# No more buying cats in a bag? Literary Translation in the age of language automation

## Editorial

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## Abstract

This paper is an introduction to the special Issue on Computer-Aided Literary Translation. It explores varying degrees of automation and the role of humans in automated processes, be it as experts or novices. Our contention is that automation can realize noble ideals, such as a more accessible and diverse global book market, but it can also have profound negative effects, especially in a cultural context. This introduction provides an overview of the complex interplay between technology and human involvement in literary translation.

Keywords: literary translation; computer-aided literary translation; accessibility; diversity; ethics

## Introduction

Within the intricate fabric of human communication, literary translation functions as a conduit, facilitating the transmission of wonderful stories, nuanced linguistic and conceptual layers across cultural and linguistic boundaries. *The Oxford History of Literary Translation into English*, for instance, underscores the profound significance of translation in shaping and fostering cross-cultural appreciation and captures centuries of translation practice within five volumes no less. However, with the emergence of automated

translation (AT) deemed more useful than any of its predecessors – neural machine translation (NMT) on the one hand, Large Language Models (LLMs) on the other hand – the contemporary landscape of literary translation is undergoing an increasingly substantial transformation.

In recent years, both translation scholars and software engineers have proposed numerous standalone language automation solutions or hybrid language technology and human translation integrations that claim to be highly beneficial for literary translators (cfr. infra). However, it is important to note that many of these solutions seem to stem from a solutionist mindset. This approach, characterised by a simplified belief in technology's ability to effortlessly address complex issues, may exaggerate the potential of technological solutions for meaningful success in the intricate realm of literary translation. Despite undeniable efficiencies brought by advancements in language technology, such as machine translation (MT, in its current NMT or LLM forms, even though the difference is increasingly by name only as both rely on artificial neural networks), the complexities of literary expression, cultural nuances, and an author's unique voice remain challenging for automated systems to fully grasp. As we navigate the landscape of language technology in the context of literary translation, it becomes crucial to critically assess the appeal of solutionist discourse without relinquishing the nuanced role that technology can play in enhancing — rather than the ever-present doom of 'replacing' — the creative and interpretive aspects of the literary translator's craft.

Language technology (LT) is a conventional term referring to technology capable of *processing* natural language. The progress in NMT and LLMs as integral components of automated language production, or language automation (LA), has significantly expanded the utilisation and application of automated translation (AT). LT and LA also encompass content creation in the same language through generative AI. However much Generative Pre-Trained Transformers, such as OpenAI's renowned Large Language Model (LLM) GPT 3.5 and 4, are also capable of providing automated translation (AT), this introduction does not venture into the world of language automation for content creation in the same language.
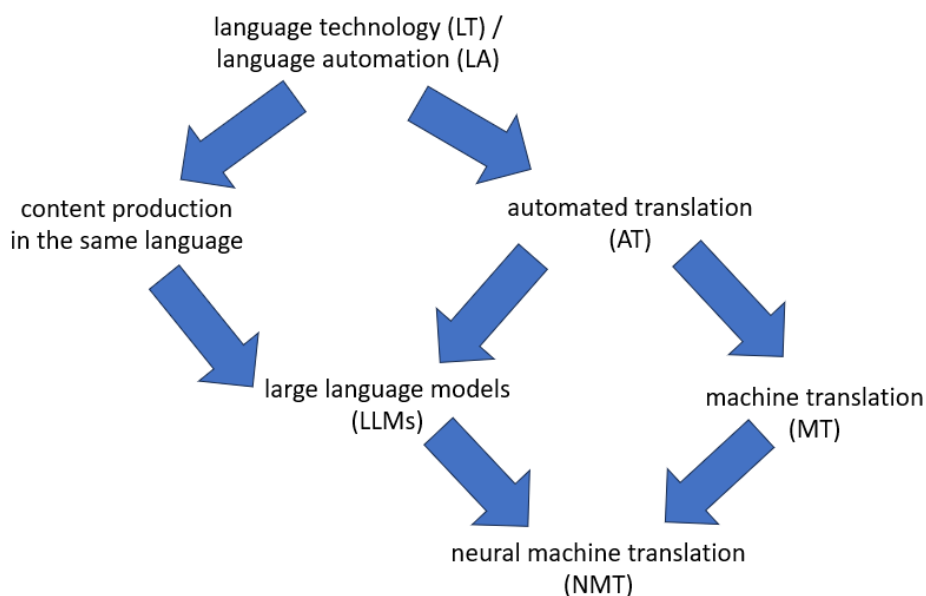
*Figure 1. An attempt to organise concepts, processes and labels*

LT and LA, including for automated translation purposes, herald promises of increased efficiency, speed, and accessibility (among the many, see for instance Drugan 2013, Sinwai 2016, Castro and New 2016, Ragni and Vieira 2022). Navigating language boundaries through limited, partial, or complete use of technological advancements and automated solutions most certainly appeals to a vast audience of nigh numerous users. Nevertheless, the intricate nature of literary translation poses a distinctive challenge to the capabilities of LT, MT in particular. The intricacies, subtleties, and cultural idiosyncrasies embedded in literary works often escape the capabilities of language automation such as NMT and LLMs. The promises of elevated output quality, often sensationalised in media and marketing narratives, stand juxtaposed against the delicate interplay of emotions, cultural nuances, and linguistic subtleties inherent in the craft of literary translation. This leads to scepticism and resistance both within and beyond scholarly circles.

This special issue therefore endeavours to dive into the core of this transformative juncture. As we scrutinise the potential impact of automated translation on literary translation, we grapple with the nuanced stance and, occasionally, adversarial sentiment held by literary translators towards machine translation.

## CaLT – HaLT – FauLT

Even though the world of LA, in particular in relation to translation automation, is riddled with acronyms, we do aim to provide additional direction to the ideas and concepts at play in the domain of LA and creative translation through the inclusion of three acronyms in relation to specific standardised interactions between automation and human translation as well as through an additional approach to the existing concept of *human-in-the-loop* (HITL). We present EITL, the *expert-in-the-loop*, in response to HITL, on the one hand, and on the other hand we elaborate on CaLT (Computer-aided Literary Translation), HaLT (Human-aided Literary Translation) and FauLT (Fully-automated Literary

Translation). The distinction between the first two concepts is based on CAT and HAT (see for instance Delisle et al. 1999). The term 'computer-aided literary translation' was probably used first in this context in 2019 (see Youdale 2019, Seligman 2019). To our knowledge the term 'human-aided literary translation' has not really been used properly. The term 'fully automated literary translation' occurred once in an online text (Youdale 2020).

Computer-aided Literary Translation (CaLT) is a human-centred exploration of literary translation techniques, where human translators leverage computer tools. This is much related to the use of a database of project-specific terminology (termbase) or the re-use of previously translated material (translation memory, TM) in computer-aided translation applications, also known as Computer-aided Translation (CAT) tools. Following on from the automated re-use of human translation, the possible "automation" of microprocesses prompts a nuanced examination of how technology enhances the work of literary translators and how automation for specialised or non-fiction contexts effectively transgresses into the world of literary texts. CaLT goes beyond mere mechanisation and technologisation, creating an interplay between routine and automation, as well as non-technologised creative processes (see Massey et al. 2022). The central question in CaLT revolves around a dual focus: how technological advancements can facilitate and how this could possibly augment the capabilities of literary translators. The collaborative landscape between literary translation and technology has indeed shifted towards creating tools that serve as effective aids, but still avoiding full automation. Recent developments highlight that a tool appears to become a genuine asset for literary translators when it operates intuitively, provides a clean interface, adapts to individual preferences, widens the perspective on the source text and fosters creativity (see Van Egdom 2022).

These criteria recognise the evolving needs within the translation landscape, especially the literary one, balancing technological support with the artistic dimensions of the translator's craft. It should therefore not come as a surprise that uptake of CaLT working processes often is based on individual needs, preferences and even dislikes. The use of a translation memory can serve as a repository (when successful more a treasure trove) for reviewing similar literary translations from years prior to a new one but also for familiarising specific translation approaches for the same author, or even intertextuality. A problem here is "priming": the cognitive load of possibly having been suggested something that is difficult to be unseen and that affects if not drives possible better translation solutions. Therefore, a human expert is needed to move beyond such affects. CAT tools also typically include statistics and quality assurance, providing possible indicators of too large a text swell or even a sentence that was overlooked. Backtranslation, machine translating the literary translation back into the language of the source text, can act as an additional verification layer for spotting possible ambiguities in the human translation, or as well some omitted or forgotten parts. But ultimately the human translator remains the expert, in charge of the specific application of language technology and in control of possible assumption of suggested automated output. It is the expert who defines the interactivity, who saves the final translation from priming, and

who still defines the beauty and intricacy of literary expression. Indeed, the evolving CaLT partnership of expert-translator and technology holds the promise of elevating the art of translation while preserving the unique human touch.

Contrary to the human-centred approach of CaLT, Human-aided Literary Translation (HaLT) adopts a computer-centric approach with humans in a complementary role: the literary translator is much less in charge. The essence of HaLT encompasses two fundamental pillars. Firstly, it involves the development and integration of advanced MT solutions, ideally tailored specifically for literary translation and obviously within a specific language pair combination. Secondly, this not only highlights a commitment to leveraging computational tools to enhance the efficiency and effectiveness of the translation process, but also effectively aims to use the human translator as the negotiator of the automated output. Therefore, HaLT places emphasis on the role of automated translation as the first port of call, the production of which is aided (controlled, verified,…) by human translators, still acknowledging their vital contributions during the translation process. Here HaLT assumes the interactivity of post-editing, widely used in the translation industry for source text domains other than literary ones, more in particular full post-editing (FPE), which aims "to obtain a product comparable to a product obtained by human translation" (ISO 18587: 2017). Even though the ISO definition appears to put FPE more on a par with human translation (HT), it is as well equal common practice in the industry to position it as "near" or "not yet" the equivalent of human translation, i.e. "comparable". This vague difference between FPE and HT is of quintessential importance for literary translation: so many dangers loom around the corner when assuming a HaLT approach for translating literary texts. Once more, priming can become an issue, resulting in a literary translation that remains closer to the source text and source language than otherwise would have been the case (see research contexts in this special issue) and ultimately presents a literary translation that might very well introduce the storyline, characters and settings but that will partially miss out on the finer style, register and nuance intricacies.

With HaLT there is still interactivity between automated translation and the human translator, the focus on getting to a comparable result is still present. In this differentiation between CaLT and HaLT one important aspect has not been mentioned, but in appearance is HaLT by nature: when translation of a (literary) texts involves additional sequencing from partial or full utilisation of generative artificial intelligence applications for content production that automated output effectively drives the translator, who is the human factor in the technology loop, and perhaps an expert in being steered by technology but much less the literary translator expert as in CaLT settings.

Automation of language with a human still involved prompts reflection on the dynamics of *human-in-the-loop* (HITL) systems, a term that has emerged in the 1950s and with iterative increases in use during the 1980s became more widely used in the 2010s. With HITL, human agency is entwined with automated processes. The conflation of HITL with *expert-in-the-loop* (EITL) introduces a pertinent discourse on the role of human expertise within automated systems. The term is not used widely and has yet to surpass the 1970s

use of its HITL counterpart, let alone its current one. Early occurrences related to boosting techniques for physics-based vortex detection (Zhang et al. 2013), but equally so to favour an expert component to the HITL approach for interactive machine learning for health informatics (Holzinger 2016). The two ideas of HITL and EITL can be equated with concepts in relation to automation and literary translation put forward earlier, CaLT and HaLT. Contrary to the docile and serving nature of HITL acting as a processor after the stage of automated output (HaLT), EITL scenarios, reliant on experts' years of experience and domain-specific knowledge, underscore the importance of meaningful human agency in processes demanding nuanced decision-making (CaLT). We have proposed the separation of both CaLT and HaLT because the indiscriminate use of HITL, particularly in scenarios necessitating EITL, raises concerns about the underutilisation of human expertise. When employed inappropriately, HITL reduces human experts to mere supervisors, passive language workers subjected to priming, detracting from a proper sense of purpose and from their possible active contribution. The issue also extends beyond practical considerations, as the acronym HITL – especially when applied to a person through -er –carries an unfortunate historical connotation, invoking memories of a time when human rights, nuanced decision-making, meaningful human labour, agency and expertise were ruthlessly disregarded. By ensuring humans are given their rightful place in EITL scenarios, and their expertise is respected and leveraged, we not only improve decision-making quality but also retain our sense of agency in an increasingly automated landscape.

Following the sequence of *human-centred+machine-aided (CaLT) - machine-centred+human-aided (HaLT)*, the third and last stop on the line is Fully automated Literary Translation (FauLT), which does not involve a human to reach a literary translation. This suggests an interest in the development and assessment of technologies capable of autonomously translating literary texts entirely without human intervention. Assessing this automated translation output for their effectiveness as well as their limitations is of key importance, particularly in dealing with the nuances and cultural aspects of context inherent in literary texts. FauLT lays bare that innate fear that so many literary agents have: the prospect of a possible future in which we rely exclusively on automated processes for cultural text phenomena such as literary translation. This encompasses a consideration of the broader implications, both positive and negative, that such a reliance might have on the quality, cultural authenticity, and artistic nuances of translated literary works. The debate is a difficult but rich one and this special issue aims to contribute to that. Ultimately, the editors see embracing technology as a functional tool for defined purposes as a way of facilitating the preservation of autonomy and richness in decision-making processes in literary translation.

## Opportunities and risks

The cautious optimism surrounding the susceptibility of literary texts to automation, particularly to MT, breathes new life into commendable ideals, with accessibility and democratisation standing out prominently in techno-optimistic discourses. The concept

of accessibility, once primarily associated with an idealistic universal or locally formalised right to information, has evolved from translation as a 'basic necessity' (TAUS 2016) to access to information as a 'human right' on the whole (Diaz-Cintas et al. 2010; Greco and Jankowska 2020). The notion of access has gained even more prominence on the academic agenda with the focus on translation (solutions) in crisis situations (O'Brien et al. 2018, Federici et al. 2019). In tandem with this movement, an accessibility movement has emerged, aiming to make culture, including literature, accessible to those for whom it is not self-evident to have (Remael 2012, Hirvonen and Kinnune 2020).

The essential nature of literature, as pondered in Benjaminian terms, prompts consideration of what is "essential" to literature, and (what is more) what ought to be conveyed to ensure true cultural inclusivity. In the realm of accessibility, LA (including CaLT, HaLT and even FauLT) not only assists in breaking down linguistic barriers but it also rendering literature available to a global audience. This inclusivity is particularly impactful for individuals facing physical, psychological or mental (health) challenges, as technological solutions empower them to engage with literary content in ways that had not been available to them until recently. Voice-activated tools, text-to-speech applications and MT are among the advancements enhancing accessibility, broadening the readership base and contributing to a more inclusive literary landscape.

Beyond addressing accessibility needs and requirements, technological solutions in automated translation play a pivotal role in encouraging literary engagement among fan communities (see O'Hagan 2011, O'Hagan 2020). The phenomenon of fan translation, emerging from manga, anime and videogames, where enthusiasts voluntarily translate literary works that resonate with them, transcends linguistic boundaries and transforms the act of translation into a collaborative and participatory endeavour (see Lee 2011, Zhang and Mao 2013, Dwyer 2018, Jiménez-Crespo 2022). This grassroots movement not only facilitates the spread of literary works across diverse linguistic communities but also nurtures a global dialogue around shared literary interests and artistic values. The homogenisation of literature through fan translation, in which the fan acts as a domain-specific expert playing the role of the person in the loop (therefore aligning with either CaLT or HaLT interactivity levels), can be said to exemplify how technology can empower individuals to actively contribute to the cross-cultural exchange of ideas and stories. Moreover, language automation may emerge as a strategic tool in language policy, particularly concerning the diversification of (inter)national literature (see Van Egdom 2022). By automating the translation of works from smaller, more peripheral languages, nations can promote a more comprehensive representation of cultural diversity for new target audiences, possibly enriching their literary traditions. This approach goes beyond traditional language policies, offering a technology-driven avenue to amplify the voices of underrepresented linguistic communities and foster a more diverse and inclusive literary heritage. In examining the democratisation of literature through automated translation, it becomes evident that technology may be considered to serve as a potential force in reshaping the landscape of literary creation, distribution, consumption, and representation on a global scale.

However, amid the promises of technologisation and automation, ethical concerns are looming large. One pressing issue revolves around the potential loss of nuance and cultural depth inherent in literary works when subjected to automated translation (see Ruffo 2022, Ruthven 2023). While technology has made strides in understanding linguistic structures, the intricate interplay of cultural subtleties, contexts such as historical and sociological ones, and the unique voice of an author often eludes the grasp of automated systems. This raises questions about the preservation of the intended artistic expression and cultural richness, as machine-generated translations may inadvertently distort or dilute the original "meaning" inadvertently contributing to cultural standardisation and homogenisation (see Kenny and Winters 2020) and "flattening" of language (fewer unique words, more repetition, sentence structures that come as less natural to the target language…). Furthermore, the ethical landscape becomes more complex when considering the socio-economic impact on professional literary translators. Increasing reliance on automated systems for translation tasks may gradually devaluate the translator's craft, posing challenges to their economic livelihood along with the recognition of their expertise. As machine-generated translations gain traction, there is the undeniable risk of overlooking the nuanced skill set and cultural acumen that human translators bring to the table. This raises ethical questions regarding fair compensation, acknowledgment of intellectual contributions, and the potential marginalisation of a profession that, despite often being overlooked, has long played a crucial role in fostering cross-cultural understanding and appreciation. In the quest for democratisation of literature through automated translation, it is imperative to address these ethical concerns to ensure that technological advancements align with principles of cultural preservation, economic justice and respect for the contributions of human translators.

In the convergence of language technology and literary translation, ethical concerns also extend to the realm of copyright, posing challenges to the intellectual property rights of authors and translators alike (see also Moorkens and Lewis 2020, Bowker 2020). As automated translation systems process vast amounts of data to improve their performance and translators process projects in technological environments in which output is often used to improve the system, questions arise about ownership and responsible usage of the training data, which often includes copyrighted material, and output data. The ethical quandary lies in whether machine-generated translations and post-edited materials inadvertently infringe on the rights of authors and translators. Moreover, the ethical discourse around copyright delves into issues of attribution and recognition. As MT systems become more sophisticated, there is a risk of overlooking the contributions of human translators who may have originally translated a work. This challenges the ethical principle of giving credit where it is due and may undermine the professional recognition and livelihood of human translators (see also Declercq 2023). Navigating the ethical terrain of copyright in the age of automated translation necessitates a careful balance between technological advancements, intellectual property rights and the ethical imperative to preserve the integrity of literary works and the contributions of those who bring them to new audiences.

The ethical landscape surrounding language technology and literary translation is further complicated by concerns related to linguistic dominance and the further marginalisation of lesser-resourced languages. As MT engines and LLMs are predominantly developed and trained on widely spoken languages, there is a growing risk of exacerbating linguistic inequality through interferential mechanisms. This imbalance (or data inequality) raises ethical questions about linguistic diversity, cultural representation, and the equitable dissemination of literary works across languages. The dominance of certain languages in language models can perpetuate a hierarchical linguistic structure, where the voices and literary traditions of lesser-resourced languages struggle to find expression in the digital realm. This not only poses challenges to the preservation of linguistic heritage but also perpetuates power imbalances in the global discourse on literature. Ethical considerations in this context prompt a thorough reassessment of infrastructures and practices in language technology, urging a more inclusive approach that acknowledges the linguistic disparities inherent in the current landscape and that addresses this issue in a responsible and sustainable manner. When facing the ethical challenges of language dominance, it becomes imperative to advocate for the integration of lesser-resourced languages in technological advancements, fostering a more equitable and diverse representation of global literary traditions.

## This special issue

In the articles that comprise this special issue on 'Computer-aided Literary Translation,' the aspects discussed above are addressed to varying extent. The initial contributions prominently feature the (professional) translator, emphasising situations where the technological solutions predominantly depend on the expertise of the (human) literary translator. Conversely, the focus in the articles that are placed more towards the very end of this volume shifts towards MT.

"Brazilian Short Prose in German" presents an account of a translation project in which a literary translator post-edited a short narrative by Lima Barreto. In this article, Waltraub Kolb illustrates the types of edits made in different versions and highlights the differences observed in the various stages of the process. The article reflects on the intricate collaboration between MT engines and the various agents involved in the project whereby each agent, seems to play a decisive role in shaping the final version.

In their article, Andy Way, Andy Rothwell, and Roy Youdale explore the resistance of experienced literary translators to using LT, noting an increasing acceptance. While CAT tools offer workflow benefits and integrating MT can provide additional ideas, adoption remains diverse. Recent cases suggest a growing trend in incorporating LT in literary translation. Looking ahead, an optimised translation environment enhances resources, incorporating stylometric tools for detailed source text analysis and the ability to explore external corpora of relevant translations.

In their contribution, Julián Zapata, Tatiana Cruz, and Carlos Teixeira delve into dictation as a potentially powerful tool for literary translators. Providing a historical

overview, they elucidate that dictation has been employed by writers for centuries as an aid. They also draw connections between dictation and translation, showcasing the benefits of using dictation techniques and technologies within the Language Industry. Subsequently, they discuss the added value of dictation for translators who work in a literary setting and set an agenda for future research on dictation techniques and technologies in this specific context.

The article of Gys-Walt van Egdom, Onno Kosters, and Christophe Declercq, which revolves around FauLT, focusses on automated metrics. They report on an experiment where ten machine translated texts undergo a qualitative analysis, in view of assessing the overall and literary quality of MT output. Their findings from the qualitative analysis are compared with results from a quantitative analysis where automatic metrics are used that are held to correlate with human judgments. The authors conclude that there is still a lot of room for improvement for said metric systems as these do not seem to be able to appropriately gauge the literary quality of human translations and machine-generated content.

Shuyin Zhang's paper explores the growing use of MT in translating Chinese internet literature. It emphasises the ethical issues surrounding user-generated translation, considering the perspectives of fan communities. While acknowledging the contributions of MT in enabling monolingual individuals to participate in translation, ethical concerns arise, including potential copyright infringement and exploitation. Still, the market for Chinese internet literature offers opportunities for integrating MT and collaborating with fans, but educational support (particularly MT literacy courses) is essential for effective implementation and utilisation.

Maria Ferragud Ferragud draws a comparison between MT outputs of a literary text and translations generated by students. Her primary objective is to discern commonalities and disparities between MT and student translations, and to assess how these compare to professionally published human translations. The hypothesis that is entertained by the author is that MT output and student translations exhibit common traits. This assumption is rooted in the reported observation that both tend to adhere closely to the source text. The research reveals that the hypothesis definitely requires further refinement.

Laura Noriega Santiáñez and Gloria Corpas Pastor focus their attention on neologisms as a literary phenomenon. This study undertakes a comparison of the outcomes generated by three NMT systems (Google Translate, DeepL, and Phrase TMS) alongside human translation carried out by undergraduate-level students. The investigation centres on formal neologisms extracted from literary texts, thereby addressing aspects of creativity, technology integration in translator training.

María del Mar Rivas Carmona and Rocío Ávila Ramirez explore the theme of "accessibility". In their pilot project, they investigate whether and how different language solutions can contribute to providing access to literature in translation for the deaf and hard of hearing. The authors measure the differences in participants' experiences with various texts and modalities. While machine translation appears to offer some degree of

access to literature, texts in sign language prove to have the most desired effect on participants.

The juxtaposition of these various perspectives, from CaLT to FauLT, including a wide range of hybrid perspectives, not only underscores the evolving dynamics of literary translation but also underscores the nuanced interplay between human and automated approaches in contemporary translation practices in a literary setting.

## Conclusion

In navigating the transformative landscape of language technology and literary translation, the interferential expression "buying a cat in a bag" serves as a poignant metaphor. It underscores the importance of vigilance and discernment, urging us to consider the true value and efficacy of technological advancements in the realm of literary translation. While the promises of efficiency, depth of interpretation and accessibility offered by language automation are undeniable, there is a parallel need to remain attuned to the intricate fabric of human communication and the craft of literariness across languages. Literary translation, as a higher form of expression within the intricate fabric of human communication, demands a delicate balance between leveraging technological possibilities and preserving the richness of cultural nuances, artistic expression, and the human touch that defines the essence of literature. As we journey into the age of automation, it becomes imperative to view technology as a tool that complements rather than replaces the profound human endeavour of translating the diverse, nuanced worlds of literature across cultural and linguistic boundaries. This nuanced approach ensures that we neither inadvertently "purchase" a metaphorical "cat in a bag" nor lose sight of the invaluable contributions of human translators in shaping the transcultural landscape of literary expression.

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