# Collaborative possibilities of CAT tools in the revision process

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Maureen Ehrensberger-Dow Zurich University of Applied Sciences (ZHAW) maureen@ehrensberger.org; ORCID: 0000-0002-5538-4000 In many MA programmes, input about translation technology is provided in dedicated courses that run parallel to the practical courses. In a session in a revision course module, co-taught by the translation technology lecturer and a translation lecturer, students discovered the collaborative possibilities that CAT tools can offer.

Keywords: CAT tools, quality assurance, QA, revision, workflow.

#### Resumen

Abstract

En muchos programas de máster, las tecnologías de la traducción se enseñan en cursos específicos que se imparten paralelamente a los cursos prácticos. En una sesión de un módulo del curso de revisión, impartida conjuntamente por un profesor de tecnologías de la traducción y un profesor de traducción, los estudiantes descubrieron las posibilidades de colaboración que pueden ofrecer las herramientas TAO.

Palabras clave: herramientas TAO, control de calidad, QA, revisión, flujo de trabajo.

#### Resum

En molts programes de màster, les tecnologies de la traducció s'ensenyen en cursos específics que s'imparteixen paralel·lament als cursos pràctics. En una sessió d'un mòdul del curs de revisió, impartida conjuntament per un professor de tecnologies de la traducció i un professor de traducció, els estudiants han descobert les possibilitats de col·laboració que poden oferir les eines TAO.

Paraules clau: eines TAO, control de qualitat, QA, revisió, flux de treball.

#### 1. Introduction

In most translation technology courses, the focus is on understanding how the technology can be helpful by becoming familiar with one or more tools, understanding their main uses and practising how to use them. All of this is demanding enough at the beginning, which is why students are not usually expected to handle complex translation tasks at the same time. In some MA programmes, technology may be incorporated into translation courses, but the level of technology training then depends very much on the interest and proficiency of the individual instructors.<sup>1</sup> Our MA students<sup>2</sup> all attend an introductory course dedicated to translation technology that includes two short translation group projects in one of their language combinations. The assumption is that they will then be able to transfer that knowledge into their own translation work, including in other courses and what they will be doing in the market.

In this article, we focus on how CAT tools can also be incorporated into a dedicated course on translation revision and highlight the collaborative possibilities they offer in authentic workflows. In the research literature, there has been little consideration of technology in the revision process. Some researchers have investigated revision done within a CAT tool (e.g. Mellinger and Shreve, 2016), but the focus has tended to be on the changes made by the reviser and not on the role of the technology in the process. Similar gaps are apparent with respect to the technological competences required for professional translation revision, which contrast sharply with the awareness of the importance of technology in both professional translation practice and training (e.g. EMT, 2022). Most of the recent investigations into translation revision have been oriented towards identifying the competences needed (e.g. Konttinen et al., 2021) and its role in quality assurance (QA; e.g. Schnierer, 2021) rather than towards the more technical aspects of the process itself. When technology is mentioned in the context of theoretical or empirical explorations of translation revision, it is often to contrast the latter with post-editing machine translation output or to explore their convergence (e.g. do Carmo and Moorkens, 2021).

Much of the early research on translation revision treated it as a separate stage in a primarily paper-based activity carried out by someone other than the translator. In Mossop's (2020) terms, this is known as "other revision" and, in the international standard for translation services (ISO 17100, 2015: 5.3.3), simply as "revision", with "self-revision" and "checking", respectively, used to refer to the process of the translator revising their own target text. Although there seems to be a lack of discussion in the research literature about the potential benefits of encouraging the use of CAT tools in QA phases of the translation process, we realised that our own translation practice could offer a model.<sup>3</sup>

<sup>&</sup>lt;sup>1</sup> See Rico Pérez and González Pastor (2022) for a similar discussion about the uptake of MT.

<sup>&</sup>lt;sup>2</sup> MA in Professional Translation <u>https://www.zhaw.ch/en/linguistics/study/ma-in-applied-linguistics/specialisation-in-professional-translation/</u>

 $<sup>^{3}</sup>$  One of us is responsible for most of the translations commissioned by the president's office of our university, another revises that work, and the third is our go-to when we have any questions about the CAT tool we use.

In the next two sections, we describe how input on technology was incorporated into an existing MA course on translation revision and how we obtained and analysed three sources of student feedback about that input. We reflect on our findings and make some recommendations for teaching practice and curriculum development.

# 2. Teaching materials

The MA revision course comprises six sessions. To receive credit for the course, students are required to participate actively in at least four of the sessions and to submit a report at the end of the semester in which they reflect on what they have learned. The first two sessions of the course cover basics such as definitions from the research literature and international norms (e.g. ISO 17100) as well as the revision parameters proposed by Mossop (2020) and practical exercises. The other four sessions cover a range of issues, with input and coaching from professional revisers: justifying changes, general QA processes, concepts such as over-revising and differences between revising and post-editing. One of those sessions, which we report on here, provides input on the benefits of using CAT tools in the QA revision process. As it was held during the COVID-19 pandemic, it relied heavily on video-conferencing tools.

The first part of the 4-hour session consisted of a recorded presentation giving an overview of QA with CAT tools and explaining some of the challenges of revision when using them, such as the need to keep the translation memory updated with any changes. Furthermore, different editing environments for the revision process were presented, such as the actual CAT tool editor (SDL Trados Studio 2019) and various MS Word formats provided by different CAT tools.<sup>4</sup> Finally, the advantages and additional possibilities of revision and QA in the CAT tool environment were presented with a particular focus on the QA checks that are available in various tools to help find formal discrepancies between source and target texts. For one specific tool (i.e. SDL Trados Studio 2019), students received a video guide on how to configure QA checks, and additional videos about the various settings were available for reference. Students were asked to apply their knowledge by completing a hands-on exercise on error detection in a prepared document that required using a customised QA check profile. Additional learning videos with similar content for other CAT tools were also made available so that students could also try out QA functionalities with those tools.

The second part of the session consisted of two videos and a revision task. The first video demonstrated how a translator can prepare a translation for revision in the Trados CAT tool and covered the entire revision workflow, including inserting comments in Trados for the reviser's attention and sending the file to the reviser along with any supporting documents. The video also explained how the translator and reviser can work on the same .xliff file by using the track changes feature. Students were also shown email

<sup>&</sup>lt;sup>4</sup>This course focused on the use of Trados Studio 2019; the other CAT tools mentioned in the course are memoQ and Memsource (now Phrase), which were also used in the introductory language technology class. Academic licences for all these tools are available at our institution.

correspondence between the project manager, the translator and the reviser to indicate the type of communication that may be involved in a revision task. The students were then asked to revise a 100-word translation in Trados using track changes. The second video showed how a translator can accept and reject revisions using tracked changes in Trados. The students were again shown the entire workflow, including reviewing and deleting comments made by the reviser and accepting or rejecting revisions using the tracking feature. In the last 45 minutes of the session, the two lecturers held a live Q&A session with the participants via video conference.

## 3. Data sources

Data were collected via three different data sources. The first source was a quiz assignment, which was a required component of the session. Of the 15 students who enrolled in the session, 12 completed the quiz to receive credit for attendance. The quiz assignment included four open questions designed to obtain information about the students' expectations and take-aways.<sup>5</sup>

- 1. What were you hoping to get out of this specific CAT/revision session?
- 2. What did you learn? Did you get anything out of that session that you were hoping for?
- 3. Of some of the techniques that were covered in that session, either in the videos or in the live Q&A afterwards, do you think you will be able to apply them (in class or at work)? If so, which ones and where?
- 4. Is there anything that you think should be added to the sessions in future years?

The second data source comprised the self-reflection reports of about 300-400 words in length that the students had to submit at the end of the semester to receive credit for the course. The students were encouraged to review the materials from all of the workshops before writing their reports, but there was no requirement to mention the session on QA with CAT tools. As a result, this source of data was rather unstructured.

The third source of feedback was in the form of written responses to an e-mail sent by the translation technology lecturer to participants one year after the session with almost the same questions as in the quiz immediately after the session.<sup>6</sup>

## 4. Data analysis and results

In this section, the analyses of the three sources of feedback obtained from the students are presented. The richest qualitative data represent the immediate take-aways from the students, captured in the responses to the open questions in the quiz that they had to upload within two weeks of the session ending. The answers to the closed questions

 $<sup>^5</sup>$  The other questions were multiple-choice, designed to test the students' understanding of technical aspects of the tools and processes covered in the session.

 $<sup>^{\</sup>rm 6}$  Only five students responded, but those responses provide some insight into what students retained a year later.

indicated that the students had understood the main points covered in the session, since all twelve of the students taking the quiz were able to answer at least four out of the five multiple-choice questions correctly.

The first few responses to the open questions were examined by three coders simultaneously in an initial coding session, and code labels were proposed to capture the propositional content (cf. Saldaña, 2009). As new codes emerged, the coders went back over the previously coded responses to decide whether they needed to recode them. Many of the responses by an individual student included more than one proposition, and thus could be subject to multiple codes, but repetitions of similar propositional content within a response were ignored. Once no new codes emerged in other students' responses to a question, the coders moved on to the next question. Codes were added as needed until an initial set was decided upon. The coders then worked through the remaining responses independently with an online shared document, suggesting codes as the need arose and documenting their changes, so that the other coders could confirm or question the coding. Any unclear cases were resolved by consensus in joint coding sessions. The codes were grouped into categories whose labels reflect the common theme, and the focus of each category was identified as being technologyrelated, revision-related, learning-related, or course-related as shown in Table 1. The feedback from the final reports submitted at the end of the semester, and the follow-up e-mail responses were coded in the same manner. The number of code instances per category was determined and expressed as a percentage of the total number of codes of the respective data source to provide an indication of the relative frequency of mention in each source of feedback (see Figure 1).

Focus	Categories (codes)
Technology	Functionalities (settings, techniques, QA, QA checks, QA checker, retrofit)
	Tools (Memsource, Trados, memoQ, CAT tools, Word vs. CAT)
Revision	Processes (proofreading, (self)revision, comments, workflow, file sharing, project management)
	Human agents (proofreader, reviser, project manager, translator, human workflow, collaboration, communication)
Learning	Expectations (learn about/how, more familiar, overview, insight, watch for, understand)
	Learnings (tips and tricks, applicability, adapt, differences, best practices)
	Relevance (studies, practice, future)
Course	Teaching methods (exercises, videos, structure/variety)
	Session evaluations (informative, interesting, helpful, useful, more confident, no change)

 Table 1. Codes that emerged in the feedback immediately after the session, organised by categories

 and focus.

As can be seen in Figure 1, the focus on technology is strong in all three types of feedback, with functionalities and tools together constituting 30% of the coded propositions in response to the open questions in the quiz, 40% in the final reports and 44% in the e-mail responses one year later. The focus on revision (green bars) is equally

strong in the quiz responses, with 30% of all instances related to processes and human agents, although it is less in the final reports (21%) and e-mail responses (18%). Learning (i.e. expectations, learnings, relevance; yellow bars) is similarly important, with a 24% share in the quiz responses, 30% in the final reports and 23% in the e-mail responses. The structure of the course itself (blue bars) received the least mention: 15% of quiz responses, 10% of final reports, and 15% of the e-mail responses.

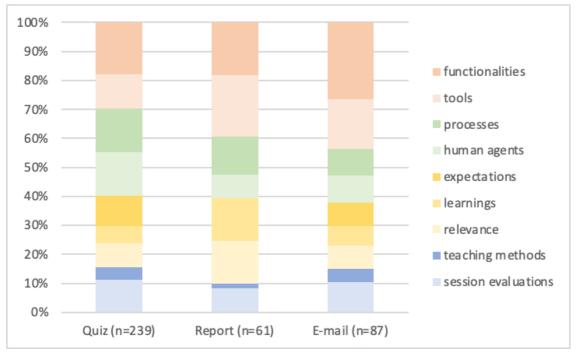


Figure 1. Percentages per category of coded propositions (n) for the three sources of feedback.

As the session was about QA with CAT tools, it is not surprising that there was a high proportion of instances related to the functionalities associated with QA and the various tools across all three sources of feedback. Given that roughly half of the session focused on revision in CAT tools, the high proportion of instances related to processes, at least in the first two sources of feedback, was to be expected. However, what stands out is the proportion in the quiz responses related to human agents, which is even higher than those related to tools. This would seem to indicate that the students went into the session hoping to learn about functionalities, tools and processes but came out of it having also learned about human agents. However, this figure decreased by nearly half in the final reports and e-mail responses. Instances related to processes also decreased by over a third in the e-mail responses. A possible explanation for this could be that tools (and their functionalities) are more often explicitly used and mentioned in other translation classes and modules. Revision and process issues, on the other hand, are often only treated implicitly, which could impede retention of those competences.

#### 5. Discussion

This study offers several lessons for translation technology teaching. First, the joint session with the translation technology lecturer and the translation lecturer had the unintended but positive effect of enabling students to develop not only their translation technology competence but also their understanding of the human workflow in the technologised revision process, as is evidenced by the high proportion of instances related to human agents. Second, the e-mail responses suggest that lasting retention of translation technology teaching can occur in courses not typically associated with learning about technology, as is seen in the high proportion of instances related to functionalities. Third, although the number of comments related to the course evaluation and structure were not as high as those in other categories, the feedback was overwhelmingly positive, particularly with respect to the asynchronous material produced in response to the shift to online learning necessitated by the COVID-19 pandemic. The students indicated their appreciation for the recorded presentations and learning videos, which they could explore in more depth in their own time. They commented positively on the videos produced by the translation lecturer, which enabled them to see, and not simply hear about, the actual revision process in progress and the interactions that form the human workflow. Those produced by the translation technology lecturer, which were tailored to the level of the MA students and not simply generic tutorials provided by a translation technology provider, were also explicitly mentioned as very useful. As a result of this feedback, the videos have been updated as necessary (e.g. featuring Trados Studio 2021 instead 2019) and used in successive iterations of the session that have been held on site since the study was conducted, each time complemented by in-person activities and coaching. This demonstrates that such video material can easily be recycled, thus saving money and lecturer time, without sacrificing the learning experience. In addition, the learning videos reflect a process approach toward using CAT tools for QA and revision, thus offering the advantages associated with process-based teaching approaches (e.g. Massey, 2017).

The EMT competence framework (2022), like most others, is based on the assumption that translation is a highly autonomous profession. Although it does include "service provision" as one of its core competences, most of the subsidiary components concern dealing with clients and managing one's own provision of language services. An increasingly predominant view of translation as a situated activity, partly driven by workplace research (e.g. Risku et al., 2020; Sannholm, 2021), focuses not only on the source texts and technology that translators work with but also on the complex networks of other agents they interact with. Designing courses dedicated to individual competences considered essential for professional translation (e.g. "technology") therefore risks lecturers and students developing a silo perspective that discourages transfer and may not prepare the latter adequately for the market.

## 6. Conclusion

By highlighting the possibilities of using translation technology in the revision process, we seemed to have simultaneously enabled our students to develop their interpersonal skills and gain a better understanding of collaboration in translation service provision.



This competence transfer was admittedly (perhaps shamefully) not our original intention, but in retrospect happily exceeded our expectations for the session. Communication and interaction between agents cannot be solved by translation technology, but they can be facilitated when the agents concerned use it in a way that suits their needs. Reflective practice should be standard not only in the workplace but also in evaluating, through case studies or action research, how we can better teach our students to be empowered language professionals in an increasingly technologised and interconnected world.

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