

# A Broad Overview of Ergonomics- Related Research at the Centre for Translation and Textual Studies

**2006-2016**

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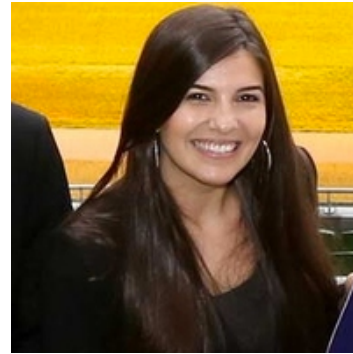
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# Overview

- High-level overview of CAT/Ergonomics research
- Where to next?

# About CTTS: People



# Broad Definitions

- CAT: Computer-Aided Translation
  - Translation Memory and Machine Translation
- Cognitive Ergonomics
  - the scientific discipline concerned with the understanding of interactions among humans and other elements of a system, and the profession that applies theory, principles, data and methods to design in order to optimize human well-being and overall system performance ([www.hfes.org](http://www.hfes.org)).

# Cognitive Effort in Post-Editing

- How much cognitive effort is involved in editing a segment from an MT system vs. fuzzy match from a TM? (O'Brien 2007)
  - Collaboration with Symantec

# Perception

- Are translator perceptions of post-editing effort accurate?

Moorkens, O'Brien, da Silva, Fonseca and Alves (2015)

# UI Design

- **Assessing UI needs of Post-Editors**
  - Moorkens & O'Brien (2016)
  
- **Irritating CAT Tool Features**
  - O'Brien, Ehrensberger-Dow, Hasler & Connolly (submitted)

# UI Design

- Can post-editing be done on a mobile phone?
  - Tested the design of a mobile post-editing interface (Kanjingo) developed in collaboration with programmers at ADAPT
  - O'Brien, Moorkens, Vreeke and Schaefer (2015)



# Usability

- What is the level of usability of raw MT output vs. Source Text? Doherty & O'Brien (2014)
- How does usability of raw MT, lightly post-edited MT and source text compare?
  - Collaboration with Intel and Microsoft
    - Castilho, O'Brien, Alves & O'Brien (2014); Castilho & O'Brien (2016 and WIP)

# Organisational Ergonomic Factors

- Focus group-based research on human factors in adoption and non-adoption of MT at the DG Translation
- Comparative study of commercial translators
  - Collaboration with DG Translation and AlphaCRC
    - Cadwell, Castilho and O'Brien (Forthcoming; Submitted)

# Where to next?

- More research could clearly be done on:
  - UI Design
    - Traditional and mobile
  - Interaction with Machine Translation (translators & end users)
  - Organisational ergonomics
  - For a variety of languages, contexts, texts
  - With larger groups of participants and with developers
  - But we need to ask ourselves some important (difficult?) questions...

# Where to next?

- Why?
- What impact are we hoping to achieve?
- Who will fund such research?
- Is it enough to focus only on translators?
- Do we need to broaden the scope to undertake truly impactful transdisciplinary research?

# Thank You!

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