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A Tool Designed to Streamline the Search for Scholarly Literature Addressing Online Translation and Interpreting Pedagogy

Una herramienta para la búsqueda ágil de literatura académica sobre didáctica en línea de la traducción e interpretación

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Abstract: Translator and interpreter educators seeking new pedagogical ideas and working in the face-to-face, blended, online, and remote modalities would benefit from reviewing the pedagogies proposed during more than two decades of research into translator and interpreter training and education in virtual environments. This paper contains a description of the methods employed to review scholarly publications addressing online and blended translator and interpreter training and education (1997-2022). The results are used to create an evolving public linear bibliography of scholarly literature named «Online Translator and Interpreter Education». The paper begins with a description of the need for a specialized bibliography, a justification for hosting the bibliography in timeline software, and a discussion of the terms used in the bibliography name. Following this, the means of locating literature on the topic of online and blended translator and interpreter education are detailed. Finally, the literature is categorized and arranged in the timeline in ways useful to individuals consulting it. The article concludes with a demonstration of how the resource can be queried for information on developments in online translator and interpreter education over time. The first portion of the demonstration considers the needs of interpreter educators seeking to incorporate curated online practice materials into their coursework. The second illustrates how the need for robust online translation coursework is being addressed within the context of two ongoing initiatives.

Keywords: Distance education, Online teaching and learning, Translation and interpreting pedagogy, Translator and interpreter training

Resumen: Esta investigación parte del supuesto de que una revisión de las propuestas didácticas de las últimas dos décadas sobre la didáctica de la traducción y la interpretación en entornos virtuales contribuye al trabajo de los formadores de traductores e intérpretes, sobre todo al profesorado que busca nuevas ideas aplicables a cursos presenciales, semipresenciales, en línea o remotos. El presente artículo contiene una descripción de los métodos empleados para revisar los estudios publicados sobre la didáctica semipresencial y en línea de la traducción e interpretación (1997-2022). Los resultados se utilizaron para crear el recurso en línea «Online Translator and Interpreter Education», que es una bibliografía lineal de libre acceso y en evolución de la literatura académica. El artículo comienza con una descripción de la necesidad de una bibliografía especializada de este tipo, una explicación de por qué la bibliografía se aloja en un software de línea temporal y las definiciones de los términos que se encuentran en el título de la línea temporal. Posteriormente, se describe cómo se localizó la literatura académica sobre la didáctica semipresencial y en línea de la traducción e interpretación. Después, se describe cómo se clasificó la literatura y se organizó de manera cronológica y útil para los usuarios de la línea temporal. El artículo concluye con una demostración de cómo se puede consultar el recurso para obtener información sobre la didáctica semipresencial y en línea de la traducción e interpretación de manera cronológica. La primera parte de la demostración considera las necesidades de los formadores de intérpretes que buscan incorporar en sus cursos materiales de enseñanza y aprendizaje en línea elegidos y organizados con rigurosidad. La segunda parte aborda el uso de la línea temporal en el diseño efectivo de cursos virtuales de traducción, en particular, en dos iniciativas en curso.

Palabras clave: Educación a distancia, Enseñanza-aprendizaje virtual, Didáctica de la traducción e interpretación, Formación de traductores e intérpretes

INTRODUCTION

The topic of online translator and interpreter training and education began emerging in the literature in the late 1990s¹. However, the last well-documented wide-ranging discussions on the topic took place some 20 years ago, when approximately 380 participants took part in a worldwide online symposium held by the Intercultural Studies Group (Pym, 2001, p. 6) to assess the state of the field of translator and interpreter training (Pym et al., 2003). An overview of developments since that time is pressing given that the challenges of online teaching and learning have been exacerbated by the

¹ For example, Reinke (1997) and Lu-Chen & Zeng (1999).

COVID-19 pandemic, which led to a rapid shift from face-to-face to remote instruction and could lead to a shift in how translator and interpreter training and education are organized in the future.

A resource consolidating and categorizing research into online and blended translator and interpreter training and education would help educators to explore the online pedagogies worth incorporating into their curricula. However, locating literature on online and blended translation and interpreting (T&I) pedagogy is difficult for several reasons. For one, keywords used to index publications can be ambiguous. Keywords such as *blended*, *distance*, and *online* are sometimes not used to index publications at all, while the keyword *e-learning* is used to index research addressing teaching and learning taking place in the blended, online, and face-to-face modalities. Secondly, not every publication may be indexed, especially in languages of lesser diffusion. Finally, keywords are often quite broad in scope, resulting in numerous non-relevant search results. As an example, the search phrase «internet teaching» in the Bibliography of Interpreting and Translation (BITRA) (Franco-Aixelá, 2022) currently yields 374 total hits. Of these, less than one-third (around 120) address the use of the internet as the medium of instruction in online and blended courses. Over the longer term, such a resource can be used to determine if and to what extent the practical problems identified during the early years of online and blended translator and interpreter training and education have been addressed and whether teachers, students, and researchers are benefitting from advances in related disciplines, like distance education, educational technology, and instructional design.

In response—and taking a cue from the Introducing Translation Studies timeline created by Jeremy Munday— an evolving public searchable timeline addressing various areas of online translator and interpreter training and education has been created using corpus methods and the corpus analysis tool AntConc (Version 3.5.8) (Anthony, n.d.). The timeline for the specialized linear bibliography described in this article currently ranges from 1997 to 2022 and is hosted by the Tiki-Toki² website. The timeline presently consists of 113 publications in six languages (Catalan, English, French, Galician, German, and Spanish) by individuals based in 31 countries. Additional publications in other languages (Chinese, Korean, and Portuguese) have already been identified. The literature is categorized by title, domain, type of research,

² The timeline is located at <https://www.tiki-toki.com/timeline/entry/1263444/Online-Translator-and-Interpreter-Education/>. The author has no personal or business ties to the timeline software company.

backdrop, and the country of each author's institutional affiliation at the time of publication³.

The timeline software that was used to create the bibliography was chosen because it allows individuals to conduct word searches and filter results using the previously mentioned categories. Users can observe patterns and developments in online and blended translator and interpreter training and education and determine where the bulk of the research has taken place. This is useful not only to translator and interpreter educators and researchers but also subject librarians, who help researchers locate bibliographic records on special topics. Finally, the resource is publicly available and can be modified to include additional entries⁴ or to correct mistakes.

1. THE DIFFICULTY WITH LOCATING RELEVANT SCHOLARLY LITERATURE

Publications made over the past several decades addressing developments in translator and interpreter training and education primarily focus on T&I pedagogy in general, and not on the blended and online modalities. A specialized resource consolidating the body of *online* and *blended* translator and interpreter training and education literature would be helpful to ensuring that the state of the field can be analyzed, and pertinent conclusions drawn. As mentioned on p. 3, such publications are not easy to locate due to the ways in which they are currently indexed.

In addition, the pivot to remote instruction brought about by the COVID-19 pandemic has highlighted the need for a specialized bibliography of online translation and interpreting pedagogy, especially in cases where time is of the essence. Examples of publications made during the pandemic that could have benefitted from a bibliography of the kind described in this article include Hubscher-Davidson & Devaux (2021), Seresi et al. (2021), and Mazzei & Ibrahim-Aibo (2022).

That said, a representative database of online and blended translator and interpreter training and education literature requires contributions by scholars able to read the languages in which publications on the topic are written; summarize methods and findings in English, the language most accessible to TIS researchers around the world; and categorize these publications in ways that are useful to those interested in the topic at hand. Therefore, authors must be provided the means to contribute in any language and thereby improve the relevance of the resource.

³ See section 3 for a description of each category.

⁴ The timeline directs users to a form where they are prompted to submit information on missing publications. This form is located at <https://tinyurl.com/yc2yq4j4>.

2. STEPS FOR LOCATING RELEVANT SCHOLARLY LITERATURE

In order to address the aforementioned difficulties with locating relevant literature, various steps were taken to create a database of as many peer-reviewed publications as possible on the topic of online translator and interpreter training and education. This section contains a description of how the corpus was compiled. It begins with definitions of the terms central to the database and is followed by an illustration of how initial texts were selected to identify keywords. It concludes with a description of how search strings were formulated to ensure a thorough search for relevant literature. A variety of digital tools—bibliographic databases, web search engines, academic social networking sites⁵, and tools for visualizing and exploring networks of publications⁶—were used to find publications, each of which has been or is currently being read and its features documented in a Microsoft Excel spreadsheet prior to being added to the timeline.

2.1. *Defining key concepts*

Creating a centralized record of literature on a topic requires a definition of the topic in question. Moreover, the name of the bibliographic record described in this article must be descriptive and, ideally, succinct. Therefore, three terms will be operationalized within the context of the timeline described here: *online*, *translation and interpreting*, and *education*.

2.1.1 Operationalizing *online*

Though terms like *computer-assisted learning*, *distance education* or *learning*, *distributed learning*, *e-learning*, *internet learning*, *networked learning*, *online education* or *learning*, *online teaching and learning*, *open learning*, *tele-learning*, *virtual learning*, and *web-based learning* are sometimes used interchangeably, differences exist among them. According to Ally (2008), commonly used terms for *online learning* imply distance between a learner and instructor as well as the use of some kind of technology to access learning materials (p. 16). Moore & Kearsley (2012) provide a similar, yet more specific definition for *distance education*: «teaching and planned learning in which the teaching normally occurs in a different place from learning, requiring communication through technologies, as well as special institutional organization» (p. 2). Moore (2019) says that «in distance education the use of communications technology is *not* an option but is a defining characteristic of the teaching-learning relationship» (p. v). He refers to *online learning* as used today as distance education in its contemporary,

⁵ Academia.edu and ResearchGate.net were particularly helpful in this regard.

⁶ Connected Papers (<https://www.connectedpapers.com/>), which is connected to the Semantic Scholar Paper Corpus (Ammar et al., 2018), yielded several results.

«most evolved» form (Shattuck, 2014, p. xiii). Here, the internet is used «to access learning materials; to interact with the content, instructor, and other learners; and to obtain support during the learning process, in order to acquire knowledge, to construct personal meaning, and to grow from the learning experience» (Ally, 2008, p. 17).

The effective incorporation of information and communication technologies (ICTs) into T&I curricula is a longstanding focus of research⁷. However, using the above definition of *online*, the bibliographical resource described here does not include TIS publications that address e-learning taking place in coursework without a significant online component. Though continuums of face-to-face to fully online have been posited⁸, and the courses referenced in this bibliography can be classified in such ways, authors typically do not use a shared definition of what makes a course online or blended. Therefore, to merit inclusion in this bibliography, publications must address translator and interpreter training and education primarily taking place through the use of ICTs at a distance in either a fully online environment or a blended environment. Moreover, the authors of these publications must place special emphasis on the use of ICTs during instruction⁹.

2.1.2 Operationalizing translation and interpreting

Educators will find it useful to consult a bibliography of T&I that covers the greatest possible number of TIS domains, from interlingual translation (Jakobson, 1959/2021, p. 157) to domains of intra- and multilingual communication that have received much attention in TIS, as well as localization, project management, revision, translation technology, terminology, and the creation of content alongside subject-matter experts. Publications on online translator and interpreter training and education

⁷ Calls for the pedagogically sound incorporation of technologies into online and blended translation coursework can be found as far back as the early 2000s. As mentioned above, online coursework necessarily relies on the use of technologies to bridge distances. In translation pedagogy and elsewhere, these technologies are typically referred to as *information and communication technologies*, which are a «diverse set of technological tools and resources used to transmit, store, create, share or exchange information [and] include computers, the Internet... live broadcasting technologies... recorded broadcasting technologies... and telephony». (UNESCO, 2017)

⁸ See Sener (2015) for an updated list of e-learning definitions at the course and program levels according to the parameters of instructional delivery mode, time, and flexibility.

⁹ The earliest publication the author has identified on the topic of distance translator and interpreter education is dated 1993. However, the coursework addressed there is correspondence-based, where instruction and teacher-student communication occur via mail delivered by a postal system. Therefore, this publication has been omitted from the bibliography, even though it is of historical interest to T&I pedagogy. For more information, see Sammons (1993, pp. 49-50) regarding this correspondence-based indigenous-language medical interpreting curricular alternative developed for the Canadian Eastern Arctic.

primarily focus on preparing students to translate or interpret in professional settings. Consequently, *translation and interpreting* as used in the timeline name typically refers to T&I practice taking place in the *language industry*: «an expanding range of branches that all share some facet of multilingual communication as a common thread» (Angelone et al., 2019, p. 1). In the language industry, translators and interpreters engage in an assortment of tasks that vary from one job to another. They must also be able to function socially by interacting with other stakeholders engaged in a multitude of tasks linked to a given communicative situation. In addition, language industry work can imply both inter- and intralinguistic communication, the most notable examples of which are audiovisual translation, which involves an interplay of various channels of communication and media accessibility, and sign language interpreting. Finally, theories of T&I as well as the online and blended delivery of theory coursework are important components of T&I curricula. Therefore, the goals of translator and interpreter training and education are broad and multifaceted. These goals are reflected in the timeline domains described in section 3.2.

2.1.3 Operationalizing *education*

The word *training* appears to be used more commonly than *education* in T&I pedagogy in English¹⁰, perhaps in line with the corresponding division of Applied Translation Studies proposed by Holmes (1972/2005). The timeline name employs the broader term *education* to cover the widest possible variety of teaching modes. Moreover, this timeline is not only directed toward academics familiar with TIS terminology, but also scholars from adjacent fields, such as linguistics, who may have no formal TIS background and may be called to teach translation or interpreting online, as well as the subject librarians who support teachers and scholars in their bibliographical research. In summary, the distinction between training and education is not the primary concern of this study.

2.2. Locating relevant literature

Several steps were taken to locate literature for inclusion in the timeline. In a first step, 10 journal articles published between 2005 and 2015 in English and Spanish were selected. The selection was made based on a perusal of the bibliographies of journal articles treating the subject of online translator and/or interpreter education. Therefore, this selection was biased in favor of the author of this paper's previous encounters with literature from these

¹⁰ Searches in the Bibliography of Interpreting and Translation (BITRA) (Franco-Aixelá, 2022) yield 4,954 results for the word *training* and 2,758 for *education*. Since BITRA lemmatizes search words, there are more possible hits for the relatively less frequent *education*. Several search results for *education* actually correspond to *educating* and *educational*.

domains. To expand the search, each article was scanned, with a focus on title, abstract, and keywords. Words that could be used to search the Bibliography of Interpreting and Translation (BITRA) (Franco-Aixelá, 2022) and Translation Studies Bibliography (van Doorslaer, 2022) for additional texts addressing online translator and interpreter education were manually extracted. Table 1 contains two alphabetized lists of keywords identified using this method.

English	Spanish
<i>blended learning</i>	<i>enseñanza a distancia</i>
<i>distance education</i>	<i>enseñanza en línea</i>
<i>e-learning</i>	<i>enseñanza virtual</i>
<i>hybrid</i>	<i>entorno virtual</i>
<i>internet</i>	<i>internet</i>
<i>online</i>	<i>online</i>
<i>virtual</i>	<i>semipresencial</i>

Table 1. Initial list of keywords used to locate publications in TIS bibliographies
Source. Elaborated by the author

The keywords of texts identified by querying the previously mentioned TIS bibliographies were used to find additional texts and keywords. While the TIS bibliographies are undoubtedly robust, they may not have a record of all peer-reviewed texts published on the topic of interest. Therefore, the search was expanded using search engines such as Ecosia, DuckDuckGo, Google Scholar, Google Books, and Google. Search strings were formulated based on a list of nodes compiled using the results of the searches conducted in the previous step.

Table 2 contains the alphabetized final list of nodes used to search for peer-reviewed texts addressing online language industry education. These nodes are truncated forms of single words used to create search strings. For example, the English truncation *collaborat* results in hits for *collaborate*, *collaborates*, *collaborating*, *collaboration*, and *collaborative* when paired with the asterisk wildcard (i.e., *collaborat**) in some search engines. The similar Spanish truncated form *colabor* results in hits for several verb forms (e.g., *colaborar*, *colabora*, and *colaboran*) and adjective forms (e.g., *colaborativo* and *colaborativas*) when paired with the asterisk wildcard (i.e., *colabor**).

Nodes were often combined to create longer strings and paired with *translation* or *interpreting* when performing searches for online translator and interpreter education publications (e.g., *online translator training* in English and *enseñanza de traducción entorno virtual* in Spanish). The genres located

using these steps were book sections, conference papers, doctoral dissertations, journal articles, and project summaries.

English	Spanish
<i>autonom</i> <i>blend</i> <i>CAIT</i> <i>chat</i> <i>collaborat</i> <i>computer assist</i> <i>dialog</i> <i>digit</i> <i>discuss</i> <i>distance</i> <i>ecolore</i> <i>ecolotrain</i> <i>effective</i> <i>elearning</i> <i>eportfolio</i> <i>hybrid</i> <i>ICT</i> <i>information and communication</i> <i>technolog</i> <i>internet</i> <i>modalit</i> <i>mode</i> <i>multimodal</i> <i>online</i> <i>synchron</i> <i>teach</i> <i>video</i> <i>virtual</i> <i>web 2.0</i> <i>webct</i> <i>wiki</i>	<i>aprendizaje</i> <i>atractiv</i> <i>aula.int</i> <i>autonom</i> <i>campus virtual</i> <i>colabora</i> <i>comodidad</i> <i>debat</i> <i>e-learning</i> <i>enseñanza</i> <i>entorno</i> <i>espacio</i> <i>flexibilidad</i> <i>inconveniente</i> <i>internet</i> <i>mixt</i> <i>modalidad</i> <i>nueva tecnología</i> <i>online</i> <i>presencial</i> <i>semipresencial</i> <i>sincronicidad</i> <i>tecnología</i> <i>TIC</i> <i>trabajo virtual</i> <i>tradumática</i> <i>ventaja</i> <i>virtual</i>

Table 2. Final list of search nodes

Source. Elaborated by the author

The final corpus consisted of 225 publications in Catalan, Chinese, English, Galician, German, French, Korean, Portuguese, and Spanish. Either an English or Spanish title, abstract, summary, introduction, or keywords were available for all texts. Of the 225 texts, 113 have already been manually double checked to ensure they cover online translator and interpreter education as defined in sections 2.1.1-2.1.3. The most common reason for removing a text was when it addressed coursework taking place in a face-to-face environment.

After the corpus was compiled, the titles and abstracts were converted into plain-text files. Then, the corpus was mined for topics related to online language industry education. This was done in a three-step sequence using the corpus analysis tool AntConc (Version 3.5.8) (Anthony, n.d.). First, the Word List feature was used to obtain raw frequencies of words related to online teaching and learning. Second, concordance plots were generated for frequent words to determine whether these words were distributed throughout all or most files in the corpus. The Clusters/N-Grams feature was then used to identify 2-, 3-, and 4-grams and thereby pinpoint clusters related to the previously identified nodes.

Table 3 contains a list of clusters identified in this manner. This table only includes clusters with a range of more than one text in the corresponding subcorpus. While both the equivalent English and Spanish nodes were consulted, for the sake of brevity, only English nodes and clusters are provided. These may prove useful when formulating keywords for future publications related to online translator and interpreter education.

Node	Sample cluster
<i>autonom</i>	<i>autonomous learning</i> <i>autonomous learner</i>
<i>blend</i>	<i>blended learning</i> <i>blended e-learning</i> <i>blended learning environment</i> <i>blended teaching and learning</i> <i>blended learning models</i>
<i>collaborat</i>	<i>collaborative learning</i> <i>collaborative work</i> <i>collaborative learning and working</i>
<i>digit</i>	<i>digital environment</i> <i>digital tools</i>
<i>distance</i>	<i>distance learning</i> <i>distance education</i> <i>distance teaching</i> <i>distance training</i>
<i>e-learning</i>	<i>e-learning environment(s)</i> <i>e-learning course</i>
Node	Sample cluster
<i>internet</i>	<i>internet teaching</i>
<i>multimodal</i>	<i>multimodal working environment</i>
<i>online</i>	<i>online course(s)</i> <i>online education</i>

	<i>online teaching</i> <i>online translator training</i> <i>online training</i>
<i>synchron</i>	<i>asynchronicity</i> <i>asynchronous learning</i>
<i>virtual</i>	<i>virtual learning</i> <i>virtual classroom</i> <i>virtual conference</i> <i>virtual (learning) environment(s)</i> <i>virtual platform</i> <i>virtual campus</i>
<i>web</i>	<i>web-based</i>

Table 3. English clusters related to online translator and interpreter education

Source. Elaborated by the author

3. CATEGORIZING PUBLICATIONS

A linear bibliographic record of the publications identified using the previously described methods was created as a timeline in the Tiki-Toki software. Each record is distributed among four categories, or «bands» (Figure 1). These bands will be described in greater detail in sections 3.1-3.5. Band entries corresponding to each publication are aligned from top to bottom for ease of consultation. Individuals may use this category/band breakdown to localize topics useful to their own teaching and research¹¹.

¹¹ The configuration of this timeline—an evolving resource—is subject to change based on user feedback. The total number of publications in the timeline will vary as contributions are made to it.

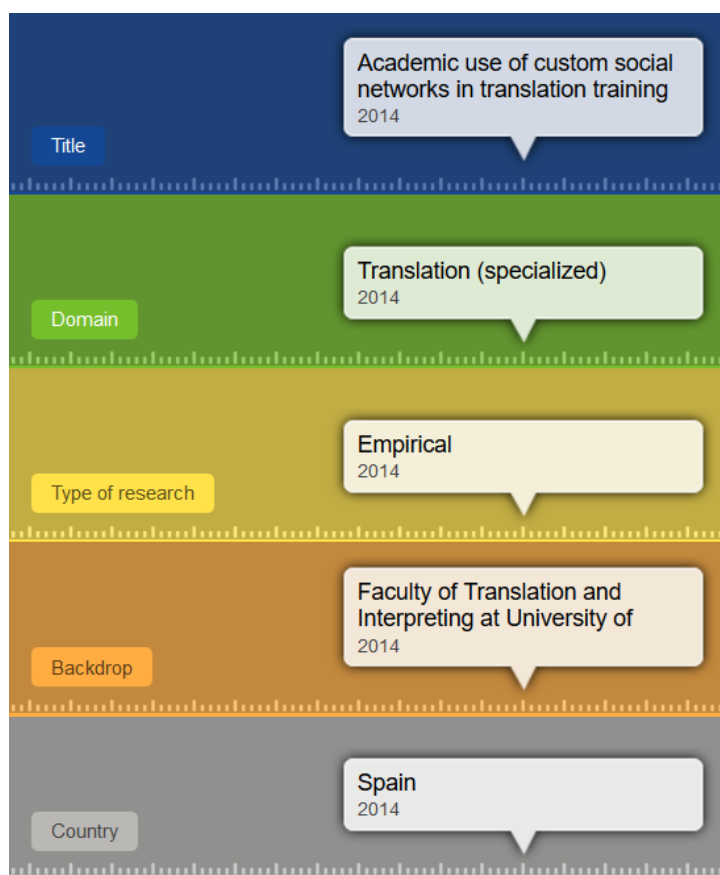


Figure 1. A single bibliographic record distributed among timeline bands¹²

Source. Elaborated by the author

3.1. *The Title band*

A title entry (Figure 2) includes at least three components: title of publication, abstract, and full citation. Titles are provided in the original language of publication. An optional, fourth component, labeled «Find out more», links users to the publication, where available online. All entries correspond to the correct year of publication. However, the timeline is not an historically specific resource, and the months and days at which each entry is plotted within a given year are approximate.

¹² Users must click an entry to view its content in full.



Figure 2. A Title band entry
Source. Elaborated by the author

If no publisher-provided abstract exists, an author or other agents may share an English-language abstract. Abstracts are primarily descriptive abstracts, which «briefly summarize the contents of a work without comment or criticism» (Killick, 2010), though this is sometimes not the case, for example, when the editor of a volume summarizes the content of a section of the volume in the absence of an author-provided abstract or when a publisher provides a blurb promoting the publication. English abstracts ensure accessibility to the largest possible number of users, independently of whether the abstract was originally published in English. The English version of each abstract precedes any available versions of the abstract in other languages. Full citations employ American Psychological Association (7th edition) style. Contributors receive credit for the abstracts and other information they share¹³. Figure 3 contains an English-language abstract supplied by a timeline contributor for an article published in German with no accompanying German-language abstract.

¹³ The timeline links contributors to a form under «About this timeline». This form contains step-by-step instructions for providing the required information and can be viewed at <https://tinyurl.com/yc2yq4j4>.

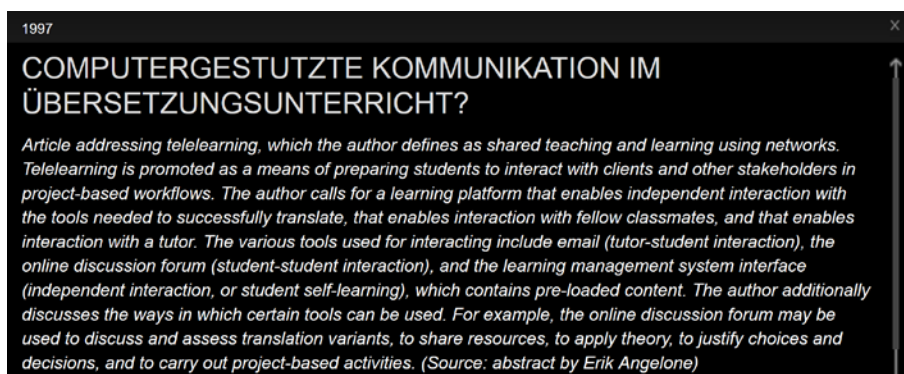


Figure 3. A contributor-supplied abstract of a German-language publication
Source. Elaborated by the author

3.2. The Domain band

Domains presently include audiovisual translation, interpreting, localization, sign language interpreting, terminology, training the trainer, translation, translation and interpreting, translation for language learning, and translation technology. These are further divided, where applicable. Table 4 contains a breakdown of current domains and subdomains based on the topics covered by publications. This list of domains only covers those addressed in the publications in the timeline and will grow as more entries are added.

Domain	Subdomain
audiovisual translation	subtitling
interpreting	community
	consecutive
	conference
	dialogue
	liaison
	medical
	public service
	remote
	sight translation
	simultaneous
videoconference	
localization	N/A
media accessibility	audio description
sign language interpreting	N/A
terminology	N/A
training the trainer	N/A

Domain	Subdomain
translation	CAT tools general literary machine translation non-professional open public service project management revision specialized theory
translation and interpreting	general specialized
translation and multimodality	N/A
translation for language learning	N/A
translation technology	N/A

Table 4. Current timeline domains and subdomains

Source. Elaborated by the author

A small number of publications address online translator or interpreter education generally¹⁴ and are, therefore, not assigned a domain in the timeline. Figure 4 corresponds to a publication covering both an interpreting mode and setting.



Figure 4. Domain band entries for a publication covering an interpreting mode and setting

Source. Elaborated by the author

¹⁴ See Fernández-Rodríguez (2002) for an example.

3.3. *The Type of Research band*

The timeline breaks research down into two broad types: empirical and conceptual. Figure 5 depicts the type of research assigned to and located below an entry from the Title band.



Figure 5. A Type of Research band entry under its corresponding Title band entry

Source. Elaborated by the author

In *The Map*, Williams & Chesterman (2002, p. 58) refer broadly to different kinds, or forms, of research: conceptual/theoretical and empirical, the latter of which is divided into naturalistic/observational and experimental (p. 62). Saldanha & O'Brien (2014) primarily address empirical research, which «involves gathering observations (in naturalistic or experimental settings) about the world of our experience» (p. 5). They also note that:

Our understanding is very broad: we simply suggest that empirical research needs to address questions of «why» at some point in the research process. Sometimes explanations remain at the level of speculation but the research should at least point out potential avenues for further research which could explain the results, and these suggestions need to be grounded in the evidence and in the state of the art in the field. (Saldanha & O'Brien, 2014, p. 6)

They mention the wide range of research methodologies used in the interdisciplinary field of TIS and themselves cite Williams & Chesterman (2002), who describe empirical research as emphasizing evidence, hypotheses, and operationalization (p. 58) all while recognizing the blurred line between conceptual and empirical research (Saldanha & O'Brien, 2014, p. 4).

Methodological complexity is not a factor when breaking research down into empirical or conceptual. For example, the lack of a statistical analysis or triangulation is not an issue for meeting the criterion of empirical. However, to warrant the *experimental* label in the Type of Research band, studies must make use of a control group. Some authors of the works included in the timeline label their studies as experiments when no control group is specified. The timeline does not classify these studies as experimental, though they fall under the category of empirical studies when empirical methods are used in them. The timeline creator had to classify multiple publications without a clear methodology, methods, research design, research strategies, or research techniques. The ensuing categorization may challenge the way a researcher describes their own study, especially in the case of the experimental label.

It is not in the timeline creator's interest to criticize these publications, as multiple editorial decisions affect the final form of a publication and TIS has become more methodologically mature over time. TIS scholars also hail from different disciplines whose research methods terminology differs. However, the Type of Research category is useful to those attempting to determine what types of research have been conducted in their TIS domains of interest¹⁵. The configuration and public nature of the resource should encourage those who disagree with a given classification to contact the timeline curator and reconsider the type of research under which the publication is classified.

3.4. *The Backdrop band*

The Backdrop band of the timeline is comprised of the most varied subcategories and provides context for each publication. Multiple Backdrop band entries repeat throughout the timeline, as these contexts give rise to clusters of publications, ongoing research, and the evolution and refinement of pedagogical initiatives. General regional contexts, such as the Bologna Process and European Higher Education Area (EHEA), have triggered the largest number of publications in connection with backdrops such as curricular changes, isolated conferences and conference series, special issues of academic journals, and academic projects and consortia. However, the timeline assigns the Bologna Process and EHEA only one entry each to avoid visual clutter. Specific backgrounds are supplied for studies published within these macrocontexts. Table 5 contains examples of current backdrops from both within and outside the EHEA.

¹⁵ The lack of clearly described methods points to a larger issue in online T&I pedagogy, namely, that it is difficult to describe and evaluate the methods used in this domain when they are not clearly presented.

Subcategory	Example
academic consortium	The Consortium for Training Translation Teachers
academic program	Graduate Program in Translation at University of Wisconsin-Milwaukee
educational initiative	Aula.int
event for researchers	International Conferences on Translating and the Computer
event for teachers	Seminars of the Consortium for Training Translation Teachers
research project	Trans-Atlantic & Pacific Project (TAPP)
special issue of academic journal	Special issue of <i>trans-kom</i> 11:2 (2018): Approaches to didactics for technologies in translation and interpreting
virtual community	Word Association of Arab Translators and Linguists (WATA) online discussion forums

Table 5. Backdrop band subcategories with sample entry headings

Source. Elaborated by the author

In some cases, more than one subcategory can be assigned to a single publication. For example, publications arising out of the Multilingual eLearning in LANGUAGE Engineering (MeLLANGE) project also result from work done among the members of a consortium bearing the same name. In such cases, the timeline only assigns one subcategory to the publication to avoid visual clutter. The «Find out more» link contains information on both the project and consortium (Figure 6).

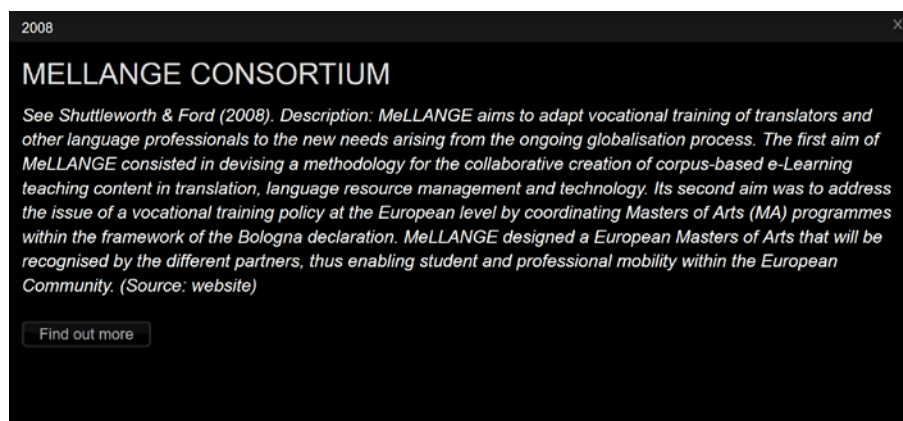


Figure 6. A Backdrop band entry for the MeLLANGE consortium

Source. Elaborated by the author

Several backdrop designators have changed since the times of publication. For instance, Mansilla & González-Davies (2017) describe the program in which their study takes place as the *Programa de Traducción de la Universidad de Massachusetts Boston*, or the translation program at the University of Massachusetts Boston. However, the backdrop entry directs users to the landing page of a Spanish-English Translation Certificate. It is unclear why the authors chose the former designation over the latter without additional information. The publication does not contain enough information to determine this. Within Europe, the reason for some name changes is more clear-cut. Spanish degrees designated as *licenciaturas* prior to the creation of the EHEA may now be referred to as *grados*. The web pages corresponding to these programs have, naturally, been updated to reflect this change. Finally, a few publications do not mention a specific background. In these cases none is assigned. Users with missing background information are encouraged to share this with the timeline curator.

3.5. *The Country band*

The Country band provides information on geographical areas yielding research into online translator and interpreter education. This band helps users identify places of both new and longstanding research output, especially in their languages and regions of interest. Additionally, the variety of countries represented raises awareness among the research community of the broad range of research taking place worldwide and of underrepresented areas that remain marginalized in TIS.

Though the country category would seem to be clear-cut, this is not always so. Two examples illustrate this. The authors of several publications were affiliated with universities located in the United Kingdom of Great Britain and Northern Ireland at the time of publication. Though only one subdivision of the United Kingdom—England—is represented in the timeline at present, United Kingdom is the label used in the Country band of the timeline. Moreover, a relatively large number of Spanish publications originate in the autonomous community of Catalonia, which has on multiple occasions sought independence from Spain. In the case of the former, all publications are in English. However, in the latter case, a number of publications are in Catalan, Spanish, or English, or a combination of the three. Though it is not possible to avoid taking a political stance while foregrounding, in the form of a label, the name of a geopolitical subdivision whose sovereignty and self-governance are disputed, researchers seeking information on the places out of which publications arise should find the country of publication adequate for such purpose.

The following is the current list of countries that correspond to universities with which the authors were affiliated at the time of publication: Argentina, Austria, Australia, Belgium, Canada, China, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iran, Italy, Japan, Latvia, Malaysia, Mexico, the Netherlands, Poland, Portugal, Saudi Arabia, Singapore, South Korea, Spain, Switzerland, Taiwan, Turkey, the United Kingdom, and the United States. Where more than two countries correspond to the same publication, the label «Various» is used and the entry description lists each country. Figure 7 contains an example of such a publication. The timeline search function allows users to filter per country independently of the entry label.

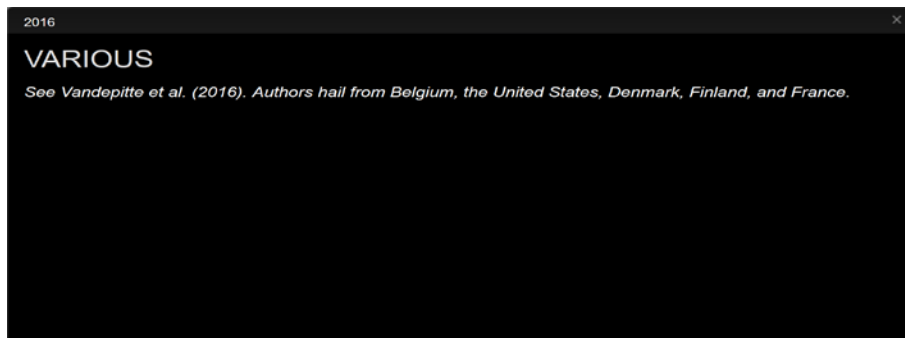


Figure 7. A Country band entry for a publication by authors from several countries

Source. Elaborated by the author

4. SEARCHING FOR DEVELOPMENTS IN ONLINE TRANSLATOR AND INTERPRETER EDUCATION

The timeline can be queried to pinpoint developments in online translator and interpreter education. Below are examples of developments in two domains: interpreting and translation. Searches involve typing words into the integrated search bar (Figure 8), which is located in the lower right-hand corner of the page¹⁶. To open the search, users click the spanner/wrench icon, which expands the timeline controls. Individual entries—or «stories», to use the software’s terminology—containing a search term are highlighted wherever the search term appears in all four category bands. The timeline search also highlights hits among clusters of entries plotted along a scrollable timeline found at the bottom of the page (Figure 9).

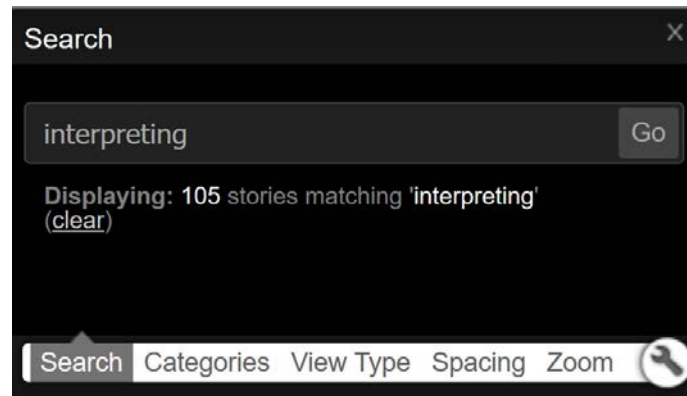


Figure 8. Timeline search bar showing the number of entries containing *interpreting*

Source. Elaborated by the author

¹⁶ The timeline does not permit truncated searches.



Figure 9. Highlighted entries containing *interpreting* above highlighted hits on a scrollable plot

Source. Elaborated by the author

4.1. *Evolving online interpreter education*

Interpreting instructors working in various modalities may wish to supplement their teaching with resources they can readily implement. The timeline has multiple records addressing the conference setting and consecutive and simultaneous modes of interpreting. These may be found by using the search words *conference*, *consecutive*, and *simultaneous*. The

example below, from the Domain band, shows multiple results linked to the ORCIT project, which represents a nexus of publications helpful to interpreting instructors (Figure 10). The Backdrop band entry for these publications links users to curated practice materials that can be used in conjunction with instructor-provided assessment (Figure 11).

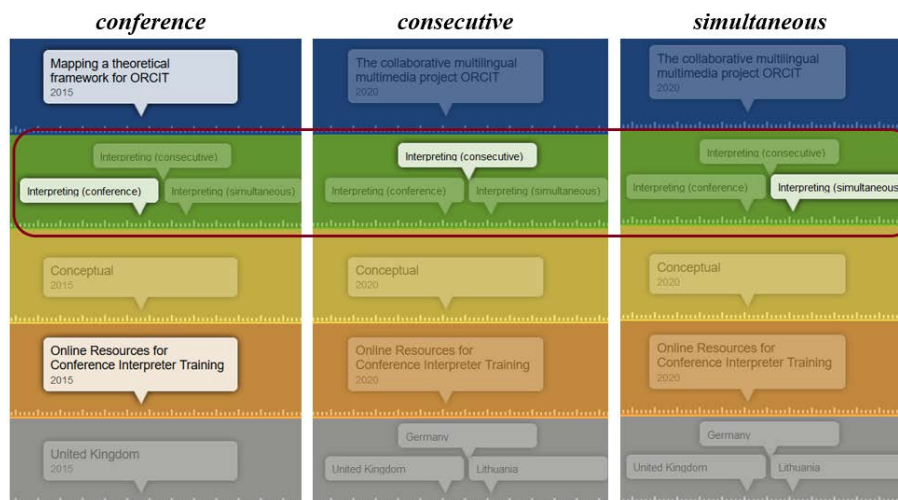


Figure 10. Three Domain band search results converging on an interpreter training project
Source. Elaborated by the author



Figure 11. A Backdrop band entry for the ORCIT project
Source. Elaborated by the author

The abstract visible when clicking on the Title band entry explains that the ORCIT project has been underway since 2010 (Figure 12) and that its corpus was substantial enough to warrant empirical evaluation as of 2016 (Carsten, 2015, p. 1). In 2020, Carsten et al. provide the most up-to-date look at this evolving project (Figure 13).

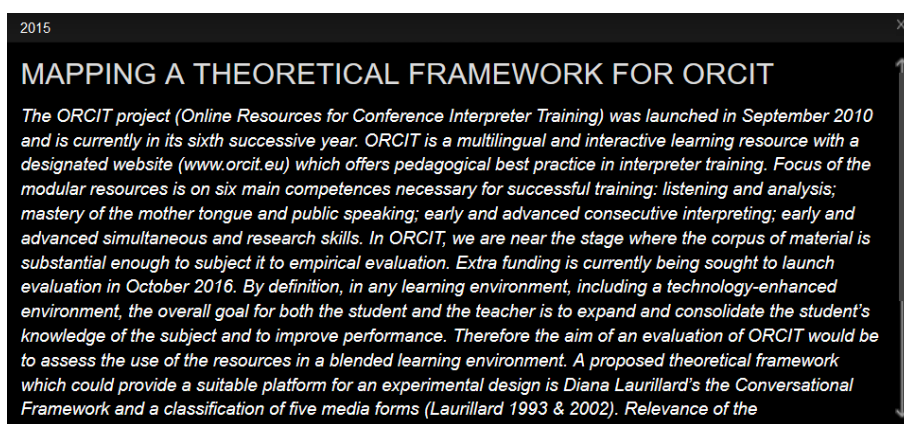


Figure 12. The earliest ORCIT-related Title band entry¹⁷
Source. Elaborated by the author



Figure 13. The latest ORCIT-related Title band entry
Source. Elaborated by the author

¹⁷ Users must scroll downward to view the full abstract and citation.

4.2. Evolving online translator education

Evolving initiatives useful to translation instructors can be located in a similar fashion. For example, the search phrase *translation (general)* yields hits for three publications related to the Spanish-language Aula.int initiative (Figure 14).

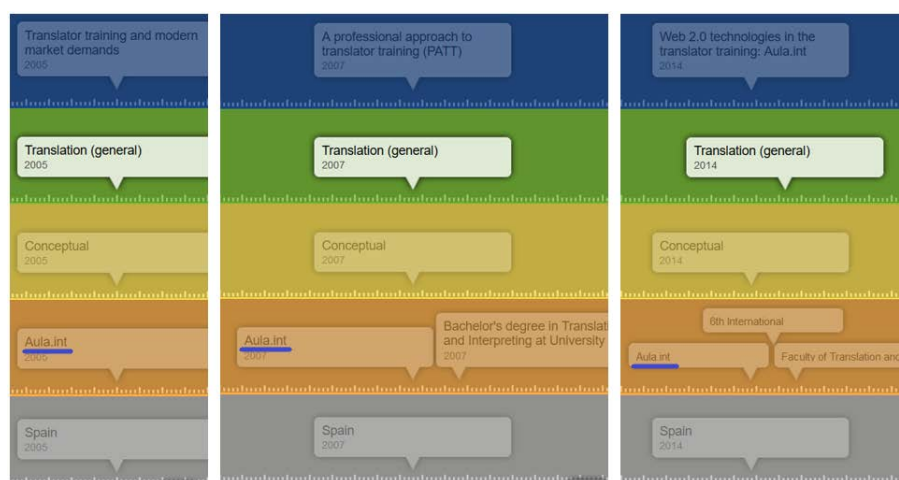


Figure 14. Three Domain band search results converging on a translator training initiative

Source. Elaborated by the author

This initiative is first logged in the timeline in 2005 (Aula.int) (Figure 14). The Aula.int website hyperlinked in the Backdrop entry lists an array of resources as well as information on how to incorporate ICTs into translation coursework in pedagogically and professionally relevant ways.

Importantly, publications falling under the umbrella of this initiative depict a chronological progression concerning how a variety of course setups play out. These texts also address how the tools used within the initiative support communication between course participants. This information supplies translator educators with ideas for designing robust online translation coursework.

The timeline also plots references to similar projects for readers of English. Figure 15 contains an example of a project notable for its geographical coverage and number of publications—eight in the timeline alone—stretching back over two decades.



Figure 15. A long-running project tied to multiple publications

Source. Elaborated by the author

CONCLUSIONS

As new online and blended programs are launched, translator and interpreter trainers must familiarize themselves with over two decades of relevant research in order to build upon existing knowledge. The public bibliography described here is designed to support teachers, researchers, and subject librarians, respectively, in their attempts to locate pedagogical proposals worth adapting to local contexts, build upon a particular vein of research, or help others gather useful bibliographical references. Individuals wishing to implement online and blended coursework will find in the Online Translator and Interpreter Education timeline ideas for both effective remote courses and long-term online and blended learning solutions. This centralized, searchable bibliographic record points researchers around the world to the work of others from whose experiences they might learn. As teachers and researchers, we need not feel alone in our efforts to develop, implement, and improve online learning for the benefit of our students and the language industry at large.

Importantly, the resource is a curated, more specialized bibliography than those currently available. It serves as a point of departure for analyzing the discourse surrounding online and blended translator and interpreter education. The methods described above have already yielded a range of potential keywords, and the resource can be used to map trends and developments in online T&I pedagogy as well as identify gaps in the knowledge of users to ensure forward movement in the field. The number of publications and ongoing initiatives visible in the timeline suggests that online translator and interpreter education is an emerging specialty in T&I pedagogy

as well as in TIS more generally. It is hoped that the specialized bibliographical resource described here will aid interested scholars in defining this speciality and exploring it further.

REFERENCES

- Ally, M. (2008). Foundations of educational theory for online learning. In T. Anderson (Ed.), *The theory and practice of online learning* (2nd Ed., pp. 121-142). Athabasca, Canada: Athabasca University Press. https://www.aupress.ca/app/uploads/120146_99Z_Anderson_2008-Theory_and_Practice_of_Online_Learning.pdf
- Ammar, W., Groeneveld, D., Bhagavatula, C., Beltagy, I., Crawford, M., Downey, D., Dunkelberger, J., Elgohary, A., Feldman, S., Ha, V. A., Kinney, R. M., Kohlmeier, S., Lo, K., Murray, T. C., Ooi, H.-H., Peters, M. E., Power, J. L., Skjonsberg, S., Wang, L. L., & Etzioni, O. (2018). Construction of the literature graph in Semantic Scholar. *Proceedings of the 2018 Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies*, 3, 84-91. <https://doi.org/10.18653/v1/N18-3011>
- Angelone, E., Ehrensberger-Dow, M., & Massey, G. (2019). *The Bloomsbury companion to language industry studies*. Bloomsbury Publishing.
- Anthony, L. (2018). *AntConc* (3.5.8) [Computer software]. Waseda University. <http://www.laurenceanthony.net/software>
- Aula.int. (2005). Translator training and modern market demands. *Perspectives*, 13(2), 132-142. <https://doi.org/10.1080/09076760508668982>
- Carsten, S. (2015). Mapping a theoretical framework for ORCIT. *Vertimo Studijos*, 8(8), 7-21. <https://doi.org/10.15388/VertStud.2015.8.9992>
- Carsten, S., Maskaliūnienė, N., & Perret, M. (2020). The collaborative multilingual multimedia project ORCIT (Online Resources in Conference Interpreter Training): Sharing pedagogical good practice and enhancing learner experience. In K. Ferguson, M. D. Rodríguez-Melchor & I. Horváth (Eds.), *The role of technology in conference interpreter training* (pp. 77-99). Peter Lang.
- Fernández-Rodríguez, M. (2002, June). La diferencia entre la enseñanza presencial y la enseñanza a distancia. Paper presented at Primer Simposi sobre l'Ensenyament a distància i semipresencial de la Tradumàtica, Bellaterra. <http://www.fti.uab.es/tradumatica/papers/>

- Franco-Aixelá, J. (2022). BITRA (Bibliography of Interpreting and Translation). <http://dti.ua.es/en/bitra/introduction.html>
- Holmes, J. S. (1972). The name and nature of Translation Studies. In L. Venuti (Ed.), *The Translation Studies reader* (1st Ed.) (pp. 172-185). Routledge.
- Hubscher-Davidson, S., & Devaux, J. (Eds.). (2021). Teaching translation and interpreting in virtual environments [Special issue]. *The Journal of Specialised Translation*, 36b. https://www.jostrans.org/issue36/issue36_toc.php
- Jakobson, R. (1959/2021). On linguistic aspects of translation. In L. Venuti (Ed.), *The Translation Studies reader* (4th Ed.) (pp. 156-161). Routledge.
- Killick, T. (2010). Abstract. In M. F. Suarez, S. J., & H. R. Woudhuysen (Eds.), *The Oxford Companion to the Book*. Oxford University Press. <http://www.oxfordreference.com/view/10.1093/acref/9780198606536.001.0001/acref-9780198606536-e-0065>
- Lu-Chen, Y., & Zeng, S. M. (1999). Web-based T&I training and Asian languages. In A. Álvarez-Lugris & A. Fernández-Ocampo (Eds.), *Anovar/Anosar: estudios de traducción e interpretación* (Vol. 2, pp. 103-107). Servicio de Publicacións da Universidade de Vigo.
- Mansilla, D., & González-Davies, M. (2017). El uso de estrategias socioafectivas en el aula virtual de traducción: una propuesta didáctica. *Revista Digital de Investigación en Docencia Universitaria*, 11(2), 251-273. <https://doi.org/10.19083/ridu.11.568>
- Mazzei, C., & Ibrahim-Aibo, L. J.-R. (2022). *The Routledge guide to teaching translation and interpreting online*. Routledge.
- Moore, M. G. (2019). Preface. In M. G. Moore & W. C. Diehl (Eds.), *Handbook of distance education* (4th Ed.). Routledge.
- Moore, M. G., & Kearsley, G. (2012). *Distance education: A systems view of online learning* (3rd Ed.). Wadsworth Cengage Learning.
- Pym, A. (2001). E-learning and translator training. http://usuaris.tinet.cat/apym/on-line/training/2001_elearning.pdf
- Pym, A., Fallada, C., Biau, J. R., & Orenstein, J. (Eds.). (2003). *Innovation and e-learning in translator training: Reports on online symposia*. http://www.intercultural.urv.cat/media/upload/domain_317/arxius/Innovation/innovation_book.pdf

- Reinke, U. (1997). Computergestützte Kommunikation im Übersetzungsunterricht? *Lebende Sprachen*, 42(4), 145-153. <https://doi.org/10.1515/les.1997.42.4.145>
- Saldanha, G., & O'Brien, S. (2014). *Research methodologies in Translation Studies*. Oxford, UK: Routledge.
- Sammons, S. (1993). Challenges in minority language programming in Canada's eastern Arctic: The training of aboriginal language interpreter-translators. *Meta: Journal des traducteurs*, 38(1), 45-50. <https://doi.org/10.7202/004023ar>
- Sener, J. (n.d.). Updated e-learning definitions. The OLC Blog. <https://onlinelearningconsortium.org/updated-e-learning-definitions-2/>
- Seresi, M., Eszenyi, R., & Robin, E. (Eds.). (2021). *Distance education in translator and interpreter training: Methodological lessons during the Covid-19 pandemic*. Department of Translation and Interpreting, ELTE.
- Shattuck, K. (2014). *Assuring quality in online education: Practices and processes at the teaching, resource and program levels*. Stylus Publishing.
- UNESCO. (2017). Information and communication technologies (ICT). In *UIS glossary*. <http://uis.unesco.org/en/glossary-term/information-and-communication-technologies-ict>
- van Doorslaer, L. (2022). *Translation Studies Bibliography*. <https://benjamins.com/online/tsb/>
- Williams, J., & Chesterman, A. (2002). *The map: A beginner's guide to doing research in Translation Studies*. Routledge.