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

Damien Hansen

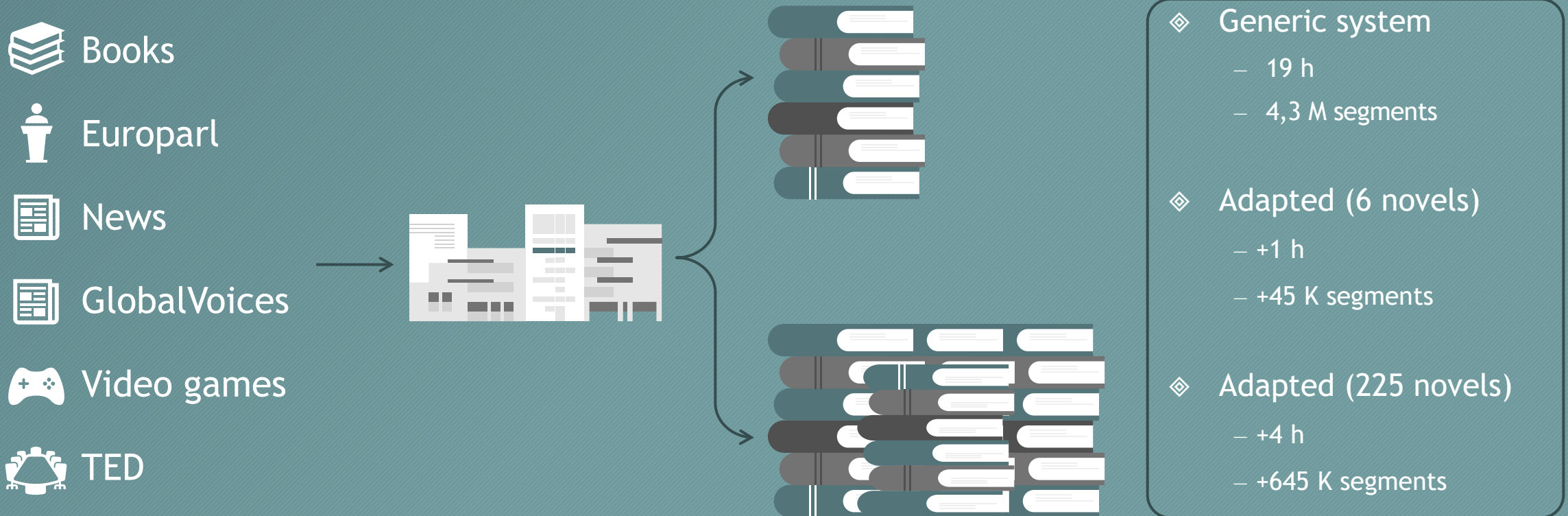University of Liège — Ghent University

In a previous episode...

- Books
- Europarl
- News
- GlobalVoices
- Video games
- TED

◈ **Generic system**
- 19 h
- 4,3 M segments

◈ **Adapted (6 novels)**
- +1 h
- +45 K segments

◈ **Adapted (225 novels)**
- +4 h
- +645 K segments

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

- ◈ Metrics ↗

- ◈ Lexical diversity ↗

- ◈ Syntactic equivalence ↗
  - Sentence length
  - Sentence structure

- ◈ Stylistic proximity ↗

Human evaluation

- ◈ 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

Human evaluation

◈ 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?

" 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. "

Nathalie Serval
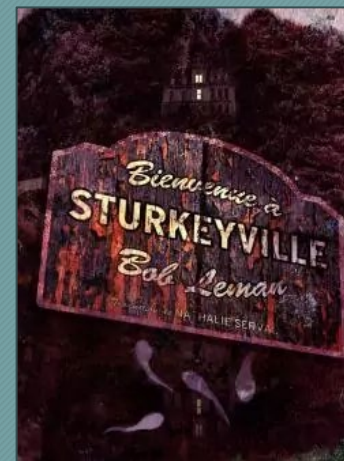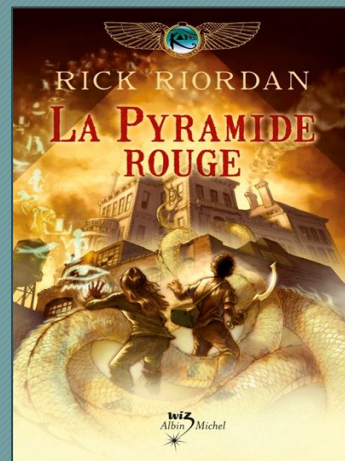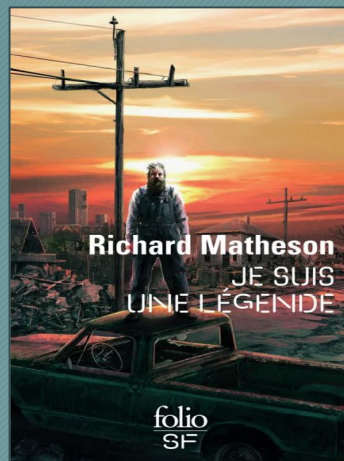
Interviews

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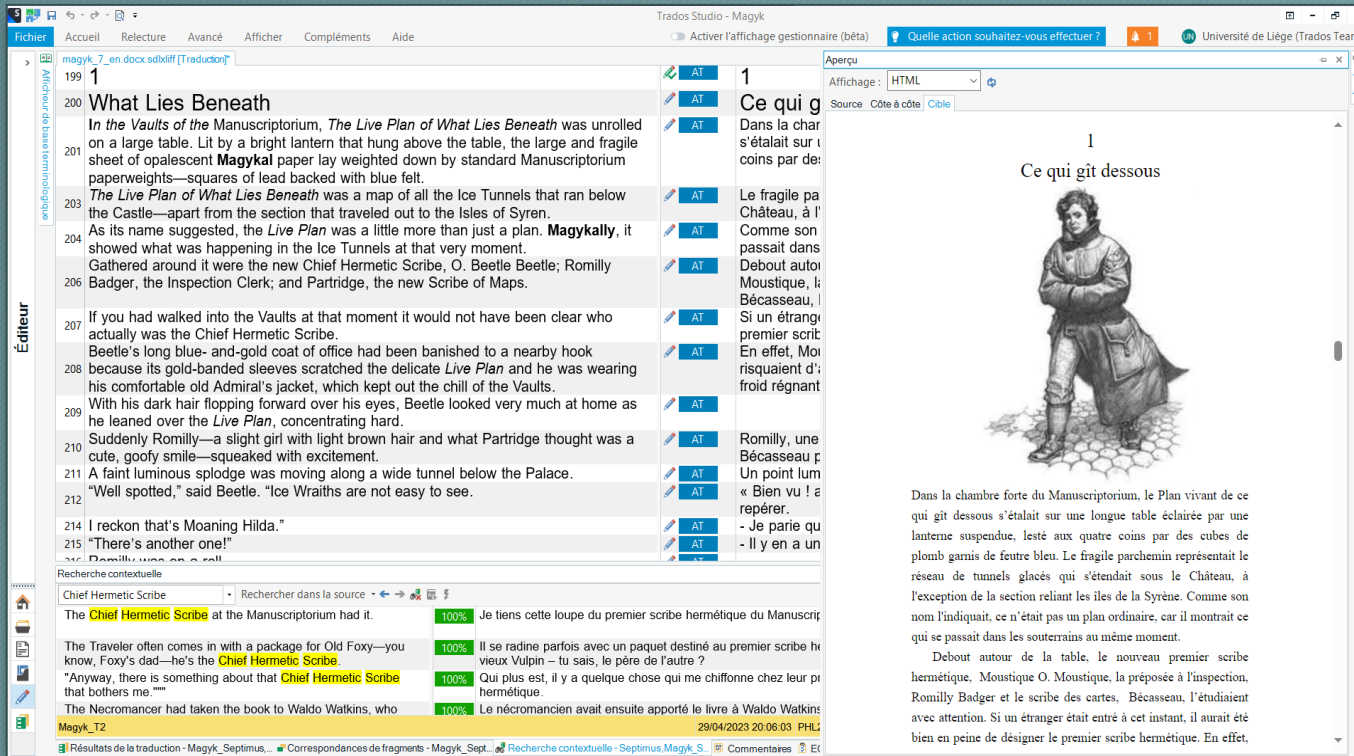
◇ Tools

— *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)

◈ Shuttle metaphor (Robinson 2012):

flow	analysis
• procedural memory	• fully conscious state
• almost mechanical translation	• analytical translation
• habit, speed, intuition…	• novelty, slowdown, reflection…
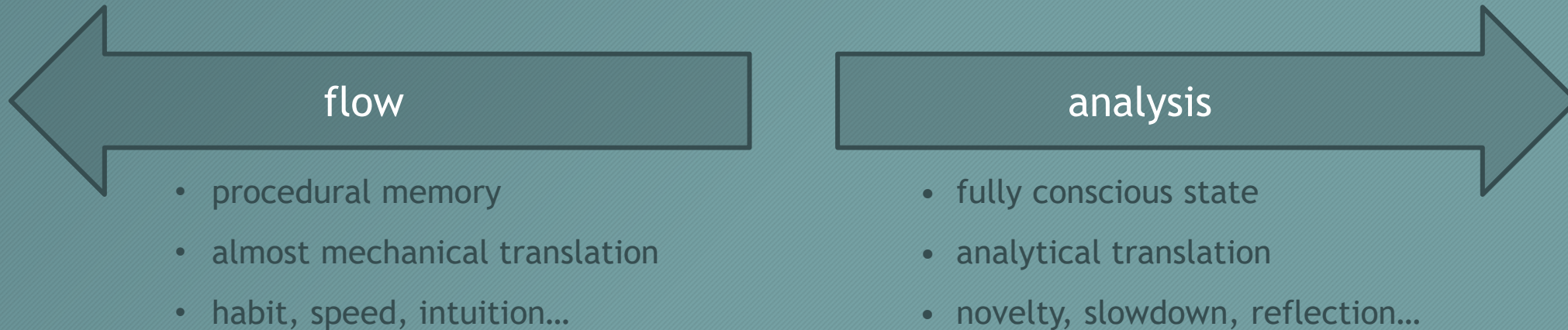
◈ // « ghost effect of MT » which prevents deverbalization (Schumacher 2023)

Expert evaluation
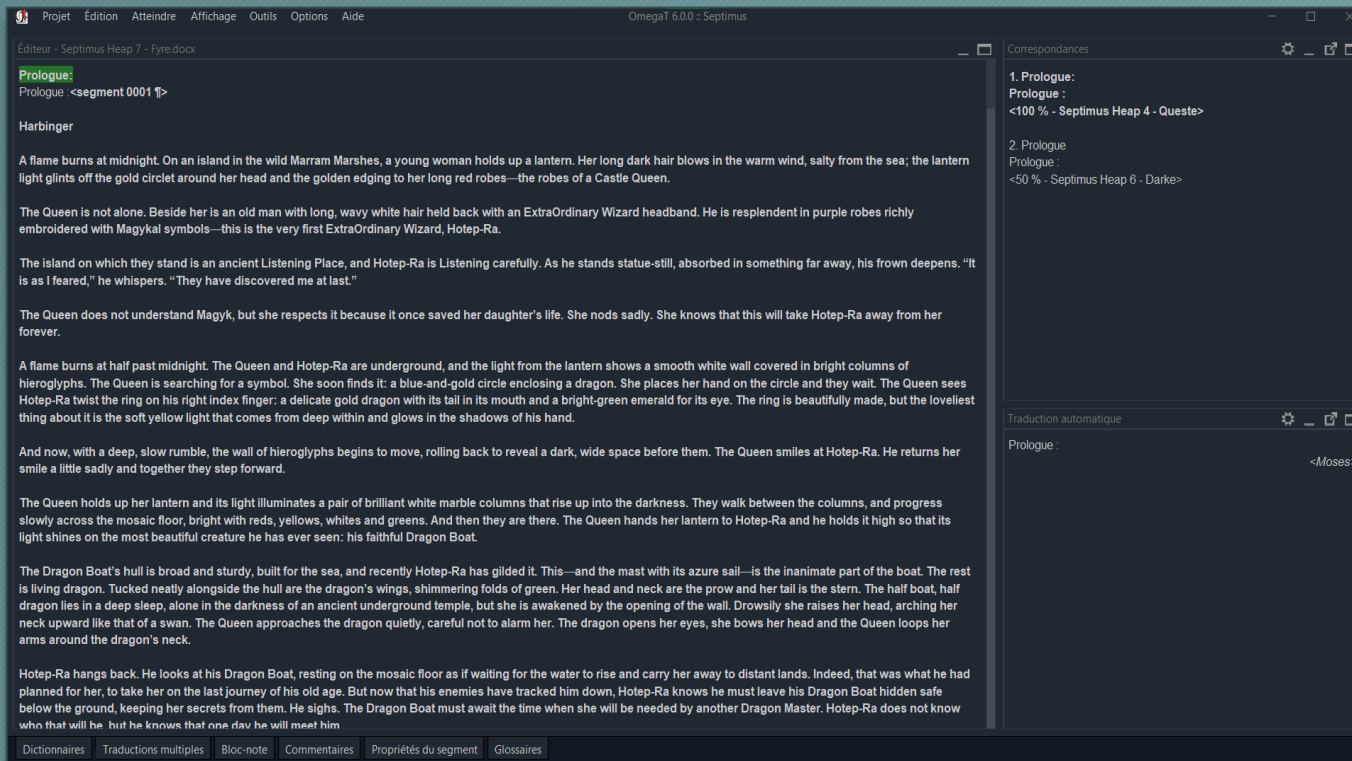
- ◇ Tools
  - — *OmegaT* (OmegaT 2023)
  - — *MTUOC* (Oliver 2022)

- ◇ 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?

Possible consequences of the arrival of MT

◈ 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)

Automation

- 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)

Automation

Traduction automatique et post-édition

Enquête ATLF menée du 20 novembre au 13 décembre 2022

ATLF 50 ANS

- ◈ Partly confirmed by the ATLF survey

- ◈ Especially when it comes to:

  – the visibility of translators

  – the lowering of remuneration

  – the devaluation of the work

ATLF. "Traduction automatique et post-édition." ATLF survey, March 2023. URL: www.atlf.org/wp-content/uploads/2023/03/ENQUETE-TRADUCTION-AUTOMATIQUE.pdf.

◈ 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

◈ 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

Perspectives

◈ 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 and exemplary case, as it has grappled with these issues for dozens of years

Automatisation

Humanisation

| Traduction automatique | Traduction machine assistée par l'humain | Traduction humaine assistée par la machine | Traduction humaine |

SCAN ME

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