pragmatic adequacy. Research on LLM-supported translation similarly shows that translation purpose, target audience and context-aware prompts can affect translation quality and the treatment of discourse phenomena (Yamada, 2023; Wang et al., 2023). Moreover, (generative) AI-supported translation is more iterative and instruction-sensitive, since output depends more visibly on prompts and contextual input, thus necessitating an approach that integrates metalanguage and concepts from TS into prompt engineering (Yamada, 2026).

With agentic AI, the object of evaluation may extend beyond an individual text to a sequence of interdependent decisions and actions, since LLM-based agents can combine decision-making, perception and action in pursuing specified goals and may increasingly plan and coordinate several translation-related operations (Xi et al., 2023; Sapkota et al., 2026). Diagnostic attention consequently shifts towards the adequacy of objectives, constraints, intermediate decisions and final outcomes. Translators' analytical competence, comprising metalinguistic and diagnostic competences, must therefore operate both locally, through the explicit analysis and evaluation of individual language choices, and globally, by assessing whether the evolving process and its outcomes continue to meet the communicative purpose, genre conventions and quality requirements of the translation task. Nevertheless, across all technology-mediated contexts and modalities, translators' language competence remains indispensable for human supervision and for assuming responsibility for the final text.

3.3 Concerns

These developments raise at least two questions concerning the way in which translators' language competence is enacted in technology-mediated workflows. The first relates to the possible erosion of primary language competence with advancing technology, particularly AI development. If translators increasingly evaluate and revise automatically generated texts rather than produce translations themselves, reduced engagement in sustained language production may create a risk of deskilling. More generally, AI-mediated contexts may become unfavourable to maintaining human competences when automated performance replaces rather than supports their continued exercise (Ferdman, 2026). However, there is currently insufficient longitudinal evidence to conclude that the use of AI necessarily erodes translators' language competence. Rather, we believe, this changes and adapts. It may involve both deskilling and upskilling: some productive tasks, e.g., translation from scratch, may be practised less frequently, while

diagnostic tasks will become more prominent. Moreover, diagnostic performance cannot be detached from primary language competence, since translators cannot reliably identify subtle problems of meaning, coherence, register, or pragmatic appropriateness without well-developed language knowledge. The issue is therefore not that competences needed for translators to work in technology-mediated contexts will replace language competence or translators altogether, but that technology will change the conditions under which translators' language competence is exercised and maintained.

A second question concerns the status of prompt engineering. In translation contexts, prompting is related to language competences because it requires the user to clearly articulate purpose, target audience, register, genre, terminology and other relevant specifications. Yamada (2023), e.g., shows that incorporating translation purpose and target audience into prompts can alter LLM output and make it more responsive to professional translation requirements. At the same time, prompting also calls for an understanding of system affordances and limitations, iterative interaction with the system, and critical evaluation of the resulting output. It also requires metalinguistic reasoning as a mediating process between human judgement and AI output.

However, the emergence of agentic AI may substantially change this practice. As systems become more capable of autonomously determining goals, e.g., AI agents and agentic AI systems, coordinating tasks and adapting their actions, detailed prompting may give way to the specification of higher-level objectives, constraints and quality criteria – or may eventually become largely invisible to the user (Sapkota et al., 2026). The enduring competence of translators may therefore be less the ability to formulate prompts than the ability to define translation requirements, supervise the process and critically evaluate its outcomes.

Taken together, these insights confirm that, despite the growing importance of technical and instrumental skills in increasingly technology-mediated translation workflows, an expert command of all languages involved remains at the heart of professional translation practice. Translators must be able to mobilize linguistic, textual, sociolinguistic and pragmatic competences, together with metalinguistic and diagnostic competences. Emerging technologies do not make these resources obsolete. They may support their application, but they cannot replace the expert linguistic judgement required to evaluate the adequacy of human or technology-generated texts. As Zajdel (2022) aptly observes, "AI is becoming increasingly innovative" (p. 116), further underscoring the need for translators to engage critically with its outputs.

Technology modifies the conditions under which translators' language competence is exercised and makes some of its functions particularly visible. Analytical competence, comprising metalinguistic and diagnostic competences, becomes more prominent when translators must anticipate, identify, explain and remediate linguistic problems, while grammatical,

textual, sociolinguistic and pragmatic competences remain indispensable for performing these activities reliably. Translators' language competence can therefore be understood as an interplay among all these competences: some provide the foundation for reception and production, while others support explicit analysis, evaluation and remediation. Technology-mediated contexts expand the ways in which all are mobilised for quality assurance and for assuming responsibility for the final text.

4. From past conceptualizations to a tentative definition of translators' language competence

As this overview has shown, language competence, as conceptualised by TS, has consistently evolved, in the past 60 years of its existence, from a predominantly structural, system- knowledge-oriented notion to a communicative and use-oriented construct. In addition to the inherently and, beyond doubt, essential linguistic knowledge, it now integrates textual, pragmatic, and sociolinguistic dimensions and, more recently, domain-related, workflow-specific analytical, i.e. metalinguistic and diagnostic, competences, needed in the contexts of revision, MTPE and AI-generated translation.

An analysis of the definitions across periods and models reveals several tendencies that, in our opinion, remain salient today and build upon one another. The first three are intralingual in nature: (i) a shift along the structural-to-communicative continuum, (ii) increasing textual and genre emphasis, and (iii) the addition of sociolinguistic and pragmatic dimensions. All three roughly correspond to the concurrent developments in general linguistics. Early systemic insight (Wilss, 1976, 1982; Koller, 1979, 1997) continues to provide the grammatical foundation, while the late-20th century authors (Bell, 1991; Nord, 1991) stress textual organization, genre conventions and register appropriateness. Institutional frameworks consolidate these strands into operational sub-competences (PACTE Group, 2003; EMT Board, 2022), with subsequent descriptors by NACT/EFFORT (Hurtado Albir & Rodríguez-Inés, 2023) echoing the same underlying reasoning. Specialised approaches, e.g., those developed for pedagogical purposes, further specify the importance of metalanguage and monitoring (Schmidhofer, 2020) and specialised language use (Cerezo Herrero, 2019). The resulting continuum is thus one from "form" to "fit": while grammatical accuracy remains essential, it is nevertheless insufficient without textual coherence and cohesion, context-pragmatic observance of genre conventions and sociolinguistic adequacy.

Two further tendencies emphasize the interlingual character of TS: (iv) the (bi/inter)lingual/interference theme and the issues of (v) domain/LSP repertoires. The (bi/inter)lingual theme runs from Wilss (1976, 1982), who talks about integrating two monolingual competences, through Hewson and Martin (1991), who mention "interlinguistic competence" to

the PACTE Group (1998, 2003) and NACT/EFFORT (Hurtado Albir & Rodríguez-Inés, 2022), by adding that moving between languages should be without interference. Theoretical models (e.g., PACTE Group, 2003; EMT Board, 2022; Hurtado Albir & Rodríguez-Inés, 2023) converge on the point that translation competence cannot be achieved without advanced bilingual and bicultural proficiency. This entails not only accuracy and fluency, but also the ability to navigate discourse conventions, register variations, intercultural pragmatics and LSP repertoires, i.e., specialised phraseology, collocations and genre conventions, as testified by, e.g., Neubert (2000) or Cerezo Herrero (2019).

The final insight is connected to technological advancements and the increasingly visible analytical function(s) of translators' language competence: (vi) language competence as a resource for (metalinguistic) analysis, quality evaluation and diagnosis. Across the standards and studies considered here (International Organization for Standardization, 2017, 2023; O'Brien et al., 2014; Massey & Ehrensberger-Dow, 2017, 2025; Ehrensberger-Dow et al., 2023), language competence is reframed from primarily productive to explicitly diagnostic, i.e., the ability to detect, classify, explain and remediate problems in human- and technology-generated texts. This function draws on communicative language resources but also requires metalinguistic reasoning and informed judgement. It is therefore treated as a part of a broader analytical competence rather than an isolated skill.

Translators' language competence in technology-mediated contexts is thus an integrated competence for receiving, producing, interacting with and mediating texts across languages with expert linguistic accuracy, textual coherence, pragmatic adequacy, sociolinguistic appropriateness and discourse-analytical sensitivity. It is direction-sensitive and use-oriented, and it entails mobilizing domain-specific repertoires and genre-conventions. It comprises communicative language competence, which has a foundational function, and analytical competence, which, in technology-meditated workflows, further entails metalinguistic and diagnostic competences for identifying and correcting language- and convention-sensitive errors.

The definition is intended to apply across languages, cultural contexts, translation directions and technological modalities, including emerging agentic AI workflows. Consequently, it does not propose separate language competence profiles for translators working in (all possible) human and technology-mediated contexts. Rather, it distinguishes the conditions under which a technology-neutral language competence is deployed across these modalities. As a tentative conceptual proposal, it requires empirical validation, particularly regarding how its components are developed, applied and maintained in professional practice.

5. Conclusion

The article has shown how the conceptualization of translators' language competence evolved in tandem with linguistic theory, and translation theory and practice. From early structuralist views, through communicative and textual approaches, to elaborate competence-based models, such as PACTE, EMT and NACT/EFFORT, the definition of language competence in TS has consistently expanded to include new elements of changed translation-linguistic reality.

Based on these, we propose a tentative definition of translators' language competence for technology-mediated contexts, which frames this as an integrated competence for practitioners working at an expert level. In this context, expertise means more than fluency or bilingualism: it is deliberate, reflective practice that allows language professionals to mobilize their language competence flexibly, adaptively and critically in diverse and evolving translation settings, which are increasingly supported by technology. As recent research and practice suggest, only translators with an expert level of language competence can provide the added human value that differentiates professional translation from automated output.

Our definition is intentionally not tied to a single technological architecture. Its purpose is to cover the full range of present and future situations in which translators encounter technology, including revision, MTPE, AI-generated translation and other emerging forms of language activities. These modalities may generate different output, but they intersect in requiring translators to receive, analyse, evaluate, judge, remediate and justify their linguistic choices across languages and contexts. Specific technologies may redistribute the emphasis among production, interaction, evaluation and diagnosis, but they do not alter the communicative and analytical foundations of translators' language competence.

These contexts call for further empirical investigation, particularly longitudinal research into competence development and maintenance, and the requirements of different human-AI workflow configurations. A comprehensive cognitive-linguistic account of skill acquisition, attrition and human-AI interaction lies beyond the scope of the present article. The more limited claim advanced here is that, currently, technology-mediated translation contexts do not render obsolete established linguistic, textual, pragmatic, discourse-analytical and sociolinguistic resources; instead, they modify how these resources are mobilized and make their analytical, i.e. metalinguistic and diagnostic, functions more visible.

Also, data, digital, machine-translation and/or AI literacies support translators' work but should not be conflated with research on translators' language competence. The DataLitMT framework (Hackenbuchner & Krüger, 2023), e.g., identifies the knowledge and skills needed to understand data-driven MT and use it responsibly in professional contexts. However, such literacies shape how translators access and manage tools,

data and risk, whereas the communicative and analytical foundations provide the resources and judgement through which they evaluate and remediate textual output.

Language competence, thus, remains the foundation of translation expertise. Far from being overshadowed by technological progress, it has been reinforced and increasingly conceptualized as the benchmark for quality assurance and as the very "system of underlying knowledge and abilities" (PACTE Group, 2003) that enables translators to thrive in contemporary technology-mediated contexts. Further research should continue to refine our understanding of this evolving competence, with particular emphasis on how this is developed, assessed and sustained in technologically rich environments.

Acknowledgement

The author has received funding from the European Union's Horizon Europe (HORIZON) research and innovation programme under the Marie Skłodowska-Curie grant agreement No. 101153456 (LinguaTech) and would like to thank Univ.-Prof. Dragos Ioan Ciobanu, PhD, for his insightful comments and feedback on this article.

References

Bachman, L. F. (1990). *Fundamental considerations in language testing.* Oxford University Press.

Bell, R. T. (1991). *Translation and translating: Theory and practice.* Longman.

Bloomfield, L. (1970/1933). *Language*. George Allen & Unwin.

Campbell, S. (1991). Towards a model of translation competence. *Meta: Translation Journal*, *36*, 329-343. https://doi.org/10.7202/002190ar

Campbell, S. (2014). *Translation into the second language.* Routledge.

Canale, M. (1983). From communicative competence to communicative Language pedagogy. In J. C. Richard & R. W. Schmidt (Eds.), *Language and communication* (pp. 2-14). Longman.

Canale, M., & Swain, M. (1980). Theoretical bases of communicative approaches to second language teaching and testing. *Applied Linguistics, 1*, 1-47. https://doi.org/10.1093/applin/I.1.1

Cao, D. (1996). Towards a model of translation proficiency. *Target, 8*(2), 325-340. https://doi.org/10.1075/target.8.2.07cao

Catford, J. C. (1965). *A linguistic theory of translation.* Oxford University Press.

Cerezo Herrero, E. (2019). Sistematización de competencias en la enseñanza de lengua B para Traducción e Interpretación en el EEES a partir de un modelo de competencia traductora. [Systematization of competences in the teaching of Language B in Translation and Interpreting Studies within the EHEA taking as a basis a translation

competence model] M*onTi Monografías de Traducción e Interpretación, 11*, 77-107. https://doi.org/10.6035/MonTI.2019.11.3

Cerezo Herrero, E. (2023). Training prospective translators and interpreters in foreign languages: An exploratory study. *The Interpreter and Translator Trainer, 17*(4), 531-547. https://doi.org/10.1080/1750399X.2023.2207062

Chomsky, N. (1965). *Aspects of the theory of syntax.* The M.I.T Press.

Council of Europe. (2001). *Common European Framework of Reference for Languages: Learning, Teaching, Assessment.* https://rm.coe.int/common-european-framework-of-reference-for-languages-learning-teaching/16802fc1bf

Council of Europe. (2020). *Common European Framework of Reference for Languages: Companion Volume. Council of Europe.* https://www.coe.int/en/web/common-european-framework-reference-languages/cefr-companion-volume-and-its-language-versions

Delisle, J. (1984). *L'Analyse du discours comme méthode de traduction. Initiation à la traduction françoise de textes pragmatiques anglais. Théorie et pratique.* [*Discourse Analysis as a Translation Method. Induction into the French translation of English Pragmatic Texts. Theory and Practice.*] Editions de l'Université d'Ottawa.

Delisle, J. (1988). *Translation: An interpretative approach*. University of Ottawa Press.

Delisle, J. (1992). Les manuels de traduction: Essai de classification. [Translation textbooks: An attempt at classification.] *TTR: traduction, terminologie, rédaction, 5*(1), 17-47. https://doi.org/10.7202/037105ar

Ehrensberger-Dow, M., Delorme Benites, A., & Lehr, C. (2023). A new role for translators and trainers: MT literacy consultants. *The Interpreter and Translator Trainer, 17*(3), 393-411. https://doi.org/10.1080/201750399X.2023.2237328

ELIA, EMT, EUATC, FIT EUROPE, GALA, LIND, & WOMEN IN LOCALIZATION. (2025). *European Language Industry Survey 2025. Trends, expectations and concerns of the European language industry.* https://elis-survey.org/wp-content/uploads/2025/03/ELIS-2025_Report.pdf

EMT Board. (2009). *Competences for professional translators, experts in multilingual and multimedia communication.* Directorate-General for Translation of the European Commission. https://ec.europa.eu/info/sites/default/files/emt_competences_translators_en.pdf

EMT Board. (2017). *European Master's in Translation. Competence Framework 2017.* Directorate-General for Translation of the European Commission. https://ec.europa.eu/info/sites/info/files/emt_competence_fwk_2017_en_web.pdf

EMT Board. (2022). *European Master's in Translation. Competence Framework 2022.* Directorate-General for Translation of the European Commission. https://commission.europa.eu/system/files/2022-11/emt_competence_fwk_2022_en.pdf

Faes, F., & Massey, G. (2024). Charting the language industry: Interview with an industry observer. In G. Massey, M. Ehrensberger-Dow, E. Angelone, D. Perrin, E. L. Low, & A. Sterzuk (Eds.), *Handbook of the language industry: Contexts, resources and profiles* (pp. 1-17). de Gruyter Mouton.

Ferdmaln, A. (2026). AI deskilling is a structural problem. *AI & Society, 41*(4), 3001-13. https://doi.org/10.1007/s00146-025-02686-z

Firth, J. R. (1968). *Studies in linguistic analysis*. Blackwell Publishers.

Gaspari, F., Almaghout, H., & Doherty, S. (2015). A survey of machine translation competences: insights for translation technology educators and practitioners. *Perspectives, 23*(3), 333-358. https://doi.org/10.1080/0907676X.2014.979842

Göpferich, S. (2009). Towards a model of translation competence and its acquisition: The longitudinal study TransComp. In S. Göpferich, A. L. Jakobsen, & I. M. Mees (Eds.), *Behind the mind: Methods, models and results in translation process research* (pp. 11-37). Samfundslitteratur.

Göpferich, S. (2013). Translation competence. Explaining development and stagnation from a dynamic systemic perspective. *Target, 25*(1), 61-76. https://doi.org/10.1075/target.25.1.06goe

Hackenbuchner, J., & Krüger, R. (2023). DataLitMT – Teaching data literacy in the context of machine translation literacy. In M. Nurminen, J. Brenner, M. Koponen, et al. (Eds.), *Proceedings of the 24th Annual Conference of the European Association for Machine Translation* (pp. 285–293). European Association for Machine Translation.

Hewson, L., & Martin, J. (1991). *Redefining translation: The variational approach.* Routledge.

Hurtado Albir, A. (Ed.). (2017a). *Researching translation competence by PACTE Group.* John Benjamins Publishing Company.

Hurtado Albir, A. (2017b). Translation and translation competence. In A. Hurtado Albir (Ed.), *Researching translation competence by PACTE Group* (pp. 3-34). John Benjamins Publishing Company.

Hurtado Albir, A., & Rodríguez-Inés, P. (2022). Second proposal. Resulting level descriptor proposal. In A. Hurtado Albir & P. Rodríguez-Inés (Eds.), *Hacia un marco europeo de niveles de competencias en traducción. El proyecto NACT del grupo PACTE.* MonTI Special Issue 7trans, 123-207. https://www.e-revistes.uji.es/index.php/monti/article/view/7115

Hurtado Albir, A., & Rodríguez-Inés, P. (2023). *Establishing Competence Levels in the Acquisition of Translation Competence in Written Translation. Third NACT proposal.*

https://www.effortproject.eu/framework-for-translation-levels-a-b/third-nact-proposal-of-descriptors/

Hymes, D. H. (1972). On communicative competence. In J. B. Pride & J. Holmes (Eds.), *Sociolinguistics: Selected readings* (pp. 269-293). Penguin.

International Organization for Standardization. (2017). *Translation services – Post-editing of machine translation output – Requirements* (ISO Standard No. 18587:2017). iso.org. https://www.iso.org/obp/ui/#iso:std:iso:18587:ed-1:v1:en

International Organization for Standardization. (2023). *Translation, interpreting and related technology – Vocabulary.* (ISO Standard No. 20539:2023). iso.org. https://www.iso.org/obp/ui/en/#iso:std:iso:20539:ed-2:v1:en

Jakobson, R. (1959). On linguistic aspects of translation. In R. Brower (Ed.), *On translation* (pp. 233-239). Harvard University Press.

Kelly, D. (2005). *A handbook for translator trainers.* St. Jerome.

Kennedy, D., Hyland, Á., & Ryan, N. (2009). Learning outcomes and competences. In *Bologna Handbook, Introducing Bologna Objectives and Tools*, *B2.3-3,* (pp. 1-18). https://cora.ucc.ie/items/5db3ade9-a1eb-4d52-b152-b2847b038096

Kenny, D. (2018). Sustaining disruption? The transition from statistical to neural machine translation. *Revista Tradumàtica. Tecnologies de La Traducció*, *16,* 59-70. https://doi.org/10.5565/rev/tradumatica.221

Kiraly, D. (1990). A role for communicative competence and the acquisition-learning distinction in translator training. In V. Patten & J. Lee (Eds.), *Second language acquisition – Foreign language learning* (pp. 207-215). Multilingual Matters.

Kirov, V., & Malamin, B. (2022). Are translators afraid of artificial intelligence? *Societies, 12*(2), 1-14. https://doi.org/10.3390/soc12020070

Koller, W. (1979/1997). *Einführung in die Übersetzungswissenschaft.* [*Introduction to translation studies].* Quelle & Mayer Verlag.

Koller, W., & Berg Henjum, K. (2020). *Einführung in die Übersetzungswissenschaft.* [*Introduction to translation studies].* Narr Francke Attempto.

Koponen, M., Mossop, B., Robert, I. S., & Scocchera, G. (Eds.) (2020). *Translation revision and post-editing: Industry practices and cognitive processes.* Routledge.

Lado, R. (1961). *Language testing: The construction and use of foreign language tests: A teacher's book.* Longman.

Lafeber, A. (2022). Skills and knowledge required of translators in institutional settings. In T. Svoboda, L. Biel, & V. Sosoni (Eds.), *Institutional translator training* (pp. 30-48). Routledge.

Lesznyák, M. (2007). Conceptualizing translation competence. *Across Languages and Cultures, 8*(2), 167-194. https://doi.org/10.1556/Acr.8.2007.2.2

Macaulay, T. (2024, April 18). 4 in 10 translators are losing work to AI. They want remuneration. *TNW | Deep-Tech.* https://thenextweb.com/news/translators-losing-work-ai-machine-translation

Massey, G., & Ehrensberger-Dow, M. (2017). Machine learning: Implications for translator education. *Lebende Sprachen, 62*(2), 300-312. https://doi.org/10.1515/les-2017-0021

Massey, G., & Ehrensberger-Dow, M. (2025). Translation competence in the age of generative AI: Debates, dilemmas, directions. In J. C. Penet, J. Moorkens, & M. Yamada (Eds.), *Teaching translation in the age of generative AI: New paradigm, new learning?* (pp. 3-26). Language Science.

Neubert, A. (2000). Competence in language, in languages, and in translation. In C. Schäffner & B. Adab (Eds.), *Developing translation competence.* John Benjamins Publishing Company.

Nitzke, J., & Hansen-Schirra, S. (2021). *A short guide to post-editing.* Language Science Press.

Nitzke, J., Hansen-Schirra, S., & Canfora, C. (2019). Risk management and post-editing competence. *The Journal of Specialised Translation, 31,* 239-259. https://doi.org/10.26034/cm.jostrans.2019.185

Nord, C. (1988). *Textanalyse und Übersetzen.* [*Text analysis and translation]*. Julius Groos Verlag Heidelberg.

Nord, C. (1991). *Text analysis in translation: Theory, methodology, and didactic application of a model for translation-oriented text analysis.* Brill.

O'Brien, S., Winther Balling, L., Carl, M., Simard, M., & Specia, L. (2014). *Post-editing of machine translation: Processes and applications.* Cambridge Scholars Publishing.

PACTE Group. (1998). *La competencia traductora y su aprendizaje: Objetivos, hipótesis y metodología de un proyecto de investigación*. [*Translator Competence and Its Acquisition: Objectives, Hypotheses, and Methodology of a Research Project*.] Poster presented at the *IV Congrés Internacional sobre Traducció*, Barcelona, Spain.

PACTE Group. (2001). La competencia traductora y su adquisición. [Translator competence and its acquisition.] *Quaderns. Revista de Traducció, 6,* 39-45. https://raco.cat/index.php/QuadernsTraduccio/article/view/25279

PACTE Group. (2003). Building a translation competence model. In F. Alves (Ed.), *Triangulating translation: Perspectives in process oriented research* (pp. 43-66). John Benjamins Publishing Company.

Piccardo, E. (2014). *From communicative to action-oriented: A research pathway.* Curriculum Services Canada.

Presas, M. (2000). Bilingual and translation competence. In C. Schäffner & B. Adab (Eds.), *Developing translation competence* (pp. 19-32). John Benjamins Publishing Company.

Pym, A. (2003). Redefining translation competence in an electronic age. In defence of a minimalist approach. *Meta: Translation Journal, 48,* 481-497. https://doi.org/10.7202/008533ar

Risku, H. (2010). A cognitive scientific view on technical communication and translation: Do embodiment and situatedness really make a difference? *Target. International Journal of Translation Studies 22(*1), 94-111. https://doi.org/10.1075/target.22.1.06ris

Risku, H., & Schlager, D. (2022). Epistemologies of Translation Expertise: Notions in Research and Praxis. In S. L. Halverson & Á. Marín García (Eds.), *Contesting epistemologies in cognitive translation and interpreting studies* (pp. 11-31). Routledge.

Robert, I. S., Remael A., & Ureel J. J. (2017). Towards a model of translation revision competence. *The Interpreter and Translator Trainer, 11*(1), 1-19. https://doi.org/10.1080/1750399X.2016.1198183

Roberts, R. (1984). Compétence du nouveau diplômé en traduction. [Competence of the future translation graduate.]. In *Traduction et Qualité de Langue. Actes Du Colloque Société des Traducteurs Du Québec/Conseil de La Langue Française* [*Translation and Language Quality: Proceedings of the Symposium of the Société des Traducteurs du Québec and the Conseil de la langue française*] (pp. 172-184). Éditeur officiel du Québec.

Sapir, E. (1949). *Language: An introduction to the study of speech.* Harcourt.

Sapkota, R., Roumeliotis, K. I., & Karkee, M. (2026). AI agents vs. agentic AI: A conceptual taxonomy, applications and challenges. *Information Fusion, 126*, Article 103599. https://doi.org/10.1016/j.inffus.2025.103599

Saussure, F. de. (1959/1919). *Course in general linguistics.* Philosophical Library.

Schäffner, C. (2000). Running before walking? Designing a translation programme at undergraduate level. In C. Schäffner & B. Adab (Eds.), *Developing translation competence* (pp. 143-156). John Benjamins Publishing Company.

Schäffner, C., & Adab, B. (2000). *Developing translation competence.* John Benjamins Publishing Company.

Schmidhofer, A. (2020). Translationsorientierte Fremdsprachenkompetenz: Versuch einer Modellierung. [Translation-oriented foreign language competence: An attempt at modeling.] In A. Schmidhofer & A. Wußler (Eds.), *Bausteine translationsorientierter Sprachkompetenz und translatorischer Basiskompetenzen [Components of translation-oriented language proficiency and basic translational competencies]* (pp. 21-33). Innsbruck University Press.

Tahirsylaj, A., & Sundberg, D. (2020). The unfinished business of defining competences for 21st century curricula – A systematic

research review. *Curriculum Perspectives, 40*(2), 131-145. https://doi.org/10.1007/s41297-020-00112-6

Torrejón, E., & Rico, C. (2012). Skills and profile of the new role of the translator as MT post-editor. *Tradumàtica tecnologies de la traducció [Tradumatics Translation Technologies], 10*, 166-178. https://doi.org/10.5565/rev/tradumatica.18

Vinay, J.-P., & Darbelnet, J. (1958). *Stylistique comparée du français et de l'anglais.* [*Comparative stylistics of French and English.*] Didier.

Voita, E., Sennrich, R., & Titov, I. (2019). When a good translation is wrong in context: Context-aware machine translation improves on deixis, ellipsis, and lexical cohesion. In A. Korhonen, D. Traum, & L. Màrquez (Eds.), *Proceedings of the 57th Annual Meeting of the Association for Computational Linguistics* (pp. 1198-1212). Association for Computational Linguistics.

Wang, L., Lyu, C., Ji, T., Zhang, Z., Yu, D., Shi, S., & Tu, Z. (2023). Document-level machine translation with large language models. In H. Bouamor, J. Pino & K. Bali (Eds)., *Proceedings of the 2023 Conference on Empirical Methods in Natural Language Processing* (pp. 16646-16661). Association for Computational Linguistics.

Wilss, W. (1976). Perspectives and limitations of a didactic framework for the teaching of translation. In R. W. Brislin (Ed.), *Translation applications and research* (pp. 117-137). Gardner.

Wilss, W. (1982). *The science of translation: Theoretical and applicative aspects.* Gunter Narr.

Wyndham, A. (2023, October 11). RWS CEO, Ian El-Mokadem, Lays Out the Bull Case for the Language Industry. *Slator*. https://slator.com/rws-ceo-ian-el-mokadem-lays-out-bull-case-for-language-industry/

Xi, Z., Chen, W., Guo, X., He, W., Ding, Y., Hong, B., Zhang, M., Wang, J., Jin, S., Zhou, E., Zheng, R., Fan, X., Wang, X., Xiong, L., Zhou, Y., Wang, W., Jiang, C., Zou, Y., Liu, X., Yin, Z., Dou, S., Weng, R., Cheng, W., Zhang, Q., Qin, W., Zheng, Y., Qiu, X., Huang, X., & Gui, T. (2023). The rise and potential of large language model based agents: A survey. *arXiv.* https://doi.org/10.48550/arXiv.2309.07864

Yamada, M. (2023). Optimizing machine translation through prompt engineering: An investigation into ChatGPT's customizability. In M. Yamada & F. do Carmo (Eds.), *Proceedings of Machine Translation Summit XIX, Vol. 2: Users Track* (pp. 195-204). Asia-Pacific Association for Machine Translation.

Yamada, M. (2026). Teaching translation with AI: Bridging theory and practice through prompt engineering. In J. C. Pennet, J. Moorkens & M. Yamada (Eds.), *Teaching translation in the age of generative AI: New paradigm, new learning?* (Translation and Multilingual Natural Language Processing 25) (pp. 87-104). Language Science Press.

Zajdel, A. (2022). Catching the meaning of words: Can Google Translate convey metaphor? In J. L. Hadley, K. Taivalkoski-Shilov, C. S. C.

Teixeira & A. Toral (Eds.), *Using technologies for creative-text translation* (pp. 116-138). Routledge.