

*Stylistically adapted literary
machine translation:
Contribution of a technically and
ergonomically oriented perspective*

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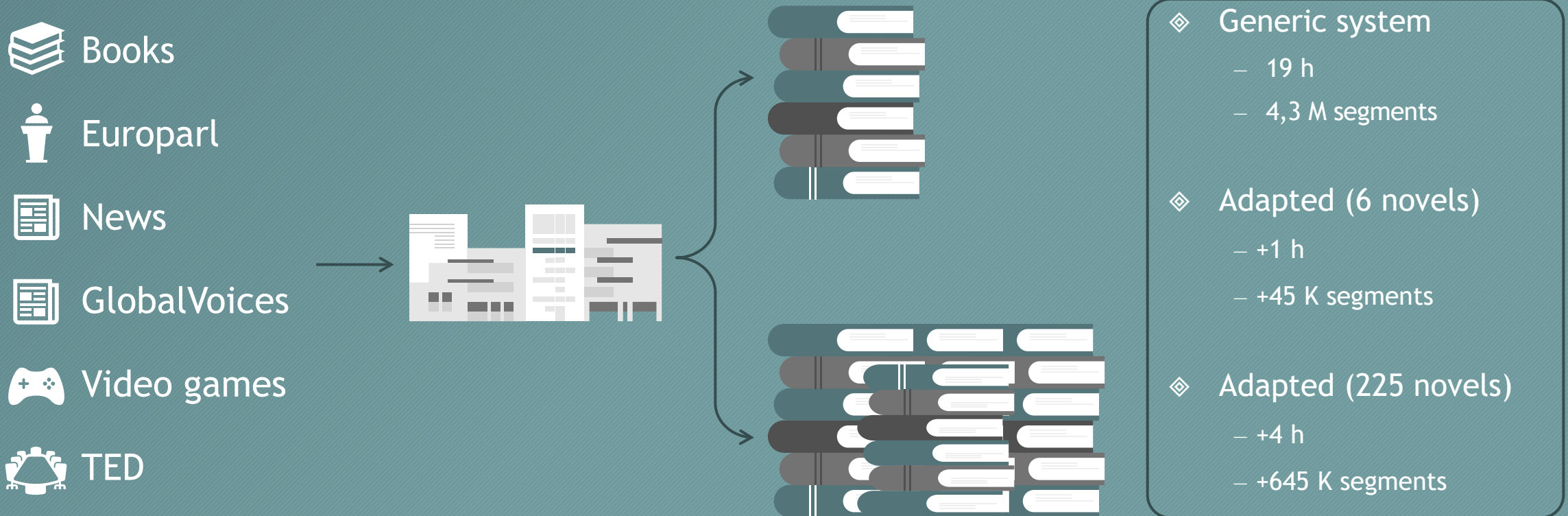


In a previous episode...

2

Training a stylistically-adapted MT system

3



Tiedemann, Jörg. "Parallel Data, Tools and Interfaces in OPUS." *Proceedings of the Eighth International Conference on Language Resources and Evaluation*, edited by Nicoletta Calzolari *et al.*, ELRA, 2012, pp. 2214-2218.

Hansen, Damien and Pierre-Yves Houlmont. "A Snapshot into the Possibility of Video Game Machine Translation." *Proceedings of the 15th Biennial Conference of the Association for Machine Translation in the Americas*, edited by Janice Campbell *et al.*, vol. 2, AMTA, 2022, pp. 257-269.

Automatic evaluation

4

- ◇ Metrics ↗
- ◇ Lexical diversity ↗
- ◇ Syntactic equivalence ↗
 - Sentence length
 - Sentence structure
- ◇ Stylistic proximity ↗

- ◇ Error annotation (3 chapters)
 - Very fluent output overall. Literary-related errors surpass fluency by a small margin
 - Adequacy issues represent most of the issues by far (more than 50% of annotations)
 - The main challenges related to fluency are syntax issues
 - The main challenges regarding literary aspects are stylistic issues, mainly literariness (57%!)
- ◇ Close reading (same excerpts)
 - Lexical choices closer to the reference, better suited to the register and fantasy genre
 - Use of synonyms and paraphrases in line with the reference, surprising syntactic reorganization
 - Translation strategies (omissions, modulations, transpositions...) both in MT and human translation

- ◇ Very positive and optimistic conclusions, from a technical point of view, regarding the feasibility of individually/stylistically adapted MT

- ◇ So far, no insight on:
 - How useful is machine translation to literary translators?
 - What are the foreseeable consequences of literary MT?

How useful is machine translation to literary translators?

7

“ Traditionally, literary translation has mostly been studied from a product perspective: the great majority of the analyses involve final translations, source text-target text comparisons and sometimes draft versions. But studying translations from a product point of view will not lay bare the factors that made them the way they are; these are only revealed through analyses of actual processes and the influences bearing on them. ”

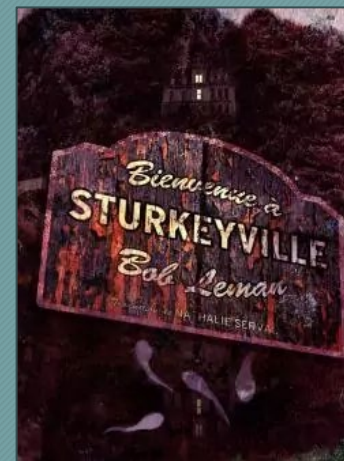
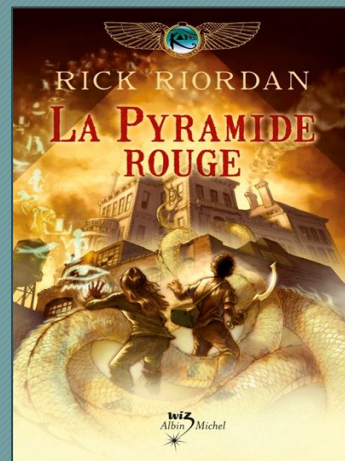
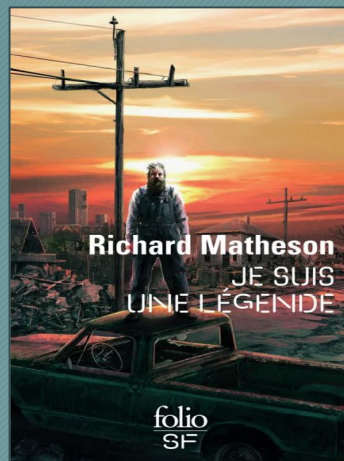
Borg (2023)

Figure of a translator

9



Nathalie Serval



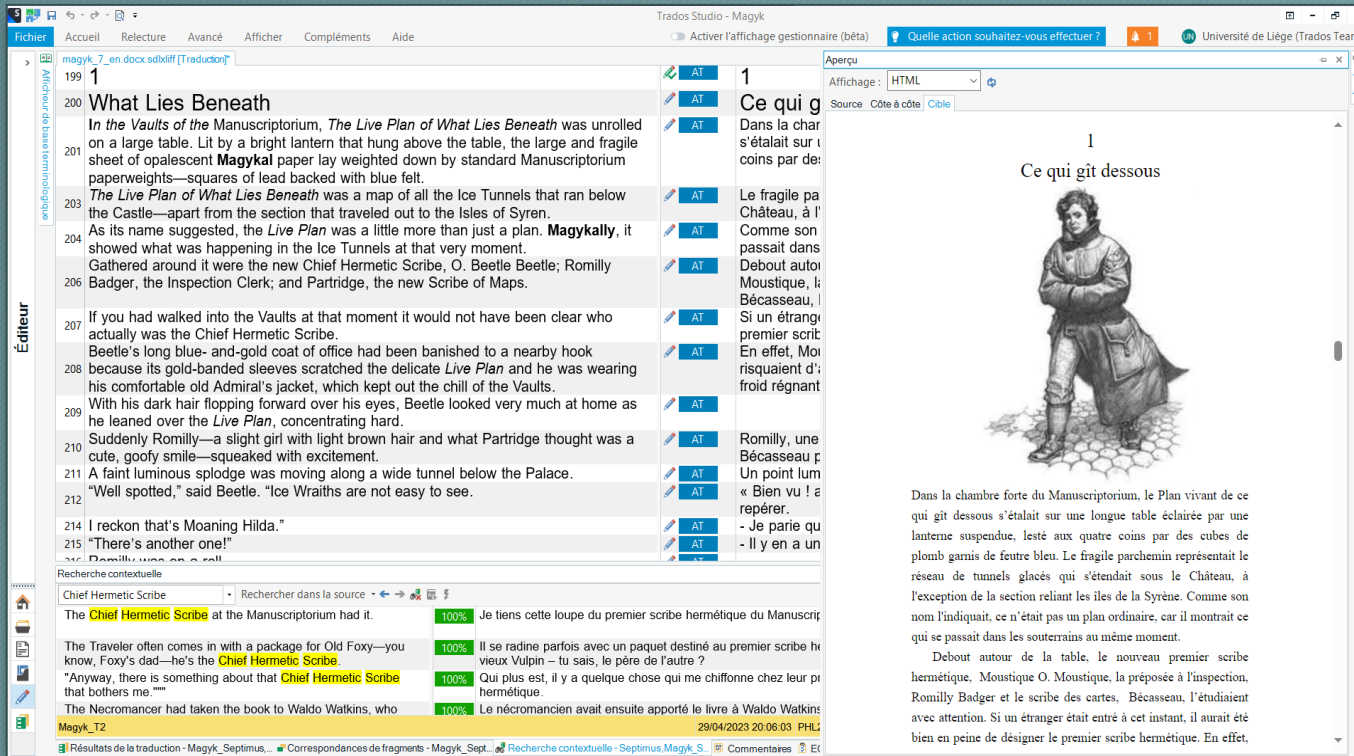
Interviews

10

Stage	Date	Place	Type	Tool	Duration
1	8 Dec. 2022	Online	Unstructured interview		1 h 45
2	5 May 2023	Domicile	Observation et verbalization	<i>Trados</i>	5 h 45
			Semi-structured interview		1 h 15
3	18 Dec. 2023	Online	Unstructured interview		1 h 45
4	15 Febr. 2024	Liège	Observation et verbalization	<i>OmegaT</i>	2 h 00
			Semi-structured interview		1 h 45

Expert evaluation

11



Tools

- Trados (RWS 2022)
- MTUOC (Oliver 2022)

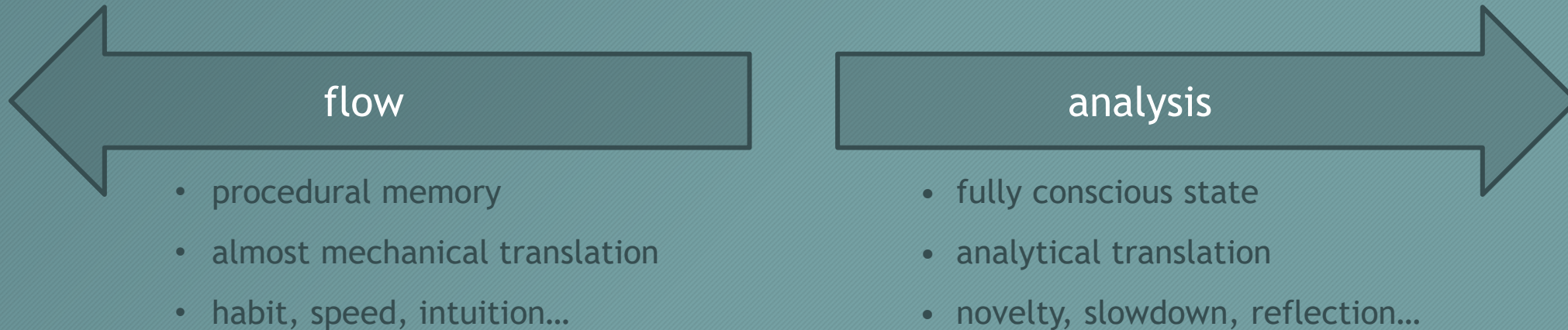
Two major issues (// O'Brien *et al.* 2017) :

- Interface for PE (external cognitive load)
- Interaction with MT (intrinsic cognitive load)

Expert evaluation

12

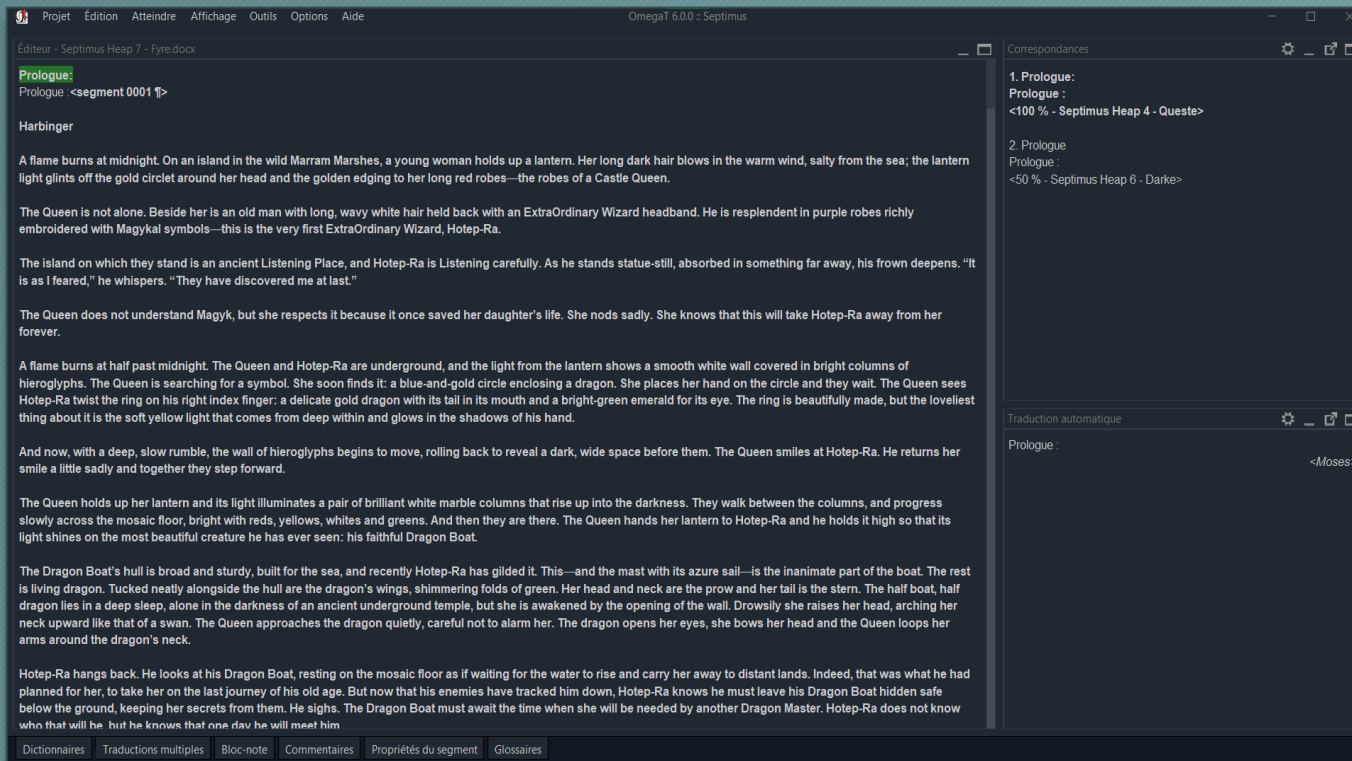
◇ Shuttle metaphor (Robinson 2012):



◇ // « ghost effect of MT » which prevents deverbalization (Schumacher 2023)

Expert evaluation

13



Tools

- *OmegaT* (OmegaT 2023)
- *MTUOC* (Oliver 2022)

Noticeable improvements, but not a miracle solution:

- lesser influence of MT
- segmentation is still constraining, although invisible and paragraph-based

What are the foreseeable consequences of literary MT?

14

Possible consequences of the arrival of MT

15

- ◇ Two possible scenarios, based on the two current pathways of MT (Yvon 2019):
 - as a tool for the general public (aid for reading, language learning, diffusion)
 - as a translation aid

- ◇ In this second case, two possible pathways again:
 - the tool aims to replace/automate human translation (productivity)
 - the tool aims to support human translation (quality/creativity)

- ◇ Less visibility for translators (Jones & Irvine 2013)
- ◇ Worse reading experience (Guerberof-Arenas & Toral 2020)
- ◇ Devaluation of translators/authors work and profession (Taivalkoski-Shilov 2019)
- ◇ Shorter deadlines and lesser salaries (Taivalkoski-Shilov 2019)
- ◇ Selling of non-postedited/non-postedited translations (Taivalkoski-Shilov 2019)
- ◇ Plagiarism (Sahin & Gürses 2019)

Traduction automatique et post-édition

Enquête ATLF menée du 20 novembre au 13 décembre 2022



- ◇ Partly confirmed by the ATLF survey

- ◇ Especially when it comes to:
 - the visibility of translators
 - the lowering of remuneration
 - the devaluation of the work

◇ Possible advantages:

- Errors ↘ (Ó Murchú 2019)
- Cognitive load ↘ (Larsonneur 2023)
- Creativity ↗ (Hansen & Pickford 2022)
- Appropriating the text (Hansen & Pickford 2022)
- More enjoyable work (Taivalkoski-Shilov 2019)

◇ Possible disadvantages:

- Errors ↗ (Ó Murchú 2019)
- Cognitive load ↗ (Taivalkoski-Shilov 2019)
- Creativity ↘ (Guerberof-Arenas & Toral 2022)
- Less apparent voice (Kenny & Winters 2020)
- Less enjoyable work (Moorkens *et al.* 2018)

As a translation aid

19

- ◇ Situation very similar to that of CAT tools (O'Brien 2012)
- ◇ Is entirely dependant on how the tool is used and what the goals are
- ◇ Importance of the ability to customize, own and understand these tools, of a more dynamic human-machine interaction, and of the necessity to take human translators' opinion in the development of these tools (*ibid.*)

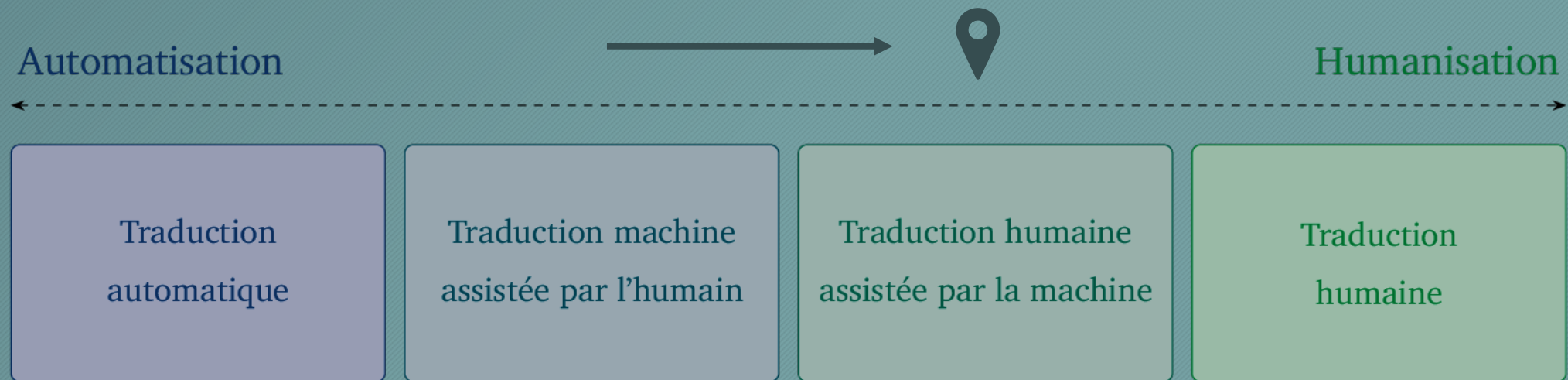
Perspectives

20

- ◆ Question that brings back discussions started in many other sectors of the translation industry and reflects changes that have been occurring for a long while already (cf. Moorkens 2020)
- ◆ Discussion should ideally be opened to the other professions today given the marketing of large language models (“generative IA”), for which translation offers an exemplary case, as it has grappled with these issues for dozens of years

Changing the paradigm

22



Cotutelle de thèse internationale entre
l'Université de Liège
et l'Université Grenoble Alpes

Évaluation experte d'un prototype d'aide à la traduction créative
La traduction littéraire automatique individualisée
au regard de ses enjeux traductologiques, éthiques et sociétaux

Présentée par Damien Hansen en vue de l'obtention du titre

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et de Docteur en Mathématiques, Sciences et Technologies de l'Information, Informatique
à l'Université Grenoble Alpes

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Résumé

Évaluation experte d'un prototype d'aide à la traduction créative :
La traduction littéraire automatique individualisée au regard de ses
enjeux traductologiques, éthiques et sociétaux

Si la traduction automatique a traditionnellement été perçue en littérature
comme une technologie avant-gardiste digne des créations oulpippiennes, l'arrivée
plus récente des outils de traduction neuronaux a ouvert un débat nouveau,
bien plus polarisé qu'auparavant. Pour poser un regard critique et objectif
sur cette question, nous avons donc entrepris de mettre au point un système
spécifiquement entraîné sur des textes littéraires. Si nous voyons qu'il est bien
possible d'adapter de tels systèmes à ce domaine particulier, malgré les limites
évidentes dont ces modèles font encore preuve, notre expérience sur la prose
de fiction montre qu'il est aussi possible de les adapter au style individuel d'un
traducteur ou d'une traductrice. Ces conclusions soulèvent évidemment de
nombreuses questions liées à l'ergonomie des technologies de la traduction,
ainsi qu'aux questions éthiques et aux enjeux sociétaux qui les entourent,
mais elles indiquent surtout qu'il est possible de réimaginer ces outils et de
les repenser d'une manière qui serve plus directement l'interaction humain-
machine, le processus créatif et la qualité des textes traduits.

Abstract

Expert evaluation of a computer-aided creative translation scenario:
A translation studies perspective on human-adapted literary machine
translation and its ethical and societal implications

Although machine translation has traditionally been perceived in the literary
domain as a sort of *avant-garde* technology on a par with Oulipian techniques,
the recent arrival of neural translation tools seems to have given rise to an
entirely new and deeply polarized debate. In order to take a critical and
objective look on the matter, we therefore attempt to build a system specifically
trained on literature. While our results show that it is indeed possible to train
such a system for this particular domain, despite the still evident limitations of
these models, our experience on prose fiction also demonstrates that they can be
tailored to the individual style of a translator. Our conclusions obviously raise
newfound questions regarding the ergonomic aspects of translation technology,
the ethical concerns that it raises or the societal issues that have to be addressed.
But, more importantly, they indicate that it is possible to reimagine such tools
and rethink their use in a way that better serves the human-machine interaction,
the creative process and the quality of translated texts.

SCAN ME



Thank you for your attention. If you would like more details...