# AGENCY, COMPETENCE AND GENALIN TRANSLATION AND TRANSLATOR EDUCATION

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#### **ABSTRACT**

As the age of neural machine translation (NMT) has matured, agency seems to have emerged as a fulcrum around which the value of professional human translation can be judged. However, some studies suggest that more recent generative AI (GenAI) systems indicate a potential for collaboration and reciprocity that bears resemblances with human agency, for instance, in the nascent deployment of AI agents in cognitive behaviour therapy and social skills training. The present article examines important implications of GenAI for translators and those who educate them. Against the backdrop of human-agent interaction (HAI), it considers the dynamic interactions of human and GenAI agency, sketching out some key skills required by professional translators in a language industry that is moving progressively towards GenAI. It then briefly outlines how these might be taught by combining an expert-in-the-loop model with established social constructivist and emergentist approaches to (experiential) learning proposed by Kiraly (2000, 2013).

**Keywords:** translation competence; translator education; generative AI (GenAI); agency; human-agent interaction (HAI)

#### 1. Introduction

This paper considers the nature, status and value ascribed to human agency in the context of translation and beyond, as artificial intelligence (AI) makes ever deeper and arguably disruptive (Lundin 2024) inroads into the established working processes and practices of the language industry. It examines how agency relates to models of translation competence (TC), how the emergence of generative AI (GenAI) is changing the complexion of that relationship, and what the implications of those changes are for the way that TC is modelled and developed.

Since the advent of neural machine translation (NMT) and the rapid uptake of machine-translation post-editing (MTPE) by translation companies (ALC 2024), the concept of agency has become a yardstick by which the value of professional human translation can be judged (Asscher 2023; Vieira 2020). However, working with more recent GenAI systems suggests a potential for collaboration, reciprocity and mutual

learning that, in the studies presented below, appears to demonstrate parallels with key aspects of human agency.

The present article examines important implications of GenAI for professional translators and their educators. The sub-field of human-machine interaction (HMI) known as human-agent interaction (HAI; Bradshaw et al. 2011) provides the backdrop to exploring the dynamic interactions of human and perceived GenAI agency. Key skills are identified for professionals working in a language industry where GenAI is quickly taking hold. The article ends with a brief consideration of possible ways and means of teaching those skills.

# 2. Background: Definitions and descriptions

Before proceeding, we should briefly clarify the three terms in the article's title. Lim et al. (2023: 2) lucidly define GenAI as a technology that "leverages deep learning models to generate human-like content (e.g., images, words) in response to complex and varied prompts (e.g., languages, instructions, questions)". Its best-known implementations are conversational agents, such as ChatGPT. They are powered by large-language models (LLMs) (e.g., Open AI's GPT-4, Google's Gemini 1.5), which with each iteration are becoming more multimodal and multilingual (Wyndham 2024). While conversational agents provide interfaces for direct prompting by users, the language industry also uses specific application programming interfaces (APIs) to prompt the LLMs they have incorporated into their workflows. LLMs deployed in the language industry can be aggregated with MT (e.g., to perform automatic MTPE; see Wheal 2024), integrated into CAT tools (e.g., Trados Copilot, which can translate, edit, summarise and check terminology) and/ or integrated into translation management systems (TMS; e.g., memoQ AGT, which supports custom LLM prompts for MTPE, style adaptation and segment rewriting).

LLM use in the language industry is sharply accelerating, and language-service providers are predicted to become major enablers of multilingual, multimodal GenAI content (Slator 2024). The 2024 European Language Industry Survey (ELIS 2024: 35ff.) showed a modest 17% of freelancers and just 10% of language companies actually using GenAI, but planned implementation is far higher: more than 70% of language companies, 50% of language departments in private companies, 40% of language departments in international public agencies and 30% of language departments in national or local public agencies. The Association of Language Companies 2024 Industry Report (ALC 2024), released later that year, indicated a seven-fold increase in LLM use. In 2023-24, two-thirds of MT providers offer third-party LLMs fine-tuned on customer data and 80% offer hybrid LLM and specialised MT models (Slator 2024: 43). LLMs are leveraged to rephrase, summarise and translate content in TMS, to provide quality evaluation, gauge MTPE effort and even perform MTPE (Slator 2024: 50ff.). One year on, Gen AI has become a firm feature of the language industry. The 2025 European Language Industry Survey (ELIS 2025: 34–35) reports that, while MT use by language-service companies and freelancers reached 50% and 54% of handled projects respectively, AI use, which had never figured previously in the statistics, stood for the very first time at an "impressive" 34% for companies and 43% for freelancers. The actual tasks to which Gen AI is put mainly cover, in descending order of frequency, its use as an alternative to MT, for editing and quality assurance (QA), for

text re-styling and content creation, for content and terminological research and for term extraction.

GenAI thus appears set to occupy a significant position in multiple aspects of language-industry production. This realisation is making a mark on European translator education: in the 2024 European Language Industry Survey (ELIS 2024: 35, 41), 63% of translation students confirmed that GenAI was part of their training.

Nevertheless, AI (and automation in general) remains a perceived threat to the economic and professional status of translators and trainers (ELIS 2024: 24f.; Vieira 2020). The anxiety appears to be closely bound up with a putative surrender of agency (Orrego-Carmona 2024: 9f.), previously manifest in attitudes to MT that reflect an abiding "antagonistic dualism" (O'Brien 2024) of human versus machine and feed off the persistent human-centric bias of the "anthropolitics" (Rozmysłowicz 2024) in translation studies (TS). To illustrate, Cadwell et al. (2018), Sakamoto (2019) and Vieira (2020: 327) ascribe translators' resistance to MTPE to a perceived loss of agency, while educators are at pains to stress that MT-based production continues to pivot around an inchoate "human factor" (Rico & Gonzalez Pastor 2022: 188). As Asscher (2023: 14ff.) cogently points out, the response to AI has been to make the creative and moral "authenticity" of conscious human agency the touchstone of translators' professional self-concept. This echoes discourses outside TS, such as moral philosophy, which places a premium on the responsible agency of human interventions (Sebastián & Rudy-Hiller 2021), and educational policy and science, where the key distinguishing factor of human (teacher) agency resides in responsible action, critical thinking, systems thinking, logical reasoning, cultural agility, problem solving and emotion regulation (OECD 2023; Gimpel et al. 2023).

But what exactly is meant by "agency", the principal term in the title? The Merriam-Webster Online Dictionary refers generically to "the capacity, condition, or state of acting". Within TS, Kinnunen and Koskinen (2010: 6) focus on capacity/ability and add the constituent of will ("the willingness and ability to act"), while Bandura's (2005: 313) definition privileges intentionality ("intentionally mak[ing] things happen by one's actions"). Bandura's (2005) elaborated classification of agency's four core features (intentionality, forethought, self-reactiveness and self-reflectiveness), founded on self-efficacy and operating in three distinct modes (the individual, proxy and collective), self-evidently presuppose the concept of capacity/ability made explicit in the former definitions.

In professional or study contexts, "capacity" or "ability" is predicated on competence, the central element in the paper's title and defined here, in line with the EMT framework (2022: 3), as the "proven ability to use knowledge, skills and personal, social and/or methodological abilities, in work or study situations and in professional and personal development". The close relationship between agency and competence is amply illustrated by the fact that the above list of human agentic attributes cited in OECD (2023) and Gimpel et al. (2023) is nothing other than a catalogue of transferable skills to be applied by teachers, students and graduates in work and study situations. In professional translation, competence is thus the pre-requisite for exerting context-adequate agency in the socio-technical environments of an industry where GenAI is progressively deployed.

<sup>&</sup>lt;sup>1</sup> See https://www.merriam-webster.com/dictionary/agency (access 20. 2. 2025).

Having defined key terms and described the background to GenAI in the language industry, we now turn to the agentic properties of GenAI. Arguing that traditional views of the relationship between agency, technology and competence no longer provide an adequate foundation for making the most, and the best, of GenAI, we then propose a modified approach.

## 3. Beyond instrumentality: GenAl and agency

The implication so far has been that agency is an exclusively human property. But the anthropomorphic discourse surrounding GenAI already intimates a broader conceptualisation. ChatGPT is a conversational *agent*. In educational publications, GenAI is repeatedly referred to as a "partner", "co-partner" or "collaborator" in language, writing, learning, coding, and so on (Atlas 2023; Gimpel et al. 2023). IT researchers talk of Human-GenAI interaction as "co-creation" (Eapen et al. 2023; Nah et al. 2023).

While one might argue that these metaphors are simply rhetorical devices, it is worth noting that material, non-human agency has for some years been an established concept in disciplines such as archaeology and anthropology (Robb 2010; Van Oyen 2019). The major theoretical framework enlisted for material agency is Actor-Network Theory (ANT; see Latour 2005). Within TS, ANT has long informed cognitive approaches to translation performance, competence and workplace research, where technologies and artefacts used by translators are seen as agentic "actants" (the ANT term) indistinguishable from human counterparts (Risku & Windhager 2013: 36f.). The "dance" or interplay of human and material agency in translation has also been discussed in TS, notably by Olohan (2011) and by Ruokonen and Koskinen (2017). Yet even here, GenAI goes beyond a conceptualisation of material agency that hinges on the distinction between the capacity of human agents to both resist and accommodate, and of non-human agents simply to resist (Olohan 2011: 344): through iterative prompting and fine-tuning, GenAI is able to accommodate in its own right by means of in-context learning (Dong et al. 2023) and deep learning, respectively. As van Lier (2023) points out in her discussion of "artificial agency", GenAI represents "a change in our interaction with AI-systems that we are not yet conceptually ready for", suggesting that it might be apposite to adopt the non-anthropocentric perspective proposed by Ruokonen and Koskinen (2017).

AI in general, and GenAI in particular, challenge long-held assumptions about the purely instrumental deployment of technology. Before ChatGPT was launched in November 2022, Rico and Gonzalez Pastor (2022: 190, 193) argue that teaching MT should transcend an "instrumentalist agenda that concentrates on the technical properties of the technologies" and that educators should "share a holistic view of MT, one that evidences how the human factor is key to the translation process". This is undisputed. But they also indicate that complementary effects of cognitive augmentation could be involved, for instance in the way MT use can spark human creative processes (Rico & Gonzalez Pastor 2022: 192), a feature of Krüger's (2024: 18f.) later model of AI literacy (see below). The present article contends that in the AI age, transcending the instrumentalist agenda includes the understanding that an awareness of such complementarity is vital to engaging in informed interactions with GenAI.

Indicators come from outside TS. Before the advent of GenAI, there was evidence that individual human performance improved from AI advice "due to complementary knowledge" (Fügener et al. 2021: 1552). But it came with a substantial caveat: human groups interacting with AI were far less effective compared to those without AI assistance - though the researchers did suggest that personalised AI advice might provide the "best of both worlds" (Fügener et al. 2021: 1527). GenAI now has the capacity for personalisation through informed, context-rich prompting. Virtual agents capable of reciprocal adaptive behaviour have been successfully used in cognitive behaviour therapy and social skills training (Woo et al. 2024), and research on human-AI friendship shows it to be similar to human-human relationships and beneficial to social health (Brandtzaeg et al. 2022; Chaturvedi et al. 2023; Guingrich & Graziano 2023). Research has also reported striking results regarding the capacity of Gen AI to make judgements in challenging and sensitive social situations. Mittelstädt et al. (2024) subjected five chatbots and 276 human participants to a standard Situational Judgement Test (SJT) in which the participants had to suggest the most appropriate course of behaviour in difficult social situations containing a high degree of potential for conflict. All the LLMs performed at least as well as the human sample, with some (Claude, Copilot and the you.com chatbot) significantly outperforming the humans. More controversial research has also found GPT-4 to mimic human behaviour in Theory of Mind tasks (Kosinski 2024; Strachan et al. 2024).

Finally, Sharma et al. (2024) have investigated the agency that LLMs are seen to possess in human-AI collaborative tasks. They ascertain that models displaying dialogue interactions associated with Bandura's (2005) four features of agency are likely to be perceived as agentic. Their findings show that, in dialogues prompted among various LLMs, GPT-4 demonstrates high agency, especially in terms of intentionality and self-efficacy (i.e., effectiveness in pursuing preferences and arguments, which Bandura's [2005] considers the very foundation of agency), but also of motivation (which corresponds to Bandura's [2005] forethought) and self-regulation (which aligns with Bandura's [2005] self-reactiveness). The point is not that Gen AI possesses the conscious agency displayed by human actors – it remains, after all, nothing other than a non-conscious, non-sentient technology – but that it accurately simulates the foundation and principal features of agency, allowing that simulation to be perceived as agentic by the humans who interact with it.

With the above in mind, what was once an evidently asymmetrical relationship between agentic humans and their (technological) tools is no longer so clear-cut. Interaction with GenAI appears to fulfil the criteria of the "joint activity" of HAI: the "interdependence [...] to produce [...] a genuine joint product" (Bradshaw et al. 2011: 288). Working with GenAI entails a level of reciprocity, complementarity and collaboration previously unknown in technology use, even within HMI. So, what are the ramifications for the profession and teaching of translation?

## 4. Working with GenAl

The explosion of non-professional and professional MT use after the launch of readily available NMT systems in the middle of the last decade, coupled with the increasing data-

fication of society in general, has seen the successive emergence of digital and data literacy concepts directly related to translation. The first of these is MT literacy, "knowing how MT works, how it can be useful in a particular context, and what the implications are of using MT for specific communicative needs" (O'Brien & Ehrensberger-Dow 2020: 146). This was quickly followed by *professional* MT literacy, "the full range of MT-related competences professional translators [...] require [...] to participate successfully in [...] the MT-assisted professional translation process" (Krüger 2022: 249). The latest evolution is AI literacy for translation, interpreting and specialised communication (Krüger 2024), which builds on a combination of professional MT literacy and generic AI literacy, defined by Long and Magerko (2020: 2) as "a set of competencies that enables individuals to critically evaluate AI technologies; communicate and collaborate effectively with AI; and use AI as a tool online, at home, and in the workplace".

To work effectively with GenAI, translators and other language professionals naturally need to be MT and AI literate. The comprehensive framework outlined by Krüger (2024) covers technical foundations (operating principles, training, fine-tuning, etc.); determining the domain-specific performance and usefulness of AI technologies for specific tasks; effectively implementing AI in language industry workflows; and awareness of ethical and societal aspects, such as (dis)empowerment, bias, distortion and manipulation, or assessing AI's environmental, economic and social impacts.

However, most immediately relevant to the agentic features of GenAI is interaction, the pivotal and most extensive dimension of the framework (Krüger 2024: 18f.). A recent paper by Google researchers (Briakou et al. 2024) on long-form text translation concludes: "multi-turn interaction [pre-translation research, drafting, refinement, proofreading] with Gemini 1.5 Pro [...] improves translation quality over directly translating the entire document with a single prompt". The findings throw into sharp relief the continuity of interaction needed between GenAI and the professionals using it. The ability to design and iteratively optimise adequate prompts and, at a more technical level, to apply structured prompt engineering techniques to guide AI behaviour, thus emerge as obvious key skillsets, and they are indeed recognised as such by industry and academia (Faes & Massey 2024: 27f.; Krüger 2024: 18f.; Yamada 2023).

But there is more to consider. In line with professional MT literacy, familiarity with MTPE techniques for error detection and correction remain just as important when it comes to translated GenAI output. However, hallucinations and error types can differ widely due to varying architectures and training data, and some recent studies still suggest that LLMs underperform on domain-specific and multi-domain tasks compared to NMT (e.g., Eschbach-Dymanus et al. 2024; Hu et al. 2024). Coping with such inherent variability is just one way in which language professionals must bring their adaptive expertise (Angelone 2023) to bear.

Last but not least, the awareness, direction and regulation of the cognitive and affective effects of HAI on human agents are paramount concerns (Krüger 2024: 18f.): strategically directing cognitive augmentation (reduced effort, creative impulses); identifying and mitigating cognitive impairment (priming, stagnation, deskilling); and self-regulating emotional responses, attachment, overestimation of AI capabilities and over-trusting (see Dorst et al. 2025). It is worth adding that self-regulation (Bandura's [2005] self-reflectiveness), together with motivation (Bandura's [2005] forethought), is precisely where LLMs

score less well on features of perceived agency in Sharma et al.'s study (2024) – a neat illustration of how human and GenAI agentic features may complement one another.

## 5. Modelling competence

It will have escaped no-one's attention that the bulk of human abilities and attributes listed above comprise transferable skills, also frequently referred to as transversal (Pym & Hao 2025), generic (EMT 2022) or soft (Nitzke & Hansen-Schirra 2021) skills. The capacity to work with GenAI thus parallels a conspicuous upgrading of transferable skills visible in recent industry profiles and surveys in addition to the more obvious demands of technology competence and AI literacy. Transferable skills, especially self-regulation, commitment, self-efficacy, collaborative ability and adaptive expertise, are omnipresent in graduate and employer data as well as hiring procedures (Angelone 2023; Bernadini et al. 2022; Risku et al. 2022). Similarly, the top employee skills listed in the ALC 2024 Industry Survey (ALC 2024) comprise, after AI and big data at the top of the list, creative thinking, service orientation/customer service and curiosity/lifelong learning.

Market requirements have not gone lost on leading TC and MTPE models. Barely mentioned in early models (PACTE Group 2003), transferable skills have become significant components of recent ones: for example, the personal, interpersonal and service-provision dimensions of the EMT framework (2022: 10), put forward as key to employability and adaptability, or Nitzke and Hansen-Schirra's (2021: 69ff.) presentation of transferable skills as the roof topping the house used to visualise their MTPE model. In the present context, an interesting case in point is the latest iteration of the EMT framework (2022). Not only does it place a stronger transversal emphasis on critical thinking than its predecessor (EMT 2017), it also elevates individual, proxy and collective networking to a discrete service-provision skill (EMT 2022: 11), explicitly upvaluing the three modes of *human* agency.

Likewise, technology competence is well represented in the TC models, and indeed has been so since the turn of the century, though its scope and status has evolved over time. The influential PACTE Group's (2003) model includes technology in its instrumental sub-competence. In the most recent model it has inspired – of legal TC (Prieto Ramos 2024) – instrumental competence is retained and extended to cover CAT and MT use. Similarly, the EMT framework (2022: 9) refers extensively to MT and literacy, and at least potentially (albeit vaguely) covers GenAI with the descriptor "students know how to use the most relevant IT applications [...] and adapt rapidly to new tools and IT resources". Overall, as Pym and Hao (2025: 39) observe, the EMT framework (2022) differs from the PACTE Group's model (2003) in recognising that technology skills are no longer supplemental but wholly integral to translation processes, and as such can affect the weighting of other skill clusters.

Current TC models are also strong on "old school" language, intercultural and interlingual skills, reflecting industry demands for "experts in the loop" (Slator 2022) capable of combining these with appropriate technological competence and domain expertise (Faes & Massey 2024: 27ff.). Only in respect of domain knowledge do the models seriously diverge, with the EMT framework (2022) coming under particular criticism for

downgrading domain specialisation (Prieto Ramos 2024: 153). Given the comparative weakness of GenAI's domain-specific performance (see section 4 above), this criticism appears to be highly relevant to those working with GenAI output.

But this is not the only criticism that can be levelled, nor the most pertinent. Where all such models prove to be less than adequate for the AI age is in not (yet) countenancing the perception of technological agency. They tend to reinforce an instrumentalist agenda in developing and deploying technological skills, restricting the scope of interactional transferable skills to the personal, interpersonal and service-provision spheres of human interactivity – individual, proxy and collective.

Addressing the issue would seem especially germane at a time when the language industry is reportedly experiencing difficulties in recruiting the combined AI and linguistic expertise it needs (Faes et al. 2024), and when European survey data (ELIS 2024: 49) tell us that a graduate skills gap stubbornly persists – first and foremost in translation technology, but also in target-language skills, translation competence and interpersonal skills.

In view of the data indicating the broad and growing deployment of Gen AI across the language industry (see section 2), it would seem apposite to modify the models and adapt the training into which they feed. In the next section, we consider aspects of how GenAI can be suitably and practicably integrated into translator education.

## 6. Teaching with and for GenAl

The jury is still out on how GenAI will affect education in general. Teachers and their institutions are confronted with a basic dilemma: do they ban the use of GenAI or take it on board, so that students can learn how to use it properly and well? (Teubner et al. 2023: 98). To judge by the response of global policymakers, a clear consensus has emerged towards onboarding, with the caveat that a human-centred approach privileging human agency, including teacher agency, must be scrupulously maintained (OECD 2023; UNESCO 2023).

A related but subtly different approach is observable in TS and in some related publications (Pym & Hao 2025; Penet et al. forthcoming): GenAI is a professional and educational reality that cannot be ignored, a powerful scaffolding support, assistant (Pym & Hao 2025: 68f.) and/or facilitator (Angelone forthcoming). The incremental anthropomorphism is unmistakeable. GenAI can be a versatile tool for quick, efficient, multimodal information retrieval, terminology extraction, multilingual text production, rephrasing, summarising, editing and translation (see section 2 above). But it is also a collaborator able to respond to iterative prompting and capable of on-the-fly in-context learning, demonstrating features of agency that human interactors will need to match and, where necessary, surpass with their own.

Utilising the agentic features of GenAI in translator education is unproblematic. From the perspective of HAI, GenAI is an interactive *partner* in both multilingual output production and learning processes (Massey & Ehrensberger-Dow forthcoming). As such, it can be seamlessly integrated into social constructivist and emergentist experiential learning (Kiraly 2000; 2013), where teachers share agency with students by partnering as learners in proactively seeking knowledge (Kiraly 2013: 214f.). Experiential collaborative

learning outcomes include greater student responsibility, learner autonomy ("learning to learn"), motivation, self-efficacy, self-regulation and critical reflection (Kiraly & Massey 2019) – transferable skills that should necessarily complement (Gen)AI use in education (see section 2 above) and which simultaneously support employability in an industry deploying more and more Gen AI across its service portfolio and keen to recruit staff with AI skills (see sections 2 and 5 above). Extending the agentic nexus to embrace GenAI is perfectly coherent with the design and goals of the experiential learning process, centred on authentic or simulated real-world projects, and appropriately supported by scaffolding for students at different levels of proficiency. In such a setting, GenAI can function both as part of the scaffold and/or as a learning partner. Decisions about whether and how to deploy GenAI, as well as critical evaluations of resultant processes and products, can serve to hone critical thinking and evaluation skills. The minimally invasive step of slotting GenAI into experiential teaching or learning roles – for instance, as teaching assistants, or as co-learners in student groupwork – would be a natural progression towards acknowledging, and exploiting, its agentic potential.

TC competence models need to adapt to this potential, not by the quick expedient of aggregation, but by reviewing an instrumentalist view of technology to accommodate a perception of technological agency. In future, this might even entail dispensing altogether with distinctions between technological and interpersonal interactions – just one implication of the sociotechnical revolution in which (Gen)AI has become an "integral part of social interaction", "a potential sociological being" (Yolgörmez 2021: 144f.; cited in Tieber & Baumgarten 2024: 380), a contention that is convincingly supported by the above-mentioned research on Gen AI's capacity to simulate social partnership, adaptivity and judgement (see section 3 above). The stable, future-proofed elements of existing TC models, at least according to language-industry expectations, seem to be the "old school" skills subsumed under language, culture and translation competence (EMT 2022), supplemented by another key element in the expert-in-the-loop model (Slator 2022; Faes & Massey 2024: 27ff.), domain expertise.

In terms of specific outcomes related to GenAI use, Pym and Hao (2025: 72f.) rightly point out that individual study programmes require their own needs analysis, and that remaining "fixated on just one duplicitiously stable set of skills" does a disservice to graduates entering a diversifying range of professions. Nevertheless, and only for illustrative purposes, this article ends with an (adapted) basic set of skills drawn up by Massey and Ehrensberger-Dow (forthcoming). They comprise a combination of the transferable skills discussed above (self-efficacy; cognitive and emotional self-regulation; critical thinking; adaptivity; creative problem-solving; ethical accountability; collaborative ability in human and AI interactions) with hands-on components of HAI competence:

- Designing and/or engineering effective prompts (translation purpose, client specifications, target genre, audience, etc.); evaluating GenAI responses with supplementary research (where appropriate); iterative re-prompting
- Understanding and responding to cognitive augmentation and impairment, especially negative (and positive) priming effects
- identifying and eliminating bias, additions, omissions, hallucinations
- understanding LLM data sources, knowledge time-lags, fine-tuning

Equipped with such skills, graduates will be better placed to interact productively and effectively with agentic GenAI.

#### 7. Conclusion

The relevant findings from surveys conducted this and last year (ALC 2024; ELIS 2024, 2025; Slator 2024) show the strong and growing significance of GenAI to the language industry. With Gen AI being deployed in a wide variety of ways that reflect the industry's continued diversification, from research to translation, editing, content creation and QA, translators and other language professionals need to have the appropriate skills to work efficiently and effectively with the technology in the various tasks they perform.

Key to those skills is understanding and handling the dynamic interactions of human and perceived AI agency. Current TC models already adequately cover many of the old-school translation and textual skills that industry demands, but they fail to recognise the special status of increasingly collaborative AI technologies that demonstrate all the major attributes of agency. These substantially lessen the asymmetrical relationship between language professionals and their tools than has hitherto been the case, requiring more subtle dimensions of interactive utilisation and (self-)awareness that go beyond the reductive instrumentalism of tool use evident in even the most recent leading models. More attention should therefore be paid both to the domain specialisation that industry requires of its experts in the loop, and to the interactions with ever more capable technologies that, if industry surveys and commentators are to be trusted, may well play a weightier role in sustaining the loop itself.

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#### ZUSAMMENFASSUNG

Im fortschreitenden Zeitalter der neuronalen maschinellen Übersetzung (NMT) scheint sich die Handlungsfähigkeit als Dreh- und Angelpunkt für die Beurteilung des Wertes professioneller menschlicher Übersetzung herauskristallisiert zu haben. Einige Studien deuten jedoch darauf hin, dass neuere generative KI-Systeme (GenAI) ein Potenzial für Zusammenarbeit und Reziprozität aufweisen, das Ähnlichkeiten mit menschlicher Handlungsfähigkeit besitzt, z. B. beim aufkommenden Einsatz von KI-Agenten in der kognitiven Verhaltenstherapie sowie im sozialen Kompetenztraining. Der vorliegende Artikel untersucht wichtige Implikationen des Einsatzes generativer KI für Übersetzer:innen und deren Dozierende. Vor dem Hintergrund der Mensch-Agent-Interaktion (*Human Agent Interaction*, HAI) werden die dynamischen Interaktionen zwischen menschlicher Intelligenz und generativer KI unter die Lupe genommen. Einige Schlüsselkompetenzen werden skizziert, die professionelle Übersetzer:innen in einer sich zunehmend in Richtung generative KI-Systeme bewegenden Sprachindustrie benötigen. Anschließend wird kurz umrissen, wie diese durch die Kombination eines Expert-in-the-Loop-Modells mit etablierten, von Kiraly (2000, 2013) vorgeschlagenen sozialkonstruktivistischen und emergentistischen Ansätzen des (erfahrungsbasierten) Lernens vermittelt werden könnten.

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