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TESIS DOCTORAL
TRANSLATOR TRAINING AND
PROFESSIONALISATION OF TRANSLATION
STUDIES

**La formación de traductores y profesionalización de los
estudios de traducción**

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Tesis doctoral

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Abstract

This doctoral thesis focusses on current trends in translator training and on the effects that technological advances are having on translation processes, the profession and ultimately translator education. I advocate that the future professional translator will always need to be a language expert, with an emphasis on mother tongue mastery, but someone who has also learnt to master the most widely used tools in the profession.

This thesis contributes to scholarly work on the didactics of translation and translation training. The goal of my research is to facilitate a smooth transition of graduates into employment. My work gives an overview of the competences needed in today's profession where employability, defined as the ability to adapt to changes and to be flexible, has a predominant role. This thesis is comprised of four research articles (three journal articles and one chapter in a book). The objective is not merely to describe training practices but to engage translation trainers and industry professionals in a dialogue for the benefit of the profession. Drawing from several theoretical frameworks and from sociology and education, I use mixed qualitative methods to gather data: documentary analyses (article I), focus groups (article II) and workplace observations and interviews (articles III and IV). My research design is hence qualitative and ethnographically-oriented. The entire research undertaking is based on examining a real-life scenario with the goal of facilitating students' entry in the profession. The research analyses today's translation competences, the impact of new technologies in the profession and the role of academia and industry in the training of translators.

Resumen

La presente tesis doctoral trata sobre las corrientes pedagógicas actuales en torno a la formación de traductores y el impacto que los avances tecnológicos están causando en los procesos traductológicos, en la profesión y por ende en la formación. Argumentamos que el futuro traductor necesita conocer las herramientas de trabajo demandadas por el mercado sin perder de vista el papel intrínseco de la traducción mediante el cual actuamos como mediadores lingüísticos e interculturales y expertos en nuestra lengua materna. Para ilustrar el panorama actual, revisamos las competencias más demandadas por el sector y sugerimos propuestas formativas donde la empleabilidad, entendida como la capacidad de adaptarse a los cambios, encuentra su hueco.

Esta tesis contribuye al estudio de fuentes conceptuales en el marco de la didáctica de la traducción. Para ello, hemos realizado un estudio empírico inspirado en disciplinas sociológicas tales como la etnografía y la fenomenología. Nuestra investigación va más allá de la mera descripción de la situación actual pues el principal objetivo es dotar a las futuras generaciones de traductores con herramientas útiles para poder sobrevivir en el mercado laboral y pretende ser un marco de referencia para formadores y docentes.

La tesis se basa en cuatro publicaciones: un capítulo de libro y tres artículos en revistas de prestigio internacional. Nuestra metodología es mixta: comprende un análisis documental (artículo I), grupos de foco (artículo II), entrevistas con empleadores y visitas a empresas de traducción y universidades (artículos III y IV). Con ello, recabamos información que nos ayude a responder a las preguntas: ¿cuáles son las competencias necesarias para ser traductor profesional hoy día? Con el aumento de las nuevas tecnologías y la automatización ¿qué formación compete a las universidades y a las empresas?, ¿qué papel desempeñan por un lado la universidad y por otro las empresas en la formación de traductores?

Acknowledgements

This thesis is dedicated to my mother. I wish that we could have shared this personal and professional career milestone. My mother is my inspiration, she has taught me many things including the love of languages, respect of others and other cultures and to have a zest for life. Her loving, positive and encouraging attitude have been a driving force all my life. This dedication extends to all the mothers that I know who manage to juggle everything from the moment they become one and who still persevere to follow their dreams or personal goals.

Very special thanks go to my supervisor Dr Encarnación Postigo Pinazo and my research mentor Professor Sue Wright with whom I have held crucial and inspiring meetings during the preparation of this research journey. Thanks to family and friends who have put up with me whilst my mind was elsewhere.

I'm also grateful to colleagues who have covered teaching and administrative duties whilst I was on research leave for a semester. I am especially indebted to Dr Akiko Sakamoto, for her encouragement in the first stages of this research journey, and to Sarah Bawa- Mason. Special thanks also go to colleagues in the Faculty of Humanities and Social Sciences for approving the sabbatical that has afforded me a space to finalise this thesis; and to translation company managers and employees who have shared so many insights into the professional world of translation.

Finally, I hope to inspire my own children the way my mother has inspired me. With the right mindset, I hope that they grow up to be happy individuals and achieve whatever their own goals may be in life.

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Chapter I

1.1 Thesis structure

This thesis comprises four chapters. Given the nature of the thesis leading to an international PhD by publication, it needs to meet several requirements. One of them is that there needs to be an introduction and a conclusion written in Spanish which are included in the body of the thesis, the rest of it is written in English.

Chapter 1 deals with a general introduction (in Spanish, section 1.1 below) giving an overview of the content of the thesis. This chapter also provides the background to the whole thesis (sections 1.2 and 1.3) and research context (section 1.4).

Chapter 2 introduces the theoretical foundations for the thesis together with discussion of the literature.

Chapter 3 has two parts. Part I deals with the methodologies used for the thesis; and Part II presents the abstracts of the published articles together with a summary of major findings, pulling together all the articles.

Chapter 4 is the conclusion to the thesis (written in Spanish) where major points are discussed and where future lines of research are suggested.

Appendices include the four academic outputs and additional information that supports my work. The content of the research publications used for the compilation of this thesis are in the appendices as follows:

Article I (Appendix 1)

- Rodríguez de Céspedes, B. (2017) “Addressing Employability and Enterprise Responsibilities in the Translation Curriculum” in Rodríguez de Céspedes, B. Sakamoto, A and S. Berthaud (eds). Special issue of the Translator and Interpreter Trainer. *Employability in the Translation and Interpreting Curriculum*. 11. Vol 2-3. 107-122.

Article II, this is in fact a Chapter in the book below, but I will use the word article for ease of reference from now on. (Appendix 2).

- Rodríguez de Céspedes, B. (2018) “Mind the gap: Language Service Providers’ perceptions of the technological training of professional translators” in Postigo Pinazo, E.(ed) *Nuevas tecnologías, procesos cognitivos y estrategias para la optimización de las competencias del traductor e intérprete*. Berlin: Frank and Timme. 143-161.

Article III (Appendix 3)

- Rodríguez de Céspedes, B. (2019). “Translator Education at a Crossroads: the Impact of Automation”. *Lebende Sprachen*. 64 (1). 103-121.

Article IV (Appendix 4)

- Rodríguez de Céspedes, B. (forthcoming-2020) “Beyond the margins of academic education: finding out translation industry training practices through action research.” *Translation and Interpreting journal*. 12 (1).

1.2 Introducción general (General introduction)

El principal reto con el que se encuentran los alumnos de traducción en la actualidad es la incertidumbre con la que se hallan una vez salen de las aulas e intentan integrarse en el mundo laboral. Es una de nuestras tareas como docentes el facilitar este paso y disminuir la brecha entre los estudios universitarios y la realidad profesional. Existen varias vías que podemos utilizar en el programa de estudios que les ayudarán a encontrarse mejor preparados (Rodríguez de Céspedes, 2017). Una de ellas es la empleabilidad, entendida como el desarrollo personal, la capacidad de ser flexibles, de tener habilidades transversales y de reaccionar ante las necesidades propias y del mercado con emprendimiento. Otro reto actual es la automatización que afecta cada vez más a la profesión del traductor y que debe de estar también representada en los programas de estudio (Rodríguez de Céspedes 2018 y 2019). La preparación profesional en la universidad no tiene por qué descartar ni dejar de lado las dotes analíticas y críticas que nacen en las aulas. Todo lo contrario, en esta tesis abogamos por el aprendizaje recibido durante los estudios académicos y en especial el desarrollo personal y conocimiento profundo de la lengua materna. Asimismo, pretendemos tender puentes entre el mundo profesional y académico acercándonos a las realidades en las que se encuentran ambos contextos.

Contexto actual: tecnologías en la industria de la traducción

Nos hallamos en la cuarta revolución industrial, una era de la historia en la que las tecnologías y la inteligencia artificial unidas a la globalización imperan en nuestra sociedad. La automatización se ha extendido a numerosas profesiones y campos del saber (Frey y Osborne, 2013) trayendo consigo la disrupción de prácticas laborales tradicionales para dar paso a nuevos e imparable desarrollos tecnológicos. El término innovación disruptiva fue acuñado por Christensen (1997) para referirse a modelos de empresa donde se anticipan necesidades futuras del mercado y se producen cambios con la ayuda de la automatización.

El mundo profesional de la traducción ha experimentado también el efecto de esta disrupción tecnológica con el uso de herramientas digitales de la traducción (Kenny, 2017). Nos referimos entre otras a las herramientas TAO (Traducción Asistida por Ordenador), corpus de textos y recursos lexicográficos en línea, trabajo colaborativo en la nube y más recientemente al efecto de la inteligencia artificial y la traducción automática neuronal (*Neural Machine Translation, NMT*) que han surgido como respuesta a la creciente necesidad de traducir miles de palabras en menos tiempo y a menor coste (véase Rodríguez de Céspedes 2017 y 2018 para la descripción de su evolución e impacto en la profesión).

Si bien, hoy día la mayoría de las herramientas TAO y la Traducción Automática (TA) son indispensables en la industria de la traducción, existen estudios que confirman que no todos los profesionales las adoptan en igual medida (Presas, Cid-Leal y Torres Hostench, 2016; Rico Pérez y García Aragón 2016; Rodríguez de Céspedes 2018) y que hay cierta aversión a introducirlas en el proceso de trabajo pues amenazan el papel tradicional del traductor y el proceso creativo y cognitivo que conlleva. La calidad de la NMT en particular mejora a pasos agigantados y numerosas empresas justifican su uso en algunos sectores de la traducción (Slator, 2019).

En resumidas cuentas, aunque las TAO y la TA facilitan la tarea de traducir miles de palabras en un plazo de tiempo corto, han traído consecuencias para la profesión tales como la disminución de salarios (véase punto 5 más abajo). Por otro lado, la traducción automática ha facilitado el que sean *amateurs* y no expertos profesionales, los que traduzcan en algunos contextos, actividad conocida como *crowdsourcing* (O'Hagan, 2017). Esto conlleva problemas asociados tales

como el desprestigio y estatus de la profesión (Pym 2003, 2013) así como un cambio paradigmático en la formación de traductores (Rodríguez de Céspedes, 2019).

Cabe destacar las predicciones sobre el impacto que la Traducción Automática Neuronal (NMT por sus siglas en inglés) tendrá en la profesión a corto plazo que empresas punteras del sector resumen en los siguientes puntos (Slator 2018, p. 29):

1. Mejora en los próximos años de la NMT en lenguas de menor difusión y consiguiente expansión del uso de la TA (véanse también los informes de TAUS- Translation Automation User Society)
2. Se necesitarán más expertos en lenguas para llevar a cabo tareas de posesición
3. Se necesitarán expertos para la creación de contenido lingüístico de alta calidad para “entrenar a las máquinas” (*machine learning*)
4. La colaboración entre los humanos y las máquinas seguirá en expansión. Ya se pueden observar avances en los sistemas de reconocimiento del lenguaje, transcripción, e interpretación, por ejemplo
5. Cambios en estructura de las tarifas de traducción (tradicionalmente el pago ha sido por número de palabras). Hoy día hay empresas que aplican descuentos en trabajos que han sido realizados con herramientas TAO pues lo consideran material ya traducido

Estas nuevas y futuras tendencias en el mundo laboral afectarán a nuevas generaciones de traductores y en consecuencia los programas de traducción, para justificar su viabilidad, tendrán que responder a estos cambios en mayor o menor medida.

Contexto actual: enseñanza de traducción y profesionalización

Los estudios de traducción y más concretamente la rama de didáctica de la traducción se ha establecido en las últimas décadas y crédito de ello son las numerosas publicaciones académicas y congresos internacionales que avalan la importancia que se otorga a la formación de traductores.

El contenido de los programas docentes se inspira principalmente en los modelos teóricos que han surgido en los estudios de traducción. Podemos destacar entre ellos los siguientes: el lingüístico de Jakobson 1959, Catford 1965, Nida y Taber 1969, Vinay y Darbelnet 1995, Holmes 1972, Newmark 1988; el semiótico (Wilss 1982); el hermenéutico (Ricoeur 2004, 2006; Derrida 1999/2001); el funcionalista (Reiss y Vermeer 1984, Nord 1997); cultural (Steiner 1975, 1988; Bassnett y Lefevere 1990, Even-Zohar 1990, Toury 1995, Venuti 1995, Snell-Hornby 1988; Hermans, 1999; Tymoczko 2007); lingüístico-funcional (Halliday, 2004); psicolingüista (Klings 1986, Bell 1991); textual (Neubert and Shreve 1992, House 2006); o el socio-constructivista (Király 2000; 2005; 2018) entre otros.

No es el objetivo de esta tesis por compendio de publicaciones describir los modelos teóricos arriba mencionados. Aun así, cabe señalar que todos poseen algo en común: abordan la traducción desde un enfoque cognitivo (como un acto exclusivamente humano) y se centran en el proceso y producto traslativo cuyo eje central es la equivalencia entre lengua origen y meta. El modelo funcionalista quizás sea uno de los más aplicables en nuestro estudio, bajo la premisa de que toda traducción siempre tiene una finalidad (teoría del escopo) y se realiza en un contexto determinado. Lo cierto es que el acto de traducir en la actualidad no tiene lugar exclusivamente en el cerebro del traductor (Bakalu, 2013); por ello, se necesitan estudios empíricos que analicen el impacto de las

tecnologías en este proceso (Paulsen-Christensen y Schjoldager 2011; Bundgaard, Paulsen Christensen y Schjoldager, 2016), algo que Dorothy Kenny (2017) también echa en falta en el campo de la didáctica de la traducción.

Aunque el uso de las tecnologías ha generado en el mercado laboral una variedad de perfiles y salidas profesionales, nuestro primordial objetivo es reflexionar exclusivamente sobre la formación de traductores en la actualidad para analizar hasta qué punto el auge de las tecnologías ha afectado a la carga cognitiva, lingüística e intelectual existentes en métodos y estrategias de traducción tradicionales (antes de la automatización).

En cuanto a la profesionalización de los estudios de traducción, Kelly et al (2003) nos recuerdan que la asociación de traductores e intérpretes alemanes (BDU) fueron pioneros al reconocer en 1986 la importancia del perfil de la profesión del traductor y la necesitada colaboración entre el mundo profesional y el académico. Asimismo, según las autoras la publicación del grupo de trabajo *Profil Professionnel de la profession de traducteur* (FIT, 1995) puso de manifiesto las necesidades del mercado profesional. Gouadec (2007) igualmente describe las diferentes salidas profesionales y nos presenta la red de másteres europeos *European Master's in Translation* (EMT) como marco de referencia de competencias de la traducción profesional que se crea en 2009 bajo el auspicio de la Dirección General de Traducción (DGT) de la Unión Europea. El autor defiende en su libro que las necesidades del mercado hacen que las tecnologías necesariamente formen parte del mundo de la profesión de la traducción y por ende de la formación de traductores. Asimismo, detalla la variedad de perfiles profesionales derivados de la traducción y existentes en empresas de localización: traductores, terminólogos, poseedores, revisores, informáticos, departamento de márketing, de contabilidad entre otros. De hecho, son ya hoy día también numerosos los estudios académicos que se han hecho eco del impacto y uso de las últimas tecnologías en las aulas (véase, por ejemplo: Doherty, Kenny and Way 2012; Doherty and Moorkens 2013; Austermlühl 2013; O'Hagan 2013; Sikora 2014; Gaspari, Almaghout y Doherty 2015; Mellinger 2017; Moorkens 2017; Rothwell y Svoboda 2017; Ciobanu y Secara 2018).

Aunque parte de nuestro estudio se centra en averiguar qué competencias son las que más demanda el mercado para proponer actividades formativas, no nos adentraremos en la descripción de los modelos multi-componenciales (véase por ejemplo: PACTE 2001, 2005; Kelly 2005; EMT 2009; EMT 2017) que han formado la base de numerosos y pertinentes estudios académicos que analizan su validez (por ejemplo Pym 2003; Pym 2013; Plaza Lara, 2016; Yılmaz-Gümüş, 2017) aunque utilizaremos el modelo de competencias de la EMT 2017 como punto de referencia más actualizado en relación al contexto de la realidad profesional.

Nuestra verdadera preocupación es preparar académicamente y formar a futuros traductores en un mercado laboral en constante desarrollo. Para ello, profundizamos en la materia y mantenemos un diálogo con empresas de traducción en Reino Unido y España, universidades e instituciones europeas como la DGT de la Comisión Europea con el fin de abordar y desarrollar líneas curriculares que se puedan aplicar a contextos específicos.

Justificación y motivación

El interés por abordar este tema es fruto de años de experiencia conseguida a lo largo de las últimas dos décadas. Como traductora y docente universitaria desde principios de mi carrera profesional hemos constatado la evolución de la disciplina y el impacto creado por las tecnologías. La inquietud por crear asignaturas y programas de traducción afines a las tendencias sociales y

profesionales nos ha llevado a ahondar y reflexionar en lo que constituye un programa docente a prueba de cambios sociales y tecnológicos constantes. La meta es dotar al alumnado con herramientas útiles para que puedan afrontar el mundo laboral con conocimiento y confianza y a los docentes con estrategias didácticas que se puedan amoldar a distintos contextos.

Nuestra participación en proyectos de instituciones británicas: *National Network of Translation* desde 2011, *Institute of Translation and Interpreting* desde 2006, la recientemente creada *Association of Translation and Interpreting Programmes* en 2018; y europeos tales como los programas financiados por la Unión Europea: OPTIMALE (2010-2013) y *European Master's in Translation* (del que somos miembros) nos ha permitido conocer prácticas profesionales y pedagógicas diversas de distintos países que han ayudado a la creación y actualización de propuestas curriculares para la formación universitaria de traductores. En este contexto, cabe también destacar nuestra participación en ELIA (*European Language Industry Association*) *Exchange network*, donde empresas del sector lingüístico se asocian con centros académicos por el bien del futuro de la profesión, y ofrecen soluciones relacionadas con la empleabilidad de futuros profesionales tales como prácticas en empresas.

Asimismo, el rico intercambio de conocimientos entre instituciones académicas y el mundo profesional de la traducción han facilitado un hilo de comunicación entre ambos y ha engendrado proyectos de investigación en los que hemos formado parte. Un ejemplo de ello es la colaboración con la Universidad de Málaga en el proyecto *Recursos TIC y estrategias para una optimización proactiva de las lenguas extranjeras y de las competencias para la traducción e interpretación: experiencia pedagógica compartida con dos universidades europeas socias* (2015-2017); y el proyecto de investigación de la Facultad de Humanidades y Ciencias Sociales de la Universidad de Portsmouth “*When Translation meets technologies; Language Service Providers in the Digital Age*” (2016-2019). En este último proyecto, del que soy coinvestigadora, nos planteamos varios objetivos, entre ellos investigar el uso que las empresas de traducción hacen de las tecnologías y el impacto que provocan en la profesión y la formación.

Todas las experiencias mencionadas hacen que nos encontremos en una posición privilegiada tanto para dar sentido a todos los cambios en los estudios de traducción de los últimos años, como para intentar responder a ellos y contribuir a las investigaciones en didáctica de la traducción.

Objetivos de la investigación

Los objetivos son los siguientes:

- 1) Definir un marco de referencia para la empleabilidad en los estudios de traducción (Artículo I)
- 2) Analizar el impacto de la tecnología en el mundo de la traducción (Artículo II)
- 3) Reflexionar sobre el estado de la formación de traductores en la actualidad para prever futuros cambios curriculares y poder responder tanto a necesidades sociales como a las de mercado (Artículos III & IV)

Para ello proponemos las siguientes preguntas de investigación:

- ¿Cuáles son las competencias necesarias para ser traductor profesional hoy día?
- Con el aumento de las nuevas tecnologías y la automatización: ¿qué formación compete a las universidades y a las empresas? Es decir, ¿qué papel desempeñan por un lado la universidad y por otro las empresas en lo que concierne a la formación de futuros traductores profesionales desde el punto de vista lingüístico y tecnológico?

Metodología

Nuestra investigación posee un fuerte carácter interdisciplinar pues se inspira en ciencias de la educación, y ramas de la sociología y psicología. La metodología para llevar a cabo este estudio es mixta y se centra en estudios cualitativos. Al igual que en la triangulación, el uso de una metodología mixta permite lo siguiente: 1) la investigadora emplea más de un tipo de método de investigación, 2) maneja distintos tipos de datos y 3) la investigadora emplea distintas teorías para responder a las preguntas planteadas (Brannen 2005, p. 12-13 en Abdallah 2012, p.9).

En el caso de nuestro estudio, usamos los siguientes métodos:

- Grupos focales a partir de los cuales obtuvimos información sobre el uso de las tecnologías en empresas de traducción del Reino Unido. Reunimos a 16 representantes de empresas de traducción divididos en cuatro grupos a los cuales les realizamos las mismas preguntas. Las conversaciones se grabaron y se analizaron con el software N-Vivo. Los resultados de esta investigación aparecen en el artículo II.
- Estudios etnográficos en empresas de traducción. Realizamos estancias en empresas de España y el Reino Unido de una semana de duración y observamos la formación que los nuevos egresados reciben por parte de la empresa. (artículos III y IV)
- Entrevistas semiestructuradas con directores de empresas de traducción para investigar a fondo las necesidades del mercado y proponer soluciones didácticas que respondan a los cambios producidos por el avance de las tecnologías y la realidad de la profesión. (artículos III y IV)
- Análisis documental mediante el cual recabamos amplia información de tendencias curriculares en planes de enseñanza de centros de enseñanza superior europeos. (I-IV)

1.3 Focus and aim

This thesis aims to contribute to scholarly work on translator training, a now well-established branch of Translation Studies (Kelly, 2005; Piotroskwa and Tyupa, 2014). My research findings are grounded in industry practices and it considers the impact of technologies in the profession and in translator education. The research answers the need to fill the so-called gap between academia and industry for the benefit of all the stakeholders: academic translator trainers, translation students, trainee translators, translation institutions and industry. The aim is to analyse the situation critically and future-proof academic translator training by looking into current practices in academia and industry and to reflect on the skills needed in the profession in the short to medium term. Exploring the use of Computer Assisted Tools (CAT) and other technologies by Language Service Providers (LSPs) has spurred reflection on what academia can offer that industry cannot and vice versa. The goal is to seek ways in which both worlds can talk to each other and collaborate for the benefit of the profession especially since the advent of Machine Translation (MT) which has shaken the pillars of the traditional basis of the translation process and the profession.

In this thesis, I use the words training and education interchangeably although there are subtle differences and nuances depending on the context they are used as postulated by Pym (2012). In the broad sense, whilst translator training refers to the skills needed to achieve translation competences; translator education identifies the need for students to acquire a wide range of interpersonal skills and attitudes in addition to translation competences and technical skills. This fits in with my definition of employability as illustrated in Article I. It is not my intention to prescribe the contents of today's translation curriculum as different educational contexts need to be factored in, but to anticipate ways forward for the curriculum of tomorrow. For this purpose, I will raise some important questions about the future of translation training throughout the whole thesis and will offer some potential answers or solutions.

Thus, the main research questions covered are:

- What competences are needed in today's profession? How can the profession be future-proofed?
- With the advent of sophisticated new technologies and automation, *who* provides *what* training? What is the role of universities and companies in the linguistic and technological training of future professionals?

1.3.1 Personal journey and motivation

This doctoral thesis builds on the work that I have carried out for more than two decades. As a translator and translation trainer, I have witnessed first-hand the evolution of the profession. Since technology has taken centre-stage in the profession, I was curious to find out what impact it had in translation training. This curiosity led me to join academic and industry networks to find out first-hand about new trends in the profession. In particular, I experienced first-hand the perceived gap mentioned by industry in different surveys where there were calls for academic institutions to incorporate computer assisted tools in their programmes as one of the top service provision skills needed to bridge the so-called gap between academia and the workplace.

This preoccupation resonates with Carr and Kemmins' (1986, p. 162) definition of action research as "a form of self-reflective enquiry undertaken by participants in order to improve the rationality and justice of their own practices, their understanding of these practices and the situations in which the practices are carried out".

As a university lecturer, this situation called for action. Only by understanding the context that students will encounter upon graduation, namely a changing labour market, I will be in a position to genuinely assist them to bridge the gap from academic learning to workplace practices. My research reacts to a societal need, and this is the reason behind my reflection on current technological developments. The goal is therefore threefold: to give graduates the employability tools needed to enter the professional world with confidence, to share pedagogical practices with university trainers to future-proof translation training, and to collaborate with LSPs and translation institutions to future-proof the profession. Thus, the thesis introduces an employability framework that can help translation departments carry out a need analysis (Article I). The framework does not deal with the technological tools used in the translation classroom exclusively but instead acts as a holistic framework that universities can adapt to their own contexts.

My participation in UK networks such as: The *National Network of Translation* since 2011, and the newly created *Association of Translation and Interpreting Programmes Institute of Translation and Interpreting* (APTIS) in 2018, where I am executive committee member, have been decisive in refining my teaching goals underpinned by research. More recently, I have been elected Translation and Interpreting executive committee member at University Council in Modern Languages, a promising opportunity to keep working for the benefit of Translation Studies.

Spearheading collaboration with other stakeholders such as the Institute of Translation and Interpreting (ITI) or the Chartered Institute of Linguists (CIoL) has also been vital together with contributing to the work of EU projects such as: OPTIMALE (2010-2013) and the *European Master's in Translation* EMT. In this context, I have also participated in the ELIA (*European Language Industry Association*) *Exchange network*, where LSPs and academic institutions collaborate and create links to improve graduates' employability including arrangement of internships.

Moreover, in the academic context, the fruitful collaboration with stakeholders has allowed for the creation of research projects such as *Recursos TIC y estrategias para una optimización proactiva de las lenguas extranjeras y de las competencias para la traducción e interpretación: experiencia pedagógica compartida con dos universidades europeas socias* (2015-2017) with the University of Málaga. The project "*When Translation meets technologies; Language Service Providers in the Digital Age*" (2016-2019), a university of Portsmouth funded research project, has also contributed to finding out ways in which academia and industry can work together for the benefit of the profession. It investigates the use and impact of technologies in LSPs. Article II is informed by these two projects and Articles III and IV follow the next stages in my research by building on Articles I and II respectively.

I have also now published work both in professional and academic settings and the outputs are of an international nature as evidenced in the thesis.

All these experiences place me in a privileged position to make sense of all the changes that Translation Studies and the translation curriculum have experienced over the last two decades. This includes the impact that automation has triggered in the translation profession and translator training. The main aim therefore is to be ready to respond to changes and to contribute to the discipline by producing scholarly work that can be shared with all stakeholders.

1.4 Research context

Language is a quintessential human quality as complex oral communication allows for societal organisation and the written word permits sophisticated institutions and structures. But language is not unitary and human communication takes place through languages. These languages are under constant evolution: new words are created, old words elapse, and grammatical conventions change over the years. A text is embedded in a specific historical time and a specific context, it is what linguists call a diachronic structure. Steiner (1973, p.24) said that “time and language are intimately related: they move, and the arrow is never in the same place”. Truism as this may now seem, the traditional prescriptive nature of a given language as the basis of systems governed by rules (de Saussure, Chomsky’s structuralism) is now being challenged with new modes of communication.

Traditionally, language academies or the literary canon have been the guardians and custodians of language prescription and decision making to validate what is right or wrong (norms), to keep language unified and stable and as a political strategy of centralisation and standardisation (Wright, 2016). This is a top down prescriptive approach and only when many speakers within a large community make a change to language usage, have the academies been forced to move goal posts over a period of time, such as for instance when accepting neologisms into a language. Thus, changes have occurred over time and have been provoked by native speakers and the use of accepted new language conventions in their communities. However, today, machines are creating algorithms based on raw data that are fed by anyone with access to the internet such as when texts are translated by the crowd known as crowdsourcing (cf. Flanagan, 2016; O’Hagan, 2017); or by individuals and institutions with no prescriptive powers and with no screening, benchmarking or mechanisms to ratify what is right or wrong. Artificial Intelligence (AI) uses “rules” and algorithms based on millions of texts and natural speech. This represents a bottom up shift that has been mainly brought about by the democratisation of technologies. Before, agreement on language rules and usage was made in the academy, by a small elite and education was the vehicle to facilitate the prescriptive nature of a language. Now, AI uses big data from very disparate sources, not just a few as it was the case in the past.

Moreover, AI and machine learning are enabling the production of language and translation with minimum involvement of human labour in many contexts. Astonishingly, machines are already starting to communicate with each other in a language that humans do not master and without human intervention (Marcus du Sautoy, 2019). This means that the conscious act of language as something innate and natural to the human being, practised by speakers of communities who follow norms and conventions (Wittgenstein in Bloor, 1983), is now being confronted with the algorithms created by machines; the prescriptive and normative nature of languages also now being defied by new paradigmatic shifts where machines and automation play a role. Translation has now become an asynchronic and multidirectional activity unlike traditional text translation where a translator translated a text, then it was printed and distributed to readers. Now, the original source text can be modified and improved online by readers, Wikipedia being a clear example of this.

This shift from top down to bottom up has implications not only for the linguistic, unifying and conventional standards of a language but also for the prescriptive, top down approach that has been used in translator training. And this ultimately has a knock-on effect on the future of the translation profession if our aim is to prepare graduates for employment. What skills need to be taught when the goal posts keep moving?

1.4.1 Summary of evolution and rise of automation and translation technologies

The use of automated systems and workflows is now widely prevalent in many professions and it has brought about technological disruptions in traditional settings where the labour force was once exclusively made up of humans (Frey and Osborne, 2013). The term disruptive innovation was coined by Christensen (1997) to refer to new business models driven by new market needs where automation substitutes human input.

Automation is now commonplace in the translation profession, but it is in the last two decades that it has truly taken flight. Early research into MT started in the US where government funded projects such as the ones led by the Automated Language Processing Advisory Committee (ALPAC). The committee published a report in 1966 which concluded that instead of investing in MT, developing computer-based aids for translator was recommended. The term translators' workbench to describe the tools available to the translator was introduced by Martin Kay in 1980 although later on it was Alan Melby who proposed the integration of various tools into a translator's workstation. There were various levels: "the first level would be basic word-processing, telecommunications and terminology management tools; the second level would include a degree of automatic dictionary look-up and access to translation memory; and the third would involve more sophisticated translation tools, up to and including fully automatic MT". Sommers (2003, p. 14)

The above is a succinct historical synopsis of the irruption of technologies in the profession, but Bowker's classification of translation tools below offers us a clear-cut overview of some of the tools used today and the differentiation between Human Translation (HT), Computer Assisted Translation (CAT) and Machine Translation (MT).¹

HT	CAT	MT
Word processors	Data-capture tools	Machine-translation
Spelling and grammar	Corpus-analysis tools	
Electronic resources systems (e.g., CD-ROMs)	Terminology-management	
Internet	Translation memories	
	Localization and Web-page e-mail translation tools	
	Diagnostic tools	

Table 1. An overview of different types of technology used in translation. Adapted from Bowker (2002, p.7)

¹ A useful diagrammatic explanation is also offered by Quah (2006) as can be seen in Article II, appendix II.

When did the boom in the use of technologies start? MT and CAT packages started to be commercialised in the nineties with the advent of the personal computer. Translation software also experienced a boom with the arrival of Trados MultiTerm, IBM Translator Manager, Atril DéjàVu, Trados Translator Workbench, Star Transit (now for Microsoft Windows), Passolo or Wordfast (Díaz Fouces 2019). Companies creating these software packages started to compete for this niche sector in the translation market. Another crucial point in the history of translation technology workflows was the creation in 1990 of the Localization Industry Standards Association (LISA) which developed standardised formats for the creation of linguistic content: TMX for translation memories, TBX for terminological glossaries, SRX for segmentation, or XLIFF for the exchange of localisation processes. All of these revolutionised the translator's workflow increasing productivity. (ibid, 2019)

Globalisation has also developed in the last couple of decades. Information technology and the internet have made digital globalisation possible where businesses operate globally in real time allowing information and big data to flow instantly (Cronin 2013). In translation, the impact of digital tools is changing the nature of the profession. Indeed, translation is not a paper and pen process anymore and it is not an exclusively human act either as technology is helping in the process (Bakalu 2013). O'Brien (2012) considers translation as a form of human-computer interaction.

Quah (2006) explains the processes whereby digital tools have coexisted in the translation profession via three development stages: first with pen and paper and no digital tools, then with machine assisted translation (online dictionaries and glossaries, spell-checkers and databases) and finally with humans assisted by machine translation (see article II). Suffice it to say that not all professionals are at the same point within these development stages (Presas, Cid-Leal y Torres Hostench, 2016; Rico Pérez y García Aragón 2016, Rodríguez de Céspedes, 2018). Moreover, recent developments such as Statistical Machine Translation (SMT), Neural Machine Translation (NMT) and machine learning or Artificial Intelligence (AI) have added a further layer to this complex context as outputs in the most popular language combinations are achieving near-native human quality and institutions such as the EU and LSPs are using MT in their workflows.

In fact, in order to be competitive in the market, automation and artificial intelligence (AI) are driving LSPs to adopt new technologies in their production systems, most notably machine translation. What is the rationale and consequences of this change? Together with a fragmentation of roles in the profession (linguists, LSPs, technology providers, software engineers, hybrids, freelancers), industry is experiencing many challenges such as: continuous incoming of translation jobs (big and small) needing localisation and tight deadlines and quick turnaround. (Carnegie-Brown, 2018 personal communication). These challenges have called for agile automated systems where the machine is carrying out tasks traditionally reserved for humans. Whereas the advantages of simplifying tedious and time-consuming tasks by the machine are justified to a certain extent, it is the increased use and quick advances of MT which has ignited concerns about the future of the profession. The profession will still keep needing to adapt to the changes caused by the bottom-up shift where machines are built on data usage and input rather than on prescriptive top-down rules (dictionary, grammar). This situation begs the question: if automated practices are becoming commonplace, will there be a clear cut between the premium market (where humans control and monitor the process aided by technology) and bulk translation (where machines provide translations based on information from enormous data sets with very little or no monitoring)?

1.4.2 Where is industry heading?

The European Language Service survey is launched annually to monitor these concerns and challenges in industry. One of the highlighted challenges is narrowing the skills gap between universities and industry, and one of the major concerns is “the traditional fear that machine translation opens the door to lower quality and more competition by lower qualified translators and translation companies” (2018, p. 29). This is an obvious but justified concern considering that other major stakeholders, such as those participating in the SLATOR survey (2018, p. 31-32), predict a future translation industry needing qualified linguists as a result of MT becoming more prevalent where linguists will be needed to curate and create high quality training data for machine engine training. These expert linguists will act as gatekeepers of standard language against the language generated from millions of texts emanating from the crowd. Translators may also have the role of curating the MT guarding against “error” brought about when the machine has seriously misunderstood or when it diverges from standard language.

The Translation Automation Users Society (TAUS 2017, p. 4) also foresee a rapid evolution of machine learning in their ‘Translation Industry in 2022 report’ and classify new challenges and opportunities brought about by MT as follows:

Strengths <i>Increases in efficiency</i>	Weaknesses <i>Sharing of data</i>
Opportunities <i>Getting intelligence from the data</i> <i>Working in the cloud</i> <i>Convergence of technologies</i>	Threats <i>Changes in jobs</i>

Table 2. SWOT Machine Translation (TAUS, p.4)

All of these four categorisations relate directly to our research as it has implications for translator training. TAUS considers getting intelligence from the data and convergence of technologies as opportunities, this means that when convergence (i.e. when separate technologies interact with each other and share data) comes to full maturity, translation is expected to be universally available on every screen and in every app (working in the cloud). TAUS also admit that this process is already in place and advancing steadily. For instance, although the overall picture of MT’s impact on human translation is not fully tangible yet, Google Translate currently translates more words in a day than all human translators in the world translate in a year. Although this is seen as an opportunity and a strength (efficiency and consequent speed) by TAUS, it represents a clear threat to employment as machines are taking over human functions. The creative and cognitive input of the translator is also being threatened by machine and the crowd- who is inputting the data that machines are learning? This is a concerning bottom up, non- prescriptive approach that will impact the future of the profession and it may even have implications for the way in which languages evolve. Indeed, a double-tiered language system may exist in the future: one for expert communication following a prescriptive top-down approach and another for basic, non-specialist understanding of messages based on bottom-up usage. This situation will also entail a clear division of roles in the future language professions.

TAUS also confirm that in the next few years the world of translation will keep changing because of six main drivers. Industry managers will be challenged to keep up with the innovations that have already been set in motion. The six drivers of change are:

- a. Machine Learning
- b. Machine Translation
- c. Quality Management
- d. Data (including Speech Data)
- e. Interoperability
- f. Academy (human resources and training) (ibid, p.7)

The last point (f.) is immediately relevant to our analysis. TAUS complain that the gap between academia and industry is wide and that graduates struggle to understand what their role is once they are confronted with an industry that is fast-moving having left a translation education environment that “*follows obsolete models that are still shaped for the 20th century*” (ibid, p.21).

This last statement forms part of an ongoing debate about the chasm between academic training and industry practices. There have indeed been other important studies analysing the needs of current professionals. For example, the ‘Future-Proofing the Profession: Equipping the Next Generation of Translators’ events² (July and October 2014) shared results from a survey distributed to 380 respondents in the UK (a majority of freelancers (74%), but also in-house and academic staff). The survey revealed that the area where they felt that respondents were least sufficiently equipped were business skills (149 respondents) and interpersonal skills (78 respondents) (see article I for a discussion of this point). Neural Machine Translation was not implemented until 2016 hence the impact of this MT development had not been considered at that time although the use of Computer Assisted Translation had.

It was in this context, when the University of Portsmouth project “When translation meets technologies: Language Service Providers in the Digital Age” (2016) was launched to survey UK LSPs on their use of digital technologies and to witness first-hand the impact that these are having on the profession (see article II under discussion section).

The EU Directorate General for Translation (DGT) has also been organising a series of Translating Europe Forum events in recent years where the focus has been in discussing current and future needs of the profession. The theme in November 2017 in Brussels was “New skills, new markets, new profiles”. A representation of all translation stakeholders took part in the event: LSPs, supranational institutions, academics and postgraduate students. The emphasis was on the revolution that the translation industry is undergoing and how to survive to its changes including new emerging profiles (not solely the traditional translator role as we know it) as a result of latest technologies.

A survey launched in 2017 by the European Commission representation in the UK in collaboration with the ITI and CIoL analysed how professional translators (mainly freelance- 437 out of 587 respondents) rated their skills. As we can see from the graph below, business skills get the lowest scores, with technology half-way through the spectrum and linguistic, translation and writing skills at the top. This last piece of information is promising as it reinforces the importance to perpetuate

² Held in London and organised by the Chartered Institute of Linguists, the European Commission and the Institute of Translation and Interpreting

the human input in translation despite the increase of MT, although it also highlights some of the skills gaps in today’s professionals, namely entrepreneurial and technological skills.

The survey included experienced translators (average time working as professionals ranged 13-16 years) which may affect the overall results of the survey. Interestingly, the data collated in our focus groups project “When translation meets technologies: LSPs in the digital age” confirmed that freelance translators have their own responsibility to train themselves with CAT tools and other technologies to compete for a job in the labour market. University students on the other hand are expected to have some knowledge of technologies and, as they tend to join LSPs as in-house translators, their training includes the tools used by the company.

Q12 How well equipped do you feel in the following areas?

Answered: 587 Skipped: 1

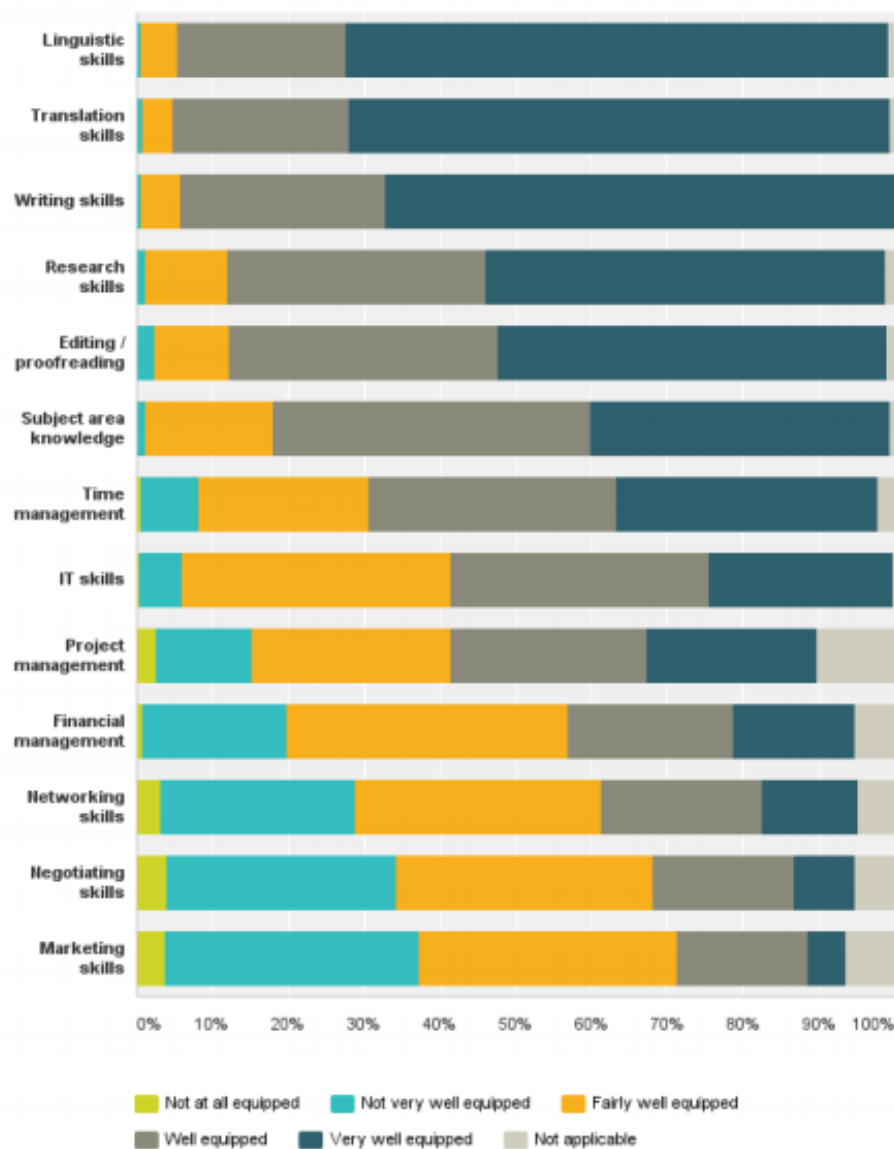


Table 3. Professional translators skills survey (CIoL, ITI, EU)

Suffice it to say that this changing and evolving industry landscape creates a dilemma for academic trainers as the skills taught in academia may not necessarily match the realities of the roles that industry needs to fill in. Academic projects informed by industry practices exist, such as Optimising Professional Translation Training in a Multilingual Europe (OPTIMALE 2010-2013) and the European Masters' in Translation (EMT) from 2009 with the creation of a competences framework, but technology will render current and recent translation competences frameworks obsolete (see articles II, III and IV for a discussion of this point).

1.4.3 Where is academia heading?

Academia is producing a vast amount of scholarly work stirred by the evolution of the translation industry and the changing landscape affecting translation workflows. At the same time, there is also current scholarly work inspired by other disciplines. Sociology is contributing to this development (inspired by Latour's social actor networks) and there is a growing body of research employing sociological methodologies (including surveys, interviews, workplace studies) to analyse new roles as scholars are focussing on specific actors in the profession and the roles that they carry out. For example, Koskinen (2008) and Abdallah (2012) study translators as part of production networks. Kuznik (2010) visits translation companies and examines the translator's workload and specific responsibilities. Some studies also investigate the effect of technologies on people's behaviour: Olohan (2011); Risku, Rossmannith, Reichelt and Zenk (2013); Zaretskaya, Corpas Pastor y Seghiri. (2018). Olohan and Daviti (2014) and Foedisch (2017) analyse the role of project managers. All the studies above show how translation practitioners behave using technologies and how that is, in turn, influencing the way in which the translation industry works. In relation to translator training, O'Brien (2002, 2017) has looked into the role of post-editing and specific pedagogical demands; and similarly, Moorkens et al (2018) have researched translation quality post MT and the relevance of its use in a higher education context.

Academic training is hence also attuned to technological advances and some university programmes are incorporating the teaching of digital tools (including CAT tools and, more recently, machine translation) in their programmes with many scholars discussing their applications in the classroom, see as an illustration: Kenny 1999; Pym 2003b, 2011, Austermtuhl 2006, Esselink 2002, Corpas Pastor and Varela Salinas 2003; Corpas Pastor and Seghiri, 2016; Olohan 2011; Doherty, Kenny and Way 2012; Doherty and Moorkens 2013; Austermtuhl 2013; O'Hagan 2013; Sikora 2014; Gaspari, Almaghout and Doherty 2015; Mellinger 2017; Moorkens 2017; Rothwell and Svoboda 2017; Ciobanu and Secara 2018. Therefore, theoretical implications of the use of CAT tools for the training of translators already forms part of the Translation Studies literature.

The gap that this thesis fills is in relation to future-proofing translator training: it discusses current translation professional and training trends with a view to consider what the future holds and to be able to respond to changes. It aims to discover to what extent the human role in today's translation educational setting can coexist with the technology provided by machines.

Increasingly, new initiatives between universities and the professional world, are facilitating a very much needed dialogue leading to simulated professional practices in the classroom (Vandepitte 2009; Calvo, Kelly and Morón 2010; Chouc and Calvo 2011; Peverati 2013; Rodríguez de Céspedes 2014, 2015, 2016; Massey and Ehrensberger-Dow 2014; Santafé 2014; Thelen 2014; Way 2016; Buysschaert et al 2018). (See Article 1). Internships and work placements are also increasingly popular amongst universities in an effort to bridge the gap between academic education and professional training (Astley and Hostench, 2017). These initiatives represent a good start as they capture current translation practices.

All of this work is testament to the links being forged between academia and industry and the interest that the evolution of the industry is generating in academic circles. Nonetheless industry still argues that academic offers do not meet industry demands (OPTIMALE 2013). An argument from academia is that industry and academia are two worlds apart and that academia should not be subservient to industry (Molesworth, Nixon and Scullion 2009). Is university education a fodder for churning out graduates into industry? This increased polarisation spurred by technologies and industry needs together with the narrowing or widening of the gap between both worlds can be minimised with one counter-argument advocated by Pym (2011). This author

reminds us that in this world of constant technological advances and automation, there is a place for humanistic research: “humanistic researchers are neither indifferent nor entirely ignorant of the advances in translation technologies...” (2011, n.d). Academic researchers in the humanities may not be versed in latest technical idiosyncrasies and may have limited scientific training but they are in a good position to explore and research if university is a training place for industry.

These final statements make a good starting point from where to develop this thesis and for the conclusions that I draw at the end. The rise of automation presents a concern for translators and educators alike who are divided between those who see its benefits and those who see MT as a threat to the traditional concept of translation as an intrinsically human activity and cognitive process. Even within industry there seems to be a divide between LSPs who use and who do not use certain CAT tools, and a sense of a dividing chasm between “us” and “them” (Sakamoto and Rodríguez de Céspedes 2017).

Crucially, these new trends in the labour market will affect new generations of graduates and university programmes will need to respond to some of the changes in the profession in order to justify their viability.

Chapter 2

Context and theoretical background

Theory of an eclectic nature has been used to inform the content of my research which is empirical and interdisciplinary and has practical objectives. The aim is to make sense of the current translation landscape to identify ways forward in translator training from different angles. This chapter is aimed to both complement and expand the theoretical underpinnings of the four published articles included in this thesis in the appendices. The chapter identifies current paradigmatic shifts that will affect the profession and trends in translation training that work towards professionalisation of the curriculum including an overview of the EMT competence frameworks. It also introduces an employability framework at the end from which translation trainers can adapt their programmes and unit objectives as a starting point with the view of bringing professional practices into the classroom and to carry out a needs analysis depending on their setting.

2.1 The Translation Studies curriculum

The use of translation technologies is currently deemed as one of the skills most sought after in the translation profession. At the same time, theoretical and conceptual research on translation and digital technologies is growing as more empirical studies attest. The advancement of technologies is exerting both positive and negative effects on the practice of translation, and Translation Studies has been engaging with both sides of this development. Indeed, some studies have surveyed literature specifically about translation technologies (Christensen and Schjoldager 2010, Garcia 2009, Pym 2012; and O'Hagan 2013 to mention a few); and there are also dedicated translation journals dealing exclusively with technology-related issues (for instance *Machine Translation* or *Revista Tradumatica*).

Translator training is now a well- established branch of Translation Studies (Quah 2006, Vandepitte 2008, Piotroskwa and Tyupa, 2014). The growing number of scholarly works published in major journals, international conferences and the increasing number of Higher Education Institutions (HEIs) who offer Translation Studies in their curriculum are all testament of this. At the same time, there is growing interest in industry to tend bridges with academia and to bring professional practices into the classroom not exclusively to do with technological skills although predominantly so. This is mainly due to the perceived gap between what is taught in the Translation Studies curriculum and professional practices in the labour market as several surveys considered in this thesis show. Employability of translation graduates is crucial, but this gap is currently more apparent than in the past given the changing technological landscape already mentioned which is affecting both industry and academia.

Interestingly, despite this changing context, and the teaching of transversal skills (employability) and translation technologies increasing at universities (Rothwell and Svoboda 2017), the Translation Studies curriculum is still mainly based on theoretical models that are grounded in the translation cognitive process. Thus, as an act that takes place in the translator's brain and where the translation process involves the transfer of source text messages into the target text in a given socio-cultural context. It is not the intention of this thesis to describe main

theoretical models nor to produce an exhaustive analysis of main theoretical underpinnings. Nevertheless, one commonality in most of the existing models is that they use equivalence as a pivotal element between the source text and target text messages. Yet, none of them take into account the fact that translation today does not take place exclusively in the brain as the use of technologies helping the translation process is now widespread.

There have been mainly three turns in Translation Studies: the linguistic turn, the cultural turn, and the social and psychological turn. Every time a new turn takes place, Translation Studies has experienced an evolution (Mostafa El Daly, 2015). Some of the most widely used and influential models involving the turns above and used in the didactics of translation are: the linguistic model (Jakobson 1959, Catford 1965, Nida and Taber 1969, Vinay and Darbelnet 1995, Holmes 1972, Newmark 1988); semiotic model (Wilss 1982); hermeneutic model (Ricœur 2004/2006; Derrida 1999/2001); functionalist model (Reiss and Vermeer 1984, Nord 1997); cultural model (Steiner 1975/1988, Bassnett and Lefevere 1990, Even-Zohar 1990, Toury 1995, Venuti 1995, Snell-Hornby 1988, Hermans 1999, Tymoczko 2007); psycho-linguistic (Kring 1986, Bell 1991); textual (Neubert and Shreve 1992, House 2006); and social-constructivist (Király 2000, 2005, 2018).

This list serves merely as an illustration of the wide-ranging scope and interdisciplinarity of theoretical approaches used in the study of translation. It is the functionalist model, framed within the cultural-social turn, that will serve as a starting point of analysis for our study. The reason being that some of its aspects can still be applied and are relevant to translator training even with the advent of technologies.

Another change brought about by technology is the fuzzy identification of the traditional binary source text (ST) and target text (TT) which does not work anymore in many professional contexts. As Pym suggests, it may be more appropriate to call the source text, the start text since “there are often several competing points of departure: the text, the translation memory, the glossary, and the MT feed, all with varying degrees of authority and trustworthiness” (2013, p. 492). There are in fact many scenarios in which a start text or translation is used as a pivot for further translation (Moorkens 2019).

Hence both the traditional, contrastive models on which Translation Studies has been based and the dichotomy ST and TT are now being defied by the constantly changing technological landscape, where CAT tools and MT are used, which has consequently added more layers to the translation process. Furthermore, translation is not solely a cognitive process and there are new working workflows arising as a result of the widespread use of technologies by translation companies. Dorothy Kenny (2017) highlights a gap in translator training research on this matter and authors such as Paulsen-Christensen and Schjoldager (2011) and Bundgaard, Paulsen Christensen and Schjoldager (2016) also call for empirical studies that focus on this new translator cognitive process where technology increasingly takes centre stage and whereby new paradigmatic shifts need to be considered.

2.2 Paradigmatic shifts

Paradigmatic shift: ‘an important change that happens when the usual way of thinking about or doing something is replaced by a new and different way’. (Merriam Webster n.d)

Can we call this new phase in Translation Studies a paradigmatic shift? It was the scientist Thomas Kuhn (1970) who coined this term to define a change from one way of thinking to a new one driven by agents of change. He goes further to add that whereas in the scientific context, one paradigm (model or pattern) will replace another, in the humanities and social sciences paradigms can co-exist. The current agents of change in Translation Studies are technology and automation where paradigmatic shifts have been identified in the literature but where there are no empirical studies or theoretical models that consider the shift that will influence translation training in the future as a result of the use of technologies. O'Hagan (2013, p. 503) declares that “[...] technology per se has not made any significant epistemic impact on the academic disciplines of Translation Studies.” Kiraly (2000), for instance, describes a shift in the way that translation students are educated: from transmissionism, where the teacher passes down knowledge (top down, prescriptive approach), to social constructivism, where learners are empowered to carry out their learning experiences in a collaborative environment but on Kiraly’s model there is no mention to the technological turn that will ultimately affect what he posits. Gambier (2016) identifies two paradigmatic shifts evolving in parallel as a result of automation: one based on the paradigm of equivalence (the conventional concept of translation and the cultural turn), the other a paradigm brought about by technology and the web (the author limits his study to multimodal texts and platforms used online).

I go further in my analysis as I believe that technology has brought about at least two other major shifts that will have multiple consequences in the training of translators. In the introduction, I covered the paradigmatic shifts affecting languages and the profession in general (see article III for a full discussion). But if we focus on translator education, it is also safe to say that it is currently based on a top down approach: students have their work graded based on a prescriptive model, translation trainers produce programmes with marking guidelines which work as norms (prescription of what is linguistically and culturally correct and incorrect) and students’ work is marked accordingly against these benchmarks. This model has worked in the past, but is it future-proofed? This is meant to be a rhetorical question as only time will tell what the real impact of these shifts entails, and studies will be needed to find a way forward.

What is clear is that there is certainly a need to take technology into account in a context where localisation keeps growing as a translation industry activity. Mehmet Cem Odacıoğlu and Köktürk (2015) argue that historical models have been based on the literary and cultural traditions (linguistic and cultural turns). They claim that the reason why the technological turn has yet to take place is because localisation is an activity carried out by industry and not academia and hence scholars still need to address this paradigmatic shift to facilitate and acknowledge the actual technological turn.

Technology has brought about further concerns, as I describe in articles II and III: first, machine translation will produce better (more human-like translations) and students and translators alike will have access to it to produce their own translations; but most importantly, tracing where the data is coming from will be difficult to establish. Chiefly, bottom up practices such as crowdsourcing are becoming widespread and these can defy the prescribed norms, rules and conventions of a language as we stated in the introduction. These practices will consequently also defy the prescription governing assessments in the translation classroom. Our question is: how can trainers set prescriptive rules when bottom up practices become the norm? This is another area needing to be addressed in translator training.

Since this technological turn is now a reality (because technology is part of translation whether we like it or not), translation training is also influenced and hence this issue begs a few further questions: will the focus to assess students' work be based on linguistic ability if machines do the bulk of the work? What do we expect from graduates- mastery of mother tongue or technical ability, or both? These are crucial questions posited in this thesis for which I will shed some light later.

It is also useful at this stage to consider what we mean by the bottom up paradigmatic shift produced by crowdsourcing which is succinctly described and illustrated by Pym (2013, p.489): “When free MT becomes ubiquitous, as could be the case of Google Translate, uninformed users publish unedited electronic translations with it, thus recycling errors that are fed back into the very databases on which the statistics operate. That is, the potentially virtuous circle becomes a vicious one, and the whole show comes tumbling down.”

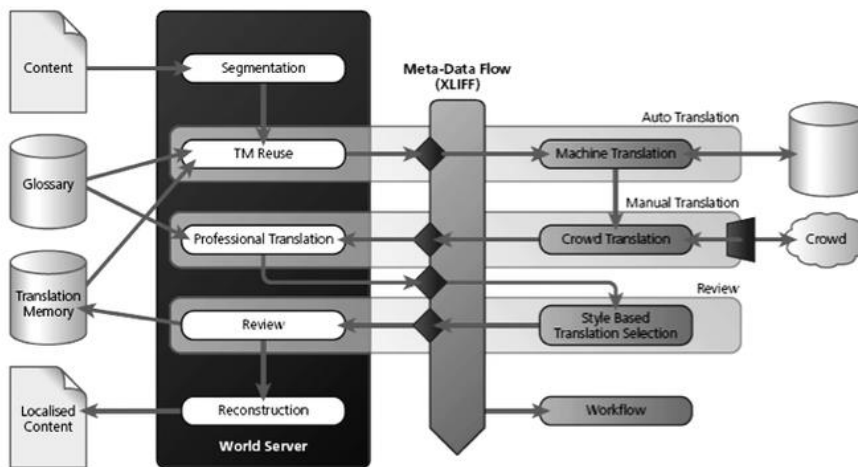


Figure 1. Localization workflow integrating volunteer translators. Carson-Berndsen, Somers, et al. in Pym 2013, p. 493.

Furthermore, this paradigmatic shift from prescriptive top-down to “difficult to trace” bottom-up practices affects Translation Studies, as we have seen, and it consequently entails an epistemological shift in translator training. The shift involves not only what we know and how we come to know but also what we do with what we know. This is the nature and the aim of this thesis where one of the goals is to carry out observations in translation companies and interviews with company managers to inform academic training practices and to experience first-hand the evolution of the profession and of the paradigmatic shifts described above. In the next section, we move onto analysing skopos theory and its applications in light of the increasing use of technologies in the profession to see if its principles are still valid in translator training.

2.3 Is skopos theory still useful and applicable to translator training?

Skopos means purpose in Greek. Skopos theory emphasises the importance of the purpose of texts and the fact that they cannot be analysed in isolation but within and for a given context. The theory was first propounded by Reiss and Vermeer in 1978, who were members of what is known as the German functionalist School. Since then, many translation scholars have been adopting this approach according to Nord (1997, p.129-136) and it has also been useful when introducing different types of texts to the translator student.

In translator training, functionalism is hence a methodological approach where the translator's decisions are governed by the intended function of the target text or any of its parts (Nord 1997, p. 138). According to this approach, the purpose of a translation is dependent on the expectations, knowledge, norms and values of target readers influenced by situation and culture. Nord suggests that a set of points be considered when embarking on the translation process. These set of points are known as the translation brief. The translation brief should contain (explicit or implicit) information about:

1. The (intended) text function (s)
 2. The target text addressee(s).
 3. The (prospective) time and place of text reception.
 4. The medium over which the text will be transmitted.
 5. The motive/purpose for the production or reception of the text.
- (Nord, 1997, p. 60)

Essentially, the translator brief helps to answer two basic questions: What is the communicative purpose of the text? (Purpose) and who is it for? (target audience). Translation trainers can create activities in the classroom where these two questions are explored by going over the use of different registers depending on the social context in which they are used. However, actual functionalist theories go beyond asking these questions. They put forward a theory of translation as action and intercultural communication. This is where the term translational action becomes useful and it can be further understood as a type of cultural mediation process where there are different actors. Holz-Mänttärri's work suggested six agents in the process of translation:

- the initiator. The person/institution that requires a text translating.
- the commissioner. The person/institution that engages the translator to do the translation, providing a translation brief.
- the ST producer. The person (or people) who writes the text to be translated.
- the TT producer. The person (or people) who writes the translated version of the text.
- the TT user. The person (or institution) that uses the TT. For example, this may be a company giving out translated versions of its instructional manuals.
- the TT receiver. The person (or people) that reads the TT: the readers of the hypothetical instruction manual in the previous example. (Adapted from Munday, 2016, p. 124).

The value of Holz-Mänttärri's work lies in that most of these actors' roles are still applicable to today's profession although, as we mentioned earlier, new technologies have produced new roles and new automated workflows. The project manager being an example of this.

In many cases, the translators' brief and skopos of a commission has also changed as a result of technology-mediated workflows (Alonso 2016) where translation memories and other mediated tools are used, and work amongst actors tends to be of a collaborative nature (i.e. more than one actor involved in a single commission). In localisation and in technical translation, Calvo Encinas describes these scenarios as a 'multi-layered brief systems' given their complexities:

These multi-layered systems may in turn comprise explicit and implicit instructions and constraints. Explicit directions are usually called project specifications rather than briefs or commissions in applicable industry standards (ISO 17100). Implicit constraints underlying those given instructions may require further research, and experienced, and well-trained project managers should bear those unexpected subordinating effects in mind. (2018, p.21)

Calvo Encinas (*ibid*, p.25) goes on further to suggest up to three types of skopoi co-existing in today's translation profession: type 1- virtual absence of explicit specifications (i.e no brief); type 2- explicit specifications covering basic functional data; and type 3 the multi-layered system itself. This third type includes the following elements:

- Indications concerning the degree of adaptation to target
- Compliance with domain or client terminology and/or style
- Detailed style guides
- Software and other technical configurations
- Instructions to cloud or remote translate in collaboration with other professionals
- Translation memories, automatic translation and post-editing instructions
- Mark-up language
- Glossaries, sources & references, parallel documentation
- Basic order information (words, rate, delivery date)
- Terminology databases
- Project management files or folders (kit) setting out instructions
- Question & Answers (Q&A) systems
- Application of technical standards and metrics (ISO, EN, DIN, etc.; MQM scorecard, LISA QA...)

While this seems wilfully complex, it helps to explain the multitude of actors that are needed to carry out translations in the multi-layered system and the amount of activities and actions that take place in the profession today as a result of automation. Abdallah and Koskinen (2007) also addresses how globalisation has had an impact on the traditional structure of the translation activity (the client, the translator and the end user of the translation) shaping new translation production networks, where the client and the translator no longer have direct contact because of the emergence of a myriad of intermediaries. There are also ethical implications attached to this multi-layered system such as anonymity and confidentiality in such a collaborative context and, although not the focus of this thesis, this is another topic that needs further research in the translation literature (Calvo Encinas, *ibid*).

Closely linked to the multi-layered system and linking it back to the paradigmatic shifts that we were referring to earlier is translation quality. Functionalist theories talk about adequacy of a target text- have translations achieved their goal? Vermeer, for example, considers that it is possible to justify translation choices in relation to goals (2004, p. 229) and trainee translators do this when they write a rationale or commentary to justify their translation choices. However, how does translator training adapt to the new multi-layered fitness-for-purpose system when dealing with quality assurance in the classroom? This is another point requiring attention in the literature as very little has been done so far (Moorkens et al. 2018). LSPs monitor their translations based on quality assurance systems to benchmark translation quality (for example LISA QA) and requirements for translation services ISO 17100 (2015) sets a series of guidelines. This is again a top down model. Another question for the future is whether academia should follow these in an attempt to bring industry practices into the classroom to replicate them, or if bottom up practices such as crowdsourcing will irrevocably affect the quality guidelines used in industry too.

In sum, and to answer the question under discussion, functionalist theories can be used both in the profession and in translator training albeit with different applications. Translational action suggests there is more to be a translator than just translating. Translation, undertaken for a purpose, is seen as a part of a process of communication where technologies have affected the original translator's brief described by Nord as it is now a multi-layered activity carried out by several actors. This point has been discussed in the literature with the sociological input of actor-network theories, see for example Risku et al. (2010), Koskinen (2008), Abdallah (2012), Olohan and Davitti (2014), Foedisch (2017).

2.4 Professionalisation of Translation Studies

David Katan in his article *Translation Theory and Professional Practice: A Global Survey of the Great Divide* (2009, p. 111) acknowledges that “classic trait theory suggests that a profession requires a number of minimum requisites, such as a well-grounded school of theory, influential professional bodies and professional exams” in order to be labelled a profession. He concludes from his survey that translators considered themselves professionals (with a self-image of pride in what they do as specialised wordsmiths) despite the apparent low status of the profession. Pym, Orrego-Carmona and Torres-Simón (2016) highlight the threat to the prestige of the profession imposed by scammers who pretend to be qualified.

The German Association of Translation and Interpreters (BDU) were pioneers in 1986 as they highlighted the need of collaboration between the academic and the professional world and to enhance the professional status of the translator. Years later, the French working group of the Fédération Internationale de Traducteurs (FIT, 1995) published the *Profil professionnel de la profession de traducteur* where market needs were described and the role and status of the translator as a profession called for (Kelly et al 2003). Gouadec (2007) in his book *Translation as a Profession* describes the various professional roles spurred by automation. The author advocates that market needs make technologies a necessary element in the profession and so there should also be a place for them in the training of translators. He also introduces the *European Master's in Translation* (EMT) network and their competences framework first created in 2009 by European universities under the auspices of the EU Commission Directorate General for Translation.

In translator training, there are now numerous studies that deal with the use of translation technologies in the classroom (Doherty, Kenny and Way 2012; Doherty and Moorkens 2013; Austermlühl 2013; O'Hagan 2013; Sikora 2014; Gaspari, Almaghout y Doherty 2015; Moorkens 2017; Rothwell/ Svoboda 2017; Ciobanu y Secara 2018). But, despite the immense revolution that technologies have brought to industry practices imposing new workflows, the realities of the profession also call for other transversal skills or competences, not just related to technology, that can be developed in the classroom to facilitate the transition into the realities of the workplace (see employability framework in article I). Moreover, although part of our study necessarily needs to touch upon these competences, the focus of this thesis is not on the description of all the multi-componential competence frameworks (see for example: PACTE 2001, 2005; Kelly 2005; EMT 2009; EMT 2017). Especially as they have been already debated and analysed in-depth by pertinent academic studies (see for example Pym 2003; Pym 2013; Plaza Lara, 2016; Yılmaz-Gümüş, 2017).

The EMT 2017 framework of translation competences however serves us as a reference point as it is the most updated competence model and it has been created with market needs in

mind for the sake of graduates' employability. It recognises the difference between skills and competences and borrows their definitions from the European Qualifications Framework (2013) as follows: skill "means the ability to apply knowledge and use know-how to complete tasks and solve problems"; whereas competence "means the proven ability to use knowledge, skills and personal, social and/or methodological abilities, in work or study situations and in professional and personal development (p.3).

The EMT framework is also immediately related to the work that I have been carrying out in the last few years as my active participation in the network has contributed to its development. Furthermore, the MA Translation Studies course at the University of Portsmouth has been part of the EMT since 2011 and its curriculum is in turn informed by the competences described in the framework in an attempt to professionalise translation training, which is the inspiration for this thesis' title.

2.4.1 The European Master's in Translation Competences Framework

The European Master's in Translation network first published its framework for translator and translation competence in 2009 with a goal "to improve the quality of translator training in order to enhance labour market integration of young language professionals" (European Commission homepage). The framework drawn up by experts defines the basic competences that translators need in order to work in today's market. The aim of the EMT project was hence to produce:

- a generic description of the tasks and competences of translators to match the needs of the translation industry and public bodies, such as the EU institutions
- a draft of a European model curriculum that addresses these requirements and could thereby enhance the status and quality of the translation profession (EMT 2009b: 1).

The framework has now become one of the leading reference standards for translator training and translation competence throughout the European Union and beyond, both in academic circles and in the language industry (Toudic and Krause 2017). The 2017 framework builds on its predecessor to take into account the impact of technologies in the profession, new service provision needs and employability of future graduates. Furthermore, it addresses technological advances (such as MT), use of social media in the profession and diversification in the variety of roles (transcreation and technical writing for example). Following a consultation involving the current network members (63 members from 22 countries) and language industry stakeholders, the new and revised EMT competence framework is also used to assess the delivery of a common set of learning outcomes by universities wishing to join the EMT network and for existing members to re-apply for accreditation.³

The current EMT framework is based on and informed by the work carried out on several other collaborative projects and initiatives between the EU Directorate General for Translation, LSPs and universities that analyse the skills needed in the translation profession. OPTIMALE (2011–2013), a spin off project of the EMT, was a key milestone in the identification and analysis of current competences.

³ More members will join the network when new accredited programmes are announced in June 2019

Crucially, there are several new developments in the latest framework, namely: the 2009 language and intercultural competences (previously two separate competences) appear as one in the new framework (language and culture), the 2009 thematic competence is now part of the superordinate ‘translation’. The 2017 framework also has a new personal and interpersonal competence to address the so-called soft-skills that ‘enhance graduate adaptability and employability’ (p.10). Data mining is now under the technologies umbrella which also currently includes the use of MT but did not in the 2009 framework.

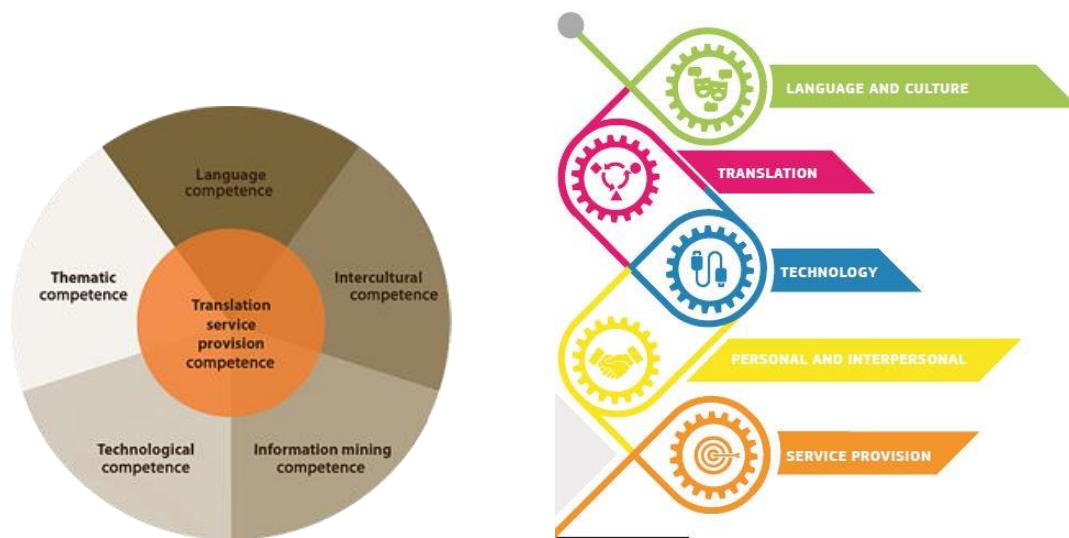


Figure 2.

Figure 2 EMT wheel of competences, 2009 and EMT framework of competences 2017 https://ec.europa.eu/info/sites/info/files/emt_competence_fw_k_2017_en_web.pdf

2.4.1.1 *Optimising Professional Translation Training in a Multilingual Europe (OPTIMALE)*

OPTIMALE (2011-2013) was a University Erasmus network created by the Directorate-General for Education and Culture of the EU to carry out the Project Optimising Professional Translator Training in a Multilingual Europe. A survey was distributed amongst employers to devise the following aims:

- To determine current and emerging competence requirements within the European translation industry, i.e. identify the competences that employers seek when looking to employ new staff.
- To provide input for further analysis and discussion during eight "regional" workshops bringing together academics involved in master's degree translator training programmes and industry players from across Europe.

- To provide a pan-European snapshot of specific competence requirements for graduates seeking employment in the industry and for programme directors seeking to improve the employability of their graduates in the translation professions. OPTIMALE (2012,10)

The starting point was not to discover the degree of linguistic and translation competence that translators had, but rather to focus on other competences that employers value and look for in their employees. The top ten essential skills identified were (in order of importance): ability to produce 100% quality translation, ability to identify client requirements, experience in the field of professional translation, ability to define and/or apply quality control procedures, a university degree in translation or related fields, awareness of professional ethics and standards, ability to use translation memory systems, ability to consolidate client relationships, ability to define sources required, and ability to lead complex projects and to produce estimates. Translation memory systems, or processing and converting files was considered essential or very important by three quarters of those surveyed, while the use of voice-recognition applications or the possibility of pre- or post-editing machine translated texts did not yet seem to be important requirements. However, the project identified the need for translation training centres to take these into account in the future.

The EMT network is composed of a board of experts and steering group members such as the ‘Traineeship and Professionalisation’ group and the ‘Translation Tools and Technologies’ group whose work had a direct influence on the updating of the current framework of competences (2017).

2.4.1.2 The crucial work of steering groups for the development of the EMT 2017 Framework

The 2015-2017 steering groups aimed to identify current and future needs in the translation industry and beyond such as impact factors: global market, regional markets and technology; changing competences and competence levels and new needs in industry and society as a whole and the consequent impact on translator training (EMT network meeting, 2015).

The steering group on ‘Traineeship and Professionalisation’ produced a survey on graduate employment and the future of the profession. The objectives were to:

- Build on previous work within EMT (wheel of competences 2009) and spin-off projects (Optimale, Agora, Transcert)
- Focus on translation graduates and their role in society: enhance status and visibility
- Assess impact of the EMT on graduate employment
- Strengthen links and exploit synergies with language industry organisations
- Identify changing needs and emerging professional profiles
- Identify changes required to EMT wheel of competences and current and future graduate trends in the translation industry and professions

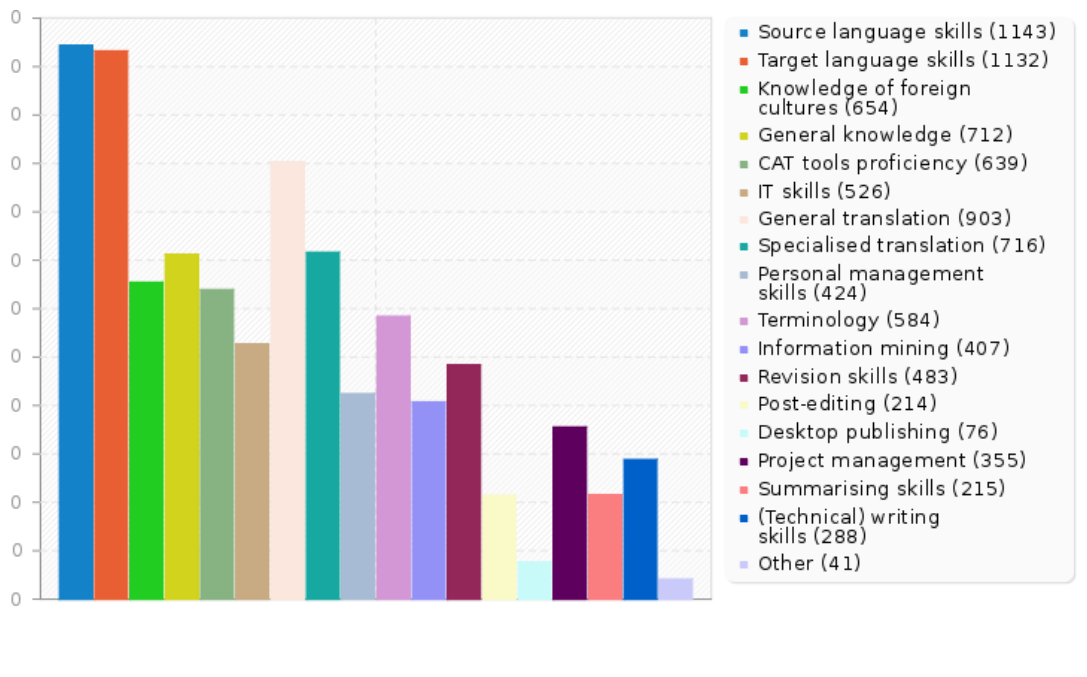


Table 4. EMT graduate survey 2016: skills most demanded by employers

The main objective was to understand the reality of access to the workforce by university students belonging to the EU DGT EMT Network. Over 1700 answers from graduates of 46 universities and 22 countries from EMT programmes responded (see table 4 above). 80% were in employment, 8.5% seeking employment, 56 % employed in the private sector, 15% in the public sector and 25% self-employed (Toudic 2017)

The survey included 25 closed questions and 3 open ones. The items considered were: training; employment; time required to find work; salary and level of satisfaction; internships; tasks during internships. Students were asked which competences acquired during their studies had been the most useful in their work. A list of 17 competences was developed (see table 3 above), generally based on the results of the previous study on the competences that LSP most valued and those that trainers considered essential or that were present in their programmes Krause (2017) and Valero-Garcés (2017). The results indicate that the higher percentage was for source and target language skills, which were ranked first and second respectively with CAT tools proficiency coming in fifth place of desired skills by employers (38.80 %). This piece of information is relevant for my study where I analyse on whose shoulders relies the training of linguistic versus technological skills.

The steering group on Translation Tools and Technologies (2015-2017) also distributed a survey in 2016-2017 amongst EMT members to find out about:

- Overall approach to tools training
- Types of translation technology activities
- Translation software taught and amount of licences
- Tools teaching and assessment themes

- Staff training, IT facilities and technical support
- 5- year horizon
- Good practices

It was built on the results of a similar survey on technologies carried out in the OPTIMALE project. The main findings were that all EMT members were teaching tools in their programmes including translation memories, terminology base, data mining, project management, corpora and MT use, Machine Translation Post-editing and cloud translation memories. The survey (Rothwell and Svoboda, 2017) also showed an increase in the percentage of tools especially in MT Post-editing (71%), Cloud TMs (69%) if compared to previous surveys. In sum, it showed that trainers were more prepared to teach tools, that programmes were responsive to industry needs and that networks with industry have facilitated knowledge exchange.

2.5 An employability framework for Translation Studies

Given the importance of technology in translation nowadays, bringing simulated professional practices into the classroom, calls for a previous reflection of how technologies can be introduced in the curriculum. However, technologies are just one parcel of what translator training entails today as we have seen in the EMT framework above. The employability framework for Translation and Interpreting Studies that I have adapted in article I from Cole and Tibby (2013) finds its roots in Kolb's experiential learning cycle (1984). Its general aims are:

- 1) to serve as a reflective exercise carried out by translation trainers to embed employability and enterprise skills in the curriculum
- 2) to ensure that every student participates in career-enhancing activities to learn through experience
- 3) to strengthen their personal development in preparation for employment

To avoid repetitions, I will not go into definitions here as this is covered in article I (see appendix 1). I will not describe the specific activities contained in each of the stages either. However, the framework illustrates the steps needed in order to bridge the so-called skill gap between academia and the professional world for the inclusion in the curriculum of professional skills.

The framework comprises a full cycle of four stages that are interlinked and describes how employability skills can be best achieved in the teaching and learning curriculum.

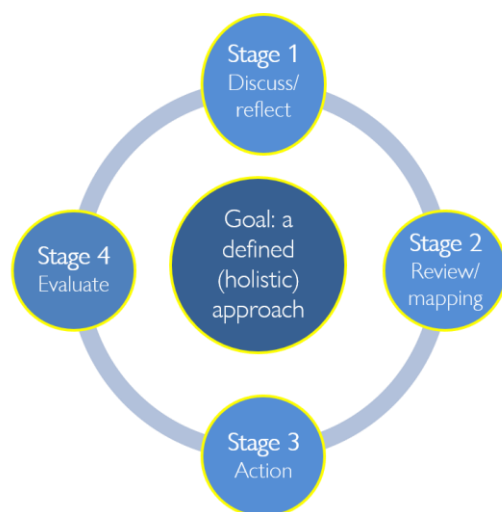


Figure 3. An employability framework for Translation Studies (adapted from Cole and Tibby 2013)

Stage 1. Discussion and Reflection

At this initial stage, an institutional analysis is needed to identify areas where employability skills need to be explored. Simulated professional practices can be incorporated via:

- a) Integrating simulated professional practices in the classroom through real translation projects and commissions. This is an increasingly popular activity as illustrated by Vandepitte 2009; Way 2009, 2016; Thelen 2014; Santafé 2014; Massey and Ehrensberger-Dow 2014; Kiraly 2016; Buysschaert et al 2018.
- b) As an extra-curricular activity by inviting professional translators and academics from other institutions to give seminars or workshops on current practices and research.
- c) Via curricular or co-curricular activities such as internships and work placements. (see Astley and Torres-Hostench 2017) for example.

Stage 2. Review Mapping

In the review mapping stage, specific features of employability are addressed and needs or gaps in the curriculum identified. As every institution will have its own needs, this is arbitrary however this is where gaps in teaching of technology or soft skills can be addressed.

Stage 3. Action

This stage reflects the actual incorporation of employability skills within the curriculum in the form of approved units whose learning objectives, outcomes and assessment address employability skills including digital tools used in industry.

Stage 4. Evaluation

This final stage links to the first stage of reflection. Once the changes have been applied and put into practice, formal feedback from students, colleagues and external stakeholders are treated as performance indicators to see what has worked.

This is a holistic process where contextual factors and settings are considered and teaching and learning goals need to be revised periodically. As we have seen in this chapter, translation training and education as a whole is being disrupted by the effects of technology and automation. Translation Studies needs to take stock of the paradigmatic and epistemological shifts caused by the increasing level of disruption.

Chapter 3

Methodology and results

This chapter is divided into two major sections. First, in PART I, I give an overview of the data that has been collected for each of the articles and the methods that I have used to carry out the research for this thesis. My research is interdisciplinary as it draws from branches of education, sociology and psychology. I use a mixed-methods approach that primarily focuses on qualitative analysis. As in triangulation, a mixed-methods approach involves the following: 1) the researcher employs more than one method; 2) she analyses different types of data and 3) the researcher employs several theories to answer the research questions (Brannen 2005, p. 12-13 in Abdallah 2012, p.9). The second part of the chapter (PART II) includes a summary of the results and findings of all the articles and the abstracts of the four published articles. Please refer to appendices 1-4 to access the full content of the articles. In chapter 4, I will reach conclusions based on the findings and will suggest further lines of research.

The research methods used in the compilation of this thesis are:

- Document analysis whereby I study and discuss a wide range of information relating to current translation training practices (articles I-IV)
- Focus groups:
This method was used for the completion of article II.
The article was written following the analysis of data of four focus groups dealing with the use of digital technologies by LSPs. Conversations were recorded, transcribed and data was analysed with the software N-Vivo. The findings appear in article II and inspired the content for articles III and IV.
- Ethnography, action research and phenomenology:
I carried out observations at translation companies in the United Kingdom and Spain where I witnessed first-hand the induction and initial training of graduates (Articles III and IV are based on the findings)
- Semi-structured interviews:
I interviewed translation company managers in order to find out about current industry needs so that I can ultimately propose pedagogical solutions based on societal needs that respond to the realities of the industry including changes brought about by automation (articles III and IV are based on the findings)

PART I- METHODOLOGY

3.1 Documentary analysis

This stage took place over the span of several years including those when I was an active participant of university collaborative projects already mentioned such as OPTIMALE and the National Network of Translation from 2011. The stage sets the foundations of this thesis as I became familiarised with the translation training practices that were being carried out in other parts of the UK and Europe. It was also when I came directly in contact with industry with whom I still collaborate in knowledge exchange activities leading to projects such as the European Master's in

Translation (EMT), European Language Industry Association (ELIA) exchange network and the European Graduate Professional Scheme (EGPS). The 2014 Portsmouth international conference on employability that I organised was in fact crucial for the development of my research lines as it was the incubator for a special issue in the Journal *the Interpreter and Translator Trainer*, which I co-edited and was published in 2017. The seeds were planted during these pre-doctoral years where fruitful collaborations were paved with other academic centres, companies and translation institutions.

This documentary analysis stage ⁴hence fomented the ideal background for defining key participants in my research, carry out an analysis skills gaps in the training of translators in my institution and posit research questions that have been answered in the four published articles contained within this thesis.

3.2 Focus groups

Using a focus study method with UK LSPs, my contribution to the project “When Translation meets Technologies: Language Service Providers in the Digital Age” ⁵investigated current training practices in the use technologies. Amongst its conclusions were a perceived technological translators’ skills gap to meet industry’s demand and a lack of resources within smaller LSPs for training translators with new technological tools. Our methodology approach, qualitative and interpretative, was based on four focus group sessions, of approximately two hours each, where a total of sixteen project managers from the translation industry participated (to avoid repetition here, see Article II for further details).

3.2.1 Method

Given the vast amount of information recorded, we decided to use the software N-Vivo to analyse the data. Welsh (2002, n.d) suggests that this method improves the quality of the data analysis stage and that it adds rigour to the analysis because themes within the conversations are cross-referenced, making results more valid. We also carried out an audit trail which according to Bowen (2009, p. 307) involves “the systematic recording and presentation of information about the material gathered and the processes involved in a qualitative research project”. Following this technique, based on grounded theory (Glaser & Strauss, 1967), each question was coded by two researchers (i.e. different themes or emerging concepts were labelled individually) and then all codes were compared systematically to ensure coding reliability.

Themes were consequently identified within the threads in preparation for the writing up of findings and conclusions. Article II describes this research method in detail as this is where my findings were published. On Article III, my research takes a different tack. Once we identified who trains translators with new technologies in the project, I wanted to investigate how much emphasis translation companies give to technological skills in comparison with others (especially mother tongue expertise). Findings were also summarised in the ITI Research Network e-book in 2018. (See appendix 2 for full chapter and appendix 5 for summary of findings).

⁴ Discussions with stakeholders and testimonies (students, trainers, translation companies) together with my own experience as a translator and translator trainer since 1997 also add to this documentary stage

⁵ University of Portsmouth Faculty of Humanities and Social Sciences funded project (2016-2019)

3.3 Ethnography, action research and phenomenology

As a linguist with a background in translation and languages, I have been cautious to use these terms borrowed from Sociology and Psychology. After attending seminars carried out by ethnographers and given that I would carry out workplace observations at translation companies, it was clear that ethnography and action research were terms that described my activities, thus were deemed very relevant to my study. Similarly, scholarly research based on phenomenology in Education to carry out classroom observations (Schratz, M. et al. 2013) was going to be useful for the type of methods carried out during the workplace observations.

3.3.1 Ethnography and action research

Several translation scholars have used ethnography in their studies (for example Koskinen 2008; Abdallah 2012; Kuznik 2010). They describe translators' activities in the workplace. Saldanha and O'Brien (2014, p.205-203) in their book *Research methodologies in Translation Studies* also devote a chapter of their book on context-oriented research highlighting the use of ethnographic models in the translation field.

Part of my study focusses on observations of the training provided to budding translators by translation managers. I spent a week at two translation companies shadowing trainee translators during their induction activities. Koskinen (2008) analyses ethnography and links it to action research where the researcher engages with the research object of study. This can be classed as participatory observation where the researcher becomes part of the research. Ultimately, workplace studies are based on participant observations and result in a written account of findings which is the task that I had in hand. This involves a vast amount of reflection and it is the reason why Abdallah (2012, p.9) advocates qualitative-type studies, such as Multimethods QUAL studies, to justify their relevance in workplace observations research. McNiff (2013, p.28) suggests that an action researcher's own "learning will transform into purposeful personal and community action for social benefit" to promote or facilitate change. This is all very much at the core of my research where I strive to provide meaningful education to future professionals by discovering professional training practices and being participant of activities carried out in the workplace to bring into the classroom as part of research informed teaching.

Collaborating with translation companies to ascertain my research interpretations has also been vital in this process, hence I have engaged with them before, during and after observations took place to be able to meet research goals first and to verify the collected data afterwards. I have also taken part in numerous workshops, seminars and events revolving around this thesis' theme. My research questions hence relate to finding out about the training new translators receive at translation companies. Crucially, by immersing myself in the training cycle, I become a participatory member of the research and this is where phenomenology enhances the experience.

3.3.2 Phenomenology

Merleau-Ponty's philosophy of understanding the world as well as engaging with it has influenced studies especially in Psychology. Amedeo Giorgi explains that:

in the Descriptive Phenomenological Method there are both descriptive and interpretive moments, but the researcher remains careful to attend to each type of act in unique ways. Through a sort of empathic immersion with the subjects and their descriptions, the

researchers get a sense of the ways that the experiences given by the participants were actually lived, which is in turn described. During this process, however, theoretical or speculative interpretation should be avoided so as to flesh out the full lived meaning inherent to the descriptions themselves (Giorgi, 2009, p. 127)

Phenomenology (Finlay 2008, 2009) allows the observer to see things with fresh eyes to imbue herself in the novelty of the new training surroundings. This facilitates an open mind to engage and go beyond the trainer's already established knowledge. The way this process was carried out is summarised below under methods and is further explained in articles III and IV.

3.3.3 Methods

Observations were complemented by interviews to offer an insight into the thoughts of translation managers. Observations took place in two different settings over a period of one week each- at UK and Spanish companies. The key question during the observations was- what does the company training involve? After approval from my faculty ethics committee, the companies were accommodating and welcomed me to sit through and participate in the trainees' induction period. The aim was to find out what exactly was taught to a budding translator after they leave academia. This is where everything that I observed was noted down including musings and personal remarks as part of the phenomenological process described above. This qualitative approach helped to analyse data from a subjective point of view. The findings have been discussed with stakeholders (academics and industry) in different seminars and events to test the validity of the data and the results that it has shed. See articles III and IV for a detailed description of workplace observations activities and methods.

In-depth semi-structured interviews on the other hand complemented the data gathered during the observations. Eight different translation company managers were asked the same questions to shed light on the research questions (see article IV). Following Abdallah (2012, p.14) "Qualitative research often focuses on small samples, which are purposefully selected" in order to select information-rich cases which are studied in-depth. My main interest was to find out where language expertise was placed in relation to technological skills, namely what skills were prioritised at their workplaces. I analysed the threads of each interview thematically and conclusions appear on article IV. In general, it was found, as a way of corroboration with recent surveys included in this thesis, that despite the hype given to new technologies both in academia and industry, budding translators need to master their own mother tongue as a pre-requisite to enter the profession. This seems like a logical finding, but it reinstates the role of academia as a centre for the training of proficient linguists first and foremost.

In conclusion, a mixed-methods qualitative approach has allowed me to reflect on current translation training practices. They complement the findings obtained, they also suit this type of thesis where research questions have been refined as each article was written.

PART II- RESULTS

3.4 Summary of results

This part of the thesis presents a summary of the contents of the articles. The results themselves can be found in the form of the complete articles in the appendices. Conclusions deriving from findings will be drawn in chapter 4, the final chapter.

As stated at the beginning, the articles considered for the compilation of this thesis are presented below. They follow a chronological and a logical sequential order as they all relate to the same research questions:

Article I (see Appendix 1)

- Rodríguez de Céspedes, B. (2017) “Addressing Employability and Enterprise Responsibilities in the Translation Curriculum” in Rodríguez de Céspedes, B. Sakamoto, A and S. Berthaud (eds). Special issue of the *Translator and Interpreter Trainer*. *Employability in the Translation and Interpreting Curriculum*. 11. Vol 2-3.

Article II, this is in fact a chapter in a book, but I use the word article for ease of reference in the thesis. (See Appendix 2

- Rodríguez de Céspedes, B. (2018) “Mind the gap: Language Service Providers’ perceptions of the technological training of professional translators” in Postigo Pinazo, E.(ed) *Nuevas tecnologías, procesos cognitivos y estrategias para la optimización de las competencias del traductor e intérprete*. Berlin: Frank and Timme.

Article III (see Appendix 3)

- Rodríguez de Céspedes, B. (2019). “Translator Education at a Crossroads: the Impact of Automation”. *Lebende Sprachen*. 64 (1).

Article IV (see Appendix 4)

- Rodríguez de Céspedes, B. (forthcoming- 2020) “Beyond the margins of academic education: finding out translation industry training practices through action research.” *Translation and Interpreting journal*. 12 (1).

3.5 Abstracts

The sections below are the abstracts of the three double-blind peer reviewed articles and the chapter published in a book. They are presented in chronological order. After this section, I summarise main findings deriving from the research outputs in section 3.6.

3.5.1 Addressing employability and enterprise responsibilities in the translation curriculum

Special issue of the Translator and Interpreter Trainer. *Employability in the Translation and Interpreting Curriculum*. (2017). 11. (2-3).

Abstract

This paper discusses ‘employability’ in Translation Studies in the UK. After a review of current practice and developments, I suggest an adapted working framework that can be applied by Translation and Interpreting Higher Education Institutions (HEIs). I will argue that no single prescribed model can be applied to all institutions but that a holistic and collaborative approach is needed for a realistic implementation of employability practices in the curriculum.

The context of the research on which the paper is based is the current conversations between HEIs and industry stakeholders. Efforts have been made to bridge the gap, but, according to recent studies, graduates still seem to be lacking certain professional service provision skills that are needed in industry. Employment has become a major concern in Higher Education as few will have a job for life given the current economic environment. Hence, graduates today are better placed if they have been encouraged to develop flexibility and adaptability. HEIs must thus now also address employability skills which, as the paper explains, have come to mean more than just finding employment. The research reported in the paper derives from an evaluation of the University of Portsmouth’s Master in Translation Studies where employability and enterprise skills are embedded and are examined critically in the light of the new context.

Keywords: Employability, entrepreneurial skills, translation curriculum, translation competences, labour market

3.5.2 Mind the gap: Language Service Providers' views on the technological training of professional translators

Chapter in book: *Nuevas tecnologías, procesos cognitivos y estrategias para la optimización de las competencias del traductor e intérprete*. Postigo Pinazo, E.(ed). Berlin: Frank and Timme. (2018)

This chapter gives the most recent insight from the translation industry where data was collated from Language Service Providers in the UK to try and elucidate these questions: how do technological innovations affect the process of translation and translator training? How have these changes been reflected in professional practices so far? How well are professionals equipped with the latest digital tools? Who provides the training and who should?

Translation training has changed as technologies have advanced from pen and paper, through machine assisted translation to human assisted machine translation. More recent developments such as Statistical Machine Translation (SMT) and Neural Machine Translation (NMT) have brought about a highly complex set of contexts meaning that skills training for translators has become increasingly layered, raising the question of where these new technological skills should be taught and by whom. Language Service Providers (LSPs) agree that they deal with employees that possess different levels of expertise in the use of digital tools and they acknowledge the so-called gap between academia and the professional world. Our recent research with LSPs identified exactly what requirements they have for their translators in terms of the provision of training on digital tools, before going on to look at the types of digital tools used by project managers and information on who should provide the training. We found that there is an expectation that LSPs provide training for project managers as the digital tools that they use on a daily basis are tailored to the company's needs. However, the story is very different for freelance translators who are expected to join LSPs with the necessary technological skills for the industry. Freelance translators can seek training opportunities from universities, technology vendors or professional institutions. Some companies are naturally affected by cost and lack of time to provide digital tools training both to freelancers and in-house members of staff. However, the bigger the company, the more resources they have to provide training both to translators and project managers including internship programmes and structured in-house training. The situation is further complicated by the varied range of tools across companies, with some LSPs relying on digital tools more than others and some companies avoiding use of MT because of the lack of training provided.

3.5.3 Translator education at a crossroads: the impact of automation

Lebende Sprachen 2019, 64 (1)

Abstract

Automation is affecting all spheres of our daily lives and humans are adapting both to the challenges that it poses and the benefits that it brings. The translation profession has also experienced the impact of new technologies with Language Service Providers adapting to changes (Presas/ Cid-Leal/Torres-Hostench 2016; Sakamoto/ Rodríguez de Céspedes/ Evans/ Berthaud 2017).

Translation trainers are not oblivious to this phenomenon. There have indeed been efforts to incorporate the teaching of digital translation tools and new technologies in the translation classroom (Doherty/ Kenny/ Way 2012; Doherty/Moorkens 2013; Austerlühl 2013; O'Hagan 2013; Gaspari/ Almaghout/ Doherty 2015; Moorkens 2017) and many translation programmes in Europe are adapting their curricula to incorporate this necessary technological competence (Rothwell/ Svoboda 2017). This paper reflects on the impact that automation and, more specifically machine translation and computer assisted tools, have and will have on the future training of translators and on the balance given by translation companies to language and technological skills.

Keywords: automation and translation training; future-proofing the profession; training the trainers.

3.5.4 Beyond the margins of academic education: finding out translation industry training practices through action research

Translation and Interpreting Journal. Issue 12 (1). Spring 2020 (Accepted 28 March 2019)

Abstract

Digital technologies in the translation profession have given rise to the use of automated Computer Assisted Translation (CAT) tools and Machine Translation (MT), and Translation Service Providers are embracing these innovations as part of their workflows. Higher Education Institutions are also transforming their curricula to adapt to the changes brought about by technology (Doherty, Kenny, and Way 2012; Doherty and Moorkens, 2013; Austermühl 2006, 2013; O'Hagan 2013; Gaspari, Almaghout and Doherty 2015; Moorkens 2017; Rothwell and Svoboda 2017; Mellinger 2017).

This research takes a phenomenological and ethnographical approach using action research as the methodology to see how the new digital skill-sets are taught and used in the translation industry. As a trainer-researcher, I stay at translation companies to immerse myself in the training given to new employees. The results of this qualitative-type research derive from observations typically involving the trainer spending a full working week at the employers' premises. The data set is hence collected based on workplace observations within the companies and semi-structured interviews with translation company managers.

This approach permits a very full understanding of the skills needed in the translation profession. What has been learned in the workplace can be applied at university in the training of future translators. Preliminary work suggests that MT and Artificial Intelligence (AI), while transforming the profession in many ways, are not yet overriding the need of sophisticated linguistic skills from trainee translators.

Keywords: action research and translator training; automation and translator training; future-proofing the profession.

3.6 Summary

How are all the four pieces of research linked together? As mentioned before, the outputs have been presented chronologically in the appendices for a reason as we will see from the rationale below.

Article I introduces a key term that describes the nature of the whole thesis: employability. I argue that the definition of this term does not exclusively entail the ultimate goal of graduates finding employment but rather the means to get there. As educators, we are facilitators. This means that we are responsible of providing a curriculum that takes societal and contextual needs into account. The employability framework for Translation Studies in article I provides a bird's eye view of elements that need to be in place to achieve this. It sets the scene for educators to create programmes of study that are meaningful in their national contexts and their educational settings. This is the reason why a holistic approach is suggested in the article whereby educators reflect on their own settings and practices to consider what works for them in their institutions and what needs to be changed. This is the basis of action research, one of the methodologies used in this thesis, a method used with the goal of promoting or facilitating change and whereby my research is a vehicle to make it happen. The article presents the work of OPTIMALE, the EMT and other collaborations between academia and industry to highlight the necessity of engaging industry in academic issues. Although the article illustrates the incorporation of enterprise skills in the translation curriculum, this is just one example of a skill we found needing attention in my own educational setting. Next, I wanted to find out about technological skills and therefore the focus of the next three articles revolves around the study of the impact of technology in translation training and the profession always with the premise of taking employability skills in mind.

Article II

The findings of article II derive from the data gathered from four focus groups. The Portsmouth translation research group set out to find out the technologies most widely used by LSPs and those that were being more impactful in their work. We invited sixteen project managers to our university and each academic in the research group dealt with a set of questions that were analysed thereafter (see appendix for specific details). As my research area is translator training, the focus of my research analysis was to ask the project managers from the LSPs these questions: who provides technological training for translators and project managers and who should (academia or industry)? Answers varied as the findings testify. This is why I was curious then to turn to translation companies to conduct workplace observations and in-depth interviews. This involved a change of angle in the research and the methodology, this time I would visit translation companies to learn first-hand about training practices. Giving the difficulty of timing visits around teaching and the companies' own training schedules, I have been able to conduct research in one company in the UK and one in Spain. This is an activity that translation trainers can carry out to find out for themselves rather than from having members of industry visiting our institutions.

Article III

Following the findings from article II, Article III analyses the impact of automation in the profession. It introduces the paradigmatic shifts referred to in chapter 2 (theoretical background) brought about by automation and it showcases the preliminary findings from the workplace observation in the UK. The case study focuses on the training cycle provided by the company and it illustrates the first steps of a novice translator in the translation industry. The methodology comprises observations and an in-depth semi-structured interview.

Article IV

This last article expands on Article III's findings. Whilst Article III provided a literature review and the preliminary case study based on the first workplace observation, a comparison is made between visits to the UK and Spanish companies in article IV. Moreover, the findings derived from the interviews of the eight translation company managers from the UK and Spain are revealed. The methods used for this article also expand on the previous article's methods, it adds another workplace observation and further in-depth interviews to be able to draw conclusions from my research activities.

Chapter 4

Conclusiones y futuras líneas de investigación

Nos adentramos en este último capítulo para analizar lo que hemos aprendido durante el trayecto de nuestra investigación y, para empezar, recordamos los principales objetivos tal y como aparecen al inicio. Estos han sido: la presentación de un marco de referencia para la empleabilidad en los estudios de traducción (Artículo I), el análisis del impacto de la tecnología en el mundo de la traducción (Artículos II y III) y la reflexión y análisis del estado de la formación de traductores en la actualidad para prever futuros cambios curriculares y poder responder tanto a necesidades sociales como a las de mercado (Artículos I-IV).

El hilo conductor de los cuatro artículos y, por ende, de los objetivos de esta tesis es la profesionalización en los estudios de traducción. La abordamos de forma general, aunque con pinceladas europeístas debido a los proyectos en los que hemos participado y que han influenciado la evolución de nuestro propio programa de traducción en la Universidad de Portsmouth. Contamos con la premisa de que cada contexto institucional posee necesidades distintas y de que cada institución podrá usar el marco de empleabilidad presentado en esta tesis de acuerdo con sus planes curriculares.

Nuestra investigación, dentro del área de la didáctica de la traducción, se nutre de teorías, metodologías y fuentes variadas que apoyan nuestras preguntas de investigación como observamos en los capítulos dos y tres. A lo largo de esta tesis, hemos planteado una serie de preguntas y en los siguientes apartados pasamos a examinarlas para poder llegar a ciertas conclusiones y sugerir futuras líneas de trabajo e investigación.

4.1 Papel de la universidad

Nuestro estudio se centra principalmente en el impacto de la tecnología y competencias actuales en el mundo de la traducción y didáctica de la traducción. Si bien, no se adentra en los cambios que las tecnologías han causado en el mundo académico en general. La universidad está pasando por un periodo delicado pues los patrones tradicionales, en cuyos pilares se asentaba, están experimentando un cambio drástico debido al mundo tecnificado en el que vivimos (Castañeda, 2015). La universidad ha sido siempre el centro de conocimiento por antonomasia; ahora bien, para sobrevivir como institución, deberá adaptarse a los cambios impuestos por la tecnología para no quedarse anclada en el pasado y perder el prestigio reconocido a lo largo de los siglos.

Las instituciones académicas deberían atender asimismo a un compromiso social, tal y como se plantea en el artículo I. Para ello, futuras generaciones de estudiantes universitarios deberán formarse no solo en disciplinas temáticas sino también en habilidades transversales como por ejemplo la flexibilidad y la diversificación. El futuro de la profesión es incierto, y por esta razón, las nuevas generaciones bien formadas y con conocimientos profundos de la lengua podrán afrontar nuevos escenarios profesionales.

Por otro lado, una de las dificultades a la que nos enfrentamos los docentes actuales es la incertidumbre que viene de mano de la automatización y el imparable crecimiento en el uso de las tecnologías del mundo que nos rodea. La realidad es que formamos a nuevas generaciones para un contexto laboral en el que aparecerán nuevos perfiles que difieren de los tradicionales, para puestos

de trabajo que aún no existen pues las tecnologías harán que irrumpen en el mercado laboral en un futuro no muy lejano. Por otro lado, la industria de la traducción ya nos advierte que los egresados en muchos casos no cumplen con los requisitos necesarios para el trabajo en empresa y que, sobre todo, se notan deficiencias en el plano tecnológico (tratamos este tema en los artículos II y III).

Nuestra investigación por ello se ha centrado en analizar la realidad en que nos encontramos en la actualidad para poder dar respuesta a algunas de las preguntas que nos planteamos en los artículos II y III: *Are employers finding that applicants have the competences they require? (OPTIMALE final report, 2013). What is the employers' position on "who" should teach "what"? What are we training for?*

No existe una respuesta general y categórica a estas preguntas pues todo depende del contexto en el que nos encontremos. Eso sí, la investigación llevada a cabo en el artículo II nos confirma que en el Reino Unido se espera que las universidades introduzcan el uso de las herramientas TAO y conocimientos de nuevos flujos de trabajo automatizados, incluido el papel del gestor de proyectos (profesión cada vez más común entre los egresados que acceden a su primer puesto de trabajo en el Reino Unido, según nuestra experiencia). Nótese que empleamos el término “introducción” pues en general las empresas están dispuestas a ofrecer formación avanzada de las herramientas más usadas en el sector como se desprende de nuestro estudio. Asimismo, cotejamos datos de distintos sondeos del mundo profesional y académico; y realizamos observaciones en empresas en Reino Unido y España (artículo III y IV) que confirman que en general se espera que las universidades se sigan centrando en actividades lingüísticas pues, a pesar del auge de las tecnologías, el traductor debe ser ante todo experto en lenguas. El marco de competencias de la red EMT (2017) asimismo asume que los formandos posean un alto nivel de lenguas y conocimientos culturales como requisito indispensable.

Esto responde en parte la pregunta de investigación que nos hacíamos al comienzo: Con el aumento de las nuevas tecnologías y la automatización ¿qué papel desempeñan por un lado la universidad y por otro las empresas en lo que concierne a la formación de futuros traductores profesionales desde el punto de vista lingüístico y tecnológico? Los datos que se desprenden del artículo cuatro, nos dejan entrever una diferencia contextual: en general en España se da por sentado que los alumnos de traducción tengan un nivel avanzado en las lenguas que estudian y su propia lengua materna. En el Reino Unido existe actualmente un desinterés generalizado por el aprendizaje de lenguas extranjeras. No son obligatorias en las escuelas y se ha detectado una disminución en el número de alumnos que deciden optar por ellas durante la educación secundaria (EUATC, 2018). Esto ha provocado cierta inquietud en las empresas de traducción y de servicios lingüísticos a quienes se les hará cada vez más difícil emplear a candidatos que posean el inglés como lengua materna. En España, por lo contrario, se fomenta el estudio de idiomas incluso desde antes de la escuela y existen numerosos centros donde se forman a futuros traductores. A nivel de postgrado, existen también másteres especializados en tecnologías o localización que atienden a las nuevas tendencias de la industria tanto en España como el Reino Unido.

Percibimos pues distintas tendencias en la preparación que, en general, poseen los egresados de ambos países cuando se adentran en el panorama laboral. Si bien, los directores de empresas de traducción entrevistados para este estudio de ambos países siguen confirmando que ante todo los nuevos empleados deben manejar su idioma a la perfección. Este es un dato que nos interesa en especial si el papel de traductor puede que se vea reducido a corto plazo al de poseedor en ciertos nichos del mundo laboral (Austermühl 2013, García 2011, Slator 2018).

A nivel europeo, el marco de competencias de la red de másteres europeos EMT también nos ha servido de referencia para evaluar las competencias necesarias para ser traductor profesional hoy día y pasar a incluirlas en nuestro programa de máster de traducción. Como vimos en el capítulo 3, el marco de competencias de 2017 se ha realizado con la participación de empresas de traducción y grupos de trabajo capitaneados por académicos expertos.

Otro punto tratado en el apartado teórico de la tesis se centra en los cambios paradigmáticos surgidos a consecuencia del uso de la traducción automática y el *crowdsourcing*. En particular, está por ver qué tipo de enseñanza y sistema de evaluación utilizaremos los formadores en el futuro; primero, para comprobar el grado de autoría de las traducciones del alumno; y segundo, para dotar a sus trabajos de una nota que refleje la calidad de sus traducciones. ¿Qué métodos de calidad prescriptivos se usarán una vez que la traducción automática esté omnipresente?

La diferenciación de distintos nichos dentro del sector de la traducción que predice Peter Reynolds en la figura 4 de abajo (ITI Research Network meeting 2019) nos presenta un panorama esperanzador pues significa que la universidad podrá seguir siendo centro de formación y especialización en lenguas en dos de estos nichos en particular como pasamos a ver.

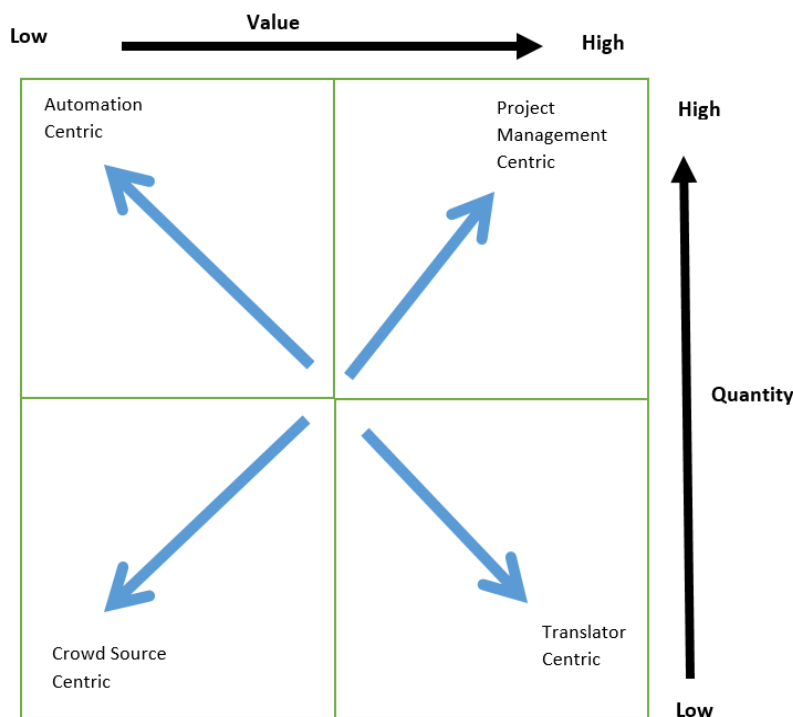


Figure 4. Nichos de traducción (Reynolds, ITI Network meeting 2019)

Reynolds (2019) representa la industria de la traducción basándose en dos ejes principales: valor y cantidad. La parte inferior izquierda representa valor y calidad bajos, actividades que no son de carácter profesional ni suelen ser remuneradas (mensajes traducidos en redes sociales, traducciones de uso personal, *crowdsourcing*). En la parte superior izquierda estarían las grandes empresas de software (uso de traducción automática generalizado y gran número de palabras que necesitan traducción de forma rápida).

En contraposición, en la parte superior derecha residen valores y contenidos de alta calidad. Nos referimos a proyectos de gran envergadura donde la calidad es esencial (sectores gubernamentales,

instituciones, márketing, ciencia y legislación, por ejemplo). La parte inferior derecha representa la traducción profesional de alto valor, pero de menor volumen de palabras que la anterior. Se trata de las traducciones llevadas a cabo normalmente por un solo profesional de la traducción y donde los plazos de entrega son cortos (traducciones especializadas). La universidad como centro de formación puede centrarse en la adquisición de destrezas necesarias para acceder y contribuir a la parte derecha del esquema.

A su vez, uno de nuestros papeles como formadores será el de conocer las tendencias de la industria para poder reaccionar ante nuevos avances en inteligencia artificial. Aunque esta práctica (el de la academia al servicio de la industria) pueda llevar a la mercantilización de las universidades (Molesworth, Nixon and Scullion, 2009; Castañeda 2015), existen también implicaciones éticas que nos competen. Los formandos invierten tiempo y dinero en su formación académica con la misión de abrirse hueco en el plano profesional, aunque, dependiendo del contexto geográfico, no siempre lo consiguen (The Guardian 2014 y 2018). Nuestra tarea es pues presentarles la realidad laboral y dotarles de conocimientos transversales tales como la empleabilidad y el emprendimiento para que se encuentren informados y preparados para el mundo laboral (Artículo I).

Por otro lado, las observaciones llevadas a cabo en nuestro estudio y las entrevistas con empleadores (además de los últimos sondeos y marco de competencias EMT) han confirmado que, pese a los avances tecnológicos, el papel del traductor como experto en lenguas y mediador intercultural es vital. La colaboración con empresas de servicios lingüísticos es por ello esencial para los formadores pues nos presentan una ventana al panorama actual y nos aporta conocimientos actualizados que podemos transferir al alumnado.

En cuanto al campo de la didáctica, una propuesta formativa que pensamos que puede ser útil en la formación de traductores es la de escribir en la lengua materna para distintos contextos. En este sentido la teoría del escopo que tratamos en el capítulo 2 sigue siendo pertinente pues defiende la práctica de la creación de textos para distintos contextos. Asimismo, las tecnologías encuentran su hueco pues la teoría del escopo posibilita que se puedan llevar a cabo análisis multi-componenciales con más de un escopo (cf Calvo Encinas 2018) como observamos en el capítulo 2. Las nuevas generaciones son ávidos consumidores de información rápida (influencia de las redes sociales), basta hacer un sondeo en clase para confirmar que aquellos que leen periódicos son una minoría. Si volvemos a centrarnos, como en el pasado, en clases de análisis y escritura de textos (cualquier tipo de texto), adoptaremos actividades pedagógicas que se enmarcan en la escuela funcionalista (Rodríguez de Céspedes y Jeffcote 2001; Colina 2003) pues todo texto se ha escrito con una finalidad y nuestra propia finalidad formativa será la de enriquecer su lenguaje escrito en determinados contextos en los que no se encuentran familiarizados. De esta manera, contribuiremos a su vez a que se perpetúe la capacidad crítica, analítica y creativa del formando, llamémoslo el factor humano frente al de las máquinas. Con ello, el perfeccionamiento de la lengua materna, que atiende a conseguir el dominio de matices semánticos y expresivos, permitirá que el trabajo de los humanos se diferencie del de las máquinas. Los humanos seremos pues especialistas en lenguas y la automatización se usará por y para beneficio de los humanos. No hablamos de ciencia-ficción ya que, tal y como hemos observado en esta tesis, en ciertos contextos la traducción automática está consiguiendo resultados aceptables y el trabajo del traductor se reduce a corregir errores cometidos por la máquina. De hecho, Toral y Way (2018) realizaron un estudio basado en los resultados de traducción automática neuronal en trabajos literarios. Concluyeron que la calidad de la traducción neuronal (llevada a cabo por ordenadores en dos de las tres novelas traducidas del inglés al catalán) poseía un índice de calidad y equivalencias similar al de las realizadas por humanos en un tercio de los casos. Los que analizaron las traducciones realizadas por las máquinas eran

traductores profesionales. Queda patente por tanto la capacidad que están adquiriendo las máquinas para simular la traducción realizada por humanos quienes hoy por hoy aún siguen teniendo la última palabra.

4.2 Nuevos y futuros perfiles profesionales

El análisis de tendencias actuales nos ha servido de reflexión para prever cambios en la formación de traductores. Cabe destacar los nuevos perfiles que se abren camino en el mundo profesional debido a la automatización. Como consecuencia de ello, la nomenclatura de la figura del traductor (Sakamoto 2018) ha experimentado un cambio pues el acto traslativo es ahora colaborativo. Es decir, el traductor es una figura más dentro del flujo de trabajo donde, en muchos casos, la cadena automatizada y colaborativa empieza con un gestor de proyectos y acaba con un poseedor (Gouadec 2007) y donde la dicotomía texto origen- texto meta ha quedado obsoleta en aquellos contextos automatizados como vimos en el capítulo 2.

Debemos preguntarnos pues dónde se encuentra el valor intrínseco del papel del traductor, perfil en el que se ha centrado la tesis, y si quizás en un futuro no muy lejano este término dejará de usarse para dar la bienvenida a otros nombres que describan su nuevo papel.

El de poseedor, es una de las posibilidades, cuyo papel radica en controlar la calidad de los textos tras ser traducidos de forma automática (Austermühl 2013, Garcia 2011, O'Brien 2011, Moorkens et al 2018). No coincidimos con Fauces (2018) en que este papel sea desempeñado por un traductor junior, pues pensamos que se alcanza la especialidad en cualquier nicho tras años de trabajo en el sector, aunque también es cierto que traductores veteranos se vean en la posición de tener que formarse para recibir cierta formación técnica en posesición para llevar a cabo su trabajo en contextos automatizados. En ninguno de los casos, creemos que la calidad de la TA supere a la humana (Leyva 2018). Esta es una de las razones por las que Moorkens et al (2018) abogan por la introducción de la posesición automática en los estudios de traducción.⁶ Consideramos en este caso que este tipo de formación es más propicia a nivel de postgrado como especialización.

Ahora bien, a nivel de grado, se podrían desarrollar habilidades lingüísticas para convertir al alumnado en expertos en lenguas, donde se formen a futuros especialistas con conocimientos profundos de su lengua materna en distintos contextos, que complementarían con el perfeccionamiento de idiomas extranjeros a la par. Es en este nivel de formación donde contemplamos asimismo la introducción de las herramientas TAO tal y como abogan numerosos estudios académicos (Doherty, Kenny, and Way 2012; Doherty and Moorkens, 2013; Austermühl 2006, 2013; O'Hagan 2013; Gaspari, Almaghout and Doherty 2015; Moorkens 2017; Rothwell and Svoboda 2017; Mellinger 2017, 2018) con el fin de aproximar las realidades de la profesión a las aulas.

Pero aquí no acaba la lista, los alumnos de lenguas pueden tender hacia el campo de la tecnología y centrarse en el estudio de la lingüística computacional; o dedicarse a la transcreación cuya definición según apunta Benetello (2016, p.259) se refiere a: “*writing advertising or marketing copy for a specific market, starting from copy written in a source language, as if the target text had originated in the target language and culture*”. Para llevar a cabo tareas de transcreación se necesitan cuatro destrezas principales según la autora:

⁶ Véase también el número especial de *Journal of Specialised Translation: Post-editing in practice: process, product and networks* (2019) donde al menos tres de los artículos publicados tratan sobre la posesición en la formación de traductores.

- *Language skills.* The copy is written in a foreign language and it must be decoded. In this respect the transcreation professional is ¼ translator.
- *Copywriting skills.* The target text must be as punchy as the original and consistent with a specific advertising strategy. This means that the transcreation professional is also ¼ copywriter.
- *Cultural sensitivity.* The target text must be appropriate for the target culture. In this respect, the transcreation professional is also a cultural anthropologist of sorts – someone who knows what is and isn't acceptable in their own culture.
- *Local market understanding.* The target text must be appropriate for the target market. A transcreation professional needs to be aware of the images and wording used by a brand's competitors so as to avoid them and produce copy that sounds as unique as possible. For this reason, a transcreation professional is also ¼ marketer. (Benetello, 2018)

Se necesitan pues ciertos conocimientos de márketing para esta actividad donde los traductores poseen destrezas entre las que se incluye la de mediador intercultural (Katan, 2016). Es más, a nivel didáctico, la transcreación es una actividad amena que se puede practicar en clase ya que el alumnado está familiarizado con las marcas y el lenguaje publicitario y presenta una introducción a unas de las profesiones que se encuentran en mayor auge (Barros Huertas y Vine 2018). La creación de textos para empresas y la *Search Engine Optimisation* (SEO por sus siglas en inglés) también parece ser que se encuentran en crecimiento (Massey y Wieder 2018, Carnegie Brown 2018, Lara 2019) por lo que el conocimiento profundo de la lengua está más que justificado en los programas de traducción a pesar de los avances de la tecnología.

En resumidas cuentas, abogamos que los primeros años en la universidad se centren en el estudio de conocimientos profundos de las lenguas maternas y extranjeras y de estrategias para traducir con una aproximación a las tecnologías usadas en la industria; y que los egresados pasen a especializarse en diferentes ramas a nivel de postgrado como ya observamos hoy día en muchos casos. Las habilidades transversales necesarias para poder acceder al mercado laboral, descritas en el marco de la empleabilidad y el emprendimiento, se deberán incluir en los programas de traducción desde el comienzo. La empresa también puede apoyar a los nuevos traductores a través de programas de formación en empresa dependiendo de sus necesidades pues cada contexto laboral es único.

4.3 Futuras líneas de trabajo e investigación

Por todo lo que hemos planteado en esta tesis, la colaboración y el diálogo entre las empresas de servicios lingüísticos y las universidades será crucial en los años venideros. Coincidimos con Rudy Tirry (presidente de EUATC⁷) quien en el congreso sobre traducción humana y automática de la Universidad de Lille (2 febrero de 2018) afirmó que se tardan años en aprender a traducir, aunque solo semanas en aprender a usar herramientas TAO. El conocimiento de lenguas extranjeras y el perfeccionamiento de nuestra lengua materna facilitará el continuo desarrollo del papel tradicional del traductor como experto en lenguas.

Nuestro principal papel como formadores de futuros traductores y expertos en lenguas en un panorama laboral donde imperan las tecnologías radica ante todo en centrarnos en el plano humano, sin dejar de atender a las tendencias de mercado, aunque autores como Lawrence Venuti (2017) defiendan que esto actúe en detrimento del valor de las humanidades y ciencias sociales.

⁷ European Union of Associations of Translation Companies

Concluimos por tanto en que las humanidades todavía encuentran su hueco en la formación de traductores a pesar del impacto de la traducción automática.

En relación a la metodología utilizada para nuestro estudio, bien se podría argumentar que los grupos de foco, y que las observaciones y entrevistas que llevamos a cabo en empresas son limitadas y que, estas últimas, describen la formación que cualquier traductor recibiría al empezar un nuevo puesto de trabajo incluso con un conocimiento avanzado de la TAO. La finalidad, como en todo estudio que usa métodos cualitativos (Abdallah, 2012), ha sido el de analizar un contexto específico para poder llegar a conclusiones concretas en relación a preguntas concretas. La misión es la de analizar datos cualitativos y no cuantitativos de contextos determinados donde prima la calidad y no la cantidad.

Como investigadora y docente con un profundo interés en mejorar y aprender de forma participativa sobre las últimas tendencias profesionales y prácticas didácticas, este proyecto de investigación me ha permitido reflexionar sobre el actual estado de la cuestión. Como en todo proyecto de acción-investigación, los conocimientos que vamos adquiriendo se emplean en el aula por y para el beneficio de los formandos.

En la introducción, hablábamos del lenguaje como actividad innata de los humanos. La traducción automática ha roto con este paradigma tal y como hemos analizado en esta tesis. Los lingüistas computacionales, en su papel a caballo entre la ingeniería computacional y la especialidad en lenguas, han contribuido al desarrollo del lenguaje artificial de las máquinas (Mitkov, 2005). Sin embargo, con los rápidos avances que estamos experimentando en el mundo de la tecnología y la automatización, queda por ver el verdadero impacto de la Inteligencia Artificial en la profesión del traductor y el futuro del estudio de las lenguas. Este es un tema en el que pretendo profundizar a partir de ahora. Conocemos el papel de la TAO y la TA en el mundo profesional y académico, pero desconocemos los últimos avances en IA fuera de estos contextos. Por ello, planeamos adentrarnos en el campo de la IA para seguir investigando en la imbricación entre el papel humano y las infinitas posibilidades de las tecnologías y la IA en el ámbito de la formación de traductores y así contribuir a la ya optimización de la cada vez más consolidada disciplina de estudios de traducción.

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Appendices

Appendix 1- Article I

Rodríguez de Céspedes, B. (2017) “Addressing Employability and Enterprise Responsibilities in the Translation Curriculum” in Rodríguez de Céspedes, B. Sakamoto, A and S. Berthaud (eds). Special issue of the Translator and Interpreter Trainer. *Employability in the Translation and Interpreting Curriculum*. 11. Vol 2-3. 107-122

Appendix 2- Article II (Chapter in book)

Rodríguez de Céspedes, B. (2018) “Mind the gap: Language Service Providers’ perceptions of the technological training of professional translators” in Postigo Pinazo, E.(ed) *Nuevas tecnologías, procesos cognitivos y estrategias para la optimización de las competencias del traductor e intérprete*. Berlin: Frank and Timme. 143-161.

Appendix 3- Article III

Rodríguez de Céspedes, B. (2019). “Translator Education at a Crossroads: the Impact of Automation”. *Lebende Sprachen*. 64 (1). 103-121.

Appendix 4- Article IV

Rodríguez de Céspedes, B. (forthcoming-2020) “Beyond the margins of academic education: finding out translation industry training practices through action research.” *Translation and Interpreting journal*. 12 (1).

Appendix 5- Review of article II in Institute of Translation and Interpreting e-book (2018)