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# Designing and Implementing an Online Seminar in Telecollaboration. Machine Translation and Intercultural Communication (MTIC)

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***Abstract***
*Telecollaborative translation activities, apart from allowing trainee translators to connect with people from different linguistic and cultural backgrounds, may help students get used to working in virtual teams, receiving feedback from their peers, discussing translation strategies, and negotiating meaning to achieve the purpose of producing an acceptable translation. Furthermore, by using machine translation and post-editing, students may widen their translanguaging practices and acquire a higher level of intercultural communicative competence, which is a key ability translators should have when mediating between languages and cultures. The MTIC (Machine Translation and Intercultural Communication) course was designed by a Spanish and a British university with all such purposes in mind and as a professional development activity to support student transition to the global market. Based on major theoretical approaches to translator training and translation competence, this action research explains the reasons behind the design of the course, gives arguments for its potential benefits, and provides results regarding the effectiveness of this telecollaboration programme in terms of translation strategy acquisition and intercultural competence development.*

***Keywords:*** *translator training; collaborative translation; telecollaboration; machine translation and post-editing; intercultural communication*

## 1. Introduction

The growth of the global translation market has led to increased adoption of telecollaboration in the translation industry, thus enabling translators and clients to work together remotely, regardless of their location, and allowing for more flexible work arrangements and cost savings for both parties. Telecollaboration also offers opportunities for translators to expand their client base and collaborate with other translators and language professionals from around the world using a wide array of digital tools.

However, telecollaboration in translation also presents some challenges, such as the need to maintain clear and effective communication between translators and clients to ensure data security and to navigate cultural and linguistic differences across borders. As such, telecollaboration requires a high level of intercultural communication skills and technical expertise from translators and language service providers (Yu 2019; Amine 2022; Postlewate et al. 2022; Zwischenberger 2022), hence the importance of providing students in our translator training institutions with the competence to leverage digital tools and intercultural communication skills as a way of preparing them to produce high-quality and culturally sensitive translations.

After a brief contextualization of the issues surrounding translation competence and the challenges of translation in the university educational environment – mainly those regarding

telecollaboration and machine translation – the aim of this article is to present the case of a telecollaborative translation course shared between two universities, one in Spain and one in the United Kingdom, and to evaluate qualitative data collected via participants' answers to reflection questions on their learning experience in telecollaboration and achievement during the translation process. The course called MTIC (Machine Translation and Intercultural Communication) was designed as a professional development activity to support student transition to the global market. It was launched in February 2023 and ran over ten weeks. The description of the course allows us to show how the telecollaborative translation activity and the use of Information and Communications Technology (ICT) may form a synergy allowing students to acquire and develop linguistic, intercultural and technological skills, while training to better meet market requirements and become efficient professionals.

The first part of this work succinctly describes the major approaches to translator training and their related models of translation competence. It also includes a discussion of the multi-componential nature of translation competence and reflects the complexity of the real-life profession. Part two focuses on the benefits of telecollaboration on translation and translational competencies and argues that the use of machine translation (MT) and post-editing (PE) in a telecollaborative environment can contribute to effective communication across cultural boundaries when used wisely and judiciously. The following part describes the modalities and specificities of the course as well as the factors that guided the instructors' choices in the construction of the modules. Finally, the last section analyses the results of the reflection questionnaires to assess the participants' feelings towards or appraisal of the course and the translation process.

## 2. Translator training and translation competence

Since the emergence of translation degree programmes and Holmes's (1972) prophetic field of translation studies about half a century ago, translator training as an academic discipline has been the subject of ongoing debate regarding the balance between theory and practice (Malmkjær 2022: 211–212). This debate centres around the question of whether translator training should focus primarily on developing theoretical knowledge or practical skills and reflects the broader challenge of balancing academic rigor with practical relevance in any training programme. Translator training should strike a balance between strictly academic and theoretical knowledge and practical skills in order to develop translators who are not only capable of producing high-quality translations but also have the skills and knowledge necessary to succeed in the rapidly evolving world of professional translation (Bartina 2005; Bernardini 2004; Chesterman & Wagner 2002; Kearns 2008; Lee 2006; Presas 2017). This approach emphasizes the importance of integrating theory and practice, such as through translation project-based courses or internships, in order to prepare students for the complex and dynamic nature of the translation profession (Baker 2018; Kelly 2005; Kiraly 1995, 2000; Pym 2003).

In view of the intricacy of the translation phenomenon, new theoretical approaches to translator training have emerged over the last three decades. In chronological order, the most notorious ones include the cognitive approach (Kiraly 1995), the interpretive approach (Gile 1995, 2009), the functionalist approach (Nord 1997, 2005), the task-based approach (Hurtado Albir 1999; González Davies 2004) and the socio-constructivist approach (Kiraly 2000).

In his cognitive approach, Kiraly (2000: 7) considers that translators use both intuition and conscious strategies when carrying on their tasks. While the formers are uncontrolled, the

latter are controlled and can be studied and transmitted from professional translators and educators to trainee translators. The interpretive approach, however, is a process-oriented approach that looks at translation as a process rather than a product. It encourages reflection and gradual assimilation, building up competence through facing and interpreting translation problems (Kelly 2005: 32–33). However, we may argue that a shortcoming of this approach is that it puts a lesser focus on the adequacy of the final product. The functionalist approach puts the emphasis on authentic translation-oriented text analysis. Nord (2005: 41–42) suggests moving away from solely linguistic considerations towards affording importance to culture and puts the focus on the context of the translation and on translation as an act of intercultural communication. The task-based approach gives students an active role to play in the translation and learning process, moving away from teacher-centred pedagogy and advocating for teaching methods that foster interaction (both student/student and student/teacher), group work and authentic translation projects. In the same line, the socio-constructivist approach introduced by Kiraly (2000) considers translation as a social exchange and encourages collaborative learning and interaction to develop the students' translation skills and communicative competence. Kiraly (2000: 12) argues that "translators today cannot afford to be linguistic hermits, sitting alone behind a typewriter and surrounded only by dusty tomes. Translators are embedded in a complex network of social and professional activity". Hence the importance of integrating computer-based tools in a socio-constructivist classroom.

When designing the MTIC course, all five approaches were combined in an endeavour to prepare trainee translators for the global translation market and to find a balance between academic and real-world learning (Kelly 2005: 150–151). Although they differ in the emphasis they lay on the involvement of trainee translators in the teaching/learning process, they share some key principles that need to be highlighted for the purpose of this course: (1) training programmes should integrate both theory and practice as a way of supporting the development of learners' translation competence; (2) they should focus on translation as a process rather than a product; (3) the tasks and texts used in the process should be contextualized and authentic; (4) social and communicative skills should be developed through engaging students in collaborative learning environments; (5) trainee translators should be helped to become autonomous and lifelong learners; (6) they regard translation competence as a multi-componential concept made up of a system of interrelated sub-competencies that include linguistic and extra-linguistic competence in both languages, communicative and intercultural competence, technological skills, and teamwork cooperation (Pym 2003: 489).

One of the most influential frameworks for understanding translation competence and its acquisition is the PACTE group model (2003, 2005), which identifies several key components of translation competence employing empirical tools. These include language-specific skills, such as the ability to use appropriate terminology and syntax; cultural awareness, including an understanding of the cultural context of the source and target languages; and translation strategies, which involve techniques for dealing with specific translation challenges. The model was later developed (PACTE 2005: 610–611) to include five sub-competences and psycho-physiological components: (1) The bilingual sub-competence that includes pragmatic, socio-linguistic, textual, grammatical and lexical knowledge in the two languages; (2) The extra-linguistic sub-competence that includes bicultural knowledge, world knowledge and subject knowledge; (3) The knowledge about translation sub-competence that includes the translation process and the profession; (4) The instrumental sub-competence related to the use of documentation sources and information and communication technologies applied to translation; (5) The strategic sub-competence to guarantee the efficiency of the

translation process, the quality of the product and to solve the problems encountered; (6) Psycho-physiological components that include cognitive components (memory, perception, attention and emotion), attitudinal aspects (intellectual curiosity, perseverance, rigour, critical spirit, confidence, motivation, etc.), creativity, logical reasoning, analysis, synthesis, etc.

The MTIC course will consider all five sub-competences and psycho-physiological components but will primarily focus on the strategic sub-competence.

> *This is an essential sub-competence that affects all the others and causes interrelations amongst them because it controls the translation process. Its functions are: (1) to plan the process and carry out the translation project (choice of the most adequate method); (2) to evaluate the process and the partial results obtained in relation to the final purpose; (3) to activate the different sub-competencies and compensate for deficiencies in them; (4) to identify translation problems and apply procedures to solve them.* (PACTE 2003: 59)

The European Masters in Translation (EMT) expert group introduced another particularly interesting model aimed at enhancing the quality of translator education, emphasizing the significance of intercultural communication training within translation studies. The model underwent refinement to better align with the evolving landscape of the profession. Originally comprising six sub-competences in the 2009 and 2017 versions, such as translation service provision, language competence, intercultural competence, information mining competence, thematic competence, and technological competence, these were streamlined to five: language and culture, translation, technology, personal and interpersonal, and service provision. This adjustment reflects a recognition of human skills as pivotal in a technologically driven job market, where linguistic, critical, and ethical proficiencies amalgamate to form a versatile skill set necessary for graduates to navigate the future (EMT 2022: 2). Furthermore, EMT acknowledges the transformative journey of the translation profession, especially with technological advancements, and underscores the interconnectedness of all competency domains, as will be explained in the following section.

All of the above considerations about translator training, theories and competence inspired the creation of the MTIC course, with the aim of helping improve curriculum design based on collaborative translation approaches geared towards professional activity. Indeed, research suggests that translator training through teamwork, interactive translation projects and the integration of computer-based tools, with an emphasis on cultural awareness and intercultural communication, is an appropriate way of developing professional competence and helping students to become autonomous, self-reliant and lifelong learners.

## 3. Machine translation and post-editing (MTPE) in translator training

As a result of the rapidly evolving technological landscape, the labour market is in constant change (ELIS 2023). The integration of artificial intelligence and the increase in the use of MT, the process by which computer software is used to translate a text automatically from one language to another without human involvement, has changed translators' roles and working realities (Bond 2018; Angelone 2023). MT output can provide different levels of quality and, especially if a text is to be published or widely disseminated, it is usually necessary to edit it. The editing and correction of an automatically translated text by a human translator is known as post-editing (do Carmo & Moorkens 2022; O'Brien 2022). We can talk about different levels

of post-editing, "light post-editing" or "full post-editing", depending on the quality requirements and the quality of the MT output (TAUS 2016). Full post-editing is usually recommended in order to reach a publishable quality whereas for a lower quality, usually referred to as "good enough" quality, light post-editing is usually recommended (TAUS 2016). The advancements and rapid improvements in MT have led to a higher demand for MT post-editing (MTPE) services, where translators' role is mainly to post-edit rather than to translate.

As MT and PE workflows increase with a clear change towards more automation in the industry and a higher need for PE experts (ATC 2023; ELIS 2023), it has become necessary to incorporate MT and PE into translator training programmes (O'Brien & Schäler 2010; Guerberof Arenas & Moorkens 2019) in order to train future translators with the relevant skills to face the demands of the industry. As discussed in Chapter 2, the EMT competence framework (EMT 2022) can provide a useful model that translator training programmes may follow when setting the programme objectives and the skills and competences required from the graduates. Being part of the EMT Network is an indicator that the programme delivers the "key competences and skills required to best equip and empower future translation graduates" (EMT 2022: 2) as programmes need to demonstrate they effectively deliver them in order to be admitted to the Network. One of the EMT key competences is the technology competence, where MT and PE play a key role, and which includes "all the knowledge and skills used to implement and advise on the use of present and future translation technologies within the translation process" as well as "basic knowledge of machine translation technologies and the ability to implement machine translation according to potential needs" (EMT 2022: 9). According to a survey conducted by Rothwell & Svoboda (2019: 36), the number of translator training programmes which are part of the EMT that included activities related to MT significantly increased (from 32% of programmes covering MT in 2012 to 71% of programmes covering MTPE in 2017). This is a relevant change which demonstrates that the use of MTPE in translator training, although still not a common practice, has been normalized. The training of post-editors in educational institutions and, more specifically, the skills and knowledge needed by post-editors have therefore become an important and much needed research area in translator training in order to keep abreast of new developments in the industry.

With more programmes introducing MTPE into their curricula (Rothwell & Svoboda 2019: 37), translation researchers and trainers have been focusing on the skills and knowledge that post-editors should have as well as how to incorporate and teach PE in translator training programmes. Post-editing differs from translation and revising, requiring a specific set of skills and competences, which several scholars have been attempting to identify and classify (O'Brien 2002; Rico & Torrejón 2012; Nitzke et al. 2019; Nitzke & Hansen-Schirra 2021). The first scholar to defend the need for specific training in PE and identify the skills required of a post-editor was O'Brien (2002), who proposed an outline for a PE course module as part of a translator training programme. Apart from the skills usually demanded of a translator, according to O'Brien (2002: 102–103), specific PE skills include knowledge of MT, terminology management skills, pre-editing/controlled language skills, programming skills and text linguistic skills. The author also highlighted the importance of a positive predisposition towards MT as an essential quality for a post-editor which is also reinforced by other scholars (Rico & Torrejón 2012; Pym 2013; Wang & Wang 2021). According to O'Brien (2002: 105), the suggested course would have a focus on both theoretical and practical issues. Since then, other academics have also explored the skills and profile of the post-editor and PE competence models have been developed. Rico & Torrejón (2012: 169–170) introduce a PE competence model by grouping the competences and skills required in PE into three categories: core

competences, linguistic skills and instrumental competences. Some of the main skills specific to PE suggested by Rico & Torrejón (2012: 169–170) refer to the ability to reach informed decisions when choosing among different PE alternatives, understanding MT output and developing a positive attitude towards the machine. Pym (2013: 494–497) identifies the skills needed to work with TM and MT in a professional environment and classifies them under three groups: learning to learn, so that students can pick up a new tool quickly based on their previous learning; learning to trust and mistrust data suggested by the tools; and learning to revise with enhanced attention to detail. For this, Pym (2013: 494–497) suggests using technologies in a transversal mode, not only in a specific course on technologies, using appropriate teaching spaces that allow students to work in pairs, self-analysing translation processes and working collaboratively with experts. Nitzke et al. (2019a: 250) suggest a more recent model of PE competence which includes a risk assessment competence, a strategic competence, a consulting competence, and a service competence, as well as a decision model for PE tasks to help decide whether a job needs to be post-edited and how. Following up from this model, Nitzke & Hansen-Schirra (2021) propose a PE competence model which is further developed from Nitzke et al. (2019a). Apart from the basic competences already expected from professional translators, including bilingual, extralinguistic and research competence, the model presents the additional competences in three pillars: error handling, focusing on spotting, classification and correction of errors, which the authors claim to be the most important pillar; MT engineering, focusing on the training and assessment of MT systems; and consulting competences, such as informing about potential risks associated with using MTPE (Nitzke & Hansen-Schirra 2021: 70). The authors argue that PE should be added to the translation curricula and that "translation and PE should not be trained separately" (Nitzke & Hansen-Schirra 2021: 74).

A number of authors have also described their experiences in developing and/or teaching courses in MT and PE in university settings. Some of the first MT syllabus implemented were offered within translation technology modules, mainly at postgraduate level, and covered content on both MT and PE from a theoretical and practical perspective (Doherty et al. 2012; Doherty & Moorkens 2013; Doherty & Kenny 2014; Rodríguez-Castro 2018). Within the last decade, following from the design and evaluation of these courses, other modules with a more specific focus on MTPE have been developed as stand-alone MTPE modules, rather than as part of translation technologies modules. Flanagan & Christensen (2014: 270–273) describe an elective MTPE module consisting of two workshops introducing MA translation students to both MT and PE. The authors describe how the students interpreted industry-focused PE guidelines and proposed their own set of guidelines to be used in the classroom. Koponen (2015) describes experiences from an MTPE course offered to final year undergraduate students as well as MA students at the University of Helsinki, Finland. The course covered MTPE from a theoretical and practical perspective with a similar outline to Doherty and Kenny (2014), focusing on MT principles, practical use of PE, controlled language and pre-editing. The study highlights the change in students' attitudes towards MT to a more positive view while acknowledging the limitations of MT (Koponen 2015: 13). Guerberof Arenas & Moorkens (2019) present an MA module focused on both MT and PE covering theoretical and practical contents, where students learn how MT engines work, how to spot error patterns and anticipate the errors, as well as about PE effort and productivity. Guerberof Arenas & Moorkens (2019: 227) also describe the PE component embedded into a MT project management module, where students carry out a real-life MT project in groups taking into account the knowledge acquired in the other modules. The authors highlight the importance of

empowering students with the necessary skills, knowledge and self-confidence to make relevant decisions in MTPE activities and cycles, as well as particularly focusing on transferable skills, which are the skills that differentiate humans from machines (Guerberof Arenas & Moorkens 2019: 232–233).

More recently, some studies have focused on teaching PE courses online, highlighting the importance of the acquisition of digital competences in order to meet the demands of the industry. For example, Nitzke et al. (2019b) introduce an online course on post-editing via DigiLing, an e-learning platform designed to help translation students, professionals and trainers acquire digital competencies. The course offers an overview of both theoretical and practical aspects, and it can be used in combination with other face-to-face sessions. Díaz-Millón et al. (2020) explore the use of collaborative learning and e-learning in the training of translators and post-editors to foster cross-curricular competencies demanded by new professional profiles. Wang & Wang (2021) propose an online PE course at postgraduate level, where students learn about basic MT and PE principles, do some PE practical exercises trying different MT tools, comparing PE with human translation and evaluating MT quality, complete a large real-life group project as well as a final reflection on what they learned, particularly in relation to project management and PE quality control.

The different courses focused on MTPE are usually offered to postgraduate students or final-year students who already have knowledge of translation. They all highlight the importance of involving a combination of both theoretical and practical elements, covering some basic concepts on MT and PE, as well as hands-on sessions with a variety of real-life exercises and a range of tools. A number of studies on PE training also report a change in student's attitudes towards PE to a more positive view (Koponen 2015; Guerberof Arenas & Moorkens 2019; Wang & Wang 2021). Although the scope of some of the courses can sometimes not be sufficient for students to gather enough practical PE experience to be called professional post-editors (Nitzke et al. 2019: 301), it is important to empower students with "MT literacy" (Bowker & Buitrago Ciro 2019: 87–88) so that they have the necessary skills and knowledge to understand how MT systems work, when they can be used and think critically about when/how to modify MT output. This is in line with the project-based learning approach taken in some of the courses, which allows students to apply the different MTPE concepts learned to a group project while developing their transferable skills, such as independent and critical thinking, teamwork or problem solving.

The MTIC course will be using MTPE in a transversal mode, where students will be working collaboratively on post-editing a range of authentic texts. That is, identifying issues in the raw MT output, discussing whether they need to be addressed and fixing them appropriately, while also evaluating the trustworthiness of the data and revising the translations as texts. For the purposes of this research, students will be following the full post-editing guidelines, according to TAUS (2016). As students will be becoming more familiar with MTPE, it is expected that this will also help them develop a more positive attitude towards it. Incorporating as many opportunities for students to work with MTPE in translator training is highly valuable as it will not only enhance their training and potentially generate further employment opportunities, but it will also equip them with the necessary knowledge and skills to be able to "function in the translation profession (...) and to grow as citizens" (Kenny 2020: 509).

## 4. Translation, (tele)collaboration and intercultural communicative competence: previous studies

Although the focus on collaborative translation is quite recent in translation studies, collaboration among translators and between translators and other actors (authors, publishers, clients, etc.) has a long history. Nevertheless, it is obvious that "the Internet, computer technology advancements and the rise of cloud computing have changed the perception and activity of collaborative translation in the modern age" (D'Egidio 2021: 47), which has made defining collaborative translation a difficult task.

Collaborative translation can generally be defined as the process of translating a document or text by a group of individuals working together in a coordinated effort, simultaneously or sequentially, with the aim of achieving higher quality and consistency than a single translator working alone. It may involve multiple people with different language skills, cultural backgrounds, and areas of expertise "translating together" (Fournel & Zancarini 2017: 72) to produce a final product that maintains the same meaning, is understood by the target reader, and adequately reflects the nuances of the source and target languages. Indeed, the goal of collaborative translation is to produce a translation that is accurate, culturally appropriate, and reflects the collective expertise and knowledge of the translators involved.

The working-together or translating-together approach is at the core of O'Brien's (2011: 17) inclusive definition of the concept:

> *A general definition of collaborative translation (…) is when two or more agents cooperate in some way to produce a translation. Collaborative translation can also have a narrower meaning, referring to the situation where two or more translators work together to produce one translated product.*

O'Brien includes cooperation as part of the skills and competences needed to meet the requirements of the translating profession and recentres the debate on human-to-human collaboration. In the same line, Jiménez-Crespo (2017b: 479–480) argues that telecollaborative translation enables translators, both professional and non-professional, to work together more efficiently, communicate more effectively, and produce higher quality translations.

However, collaborative translation as understood in the present project mostly refers to collaboration in translator education and draws on Kiraly's (2000) social constructivist theory in translation teaching. Kiraly's approach to translator training focuses on the importance of collaborative learning, social interaction and students' involvement in the learning process, trying to make the learning environment as close as possible to a real-world context and thus preparing students for one of the important skills in the workplace: the ability to work in teams (Kiraly 2000; Kiraly & Massey 2019). Interpersonal skills are also key skills that the market requires of trainee translators (Kiraly 2006: 76), hence the main idea behind this project: the development of students' translation, interpersonal, social and communication skills through teamwork. These are the very same skills usually integrated in the translation curriculum to enhance intercultural communication competence (ICC).

We argue that the aforementioned theoretical approaches demonstrate that translation is a process of intercultural communication and that translation studies should put ICC at the centre of translation pedagogy. Although Byram's (1997; 2021) model and consecutive studies have encouraged instructors to consider the intercultural facets of language teaching, not enough attention seems to have been paid to the role of ICC in translation studies (Estaji &

Rahimi 2018; Han & Song 2011; Sercu 2005). Translators play a role as mediators between languages and cultures, as intercultural communication professionals whose expert objective is to remove cultural obstacles, gaining insights into their own and the other cultures. Henceforth, the work of translators requires certain abilities to make intercultural communication possible in many different situations among individuals from different cultures (Clouet et al. 2022: 137). In addition to fluency in both the source and the target language, translators must also specialise in the contexts where they might have to work, they must have extensive cultural knowledge, cultural sensitivity and intercultural communication competence. Training programmes should thus promote, on the one hand, the acquisition of such competences, but also, on the other, multiple literacies, namely academic literacy, disciplinary cultural literacy, critical literacy, and digital literacy, including machine translation literacy, amongst others.

Multimodal teaching practices should thus be all the more encouraged as Computer-Mediated Communication (CMC), both synchronous and asynchronous, has brought about a paradigm shift in intercultural communication studies concerning the development of ICC in multimodal environments. An inspiring example of this is Omar & Salih's (2023) recent work on how a pilot project of online transnational collaboration may enhance translation students' intercultural competence. The authors advocate

> *the efficacy of intercultural telecollaboration in teaching translation online and explore its affordances as an effective pedagogic model which allows translation instructors to integrate theoretical knowledge with professional practice in training translation students and enables translation learners to deconstruct their identities as intercultural negotiators and professional decision makers in translation processes and acts* (Omar & Salih 2023: 627).

Yu (2019) also explores the potential of collaborative translation on Yeeyan, an online translation community and crowdsourcing translation platform commonly used by professional translators in China. In the same line, Ogie et al. (2022) have published a review of the literature on telecollaborative translation with a particular emphasis on the collaboration between translators and agents. Their work gives new insights into telecollaborative translation through crowdsourcing using different platforms. Zwischenberger (2022), on the other hand, analyses the conceptual, social and ethical dimensions of online collaborative translation and particularly of translation crowdsourcing for profit-oriented organizations. Her piece of research ends with "a questioning of the need for a specific university-based education and training in translation or translation studies in general" (14), seeing the pressure under which translation studies may find themselves when it comes to justifying the need for professional translators when some organizations seem to mainly resort to amateurs.

This is particularly what has led a group of educators and researchers to implement collaborative translation activities in their programmes. Amine's (2022) empirical study analyses the multiple facets of telecollaboration in a translation class and explores the potential of crowdsourcing in translation through computer conferencing to strengthen students' translation competence. The collaboration operates between students from his home university in Algeria. Following the same strategy, Mosleh's (2020) PhD thesis reports on the design and implementation of an English-to-Arabic collaborative translation project at the Department of Translation, Yarmouk University, Jordan, in the academic year 2017/2018. The research investigates how a collaborative teaching and learning environment can affect the development of students' teamworking and translation skills. In the same vein, Piotto's (2021: 103–105)

master's thesis deals with a similar collaborative translation experience, this time using French and Italian, at Ca'Foscari University of Venice, and concludes focusing on the importance of collaborative translation in university contexts to better prepare trainee translators for the world of work. More specifically in the field of post-editing training, Wang & Wang's (2021) quasi-experimental study at Hunan University in China investigated the feasibility of implementing a virtual community of practice (VCoP) to train future post-editors that meet the market needs in the digital age. The results showed that "students using the VCoP method were more engaged in self-assessment and reflective thinking about post-editing than their peers in the face-to-face classroom" (Wang & Wang 2021: 211). This active engagement also helped them achieve higher post-editing quality.

Others have seen in international telecollaboration a way of training their students for their future profession. Sadouni & Bekara (2020) present a telecollaborative translation project between two universities, one in Algeria and one in Moldova, and explain the advantages and challenges of this experience to acquire and develop socio-cultural competence. However, although their telecollaboration project aims to provide university students with both language and socio-cultural skills by bringing together two different geographical, linguistic and cultural spheres, the focus seems to be more on the acquisition of language skills in French as a *lingua franca* than on ICC development. In the same vein, Roesler (2019) describes a telecollaborative translation course she set up in the mid-2010s and aimed at students from two universities, one American and one French, to provide a natural framework for language development through translation activities and to promote the acquisition of technological and digital competences. The students involved in the project are from the applied sciences and use translation as a problem-solving collaborative endeavour. Postlewate & Roesler (2022) present a bilingual telecollaborative course in social science translation between Barnard College, New York, and École Normale Supérieure, Lyon. As in the previous case, it is necessary to point out that students do not major in translation and use 'real-life' translation tasks to develop their language skills. The same occurs with Beecroft & Bauer (2022)'s telecollaborative translation course implemented with Durham University German students and prospective English teachers from Karlsruhe University of Education, Germany. As the authors put it, "merging translation and telecollaboration […] fosters an interplay of intercultural and functional communicative competence" (Beecroft & Bauer 2022: 108), but again, the participants object of the study are not training to be professional translators.

This is probably what has very recently led Alhaj & Alwadai (2023) to question educators' perceptions of the role played by the translation curriculum in promoting ICC in their university environments, and particularly at King Khalid University, Saudi Arabia. Their work does not consider the importance of telecollaboration in this respect, but it has inspired the present research by giving insights into faculty members' perspectives on the role of the translation curriculum in enhancing intercultural communication competence among university students of translation. While the authors state that "studies into university teachers' perceptions of the role of ICC in teaching translation are still insufficient" (Alhaj & Alwadai 2023: 135), we can only add that empirical studies into telecollaborative translation course design and implementation are still lacking. This is precisely the aim of MTIC.

By considering matters related to translation, particularly machine translation, and telecollaboration, learners may not only develop competences related to the translation activity, but also enrich their language and digital literacy and, above all, gain an ability to discover new layers of meaning, new "skills of interpreting and relating" (Byram 1997: 33–36, 52) while engaging in the telecollaborative process. Collaboration becomes all the more challenging and

richer when it comes to interacting with people from other cultural contexts, which is the reason why translation tasks and activities in this project are geared to raising awareness that the translation process itself requires intercultural exchange and negotiation for which students should be trained during their studies.

## 5. Design and implementation of the MTIC course: an action research approach

### *5.1. Course design*

Building on the above theoretical framework, a telecollaborative seminar on machine translation and intercultural communication was developed between the University of Las Palmas de Gran Canaria, Spain, and the University of Sheffield, United Kingdom, as part of both institutions' internationalization strategies and willingness to help their students develop advanced intercultural competence and communication skills in more than one language, and to equip them with the skills needed for professional work as translators in industry.

The primary objective of the course was to develop students' intercultural communicative competence. This main objective was broken down into secondary objectives that can be declined as follows:

- To collaborate with students from another university environment.
- To give opportunities for working together around translation tasks in order to create a common product.
- To consider the importance of translation as a form of intercultural communication.
- To use translation to improve foreign language skills.
- To become aware of the advantages and disadvantages of machine translation as a language learning and translation tool.

MTIC was designed as a ten-week online course, from mid-February to mid-May 2023, using Virtual Campus, the e-learning platform employed by the University of Las Palmas de Gran Canaria, and the videoconferencing platform BigBlueButton. The combination of both platforms allowed for, on the one hand, the use of computer-based communication tools (e.g., e-mails, chat rooms or discussion forums) and the possibility of facilitating work with remote teaching materials (space to attach and publish files); and, on the other hand, the creation of breakout rooms for telecollaborative work.

The course was divided into five modules, all of them clearly identified on the e-learning platform with the necessary teaching materials always available to the participants. The first one was dedicated to basic aspects of translation, machine translation and post-editing, without too much detailing, as all the students had received the necessary input in their BA or MA prior to the online course. It was followed by the speed dating activity, as explained below. The other four modules each dealt with a different text type: tourism, food, literature (including prose and poetry); and each one ran over two telecollaborative sessions: one into the L1 and the other one into the L2. Concerning the widely discussed issue of directionality, this project is based on the premise that most scholars agree that "there is very little empirical research to understand how L1 → L2 translation differs from L2 → L1 translation in terms of cognitive load and the quality of the end product" (Whyatt 2019: 80) and that translation into the second language is a reality in many professional settings for which students should be trained

(Grosman et al. 2000; Kelly et al. 2011; Pavlović & Hadžiahmetović Jurida 2019), all the more when translation is carried out in a telecollaborative environment in which each breakout room involves students whose L1 is the target language of translation.

### *5.2. Participants*

In both university contexts, the MTIC course was offered to trainee translators on a voluntary basis. At the University of Las Palmas de Gran Canaria, it was offered to undergraduate students taking the Double Degree in Translation and Interpreting, whereas at the University of Sheffield, it was opened to final-year undergraduate students at the School of Languages and Cultures as well as to students enrolled on the Master's Degree in Translation Studies. In both universities, MTIC was offered to home and exchange students interested in (1) making friends online and practising the languages they are learning; (2) having fun while sharing their interest in translation with students from different linguistic and cultural backgrounds; (3) finding out about the future of the translation profession related to the use of machine translation; (4) and in having extra hours of translation practice and acquiring transferable professional skills.

Altogether, sixteen students participated in the online course: eight from the University of Las Palmas de Gran Canaria and eight from the University of Sheffield. Of those sixteen students, three enrolled on the language combination English-German, three on English-French, and the last ten participants chose English-Spanish. All of them had at least a B2 level in their L2 according to the Common European Framework of Reference for Languages (2020), which meant that they could translate into their mother tongue, as well as into their L2 with the help of their native-speaking partners. Furthermore, it is to be noted that they had all acquired some basic prior knowledge of MTPE within regular courses such as Translation Technologies (Sheffield) or Computer-Assisted Translation (Las Palmas).

### *5.3. Implementation of the telecollaborative sessions*

The first session aimed at putting students in telecollaborative groups. A speed dating activity was organised, participants being allocated to different breakout rooms every five minutes to get to know each other. It was up to them to choose the language of interaction. The focus on speed obliged participants to shed their self-consciousness in interacting in their mother tongue or the foreign languages they had been studying, and to make the jump to the virtual learning environment. They were consequently asked with whom they felt they would be willing to work, and groups were then organized on the basis of their requests and language combinations: English-Spanish, English-French, or English-German.

The MTIC course could then start, with the groups coming together for 90-minute telecollaborative sessions once a week at different time slots depending on their language combinations. Students were first introduced to the concepts of MT and PE, as well as to MT post-editing guidelines (TAUS 2016). Prior to each session, each participant had to put the current text to be translated through machine translation (preferable DeepL or Google Translate) and highlight all of the aspects which, in their opinion, did not sound right. Then, during the telecollaborative sessions, students worked together on the translated text produced by machine translation, performing a "full post-editing" according to TAUS MT Post-editing guidelines (2016), with the objective of improving it through negotiating meaning. Mutual

engagement was key to the process, which was meant to involve inputs from all the participants and joint decision making. As stated in the second part of this work, collaborative translation involves meaning negotiation between the participants: "personal insights are put forward and the best ideas are adopted to translate the message" (Ogie et al. 2022: 7). This joint meaning making process involves moments of questioning, disagreeing, accepting, reformulating, in order to eventually co-construct a more accurate translation. Participants gradually understand that telecollaboration helps not only to increase the comprehension of the source text, but also to considerably improve the translation produced by the machine, making it more culturally acceptable.

During the telecollaborative sessions, participants were meant to organize themselves and self-manage the translation process without significant intervention from the course tutors/moderators. The idea was that they could make the most of those sessions to solve translation problems together. The sessions could be held in any of the languages of translation, but participants were encouraged to use the language of the target text (English, Spanish, French or German). It is also to be noted that the breakout telecollaborative sessions lasted between 75 and 80 minutes, with the remaining 10–15 minutes being used for plenum feedback and reflection. During that time, unresolved questions could be discussed with the tutors/moderators.

The telecollaborative translation activities proposed in the course relate to MT and PE which have gradually become part of formal translator training programmes. These require a different set of skills, such as critical thinking, perceptiveness and flexibility. As such, the modules of the course aim at teaching trainee translators to effectively use MT, to be able to analyse the outputs that they produce critically, and to use PE as a way of negotiating meaning during the translation and problem-solving process.

### *5.4. Action-research procedures*

The research was conducted by following action-research procedures, namely planning, acting, observing, and reflecting upon practices. As Kiraly (2003: 25) states, "starting with observations of what actually goes on in our own classrooms, followed by systematic plans and actions for change, we can create a groundswell of local research that can inform our common search for alternative teaching methods and techniques". This MTIC project is precisely accompanied by action-research in an attempt to incorporate new trends into translation curriculum design and pedagogy to better prepare student translators for market.

At the end of each telecollaborative sessions, the participants were required to upload their translation on the e-learning platform, and at the end of each module, once the translations into both directions had been submitted, they were asked to fill in a questionnaire with questions on the telecollaborative process, the challenges faced when translating together, their evaluation of the MT output, and their reflections and comments on the translation process. These instruments, together with interviews carried out after the telecollaborative sessions, are intended to provide the data for the research study. Following interpretive qualitative research procedures (Braun & Clarke 2021; Saldaña 2021), data collection and analysis were conducted concurrently in an iterative and reflexive process.

## 6. Results and discussions

This study is a qualitative study. Three reflection questions were employed at the end of each translation module to understand the participants' feelings towards or appraisal of the MTIC course:

- Question 1: How did your interaction go?
- Question 2: What did not go as well as you would have expected?
- Question 3: Were there any challenges?

Another three questions were more specifically related to the translation process:

- Question 4: What challenges could you face using machine translation?
- Question 5: Did machine translation actually work for the texts you were translating?
- Question 6: How did telecollaboration help to solve translation problems?

All the fragments we quote are based on the questionnaires and reproduced between inverted commas. Starting with question 1, most of the comments that participants provided about interaction reported their entire satisfaction using qualificatives ranging from *nice*, *smooth*, *enjoyable*, *fun* to *great* or even *brilliant*. Statements from the questionnaires gave some hints that all participants enjoyed the interaction using both languages in each session. They usually started in one for half of the time and finished in the other. They also experienced increases in closeness and comfort, which led one of them to explicitly write that

> affective components are most definitely the least challenging aspect of our interaction; we're all really open, ready to ask questions and willing to listen to each other's opinions; I think it makes for a really stimulating learning environment.

Most students appreciated the fact that their fellow participants could correct any grammar mistakes they made when speaking or typing, one even adding that they "felt more confident when using the foreign language with other students than with their teacher in class". They also mentioned the benefits of using Spanglish, Denglish or Frenglish for communication purposes with no taboos at all. For one of them, "it comes in especially handy when we're trying to explain complicated cultural nuances or differences".

Concerning what had gone well or not as well as they had expected, most answers had to do with connection problems and technological issues. They all considered the instructions for the translation tasks to be "helpful", "clear" and "easy to implement", which they thought vital to enable smooth and efficient interaction. This partly explains why this question was generally answered concisely and together with the following one: Were there any challenges? When referring to challenges, technological difficulties emerged as a primary challenge which significantly affected the telecollaboration process at times. When these technological challenges arose, they could disrupt the smooth flow of communication and collaboration between participants. A quarter of them also stated that they did not have the required skills and knowledge, and that "if it had not been for our partners' help, online collaboration would have sometimes been very complicated".

Analysing the issue of challenges of virtual team participation and communication holds significance as it illuminates the hurdles encountered in online cross-cultural communication and becomes pivotal for virtual team success. Delving into this inquiry is crucial as it offers deeper insights into facilitating communication within virtual teams, ensuring members can synergize their expertise online to attain predetermined objectives

through effective dialogue. Interestingly, all participants agreed that the initial Get-to-know each-other activity together with a clear explanation of the MTIC objectives and task instructions had been fundamental to "overcome shyness", "gain confidence", and "identify strongly with the team and its purpose". They also expressed the idea that as they navigated the virtual space, understanding their roles within this new virtual community was paramount. However, surprisingly enough, language skills were not considered to be of importance, as students thought their "B2-C1 level was sufficient for effective and efficient interaction".

The questions related to the translation process and the use of machine translation and post-editing have sparked inspiring reactions and triggered interesting comparisons from all participants. Even if they were advised to use Google Translate, DeepL and Bing Microsoft Translator at the beginning of the course, 100% of them ended up with solely DeepL, considering that it was easier to use, it delivered better translations both in terms of adequacy and fluency, and that it fared better in translating. However, one participant's reflection exemplifies a certain distrust shared by all of them: "Machine translation does not always convey the meaning of the original text accurately. It also struggles to grasp the context of the text". Another one added: "Many translations are inappropriate and misleading. They are too literal, and when it comes to complex sentence structures or technical terminology, it does not always do well". They all agreed that translations produced by machines require human post-editing to ensure quality and accuracy, and that machine translations generally lack consistency across a document or a series of documents, leading to confusion or inconsistencies in the translated content. Another challenge participants noted was that machine translation does not consider the specific readership or audience for the translated text. This applied to the translation of an excerpt from *The Secret Diary of Adrian Mole Aged 13¾* by Sue Townsend. This can be illustrated by one of the students' comments:

> The machine often fails to realise that it is translating for a certain READERSHIP. In Adrian Mole, DeepL kept the reference to the RSPCA the same, which I didn't bat an eyelid at, until X asked what it was. I came to the realisation that most German readers won't have heard of the RSPCA – we thus changed it to 'Deustcher Tierschutzbund' in our translation, in order to make the text accessible to all German readers.

Culture and cultural references were actually at the centre of all their reflections when answering question 6: Did machine translation actually work for the texts you were translating? All participants conclude that machine translation struggles to reflect regional variations in language usage, idiomatic expressions, or cultural references. This results in translations that feel unnatural to native speakers of the language. Even if "culturally specific aspects or traditions, and literary elements, such as sayings or mottos, were the most difficult to translate for the machine", another student added, concerning the translation of a menu, that

> although the machine translation was not perfect by any means, I actually think that most of the text it produced was pretty coherent and understandable. While it was nowhere near the quality it would have been if a native speaker and local Canary Islands resident had written it, I think machine translation could be useful when it comes to more basic, less culturally specific culinary texts.

As such, all participants acknowledge that it is essential to complement machine translation with human review and editing by human translators who can ensure that the translated text is tailored to meet their specific needs and expectations of the target audience. Human translators can incorporate cultural nuances, adapt the tone and style of the text, and

make other adjustments to ensure that the translation resonates with the intended audience and effectively communicates the intended message.

## 7. Conclusion

This action-research project was based on the hypothesis that translator training throughout this telecollaborative programme has an impact on the trainees' perception of translation problems and the manner in which they negotiate and justify translation strategies, comparing the translation outcome of machine translation systems with theirs, and moving from a merely linguistic to a multidimensional understanding of the process at the same time as developing their intercultural communication competence while interacting with students from different linguistic and cultural backgrounds.

We believe that the above results show that MT and PE can be a valuable tool to allow students from different linguistic and cultural backgrounds (namely, the University of Las Palmas de Gran Canaria and the University of Sheffield) to engage in a plurilingual and pluricultural space within which they can be led to explore the levels of acceptance of machine translated texts, to negotiate meaning and effectiveness, and to become aware of the necessity of being critical towards the contents of the MT raw output. As such, the resort to MT and PE can become an effective approach for students to achieve information and knowledge across different cultures and domains (Woodin et al. 2021: 59–62) and can be used as a common project on which participants from varying linguacultural backgrounds can collaborate in the virtual environment created for the MTIC course.

Telecollaboration can provide translator training programmes with a range of benefits, including enhanced collaboration and communication, increased exposure to different languages and cultures, and access to real-world translation projects. By incorporating telecollaboration into their programmes, translator training institutions can help their students develop the skills and competencies they need to succeed in today's globalized world, getting them used to working in virtual teams to complete translation exercises, receive feedback on their work, discuss strategies for improving their skills, and allowing them to connect with people from different linguistic and cultural backgrounds. This exposure does not only broaden their understanding of different languages and cultures, but it also helps them develop intercultural competence – an essential skill for translators – and intercultural communicative competence – a key ability all professionals acting as intermediaries in the process of interlingual and intercultural communication should acquire.

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