

## **Machine Translation enhanced literary translation**

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With the current quality of neural machine translation (NMT) systems, the question arises whether post-editing NMT output is a viable alternative to human translation for real large-scale translation tasks. In this project, we collaborate with a book translation company, which uses an MT-enhanced workflow for the translation of literary texts.

In a first case study, we examined English-Dutch literary translations that were created in a professional environment using an MT-enhanced workflow consisting of a three-stage process of automatic translation using a generic MT system (DeepL), followed by post-editing and (mainly) monolingual revision. We compared the three successive versions of the target texts. We used different automatic metrics to measure the (dis)similarity between the consecutive versions and analyzed the linguistic characteristics of the three translation variants. Additionally, on a subset of 200 segments, we manually annotated all errors in the machine translation output and classified the different editing actions that were carried out. The results show that more editing occurred during revision than during post-editing and that the types of editing actions were different.

In future work we intend to extend this work and zoom in on the sentences with high creativity potential as was done by Guerberof-Arenas and Toral (2020) and examine in more detail the creative shifts in the post-edited and revised version. Other plans are to compare the performance of generic and customized (purpose-built) neural machine translation (NMT) systems on literary texts.

As corpus studies alone cannot provide conclusive answers to the question of whether the implemented three-stage process of automatic translation followed by post-editing and revision is a viable alternative to human translation followed by revision, we also would like to carry out comparative translation reception studies in which the reading experience is measured.

## **References**

Guerberof-Arenas, Ana and Antonio Toral. 2020. The impact of post-editing and machine translation on creativity and reading experience. *Translation Spaces*, 9 (2):255–282.