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# How Machine Translation Changed the Translation industry

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## Problem statement

Artificial intelligence is profoundly changing society, especially professions. While for a long-time people thought that it would mainly be low-skilled jobs that would be affected, the development of advanced techniques in the field of natural language processing has changed the situation. Language models (such as ChatGPT) suggest the advent of major changes for professions as diverse as lawyers, teachers, journalists and advertisers. And one profession is already practically and vividly experiencing these changes: translators.

For a long time, machine translation (MT) tools were deficient, and human translators were not really concerned. But since 2016, with the advent of commercial MT systems based on deep learning, the entire profession is affected (Poibeau, 2017, 2019). MT nowadays provide quality translation, almost comparable to those of a professional (human) translator, for a whole set of texts (Poibeau, 2022).

MT is already widely used in many international administrations (for example, at the International Patent Office or the European Court of Justice). Companies also offer translation services based on MT (with only a slight revision of the automatic translation by a human post-editor), for example for the translation of video subtitles.

## Research objectives

The aim of this research is therefore to study the transformation of the translation sector in the age of machine translation. What happens to translators? How is their profession being affected? What image do have professional translators of machine translation? What do they think about this new landscape? These are some of the questions that we will try to address in this paper.

## Methodological approach

The translation sector is a relatively difficult to study because of its extreme fragmentation. It is very difficult to obtain reliable figures, and those that are available in the literature are extremely varied and therefore unreliable. However, we will use what we have and put them into perspective. There seems to be a consensus that there is a steady increase in the need for translation (and therefore in the number of translations carried out), probably due to globalization and the increasing circulation of written material, documents and standards linked to international exchanges.

Beyond that, a qualitative study with professionals in the sector is essential. We see that MT is sometimes viewed positively, sometimes negatively by the different players in the field. However, overall, professional translators have a rather distrustful and negative attitude, due to the fact that MT puts pressure on them (pressure on costs, deadlines, automation of tasks).

Above all, there is a certain unease from professional translators about the post-editing profession. Most translators refuse to become post-editors, i.e. those responsible for checking and correcting, at the very least, translations done automatically by a machine. They see this as a complete loss of the meaning of their profession, which is based (even when the target is not a literary text) on know-how and on creativity with language.

## (Expected) results

At the end of this study, we hope to have a better picture of the impact of machine translation on the (human) translation profession. This case study is important because it is typical of the upheavals to come for many other professions. The idea is not to suggest that artificial intelligence will put many people out of work (there seem to be still as many translators as before; not all texts can be translated automatically, and new professions are emerging around machine translation), but it is also important to have a clear and precise vision of the upheavals to come.

## References

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