Clara Ginovart Cid*

The Professional Profile of a Post-editor according to LSCs and Linguists: a Survey-Based Research

Abstract

The boundaries between translation technologies are fading and language professionals are heading towards a pluri- and transdisciplinary job description, for which the use of CAT tools, translation management systems, and machine translation (MT) are compulsory. "Language paraprofessionals", "paralinguists", "language consultants", "digital linguists", and a long list of other titles is emerging to refer to the professionals who master a number of features of several tools, while remaining attentive to linguistics (see Bond 2018). According to TAUS DQF Dashboard data presented in TAUS Newsletter the 1st of May of 2019, the industry averages show that 9.7% of the translation output origin comes from MT and that 1,057 words per hour are post-edited on average. This has clear repercussions on the profession from the employability perspective.With 66 submissions by LSCs and industry stakeholders, and 142 answers from individuals (in-house or freelance translators), we present the most salient subject matters from and for the translation industry regarding MT post-editing. Some represent gaps to be filled; others represent common ground already found. Thanks to this up-to-date knowledge of the globalization landscape, clear goals can be set, and the way is paved for evolution.

1.   Introduction

Recent studies, such as Álvarez-Álvarez/Arnáiz-Uzquiza (2017), have highlighted the existence of a competency gap between training programmes and the language market. We argue that the profiles related to machine translation and post-editing will be strategic to enhance employability. Thus, a better definition of such profiles will allow the community to give greater emphasis to professional competence in translation studies (TS) and unleash new business opportunities. We consider that viewing such profiles as stemming from a new trade or service (post-editing), or from an existing activity (MT-aided translation) is only a matter of perspective according to the requested service and to the agency approach one has. For this reason, we often refer to the translator/post-editor as "linguist".

With the goal of deepening our current knowledge of the activity consisting of the editing and correcting of machine translation output (ISO 18587:2017), a survey-based research has been designed. Two online questionnaires[1] will help understand both the needs and views of the industry stakeholders, and those of the linguists. With this undertaking, we aim at promoting employability in translator training by paving the way towards the more technological professional profiles that

---

[1] The questionnaire for LSCs is available at: https://form.jotformeu.com/82863740587368. The questionnaire for linguists is available at: https://form.jotformeu.com/82855955787379.

---

*   *Clara Ginovart Cid*
    Departament de Traducció i Ciències del Llenguatge
    Universitat Pompeu Fabra
    clara.ginovart@upf.edu

are appearing in the market, and contribute to the efforts of the community, such as recent work presented by Nitzke et al. (2019).

Future job positions in the translation industry will be more pluri- and transdisciplinary, as types of interdisciplinarity (see Horbačauskienė et al. 2017 and Plaza Lara 2019). Pluridisciplinarity (Gambier 2007: 33) stems from proximity mode of several fields. Indeed, technology and linguistics are two fields that will go on to *share* more and more boundaries in the academia and in the industry. Transdisciplinarity (Gambier 2007: 34), in its turn, affects the very activity of PE and the profile of the professional, who is found in constant synergy of (now *fully mixed*) boundaries. In the present article, two hypotheses are put forward.

> Hypothesis 1: *In its interdisciplinarity, the post-editor profile is particularly* **pluri-** *and* **transdisciplinary***.*

> Hypothesis 2: *It may be possible to define an* **MTPE expertise level** *which could help identify the most "mature" linguists and LSCs[2] by combining the years of experience and the workload in MTPE* (Appendices 1 and 2).

The data collected shows that post-editors have a high number of occasional and main tasks at the same time, which would support the first hypothesis. The findings also underpin the importance of information and communications technology (ICT) skills necessary to foster the entrepreneurial culture among professional translators.

1.1   Literature Review

Similar survey-based research at a greater scale, such as the 2019 Language Industry Survey (several authors 2019), have been carried out in this field and have contributed valuable employability insights. However, to the best knowledge of the authors, there has not been any survey-based research especially targeted at well-defined audiences (LSCs who sell MT-aided translation or PE, linguists who accept PE projects, and MTPE trainers) and with such detailed questions about practice issues. In section "Translation Technology Education and Training", Doherty et al. (2018: 97-100) and De Faria Pires (2020) give a very complete summary of the work done in MTPE training until present. The authors discuss previous work on university translation programmes where technical abilities are addressed (in either narrowly- or broadly-construed syllabi); they present recent and regular efforts to meet theory and practice (such as EAMT workshops and *Translating and the Computer* conferences organized by ASLIB); and conclude with an open question about more or less deterministic views on the future of the profession, and how the advisory role may become essential. We consider this work a sound basis to start re-igniting the entrepreneurial spirit in TS, especially by creating role models and reaching out to specific groups (European Commission 2013: 21), such as professionals working with MT-aided translation.

It is noteworthy that in a survey study carried out in Lithuania (Horbačauskienė et al. 2017) it is found that, for in-house translators, "skills in computer-aided translation programmes and text editing were usually missing". Authors like Flanagan/Christensen (2014) or Koponen (2015) have demonstrated how there is a competency gap, especially regarding quality management and PE guidelines. Recently, the American Translation Association claimed that an extra qualification in the linguist profile is now required, since it must be someone who can decide when it is positive to use MT and who can "provide guidance in a choice of a system" (ATA 2018). Doherty et al. (2018: 96) and De Faria Pires (2020) also concluded that having MTPE in translation programmes is responsive to industry needs.

Authors such as De Almeida (2013), Guerrero (2017), and Sánchez-Gijón (2016) have discussed the possible post-editor profiles and skills required, and many efforts have been carried

---

2   Since ISO/TS 11669 defines a "language service provider" (LSP) as a "person or organization that provides translation, interpreting and/or other language-related services such as transcription, terminology management or voice-overs", the term "language service company" (LSC) is preferred in this article to exclude individual persons.

out to address the need for MTPE training courses (O'Brien 2002; Guerberof et al. 2012; Marheinecke 2016; Blagodarna 2018; Koponen 2018; Guerberof/Moorkens 2019; and DigiLing s.d.). Even though some MTPE training courses have recently been created by professional associations such as TAUS[3] or by LSCs (such as ASAP[4] or SDL[5]), the surveyed LSCs and linguists show some dissatisfaction or lack of knowledge about the available MTPE training courses (Ginovart et al. 2020).

It is an arduous task to try to predict the future of the translation profession. However, we agree with Doherty et al. (2018) and Pym (2019) that, even if some translators morph into post-editors (García 2011; Pym 2013), it is not the sole evolution. Considering the employability opportunities in the translation industry, it has now become crucial to include translation technologies and post-editing not only as a stand-alone syllabus at postgraduate level, but as a process across several translation syllabi during undergraduate TS. The project-based approach for teaching and the simulated bureaus, such as the Professional Approach for Translator Training (Aula.int 2005), seems to allow for a holistic training including entrepreneurial skills (such as ethics, tax administration, business plan design, etc.).

For most professional profiles dealing with MT, it may be of interest to review the 9 learning outputs proposed by Olohan (2007: 56). Some could be revisited if we consider post-editing as a new activity, or even if we see it as MT-aided translation (comparable to the change the industry saw with the advent of CAT tools). For instance, the learning outcome of "evaluat[ing] the technical and other resources required for freelance translation activity" shall now encompass a higher range of tools (not only terminological databases, translation memories, and machine translation, but also project management systems, e-learning platforms, and an ever-increasing variety of localization tools). Similarly, the learning outcome of "manag[ing] their own translation assignments under time constraints" is probably exacerbated with the time and cost pressure the language market is suffering (Moorkens 2017).

It is worth highlighting the recent work by Absolon (2018), who underpins the importance, for employers and employees, of having a good knowledge of the difference between translation memory (TM) results and MT output, and their credibility, to avoid misunderstandings. The author also remarks how the 'good enough quality' concept has become central in the language market for some text types or products, and he warns the reader of its relativity (as can be seen in Figure 1).
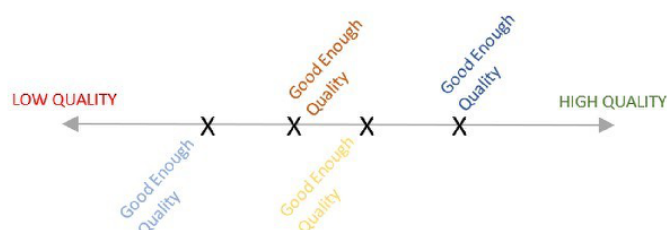

Figure 1 – Illustrating the relativity of the term 'good enough quality' by Absolon (2018)

Absolon (2018) suggests that personal prerequisites are an important factor in MTPE, such as "motivation, attitudes, performance, dynamics and self-control [which] influence the ability to quickly and accurately analyze, which then results in rapid and correct decision-making."

2.   Design of the Questionnaires

---

3   https://www.taus.net/academy/taus-post-editing-course

4   http://mtposteditors.com/tests/test_EN_SK_01.html

5   https://www.sdltrados.com/learning/training/post-editing-machine-translation.html

The questionnaires were designed during the last months of 2018 in Jotform. They could be filled out in approximately 15 to 20 minutes. The first one, addressed to LSCs, is titled *Machine Translation & Post-editing in the Industry*, and the second one, addressed to linguists who use MT to post-edit as part of their job, is titled *Survey for Post-editors of Machine Translation*. Two different questionnaires, instead of one, were designed to facilitate their dissemination to the right audience. Moreover, some questions would be present, hidden or differently phrased depending on the audience. To read about their structure and contents see Ginovart et al. (2020).

Drawing inspiration from the readings discussed in 1.1, but more specifically on Krings (2001), Allen (2003), Ess-Dykema/Reeder (2010), Guerberof (2013), Sánchez-Gijón (2016), and Martins do Carmo (2017), we drafted a list of 14 tasks and we asked the respondents which tasks they usually spend more time on. For each task, the value 'Main task', 'Secondary task', 'Occasional task' or 'N/A' could be chosen (see Appendix 3). The PE-related tasks are discussed in 5.1.

Regarding the skills for post-editing, we draw inspiration from O'Brien (2002), Guerberof et al. (2012), Rico/Torrejón (2012), Pym (2013), Austermühl (2013), O'Brien et al. (2014), Robert et al. (2017), Absolon (2018), and Cid-Leal et al. (2019). The respondents of both questionnaires were asked to rate a list of 11 MT post-editing skills according to how important they think they are for a post-editor. It was a 5-Likert scale from 1 (slightly important) to 5 (very important). If a skill was not rated (0) it was considered as not important (see Appendix 4). Our discussion about the PE-related skills is found in 5.2.

In both questionnaires there were 17 possible features or criteria an HR staff member may consider from a candidate profile (see Appendix 5); to design them, we relied on the works mentioned for the PE-related tasks and PE-related skills, given that hiring is traditionally based on previous experience (i.e. tasks) and education (i.e. skills). Our discussion about hiring criteria is found in 5.3. The standards ISO 17100:2015 and ISO 18587-2017 have also been helpful in the design of hiring criteria.

For the PE guidelines a major source of inspiration has been Hu/Cadwell (2016). In our survey-based research (see Appendix 6), the answer for the second questionnaire 'Internally customized general PE guidelines' is comparable to answer 'Internally customized and fixed for the whole firm or company', for the first questionnaire. In regards of feedback and TQA (see Appendix 7 and 8) we have sought updated knowledge and practices in Huertas-Barros et al. (2018). Please refer to sections 5.4 and 5.5 to read about the findings on PE guidelines, and feedback and TQA, respectively.

3. Methodology

To ensure scientific rigor in the design of the questionnaires, the Applied Statistics Service of the Universitat Autònoma de Barcelona produced an evaluative report about the questionnaire addressed to LSCs and firms. The service signaled risks and methodological issues. Their advice was taken into consideration for both questionnaires. The longest answers were randomized to avoid the risk of bias. Furthermore, to avoid nonresponse bias, it was explained in an informative bubble that a blank answer would correspond to 'N/A' or 'Not important'. There was no maximum of answers to be selected in the multiple-answer questions commented in the present article, and a progress bar indicator at the top margin let the respondent keep track of the parts left to complete. A pilot survey with 15 participants was completed to adjust the wordings and distribution of questions and answers before launching the survey.

Aiming at increasing the representativeness as much as possible, we applied probabilistic and convenience sampling methods to disseminate the surveys. The questionnaires were shared with over 200 groups and associations, and they were published on leading social media platforms. Submissions were accepted until April 2019.

In regards of the analysis of the collected data, we have used Microsoft Excel (more specifically pivot tables) to prepare the data and the averages of each question. We then looked for statistical significance in the divergence among groups using the following formula[6]:

$$difference\ \sigma\ =\ \sqrt{p_1(100 - p_1)/n_1 + p_2(100 - p_2)/n_2}$$

Figure 2 – Statistical significance formula

4.   Profile of the Respondents

In the following paragraphs we present the background of the respondents for each questionnaire. By crossing the collected data on the years of experience and the MTPE workload we obtain an **MTPE expertise level** for each participant.

4.1. Questionnaire for LSCs – First Survey

We received 66 valid submissions in this first questionnaire. The respondents are based in 19 different countries, mostly in Spain (17), but also in France (6), Poland (5), and Germany (5). The most common source language for MTPE is English, translated into a variety of target languages (Spanish, French, German, Italian, Portuguese, Greek, Dutch, among others[7]). In regard to their job position, 23 of our respondents work in project management, 20 are part of the executive management (CEO, COO, etc.), 10 hold the position of MT specialist, 9 are linguists or paralinguists, 3 are researchers, and 1 did not disclose.

Most respondents are small LSCs (only 12% of the respondents are firms with a translation department). Indeed, 68% have fewer than 50 employees, and 76% of the respondents handle only less than 25% of their translation production via MTPE. Regarding the years of experience in MTPE, our respondents have mostly between one and five years of experience (55%), and 29% of them have been working with MTPE for more than five years. To establish their levels of **MTPE expertise** we seek the correlation between the experience (see Appendix 1) and the workload (see Appendix 2). We do this by assigning a score to each possible answer (1, 2, and 3 for the years; and 1, 2, 3, and 4 for the workload). The product of multiplying the former with the latter results in 12 values used for the definition of the MTPE expertise levels. For the purposes of statistical analysis of the collected data, we have distributed these levels in 3 groups: 'Beginner' (for score 1, which represents 11% of our respondents), 'Intermediate' (scores 2 and 3, which represents 65%), and 'Advanced' (scores 4 to 12, which represents 24%). Please see the results in Table 2 (see 4.3).

We must acknowledge that one limitation of this survey-based research is the reduced number of participants. Due to the lack of an official register of LSCs using MT, we cannot establish the extent to which the results may be (or not) representative of the whole population. Despite of this, it is hoped that our conclusions will help other stakeholders to adjust their strategies in order to climb up this expertise scale and rid MT of the bad reputation it has gained among professionals in the past years (Sakamoto 2019).

4.2. Questionnaire for Linguists – Second Survey

There were 142 valid submissions for this second questionnaire. The respondents reside in 33 countries. 17% are native Spanish speakers, 16% English, 15% Italian, 11% French, and 9% na-

---

6   The formula has been extracted from this website: http://xl8.link/significance (Blanco Caraco 2012)

7   Other demographic and background data of the respondents is available in this report: https://drive.google.com/file/d/1kdsKurAOsK0DSoKW6LAa79WPDm5Ww3vC/view?usp=sharing

tive German speakers. 43% of the respondents said they were bilingual —and for 49% of these the second language is English. The most frequent target languages correspond well with the mother tongue of the respondents[8].

Regarding their educational background, 25% have not pursued higher education related to TS, 23% hold a first degree related to translation, and 52% a master's degree related to translation or a higher diploma. When asking about other vocational training we find that 70% do not have any extra certification (such as SDL or ProZ certification). Out of the 96 freelance respondents, 78% receive more post-editing projects from LSCs, 20% from private or direct clients, and 2% do not disclose. In Table 1 we present the status of the respondents:

Status	N° of respondents	% of respondents
Translation not main source of income	28	20%
Freelance translator	96	68%
In-house translator at LSC	10	7%
In-house translator at translation department	6	4%
Both freelance and in-house translator	2	1%
Total	**142**	**100%**

Table 1 - Status of respondents

Table 1 - Status of respondents

Only 17% have more than 5 years' experience in MTPE, 24% less than 1 year, and 59% between 1 and 5 years. 88 respondents (62%) handle 25% of their translation workload or less via MTPE; 26 participants (18%) handle between 26% and 50% of their translation production via MTPE, 18 participants (13%) between 51% and 75%; and only 10 respondents (7%) handle 76% or more of their translation production via MTPE. To obtain their level of expertise we assign a score to each possible answer. The label 'Novice' is used when the product is 1, 'Intermediate' when the result is either 2 or 3, and 'Expert' if the score obtained is 4 or higher. Please see the results in Table 2.

4.3. Expertise Level of LSCs and Linguists

The overview of our respondents according to their MTPE expertise level is as shown in Table 2.

Score	Survey to LSCs (66 respondents)			Survey to linguists (142 respondents)		
	Title | N° of resp. | %			*Title | N° of resp. | %*		
1	Beginner	| 7 |	11%	Novice	| 22 |	15%
2, 3	Intermediate	| 43 |	65%	Intermediate	| 76 |	54%
4, 5, 6, 7, 8, 9, 10, 11, 12	Advanced	| 16 |	24%	Expert	| 44 |	31%

Table 2 - MTPE expertise level

5. Cross-analysis of the Survey Data

5.1 PE Tasks

Arguably, the post-editor profile becomes more pluri- and transdisciplinary if we look at it from the perspective of the Expert group of post-editors, who have a higher number of Main tasks (see Figure 3). The distribution of Main, Secondary or Occasional tasks is perceived differently by LSCs and linguists. While the Secondary tasks show a lowering trend as MTPE expertise rises for both audiences, LSCs view their post-editors as having more Occasional tasks and fewer

---

8 Other demographic data of the respondents is available in this report: https://drive.google.com/file/d/1115HIrB z5ezYjs8OTKp2va01HRdtQDW/view?usp=sharing

Main tasks as expertise rises, whereas it is the opposite for linguists: they show a growing trend for Main tasks and the workload represented by Occasional tasks is reduced when they become experts in the MTPE scale. We speculate that linguists, as individuals without the solid and complexified structure of a firm, might offer a better insight of the actual profession and its latest developments.
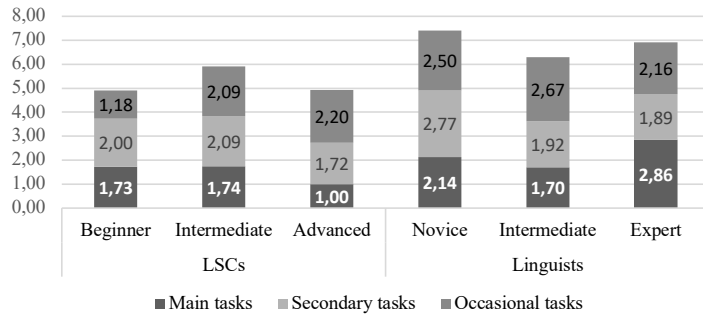

Figure 3 - Distribution of PE workload for LSCs and linguists

When examining which specific tasks are performed by each audience, we find that linguists clearly spend more time on proper post-editing or revising, especially Experts. As can be seen in Figure 4, the distribution of tasks that differs mostly between industry stakeholders and individual professionals affects mainly the activities of Revision of post-edited MT output (bilingual) and Proofreading of post-edited output (monolingual). This divergence is found to be statistically significant. However, if we only compare Expert post-editors and Advanced LSCs, the results are no longer statistically significant.
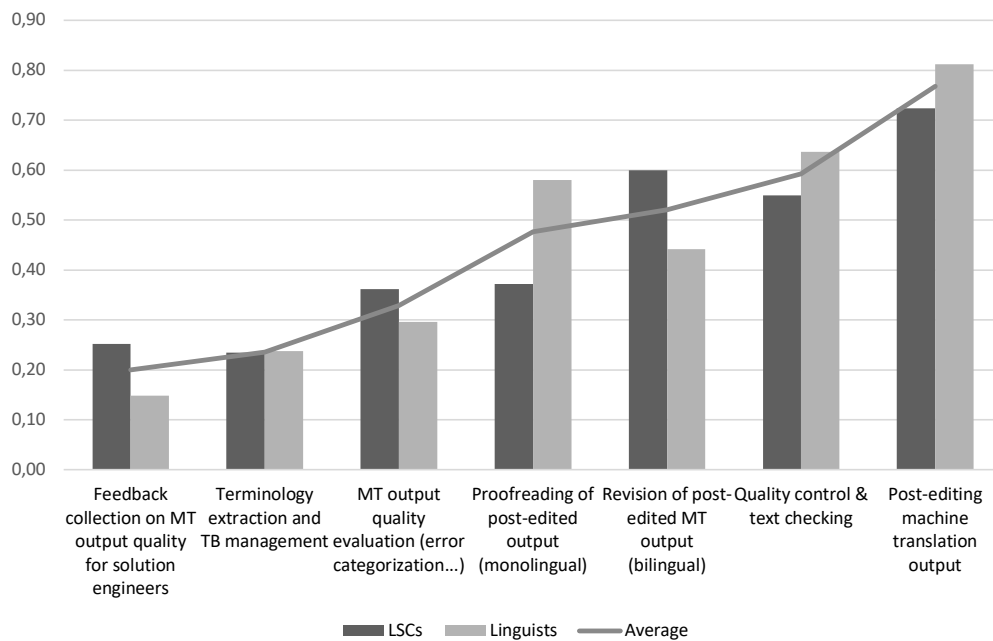

Figure 4 – Top 7 of tasks in MTPE projects by LSCs and linguists

Besides the proper PE task, the results show that the top four tasks performed by post-editors are Quality control (QC), Proofreading[9], Revision, and MT output quality evaluation. For LSCs, the top 4 are the same but they alternate in position: QC, Revision, MT output quality evaluation, and Proofreading.

5.2. PE Skills

For LSCs, the most praised skill is the Capacity of post-editing up to 'human' quality (full post-editing seems to constitute common ground between LSCs and linguists), followed by the Capacity of post-editing according to PE guidelines, which seems less important for individual professionals (fourth position). This finding is found to be statistically significant (see Figure 5).

The third position is held by the Capacity to identify MT errors; fourth is the Capacity to decide when to edit or discard a segment; both are also deemed very important by linguists. The Capacity of post-editing up to 'good enough' quality (light post-editing) holds the fifth position and it is a perfect example of the combination of attitudinal competence with ICT skills. Finally, the Capacity of applying the right correction strategy occupies the sixth place. It is noteworthy that this skill has not received much attention in the past, and only some authors, such as Blain (2011), tried to define a typology of post-editing actions (PEA) that are not merely mechanical edits (addition, deletion, insertion, shift) but that are linguistically motivated.
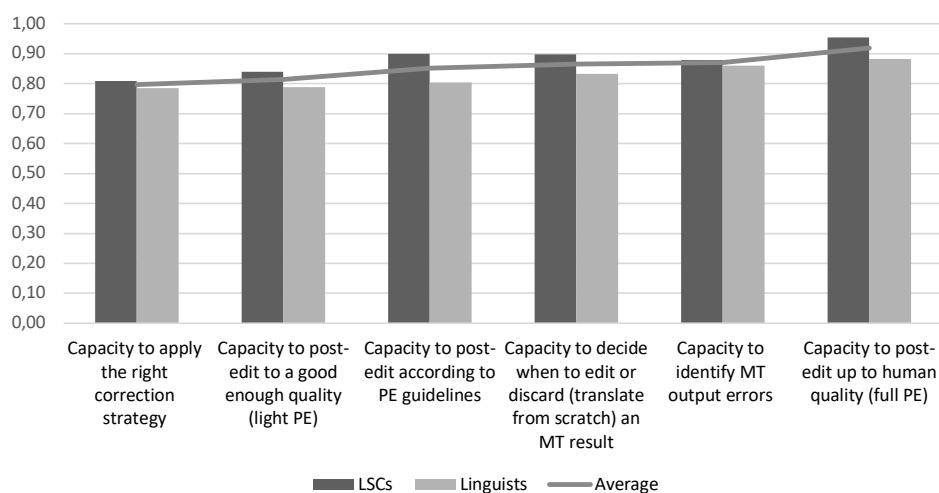

Figure 5 - Top 6 PE-related skills by LSCs and linguists

As can be observed in Figure 5, apart from the difference observed in the Capacity to post-edit according to PE guidelines, LSCs and linguists seem to agree on the PE-related skills.

5.3   PE Hiring Criteria

In the first questionnaire, we see how LSCs consider Revision and proofreading skills the most praised criterion for a post-editor candidate. The second position is held by Subject field knowledge; the third, knowledge of CAT tools; the fourth, having a University degree in translation or related studies, and the fifth position is held by Quality Assurance (QA) checking skills.

In the second questionnaire, the respondents of our survey coincide with LSCs in rating Revision and proofreading skills as the most praised feature for a candidate post-editor. In the second

---

9   We made a distinction between bilingual review ('Revision') and monolingual review ('Proofreading') and it was indicated in brackets in the questionnaires. However, we cannot neglect the possibility that the LSCs and individual post-editors misunderstood the difference of the two tasks, and this would explain the statistically significant difference observed.

and third positions we find knowledge of CAT tools, and Quality Assurance (QA) skills. Fourth and fifth positions are held by Subject field knowledge and Productivity (processing speed)[10]. Even if productivity is more important to the Novice/Beginner and Intermediate groups than it is to Advanced/Expert participants, none of the differences between LSCs and linguists that can be observed in Figure 6 are found to be statistically significant.
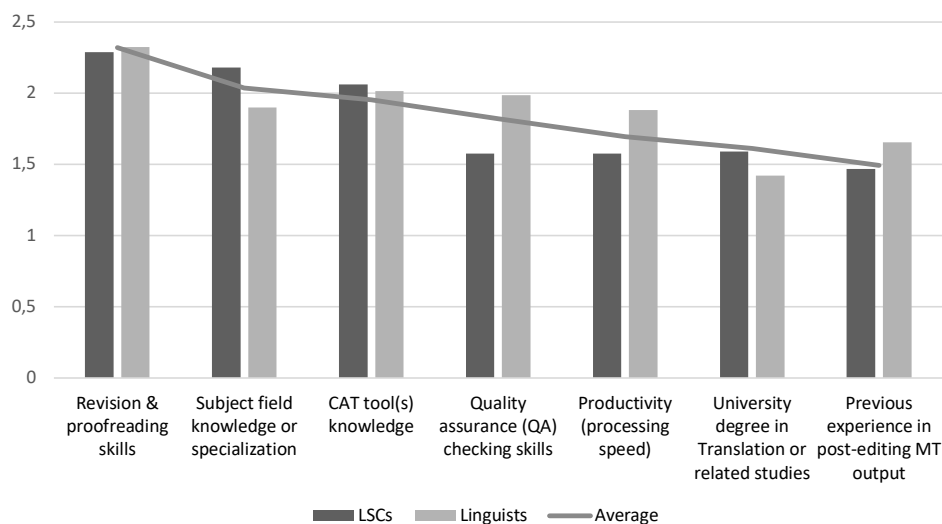

Figure 6 – Top 7 features valued for hiring purposes by LSCs and linguists

QA skills (which may be justified by previous projects or job positions in a CV), Productivity (processing speed) and Previous experience in post-editing MT output seem to be considered a valuable indicator of the suitability of a candidate for individual professionals. On the other hand, Subject field knowledge or specialization is highly valued by LSCs. Nonetheless, none of these findings are statistically significant.

5.4 PE Guidelines

For both Expert post-editors and Advanced LSCs, and even more for Intermediate LSCs, the most used type of PE guidelines are ones designed for their own projects (Internally customized and tailored to content type or language). The second position is held by 'Internally customized general PE guidelines'. The third position is occupied by 'Only PE level indication', and we have a small share of LSCs and post-editors who use TAUS Post-editing guidelines (Joscelyne/Brace 2010).

One transferable skill for translation professionals interested in providing MTPE services should be not to limit oneself to the general post-editing guidelines, but to be capable of designing and applying custom-tailored guidelines, and advising which guidelines is best for a specific project and why. Moreover, the capacity of adapting oneself to one or another PE guideline and evaluating them, reflects the transdisciplinary skills promoted by the European Commission in its 2015 report: ICT literacy and skills, creative thinking, problem-solving and an innovative mindset, self-confidence, confidence in one's ideas, adaptability, risk assessment and risk-taking.

The fact that the top two kinds of guidelines used by LSCs and linguists are customized and tailored highlights how the translation profession should not be reduced to an activity of pure pre- or post-editing (Kóbor 2019), and the agency of the linguist is now extended.

---

10 It should be noted that "processing speed" was simplified for the general use of the surveys by the LSCs, but we are aware of how this term is misused in the industry and it should, in our opinion, include a quality factor as discussed in 5.5.

5.5 PE Feedback & TQA

Some LSCs, such as CPSL (Guerrero 2017) and Transperfect (Zaretskaya 2017) have designed a template for MT feedback for linguists to report the MT issues they would like to see corrected in future outputs. The implementation of these templates underpins the importance of collecting linguistic feedback and discussing withlinguists how useful the MT output has been for the PE assignment. The goal is to keep improving the raw MT output and reducing the frustration of the linguist.

To consult the questions addressing PE feedback and TQA in our questionnaires, please refer to Appendix 7 and Appendix 8, respectively.
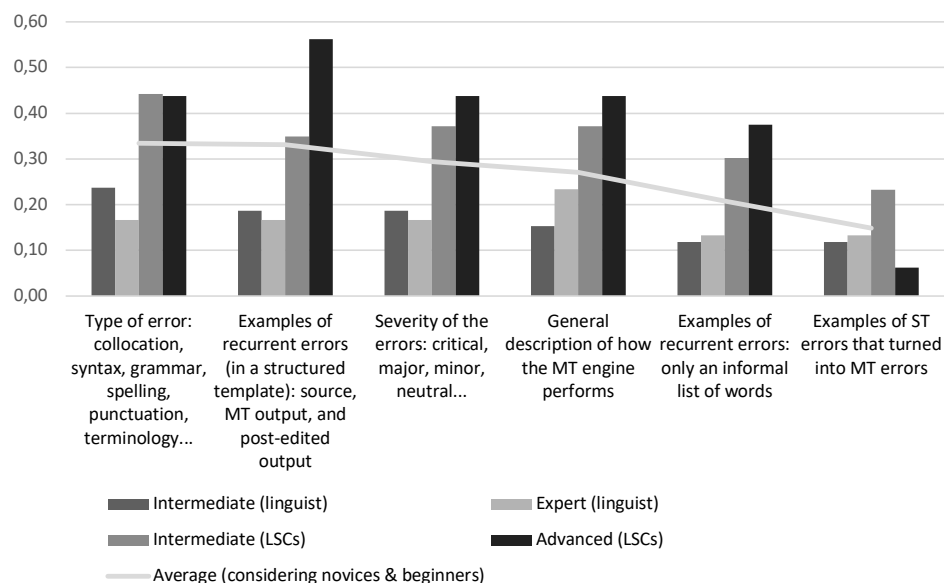

Figure 7 - PE Feedback sent by linguists and received by LSCs

In Figure 7 it is shown how the most valued element for Advanced LSCs is Examples of recurrent errors (in a structured template): source, MT output, and post-edited output. It must be noted that, except from the Examples of ST errors that turned into MT errors (which is the element less often included), all the other types of feedback show a statistically significant difference between LSCs and linguists. The gap should be further studied as to determine if the usefulness of PE feedback is at question as activity in itself or, rather, the method to create such feedback (the elements drafted in our questionnaires) should be revisited and further researched. Indeed, TQA is an important part of the curricula for a linguist (Moorkens et al. 2018). Doherty et al. (2018) have also observed such a gap between the industry and the academia:

> Within academia, there is a lack of education and training opportunities to equip translation students, even at postgraduate level, with the knowledge and skills required to understand and use TQA. This has immediate effects on their employability and long-term effects on professional practice.

6. Discussion of Findings

As we have seen in Table 2 (see 4.3), a significant share of the respondents to both questionnaires hold the value of "2" when we combine their experience (in years) with their MTPE workload (in percentage). One possible interpretation of this fact is that a small share of the globalization industry boasts both a big volume and vast experience with MTPE projects. These results seem to suggest that small LSCs are trying to gain expertise in MTPE, which constitutes a valuable hint for employability purposes for future professionals.

Besides actual post-editing, the tasks that are most often performed by post-editors, according to LSCs and linguists, are: QC, Revision, Proofreading, and MT output evaluation (see section 5.1). At the light of these findings, and considering how the initiative *Report on promoting youth entrepreneurship through education and training* (European Commission, 2015) highlights the importance of the relationship between the entrepreneurship competence and the digital competence, we can now justify that translator education should emphasize the systems and tools allowing for QC (such as any verification settings inside CAT tools, but also stand-alone such as Xbench[11]). Likewise, translator training should also include hands-on practice with software to evaluate quality of an MT output, including metrics such as BLEU (Papieni et al. 2002) and TER or HTER (Snover et al. 2006), but also systems that allow for human evaluation, such as the Dynamic Quality Framework (DQF) harmonised with the Multidimensional Quality Metrics (MQM[12]). The ICT skill combined with transversal and entrepreneurial skills will enable young translators to

> exploit the potential of the digital world […] thus becoming more able to compete for jobs, become self-employed, learn to better understand their prospective employers' behavior and needs, and contribute to the innovative and competitive capability of employer organization (European Commission, 2015).

Furthermore, the top ranked skills presented in 5.2 (excluding full PE itself, which was added to give focus to the question) are the Capacity to identify MT output errors; the Capacity to decide when to edit or discard (translate from scratch) an MT result; and the Capacity to post-edit according to PE guidelines. This leads to a key finding: the importance of attitude and adaptability for the profile. Being capable of finding the balance between MT output quality, expected quality and available time is the core competency for a language professional. Moreover, one possible explanation for the statistically significant difference observed in 5.2 about the Capacity to post-edit according to PE guidelines could be that Expert linguists are capable of deducing the PE guidelines from existing standards (along with their experience and knowledge of the client and assignment), whereas LSCs may see this skill as more important if they have invested time in designing such guidelines (especially if they customize them according to the project or text type, as seen in 5.4). Such skill could be developed by young professionals if the education system and companies cooperated to facilitate project-based studies (European Commission 2015). Probably, the best way to proceduralize (Göpferich 2013) the skill of balancing time constraints with quality requirements according to PE guidelines is through practice in context, such as internships, mentorships, or work placements.

CAT tool knowledge, QA skills, and productivity (processing speed) are among the top criteria for the recruitment of a post-editor. As discussed in 5.3, both groups of respondents believe that LSCs select a post-editor by considering her/his revision and proofreading skills, knowledge of CAT tools, QA skills, and subject domain specialization. The pluri- and transdisciplinary nature of this profile is obvious. As seen in 5.4, linguists should extend their scope of agency. We are moving from linguistic and semantic agency, through 'technological agency' (which MT system is best and why? which PE guideline should be activated and why? etc.), and towards 'professional agency'. This trend is observed by authors like Gaspari et al. (2015) and Koponen (2015) who emphasize the impact of "familiarity with translation technology" on the employability of future translators. We argue that professional agency should be discussed in the training resources for translation-related digital tools by means of ethics, payment and collaboration practices (Doherty/Kenny 2014: 299), which would especially help professionals in small LSCs (Sakamoto et al. 2017). Pym (2019) has recently highlighted the need to learn and teach how to sell the right service in the right way: post-editing, MT-aided translation, sophisticated post-editing, revision, proofreading, and other job descriptions in the language industry.

---

11 https://www.xbench.net/
12 http://www.qt21.eu/mqm-definition/definition-2015-12-30.html

For productivity measures in MTPE to be reliable, it is a must to perform TQA, as it would not make sense to 'pay' faster turnaround times with lower quality. Unfortunately, the opposite seems to be true, as Toral (2019) found that post-editese is a reality already. Doherty et al. (2013: 11) identified a clear preference for human TQA over automatic evaluation and customized in-house measures. It reinforces the need for inclusion of TQA in MTPE syllabi. To be able to provide any feedback and do TQA tasks, error identification is a core skill, and as Popović (2018) puts it: "post-editing is actually error correction, and therefore can be viewed as implicit error annotation", which corresponds well with three key findings observed in this paper: the fact that QC holds the second position as top PE task, that the identification of output errors is the second top skill, and that revision and proofreading skills are the most valued hiring criterion to both groups of respondents.

A limitation of the present survey-based study is the number of participants. Even if 208 answers (66 LSCs, mainly, and 142 linguists) cannot be neglected, the European language market does not have a register to allow for a precise evaluation of the representativeness of these findings related to the population. Regarding the comparable nature of individual professionals and LSCs, we consider that linguists experience faster evolution in their processes and workflows, compared to firms with a bigger infrastructure, where several meetings and administrative steps are required before implementing big changes. Thus, the data collected in the questionnaire *Survey for Post-editors of Machine Translation* may be more updated and may show the trends that the LSCs will follow.

7.   Concluding Remarks

With 66 industry respondents in one questionnaire, and 142 in the other, the key findings of this survey-based research constitute **gaps and common ground** between LSCs and linguists. The main gaps between the industry and linguists are, as seen in 5.1, some PE-related tasks. We have observed a statistically significant difference for the task of reviewing and the task of proofreading. However, thanks to the MTPE expertise level we have seen how this is not a significant divergence for Advanced LSCs and Expert linguists. Even if other tasks show light differences between the two audiences (CAT/MT tool support, terminology management, or productivity tracking), they did not show statistical significance. The three mentioned tasks are nonetheless cited by Advanced LSCs as important criteria for the recruitment of a post-editor (see 5.3), which reduces the gap and reinforces the speculation that individual professionals, as a smaller business infrastructure, show earlier a clear trend for the profession.

According to our LSC respondents, to increase employability, post-editors should emphasize the locale(s) or sublanguage(s) in which they work; be capable of post-editing the language in which they are not native; have project management experience; and possess TQA skills. Regarding the skills (see 5.2), we have observed how the respect for PE guidelines is not understood in the same way by the two audiences, even when comparing Advanced and Experts. Hence, as we suggested in 5.4, it is a valuable transferable skill to be able to evaluate the fitness of one or another guideline to a specific project and the flexibility one should show to apply it in one context but not in another.

With the objective of setting clear goals for the future of the profession, it should be acknowledged how the common ground found in this survey-based study constitutes an optimistic finding for the industry. LSCs and linguists show coincident data about the PE-related tasks (such as Quality control & text checking, and MT output quality evaluation), but also about PE-related skills and, more importantly, about hiring criteria, where no statistically significant divergences were found among the two audiences. In general, the **MTPE expertise level** has helped identify which differences are also observed among Advanced and Expert groups. Hence, combined with other indicators such as a performance test (Van Egdom et al. 2018), it could be a good indicative of the professionals paving the way towards future trends in the market. Universities may consider it, for instance, to choose a mentor for a student. This would help in keeping up to date with

employment trends and fostering improvements in their study programmes according to market demands (Horbačauskienė et al. 2017: 147). All in all, hypothesis 2 has been accomplished but not yet validated. Obviously, to validate it we should see in the future which applications the industry and the academia give to it, and how successfully.

The **pluridisciplinary** character seems to be inherent to the profile of the translator/post-editor. It is observed not only by the combination of tasks, but also but the different hiring criteria and skills that emerge as key to remain competitive. Some were already present in the translation competency model (proofreading, revision, subject domain knowledge), and some are added with the advent of MT (identifying the errors, evaluating the raw output, or respecting PE guidelines). The first hypothesis is therefore partially confirmed, but an experimental study should be set up to establish to what extent it is **transdisciplinary** (as the synergy in the very task of PE might be more difficult to identify empirically).

It is noteworthy that the "share of people preferring self-employment to being an employee has dropped in 23 out of the 27 EU Member States" and for enterprises the growth rate is reportedly slower (European Commission 2013: 4). We hope that our MTPE expertise level may indicate best practices to help young enterprises and professionals self-employed to grow at a faster pace thanks to further access to digital resources and practice with innovative tools. Indeed, as already observed by Zhaohui (2019) a translator "who lacks post-editing skills may gradually be less and less competitive".

Professional competence (Galán-Mañas 2017) should be emphasized in training programmes and continuing professional development to prevent post-editors from performing exclusively an activity of pure pre- or post-editing (Kóbor 2019). To avoid a deficient workforce retention (Fullen 2019), translators/post-editors (and related job positions, such as digital linguists, etc.) need to be trained not only in new skill sets that emphasize ICT literacy, but also in deontological and professional aspects (professional ethics, confidentiality, impartiality, novel pricing models [Way 2018], etc.). With a longitudinal training model, young translators would be in a position to give positive responses to budget-conscious clients with tight deadlines, but unwilling to compromise quality-wise (Moorkens et al. 2018). Internship placements are one way of promoting entrepreneurship in MTPE training. The practice acquired would enable linguists to develop transdisciplinary ICT skills such as assessing training data to be selected for MT system training and development, evaluating MT output, managing terminology, and refining workflows, and, more importantly, acquire the advisory role (O'Brien 2014). To bridge the gap between study programmes in translator training and market demands, Horbačauskienė et al. (2017) also suggest, for the case of Lithuania, a development of accreditation certificates as those used in Nordic countries.

The findings presented in Ginovart et al. (2020) are compared to the work presented in this article and to a third questionnaire on MTPE modules at the master level in European universities in Ginovart/Oliver (2020).We hope that such new insights will allow for further development, update and adaptation of industry standards such as ISO 18587:2017, which are, or should be, valuable references to young linguists who translate and post-edit among other professional activities.

References

Absolon, Jakub (s.d.). *English - Slovak MTPE Course* [online]. http://mtposteditors.com/tests/test_EN_SK_01.html (accessed 8 October 2018).

Absolon, Jakub 2018: *The Need for Competency-based Selection and Training of Post-editors*. Nitra: ASAP-translation.com.

Allen, Jeff 2003: Post-editing. In Somers, H. (ed.). *Computers and Translation: A Handbook for Translators*. Amsterdam/Philadelphia: John Benjamins, 297-317.

Álvarez-Álvarez, Susana/Arnáiz-Uzquiza, Verónica 2017: Translation and interpreting graduates under construction: do Spanish translation and interpreting studies curricula answer the challenges of employability? In *The Interpreter and Translator Trainer*, 2-3, 139-159.

American Translation Association 2018: *ATA Position Paper on Machine Translation* [online]. http://xl8.link/ATA2018 (accessed 8 May 2019).

Aula.int 2005: Translator Training AND Modern Market Demands. In *Perspectives: Studies in Translatology*, 13 (2), 132-142 [online]. http://xl8.link/aulaint (accessed 7 October 2019).

Austermühl, Frank 2013: Future (and Not-So-Future) Trends in the Teaching of Translation Technology. In: *Tradumàtica: Tecnologies de la Traducció*, 11, 326–337.

Blagodarna, Olena 2018: *Enhancement of Post-Editing Performance: Introducing Machine Translation Post-Editing in Translator Training*. Doctoral dissertation. Barcelona: Universitat Autonoma de Barcelona.

Blain, Frédéric/Senellart, Jean/Schwenk, Holger/Plitt, Mirko/Roturier, Johann 2011. "Qualitative analysis of post-editing for high quality machine translation." MT Summit XIII: the Thirteenth Machine Translation Summit [organized by the] Asia-Pacific Association for Machine Translation (AAMT), 164-171.

Blanco Caraco, José Luis 2012: Calculadoras de significancia estadística en resultados de encuestas. [Calculators of statistical significance in survey results.] *Ciencia explicada* [online]. http://xl8.link/significance (accessed 8 October 2019).

Bond, Esther 2018. The stunning variety of job titles in the language industry. [online] https://slator.com/features/the-stunning-variety-of-job-titles-in-the-language-industry/.

Cid-Leal, Pilar/Espín-García, María-Carmen/Presas, Marisa 2019: Traducción automática y posedición: perfiles y competencias en los programas de formación de traductores. In *MonTI: monografías de traducción e interpretación*.

De Almeida, Giselle 2013: *Translating the post-editor: an investigation of post-editing changes and correlations with professional experience across two Romance languages*. Doctoral dissertation. Dublin: Dublin City University.

De Faria Pires, Loïc 2020. Master's students' post-editing perception and strategies: Exploratory study. In FORUM. Revue internationale d'interprétation et de traduction/International Journal of Interpretation and Translation (Vol. 18, No. 1, pp. 26-44). John Benjamins.

DigiLing s.d.: *Post-Editing Machine Translation*. [online] https://learn.digiling.eu/ (accessed 2 October 2018).

Doherty, Stephen/Gaspari, Federico/Groves, Declan/van Genabith, Josef/Specia, Lucia/Burchardt, Aljoscha/Lommel, Arle/Uszkoreit, Hans 2013: *Mapping the industry I: findings on translation technologies and quality assessment* [online]. http://xl8.link/Dohertyetal2013 (accessed 16 October 2019).

Doherty, Stephen/Kenny, Dorothy 2014: The Design and Evaluation of a Statistical Machine Translation Syllabus for Translation Students. In *The Interpreter and Translator Trainer*, 8 (2), 295-315.

Doherty, Stephen/Moorkens, Joss/Gaspari, Federico/Castilho, Sheila 2018: On Education and Training in Translation Quality Assessment. In Moorkens, Joss/Castilho, Sheila/Gaspari, Federico/Doherty, Stephen (eds.) *Translation Quality Assessment: From Principles to Practice*. Springer: Machine Translation: Technologies and Applications, 95-108.

Ess-Dykema, Carol Van/Phillips, Jocelyn/Reeder, Florence/Gerber, Laurie 2010: Paralinguist Assessment Decision Factors for Machine Translation Output: A Case Study. *AMTA 2010 - 9th Conference of the Association for Machine Translation in the Americas* [online]. http://mt-archive.info/AMTA-2010-VanEss-Dykema.pdf (accessed 7 October 2019).

European Commission 2013: *Entrepreneurship 2020 Action Plan Reigniting the entrepreneurial spirit in Europe* [online]. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52012DC0795&from=EN (accessed 6 October 2019).

European Commission 2015: *Report on promoting youth entrepreneurship through education and training* [online]. http://www.europarl.europa.eu/doceo/document/A-8-2015-0239_EN.html (accessed 15 October 2019).

European Commission 2018: *Survey: Expectations and Concerns of the European Language Industry* [online]. https://ec.europa.eu/info/files/survey-expectations-and-concerns-european-language-industry-2016_en (accessed 20 May 2019)

Flanagan, Marian/Christensen, Tina Paulen 2014: Testing post-editing guidelines: how translation trainees interpret them and how to tailor them for translator training purposes. In *The Interpreter and Translator Trainer*, 8 (2), 257-275.

Fullen, James Edward 2019: *Retaining Millennials in the Workforce*. PhD Disertation. Northcentral University.

Galán-Mañas, Anabel 2017: Professional portfolio in translator training: professional competence development and assessment In *The Interpreter and Translator Trainer*, 13 (1), 44-63.

Gambier, Yves 2007: "Pour une socio-traduction". In Ferreira Duarte, João/Assis Rosa, Alexandra/Seruya, Teresa (eds.). *Translation Studies at the Interface of Disciplines*. Benjamins Translation Library.

García, Ignacio 2011: Translating by post-editing: Is it the way forward? In *Machine Translation*. 25, 217-237.

Gaspari, Federico/Almaghout, Hala/Doherty, Stephen 2015: A survey of machine translation competences: Insights for translation technology educators and practitioners. In *Perspectives. Studies in Translatology* 23 (3), 333-358.

Ginovart, Clara/Colominas, Carme/Oliver, Antoni 2020: Language industry views on the profile of the post-editor. *Translation Spaces*.

Ginovart, Clara/Oliver, Antoni 2020: "The post-editor's skill set according to industry, trainers and linguists ". In Portsiel, Jörg (ed.). *Maschinelle Übersetzung für Übersetzungsprofis*. BDÜ, Weiterbildungs- und Fachverlagsgesellschaft mbh.

Göpferich, Susanne 2015: Translation Competence. *Interdisciplinarity in Translation and Interpreting Process Research*, 63–78.

Guerberof, Ana 2013: What do professional translators think about post-editing? In *The Journal of Specialised Translation* 19, 75-95.

Guerberof, Ana/Depraetere, Heidi/O'Brien, Sharon 2012: What we know and what we would like to know about post-editing. In *Tradumàtica: tecnologies de la traducció* 10, 211-218.

Guerberof, Ana/Moorkens, Joss 2019: Machine translation and post-editing training as part of a master's programme. In *The Journal of Specialised Translation* 31, 217-238.

Guerrero, Lucía 2017: *LSP Perspective: Applying the Human Touch to MT, Qualitative Feedback in MT evaluation (Part 1)* [online]. http://xl8.link/CPSL (accessed 18 May 2019).

Horbačauskienė, Jolita/Kasperavičienė, Ramuné/Petronienė, Saulé 2017: Translation Studies: Translator Training Vs Employers' Expectations. In *Journal of Language and Cultural Education* 5 (1), 145–159.

Hu, Ke/Cadwell, Patrick 2016: A Comparative Study of Post-editing Guidelines. In *Baltic J. Modern Computing*, 4 (2), 346-353.

Huertas-Barros, Elsa/Vandepitte, Sonia/Iglesias-Fernández, Emilia (eds.) 2018: *Quality Assurance and Assessment Practices in Translation and Interpreting*. IGI Global.

International Standardization Organization. 2012. ISO/TS 11669. Translation projects — General guidance. Switzerland: ISO.

International Standardization Organization 2017. *18587:2017 Translation services — Post-editing of machine translation output*. Switzerland: ISO.

Joscelyne, Andrew/Brace, Colin 2010: *Postediting in Practice. A TAUS Report.* [online]. http://xl8.link/TAUS2010 (accessed 8 May 2019).

Kóbor, Márta 2019: La traduction de sites web : un terrain idéal pour le développement des compétences « clés » de nos jours. In *Former des traducteurs et des interprètes : des prérequis au marché du travail*, INALCO [online]. http://www.inalco.fr/sites/default/files/asset/document/prg_colloque_traducteurs_final_0.pdf (accessed 18 May 2019).

Koponen, Maarit 2015: How to teach machine translation post-editing? Experiences from a post-editing course. In *4th Workshop on Post-Editing Technology and Practice* (WPTP4), 2.

Koponen, Maarit 2018: Learning to post-edit: An analysis of post-editing quality and processes of translation students Learning to post-edit. In *6th IATIS Conference*.

Krings, Hans P. 2001: *Repairing Texts: Empirical Investigations of Machine Translation Post-Editing Processes*. Kent, Ohio & London: The Kent State University Press.

Marheinecke, Katrin 2016: *Post-editing Machine Translation. What does it take?* [online]. http://xl8.link/marheinecke (accessed 20 May 2019).

Martins do Carmo, Félix Emanuel 2017: *Post-editing: A Theoretical and Practical Challenge for Translation Studies and Machine Learning*. PhD dissertation. Porto: Universidad do Porto.

Moorkens, Joss 2017: Under pressure: translation in times of austerity, *Perspectives*, 25 (3), 464-477.

Moorkens, Joss/Castilho, Sheila/Gaspari, Federico/Doherty, Stephen 2018: *Translation Quality Assessment: From Principles to Practice*. Springer: Machine Translation: Technologies and Applications.

Nitzke, Jean/Hansen-Schirra, Silvia/Canfora, Carme 2019: Risk management and post-editing competence. In *The Journal of Specialised Translation*, 31, 239-259.

O'Brien, Sharon 2002: Teaching Post-editing: A Proposal for Course Content. In *Proceedings of the 6th EAMT Workshop, Teaching Machine Translation*, 99-106.

O'Brien, Sharon/Winther Balling, Laura/Carl, Michael/Simard, Michel/Specia, Lucia (eds) 2014: *Post-Editing of Machine Translation: Processes and Applications*. Cambridge Scholars Publishing: United Kingdom.

Olohan, Maeve 2007: Economic Trends and Developments in the Translation Industry. What Relevance for Translator Training? In *The Interpreter and Translator Trainer* 1 (1), 37-63.

Papineni, Kishore/Roukos, Salim/Ward, Todd/ Zhu, Wei-Jing 2002: BLEU: a Method for Automatic Evaluation of Machine Translation. In *Proceedings of the 40th Annual Meeting of the Association for Computational Linguistics (ACL)*, Philadelphia, July 2002, 311-318 [online]. https://www.aclweb.org/anthology/P02-1040.pdf (accessed 16 October 2019).

Plaza Lara, Cristina 2019: SWOT Analysis of the Inclusion of Machine Translation and Post -Editing in the Master's Degrees Offered in the EMT Network. In *The Journal of Specialised Translation*, 31, 260-280.

Popović, Maja 2018: Error Classification and Analysis for Machine Translation Quality Assessment. In Moorkens, Joss/Castilho, Sheila/Gaspari, Federico/Doherty, Stephen (eds.), *Translation Quality Assessment. From Principles to Practice.* Machine Translation: Technologies and Applications, vol 1. Springer, Cham.

Pym, Anthony 2013: Translation skill-sets in a machine translation age. In *Meta* 58 (3), 487.

Pym, Anthony 2019: *How automation through neural machine translation might change the skill sets of translators* [online]. http://xl8.link/Pym2019 (accessed 16 October 2019).

Rico, Celia/Torrejón, Enrique 2012: Skills and Profile of the New Role of the Translator as MT Post-editor. In *Tradumàtica: tecnologies de la traducció*, 10, 166-178.

Robert, Isabelle S./Remael, Aline/Ureel, Jim 2017: Towards a Model of Translation Revision Competence. *Interpreter and Translator Trainer*, 11 (1), 1-19.

Sakamoto, Akiko/Rodríguez de Céspedes, Begoña/Berthaud, Sarah/Evans, Jonathan 2017: When Translation Meets Technologies: Language Service Providers (LSPs). In *The Digital Age. Focus Group Report*. University of Portsmouth with the collaboration of Institute of Translation and Interpreting [online]. http://xl8.link/Sakamotoetal2017 (accessed 6 October 2019).

Sakamoto, Akiko 2019: Why do many translators resist post-editing? A sociological analysis using Bourdieu's concepts. In *The Journal of Specialised Translation*, 31, 201-216.

Sánchez-Gijón, Pilar 2016: La posedición: hacia una definición competencial del perfil y una descripción multidimensional del fenómeno. In *Sendebar* 27.

SDL s.d.: *Post-édition de traduction automatique* [online]. https://www.sdltrados.com/fr/learning/training/post-editing-machine-translation.html (accessed 1 May 2018).

Several authors 2019: *2019 Language Industry Survey –Expectations and Concerns of the European Language Industry* [online]. https://ec.europa.eu/info/sites/info/files/2019_language_industry_survey_report.pdf (accessed 21 May 2019).

Snover, Matthew/Dorr, Bonnie, Schwartz/Richard, Micciulla, Linnea/Makhoul, John 2006: A Study of Translation Edit Rate with Targeted Human Annotation. In *Proceedings of Association for Machine Translation in the Americas* [online]. http://mt-archive.info/AMTA-2006-Snover.pdf (accessed 16 October 2019).

TAUS s.d.: *DQF in Numbers*. DQF Dashboard [online]. https://www.taus.net/dqf (accessed 19 September 2019).

Toral, Antonio 2019. Post-editese: an exacerbated translationese. arXiv preprint arXiv:1907.00900.

Van Egdom, Gys-Walt/Nunes Vieira, Lucas/Absolon, Jakub 2018: Towards Testing Post-Editing Performance: A Futureproof Diagnostic Tool. In *Revista Tradumàtica. Tecnologies de la Traducció* 16, 114-124.

Way, Andy 2018: Quality expectations of machine translation. In Moorkens, Joss/Castilho, Sheila/Gaspari, Federico/ Doherty, Stephen (eds.) *Translation Quality Assessment: From Principles to Practice*. Springer: Machine Translation: Technologies and Applications, 159-178.

Zaretskaya, Ana 2017: Machine Translation Post- Editing at TransPerfect. In *Revista Tradumàtica. Tecnologies de la Traducció* 15, 1-11.

Zhaohui, Wang 2019: Application of Human-Machine Interactive Translation Model and Its Implications. In *Advances in Social Science, Education and Humanities Research*, 347, [online]. https://www.atlantis-press.com/proceedings/icedem-19/125918938 (accessed 16 October 2019).

Appendix 1 – Experience (in years)

How long have you been handling PEMT projects?

- Less than 1 year
- Between 1 and 5 years
- More than 5 years

Appendix 2 – Workload (in percentage)

What percentage of your translation is produced via post-editing (PE) of machine translation (MT)?

- 25% or less
- Between 26% and 50%
- Between 51% and 75%
- More than 76%

Appendix 3 – 14 PE-related tasks

LSCs questionnaire:

34. What workload do the following PE tasks represent for your in-house post-editors?

35. What workload do the following PE tasks represent for your freelance post-editors?

Post-editors questionnaire:

32. What workload do the following PE tasks represent for you?

Bubble note:

Leaving a box empty and choosing 'N/A' are the same.

	Main task	Secondary task	Eventual task	N/A
Customization/Tuning of MT engines				
Feedback collection on MT output quality for solution engineers				
Management of PEMT projects: outsourcing, etc.				
Material preparation for MT engine training (building corpora, alignment, cleaning TM...)				
MT output quality evaluation (error categorization...)				
PE guidelines design				
Post-editing machine translation output				
Pre-editing the source text				
Proofreading of post-edited output (monolingual)				
Quality control & text checking				
Revision of post-edited MT output (bilingual)				
Support users with CAT/MT tools				
Terminology extraction and TB management				
Tracking PE productivity				

Appendix 4 – 11 PE Skills

LSCs questionnaire:

39. Please rate the following MT post-editing skills & competencies according to the importance you think they have for a professional post-editor. 1 (slightly important) to 5 (very important).

Post-editors questionnaire:

33. Please rate the following MT post-editing skills & competencies according to the importance you think they have for a professional post-editor. 1 (slightly important) to 5 (very important).

Bubble note:

You can leave a row empty if you consider that the skill is not relevant for a professional MT post-editor.

	1	2	3	4	5
Capacity to decide when to edit or discard (translate from scratch) an MT result					
Capacity to post-edit according to PE guidelines					
Capacity to post-edit up to human quality (full PE)					
Capacity to post-edit to a good enough quality (light PE)					
Capacity to pre-edit a source text according to CL					
Capacity to train & tune an MT engine					
Capacity to identify MT output errors					
Capacity to apply the right correction strategy					
Capacity to advise when PEMT is appropriate for a text or project					
Capacity to provide feedback for the MT solution engineers					
Capacity to learn about new technologies					

Appendix 5 – 17 PE characteristics for a candidate

LSCs questionnaire:

38. Which of the following criteria does your firm/company apply to recruit or select a post-editor of MT?

Post-editors questionnaire:

34. Which of the following criteria do you think a firm or company will apply to select or recruit a professional post-editor?

Bubble note:

Leaving a row empty or choosing 'Not important' is the same.

	Mandatory	Very important	Important	Not important
Capacity to post-edit into both directions				
CAT tool(s) knowledge				
Certification in PE by a professional association (ProZ, TAUS, etc.)				
Experience in project management				
MT system knowledge				
Pre-editing or controlled language (CL) skills				
Previous experience in post-editing MT output				
Productivity (processing speed)				
Quality assurance (QA) checking skills				
Revision & proofreading skills				
Skills using automatic speech recognition (ASR) or touch-screen technology				
Specific locale (variant, sublanguage)				

Subject field knowledge or specialization				
Technical skills: macros, xliff, tmx, Java, RegEx...				
Terminology management & information mining skills				
Translation Quality Assessment (TQA) skills (scores, metrics, evaluation, etc.)				
University degree in Translation or related studies				

Appendix 6 – PE Guidelines

LSCs questionnaire:

43. Which PE guidelines do you send to the post-editor?

Internally customized and fixed for the whole firm or company
Internally customized and tailored to content type or language
TAUS post-editing guidelines
Only PE level indication (light or full post-editing)
Other

Post-editors questionnaire:

38_2. Which PE guidelines do you use?

Internally customized general PE guidelines
Internally customized and tailored to content type or language
TAUS post-editing guidelines
Only PE level indication (light or full post-editing)
Other

Appendix 7 – PE Feedback

LSCs questionnaire:

44_1. What elements are sent by the post-editor after a PEMT project?

- Examples of ST errors that turned into MT errors
- Examples of recurrent errors: only an informal list of words
- Examples of recurrent errors (in a structured template): source, MT output, and post-edited output
- General description of how the MT engine performs
- Type of error: collocation, syntaxis, spelling, punctuation, terminology...
- Severity of the errors: critical, major, minor, neutral...
- Other

Post-editors questionnaire:

39_1. What elements do you provide as feedback about a PEMT project?

- Examples of ST errors that turned into MT errors
- Examples of recurrent errors: only an informal list of words
- Examples of recurrent errors (in a structured template): source, MT output, and post-edited output
- General description of how the MT engine performs
- Type of error: collocation, syntaxis, spelling, punctuation, terminology...
- Severity of the errors: critical, major, minor, neutral...
- Other

Bubble note: *This is a multiple answer question.*

Appendix 8 - TQA

LSCs questionnaire:

45. Do you use a Translation Quality Assessment (TQA) system on PEMT projects?

• No

• Yes, one integrated in the CAT tool

• Yes, one not integrated in the CAT tool

• Other

45_1. Is your TQA model defined according to a risk management strategy?

• Yes

• No

• I do not know

Post-editors questionnaire:

40. Does the requester of the PEMT project impose a TQA system?

• Yes

• No

40_1. Do you use one nevertheless?

• Yes

• No

41. Is the TQA system integrated to your CAT tool?

• Yes

• No

42. Is your TQA model defined according to a risk management strategy?

• Yes

• No

• I do not know

Both questionnaires:

Which of the following TQA systems do you use?

• ATA (American Translators Association) error categorization

• ITS 2.0 Localization quality issues

• LISA QA Metric

• MQM (Multidimensional Quality Metrics)

• MTM LinguaSoft QA Model

• SAE J2450

• SDL TMS Classic Model

• TAUS DQF (offline)

• TAUS DQF Dashboard (online)

• Other

Bubble note: *Select a maximum of 2.*