

27 **Past, present and future of speech technologies in translation – life beyond the keyboard**

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The quality of speech technologies is improving so fast for certain languages that the latest report published by the Language in the Human-Machine Era (LITHME) COST action highlights “two imminent changes to human communication [...]: speaking through technology and speaking to technology” (2021:6). In situations where two-way communication is not necessary, however, speech technologies have already been implemented to optimise monolingual and multilingual content production workflows: for over a decade, human-to-machine dictation (automatic speech recognition / speech-to-text) has been the preferred mode of creating content of professional linguists whose technological set-up allowed this kind of enhancement or who work in live contexts, such as broadcasting, where immediate access to the text produced is crucial. In addition, automatic speech synthesis (text-to-speech) has also been gaining ground in recent years. Research has shown that both speech recognition and synthesis can positively influence the output quality, language professionals’ productivity and workspace ergonomics associated with translation, revision and post-editing machine translation (PEMT) processes. Despite these demonstrated benefits, technology providers have been somehow trailing behind in implementing speech technologies into current CAT/PEMT/TEnT environments. Moreover, with the exception of respeaking in accessibility-related scenarios, there is little evidence that speech technologies are finding a place in translation training and research. This panel will focus on the practical, methodological and educational implications of using speech technologies by professional and trainee translators. We invite contributions from industry practitioners and academics that discuss observed advantages and disadvantages of integrating speech technologies into translation, PEMT, audiovisual translation, revision, or review processes; creative ways of achieving such integrations; novel training approaches created for such new integrations; as well as future directions of research, development and training.

References

- Ciobanu, D., Ragni, V., & Secară, A. (2019). Speech Synthesis in the Translation Revision Process: Evidence from Error Analysis, Questionnaire, and Eye-Tracking. *Informatics*, 6(4)(51), Article 4. <https://doi.org/10.3390/informatics6040051>
- Herbig, N., Düwel, T., Pal, S., Meladaki, K., Monshizadeh, M., Krüger, A., & van Genabith, J. (2020). MMPE: A Multi-Modal Interface for Post-Editing Machine Translation. *Proceedings of the 58th Annual Meeting of the Association for Computational Linguistics*, 1691–1702. <https://doi.org/10.18653/v1/2020.acl-main.169>

155 LITHME. (2021). The Dawn of the Human-Machine Era. A Forecast of New and Emerging Language Technologies. <https://lithme.eu/2021/05/18/first-publication-forecast-of-future-language-technologies/>

Teixeira, C. S. C., Moorkens, J., Turner, D., Vreeke, J., & Way, A. (2019). Creating a Multimodal Translation Tool and Testing Machine Translation Integration Using Touch and Voice. *Informatics*, 6(1)(13), Article 1. <https://doi.org/10.3390/informatics6010013>

Zapata, J., S. Castilho and J. Moorkens (2017) 'Translation Dictation vs. Post- editing with Cloudbased Voice Recognition: A Pilot Experiment', in *Proceedings of the MT Summit XVI – The 16th Machine Translation Summit*, Nagoya, Japan.