Rothwell, Andrew, Joss Moorkens, María Fernández-Parra, Joanna Drugan and Frank Austermuehl (2023). *Translation Tools and Technologies* **(1st ed.). London/New York: Routledge, pp. 270. £32.99 (paperback); £120.00 (hardback); £29.69 (eBook). ISBN:** **9780367750329 / https://doi.org/10.4324/9781003160793.**

The "dawn of the human-machine era" (Sayers *et al.* 2021) and the extensive technologisation of the translation field have long been investigated from a variety of perspectives, as researchers were prompt to examine the effects which technologies such as machine translation (MT), computer-assisted translation (CAT), or corpus-building and management tools have on the practice, product, and work environment of professional, amateur, and trainee translators (Kenny 2017; O'Brien *et al.* 2017; O'Hagan 2020; Wiesinger *et al.* 2022). Triggered by the embedding of MT within open-access platforms, scholarly works also investigated MT literacy, looking to create an informed and responsible user base of this technology, be them translators, trainers, or the society as a whole (Bowker and Ciro 2019; Ehrensberger-Dow *et al.* 2023; Guerberof-Arenas and Moorkens 2023; Kenny 2022). All of these topics - and more - are successfully combined and coherently presented in the new volume *Translation Tools and Technologies*.

Starting every thematic chapter with key questions and progressing from generic to more specialised concepts which are illustrated in comprehensive contexts, the five authors expertly manage to combine a theoretical overview with practical examples. They offer constructive follow-up tasks, proposing hands-on activities, with specific goals and guidance, as well as reflection points and reading ideas drawing on an up-to-date bibliography. This is supplemented by further reading resources accessed via the companion website. It is this variety and combination of theory and practice that enables the alignment of this volume with the set of key competences listed under the EMT Competence Framework, thus turning it into a precious resource for BA and MA translation trainers and trainees, as well as independent translation learners.

The first of the twelve chapters is a solid introduction to key historical landmarks in the development of translation technology since the 1950s. It provides an overview of the rationale for using tools in professional translation practices, the challenges they pose, and some of the main differences between various types of tools such as MT and CAT. From the very beginning the authors firmly position themselves on the side of human translators to whom "an arsenal of sophisticated technology" (2) is available, but who are rarely consulted on the complexity of integrating these tools in their translation work. Providing comprehensive examples from a useful variety of easily accessible tools, the volume strikes an excellent balance between tool-specific step-by-step guidance and more conceptual aspects, thus fuelling critical considerations of adequate

technology implementation in the translation cycle. Throughout its chapters, the authors call for a much-needed, honest dialogue between translators as technology users and computer scientists as technology creators. To ensure the effectiveness of such a dialogue, an extensive Glossary of terms is provided before the first chapter.

Chapters end with particularly rich discussion points, thus offering readers opportunities to further explore multiple current issues which are relevant for their work. For example, Chapter 2 invites readers to consider questions such as who are the beneficiaries of the productivity gains brought about by CAT tools, who owns TMs, or which further cognitive demands working with CAT tools entails. Such questions are essential building blocks, especially for trainee translators, for managing productivity and quality expectations, or when it comes to sourcing training data for MT, among others.

Chapter 3 gives an overview of the rationale and features of 'alignment' as a core concept on which translation technology is developed, including examples of alignment tools and interchange formats that enable data alignment and exchange. It then suggests ways of leveraging existing translations, making the subtle but useful distinction between achieving this via TMs which may lead to higher leverage, versus using reference bitexts which offer better domain coverage but lower leverage. To the eager productivity fan, this chapter demonstrates how exact/100% TM matches may appear reliable, but remain, in fact, context-dependent, requiring the expertise of a translator to adapt them.

Terminology management is the focus of Chapter 4 and covers in depth the way a termbase should be structured, with relevant definitions and practical examples of useful information fields. Moreover, through a short, but sufficient overview of types of relations between terms, this chapter is a useful starting point for the reader who may be interested in learning more about how to design ontologies or knowledge graphs. Just like in the previous sections, which offer strategies for exchanging translation memories and content segmentation rules, termbase exchange formats are also covered, as well as summarised in the reflection tasks at the end. Given that termbase creation is still not a task to be completely automated, the chapter includes excellent "analogue" tips and techniques for the reader looking to learn how to structure termbases, identify terms, or write definitions. Term extraction with technology is usefully discussed, although it would have benefitted from examples of tools available and their performance in specific extraction tasks, as well as from description of features linked to termbase maintenance. The interested reader is, however, pointed in the right direction at the end of the chapter, even though more links could have been included on the companion website to resources where these aspects are clearly implemented.

Chapter 5, dedicated to electronic corpora, starts with what could become the enthusing headline of all future translator recruitment campaigns: "Translation is a process of permanent decision-making" (requiring "permanent self-doubt", an aspect mentioned a little further down). Here the reader receives a whole range of tips on how to use carefully curated corpora or the web as a corpus to support translation tasks, especially when translating into one's L2 or L3. The missing link to term extraction tools mentioned in regard to the previous chapter begins to be addressed here, where some features offered by corpus analysis tools for adequate terminology extraction are also discussed. One hopes that the reader will not hesitate to experiment with these.

Chapter 6 covers the development of MT from rule-based to data-driven approaches, highlighting the impact that neural MT has on current translation workflows. Differences between human and automatic MT evaluation metrics are clearly presented, including scenarios of best practice. Given that the target audience of this book is likely to welcome further guidance on post-editing, the relevant section could have featured even more practical tips on PEMT decision-making. More insights into the impact of MT on cost, quality and speed would have further justified their inclusion in the Chapter 6 list of key questions. At the same time, the reader is made aware of the superior level of detail in the explanations on MT offered by Kenny's 2022 book *Machine translation for everyone* so, overall, one should feel quite motivated to seek further answers in this additional excellent publication.

Having said that, Chapter 7 does provide ingenious insights into the convergence of MT, TM, and terminology-related technologies for advanced leveraging in CAT tools, such as sub-segment matching at both source and target level. Adaptive MT also makes an appearance towards the end of the chapter, which demonstrates with very useful examples and screenshots that there are more ergonomic and intellectually-stimulating ways of working with MT than correcting static MT output.

Taking a project management perspective, Chapter 8 offers a step-by-step overview of an example translation workflow using different tools. It provides a clear picture of the position of the linguists in the production chain, as well as their access and permission levels to deliverables and resources. Rather than referring to empty TMs and TDs, though, it would have been helpful to use established resources to enable clear interrelations with the principles of TM leverage discussed in previous chapters. It should also be noted that, even though such detailed workflows are still present in reference documents such as the ISO 17100 standard, some LSPs have achieved quite advanced automation in this area, thus changing the project manager's role. Having said that, this chapter certainly offers a very useful overview, and the detailed differentiation between desktop- and cloud-based project management tools is another highlight of this volume,

together with the occasional witty remarks such as "[...] it seems clear that big, complex projects will continue for the foreseeable future to require the experience of a human PM, not least to cope with the unpredictable vagaries introduced by all the other humans in the supply chain[...]" (8).

Chapter 9 switches focus to subtitling and offers a good basic introduction into how subtitles can be created in various tools. There is a slight confusion regarding reading speed rates (156) which lists figures more likely to apply to maximum characters per line counts. The chapter rightly points to the development of subtitling cloud tools integrating MT and ASR technologies, even if the platform used receives a less appreciative review due to its poor performance in auto-generating subtitles. Even if some context-specific constraints highlighted in the chapter still stand, automation within the subtitling workflow should indeed not be easily discarded, as it is fast becoming the norm in the industry, particularly supported by templates.

In Chapter 10 the focus is on localisation with very useful hands-on guidance on setting up localisation projects, offering again a variety of possible tools for achieving this. The very useful GILT acronym is usefully discussed, hopefully prompting readers to consider carefully the *globalisation* and *internationalisation* dimensions alongside the much more popular *localisation* and *translation* stages during their next projects. The chapter addresses software, website, and games localisation, with their differences in terms of workflow and tools, and ends on an optimistic note regarding the continuous growth of these sectors around the world.

Against a backdrop of growing concern about limited human agency when employing automation tools, Chapter 11, *Translation Quality Assurance,* tackles the popular topic of ensuring the quality of the localised product using a range of automatic and manual approaches. While 'quality' remains a term with high marketing value for tool developers and language service providers, translators do not always share the advantages of the automatisation revolution. Key linguistic checks, TMs maintenance tools, as well as MQM-inspired revision processes are presented as useful quality steps enabling continuous structured feedback for translators if only these were routinely kept in the loop. Moreover, the important difference between the quality of the *product* and the quality of the *process* is made, and ISO standards such as 17100 are mentioned as attempting to regulate the latter, given that the former is much more difficult to formalise.

In a context of increased automation and platform/computer-mediated translation work dominated by scalability and productivity, the authors turn their attention to issues of physical and cognitive ergonomy in the last chapter. In a data-hungry world where all that can be monitored and monetised – from keystrokes to time taken per translation tasks – ends up being so, translators are no longer feeling in full control of their work, and are frequently distrusting the process and its actors. The very important

point regarding the increasing challenges of making the all-important decisions mentioned above within user interfaces which present a growing amount of information from a growing range of technologies in isolation or combination is well made and will undoubtedly liven up many a translation class. The chapter ends with a call to developers to try and integrate the needs of diverse user groups, such as blind and visually impaired translators, and for all involved to promote environments which enhance not only productivity but also the well-being of professional linguists. This links with the afterword, which provides possible future paths for tomorrow's professionals in the areas of data curation, maintenance, high-profile text translation, or post-editing for the MT-inclined, while being aware that increasingly large volumes of content will be fully dealt with MT. As MT use continues to grow, a renewed call for MT literacy is made, as well as for more transparency into MT evaluation, productivity, sustainability, and socio-economic impact on translators.

All in all, this volume genuinely impresses through its constant combination of relevant concepts and the practical ways in which they have been implemented in the description of some of the latest translation tools and technologies. From time to time the reader may feel the need for even more examples, but that may also be a result of having such a variety of case-studies and practical applications brought to their attention. As one goes through this unputdownable book - to try to speak the language of our younger audience -, one may occasionally have a feeling of déjà vu regarding a handful of recurring topics and their associated contexts, but that is no great disadvantage given how valuable a drop of redundancy is nowadays, especially in training contexts. Whether Chapter 10 would have benefitted from fewer processes described in 8 or would have been an ideal place to illustrate quality concepts discussed in 11, or whether the publishers made the right choice to print all pictures in black-and-white thus rendering rather difficult the differences the authors want to highlight, for example the different levels of complexity of a termbase (Fig. 4.1), are minor points which do not detract from a very strong recommendation that, as a minimum, all translator trainers and their students should read this volume at least once.

Technology has indeed changed the way in which translation is practised and viewed as a profession. The challenges of oversimplification of the task or datafication are similar to those experienced by other fields facing automation. If we could agree as a global community of practice to act within a framework where technology is used to genuinely support human activity, then the metrics and features developed could be deployed to enhance not only productivity but also the well-being and professional status of translators. This volume provides a strong, up-to-date basis for this conversation and ensures that a lot more trainers and students can quickly catch up with the majority of technologies and professional

workflows and practices involving these technologies, and thus make a meaningful contribution to this debate.

References

- **Bowker, Lynne and Jairo Buitrago Ciro** (2019). *Machine Translation and Global Research: Towards Improved Machine Translation Literacy in the Scholarly Community*. Bingley: Emerald Publishing Limited. https://doi.org/10.1108/9781787567214

- **Ehrensberger-Dow, Maureen, Alice Delorme Benites and Caroline Lehr** (2023). "A new role for translators and trainers: MT literacy consultants." *The Interpreter and Translator Trainer*, *17*(3), 393–411. https://doi.org/10.1080/1750399X.2023.2237328

- **Guerberof-Arenas, Ana and Joss Moorkens** (2023). "Ethics and Machine Translation: The End User Perspective." Helena Moniz and Carla Parra Escartín (eds.), *Towards Responsible Machine Translation: Ethical and Legal Considerations in Machine Translation*. Cham: Springer, 113–133.

- **Kenny, Dorothy** (ed.). (2017). *Human Issues in Translation Technology*. London/New York: Routledge.

- **Kenny, Dorothy** (2022). "Machine translation for everyone: Introduction." Dorothy Kenny (ed.), *Machine translation for everyone*. Berlin: Language Science Press. https://doi.org/10.5281/zenodo.6653406

- **O'Brien, Sharon, Maureen Ehrensberger-Dow, Connollyand Marcel Hasler** (2017). "Irritating CAT Tool Features that Matter to Translators." *HERMES - Journal of Language and Communication in Business*, *56*, 145–162. https://doi.org/10.7146/hjlcb.v0i56.97229

- **O'Hagan, Minako** (2020). "Introduction—Translation and technology: Disruptive entanglement of human and machine." Minako O'Hagan (ed.), *The Routledge Handbook of Translation and Technology*. London/New York: Routledge, 1-18.

- **Sayers, David *et al.*** (2021). *The Dawn of the Human-Machine Era: A forecast of new and emerging language technologies*. Report for EU COST Action CA19102 'Language In The Human-Machine Era'. www.lithme.eu. https://doi.org/10.17011/jyx/reports/20210518/1

- **Wiesinger, Claudia Justus Brockmann, Alina Secară and Dragoș Ciobanu.** (2022). "Speech-enabled machine translation post-editing in the context of translator training." Michał Kornacki and Gary Massey (eds), *Contextuality in Translation and Interpreting. Selected Papers from the Łódź-ZHAW Duo Colloquium on Translation and Meaning 2020–2021* (Vol. 7). Berlin: Peter Lang, 67–89.

Alina Secară
University of Vienna
E-Mail: alina.secara@univie.ac.at