How to teach machine translation post-editing?
Experiences from a post-editing course

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Why should PEMT skills be taught?

- The increasing use of MT and PE workflows leads to a growing need for translators with relevant MT and PE skills.
- Familiarity with translation technology plays an important role in the future employability of translation students.
- PEMT differs from translation in terms of practical and cognitive processes; it likely requires different skills and training.
- Translator training should take these aspects into account.
What PE skills are needed?

1. General skills
   - language skills (source and target), text linguistic skills
   - subject area knowledge
   - cultural and intercultural competence
   - documentation and research skills

2. Technical skills
   - positive attitude toward technology
   - software skills, ability to learn new tools quickly
   - ability to evaluate tools
   - principles of MT technology

3. Specific editing skills
   - typical MT features and errors
   - suprasentential errors

4. Strategic skills
   - ability to evaluate data sources
   - ability to follow and adapt to client specifications
   - ability to edit efficiently

(O’Brien 2002; Rico and Torrejón 2012; Austermuehl 2013; Pym 2013)
The use of MT and PE has not been particularly widespread so far. 

- MT quality: Finnish is known to be difficult for MT systems due to rich morphology.
- MT availability: The small market area means there has been relatively little interest in developing MT systems for Finnish.

A survey of 238 Finnish translators (Mikhailov 2015) found that they did not consider MT-related skills important.

Most respondents were only familiar with free online systems; 3 reported using systems other than Google Translate (Mikhailov 2015).

MT development is being carried out by LSPs and PEMT workflows are used by some translators/LSPs (mainly English to Finnish).
Teaching PE at the University of Helsinki

- A Translation Studies module (intermediate level) focusing on PEMT.
- The goal of the course was to familiarize the students with the theoretical and practical aspects of PEMT.
- The course is offered to students of different language and translation programs (Bachelor/Master level).
- Lectures (7 weeks) + 5 hands-on assignments, final reflective essay.
- 15 students took part in the course, 13 handed in the final essay.
- All students except one were native speakers of Finnish, various L2 backgrounds.
Course description – topics

- Theory and history of MT and PE
- Practical use of MT and PE
- Controlled language and pre-editing for MT
- Post-editing without source text
- Post-editing process research
- Post-editing quality levels and guidelines
- MT quality evaluation and PE effort
- PE competences
Course description – assignments

1. Comparison of 2 MT versions (RBMT and SMT) and post-editing
2. Pre-editing
   ▶ Followed by customizing the RBMT system dictionary
3. Post-editing without source text
4. Post-editing to different quality levels
   ▶ Followed by examining own PE time data and edit distance metrics
5. MT quality evaluation (fluency/adequacy)

MT systems and other tools used

- Google Translate http://translate.google.com
- MT@EC
- Appraise https://github.com/cfedermann/Appraise
- Asiya Online
  http://asiya.lsi.upc.edu/demo/asiya_online.php
Students’ reflective essays

- At the end of the course, the students were asked to write a reflective essay (1000–1500 words) reflecting on their own experiences and observations against the theoretical background covered.
- They were also asked to comment on the course content, practical organization and potential improvements.

Questions for the essay

1. How did your understanding of the use of MT post-editing and related phenomena develop during the course?

2. What benefits and opportunities do you see in the use of MT and PE from the perspective of a translator, an organization requiring translation services, an individual MT user? What about problems or limitations?

3. How has the field developed and how do you believe it will develop in the future?
Themes identified in the reflective essays

1. Expectations and attitudes toward MT
   - Expectations of MT quality were low; only one had a positive attitude toward MT before the course.

2. MT quality and trust
   - The students were positively surprised by the MT quality but found it hard to trust the MT.

3. PE process and time
   - Most found it hard to get used to working with a raw translation.
   - PE speed – and the students’ views on their own speed – varied.

4. Adjusting to PE requirements
   - Most found it difficult to adjust to the idea of “good enough” quality.

5. Future visions
   - All believed MT and PE will play a large part in future translation work – MT as a tool rather than threat.

6. PE training
   - MT and PE related training for translator students was seen as useful, even essential.
Conclusion and on-going work

- The students gained a basic understanding of MT principles and the use of PE workflows in the translation industry.
- The students’ essays show a positive attitude toward MT, but also critical evaluation of the suitability of MT tools and PE workflows to specific situations.
- The students gained more awareness of their own work processes and showed ability to evaluate their own work.
- Technical issues and lack of suitable MT texts for the various language pairs posed some challenges during the course.
- The same course is taught again in fall 2015, with some modifications:
  - A TM system used for most assignments (Memsource).
  - A wider selection of language pairs for the assignments.
  - The order of the course topics and assignments has been changed.
Thanks

Thank you for your attention! Questions and comments?

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