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Chapter 10. Audiovisual Translation

Jorge Díaz-Cintas

Abstract

In a technologically driven multimedia society like the present one, the value of the moving images is crucial when it comes to engaging in communication. This greater currency of audiovisual productions has brought about the need for their translation into other languages, thus raising the importance and visibility of audiovisual translation (AVT), both as an academic discipline as well as a professional activity. This chapter starts by exploring the many instantiations of AVT, which can be broadly clustered in two main groups: revoicing and timed text. It then offers an overview of the main research topics that have marked the evolution of this area of knowledge, with a distinct emphasis on the synergies established between academia and the industry. This collaboration has been gradually strengthened over the years, from the early descriptive studies fixated on probing the nature of the translated product and the numerous overviews focused on the professional environment and labour dynamics, to the more recent interest in the application of automation and CAT tools to the practice of AVT and the in-vogue investigations centred on audience reception.

Keywords: audiovisual translation; subtitling; timed text; revoicing; dubbing; media accessibility

I. Introduction

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Audiovisual translation (AVT) is an academic discipline and professional activity that involves the localization of audiovisual media content by means of different translation practices. Translating this type of material requires awareness of the coexistence of the acoustic and the visual communication channels through which verbal and nonverbal information is concurrently conveyed. In recent decades, the complex semiotic texture of audiovisual productions has been of great interest to scholars in translation studies, and the profession has greatly multiplied and diversified ever since the advent of digital technology in the last quarter of the 20th century. For some, the audiovisual format has become the quintessential means of communication in the new millennium.

Also known as screen translation, film translation, multimodal translation and multimedia translation, among other nomenclatures, the term 'audiovisual translation' has come to be the one with wider currency in academic exchanges thanks to its transparency. The texts involved in this type of specialised translation combine two complementary channels (audio and visual) and a series of meaning-making codes (language, gestures, paralinguistics, cinematic syntax), whose signs interact and build a semantic composite of a complex nature (Zabalbeascoa-Terrán 2001; Martínez-Sierra 2008). Used as an umbrella term, AVT subsumes a raft of translation practices that differ from each other on the nature of their linguistic output and the translational techniques on which they rely. Their inner differences notwithstanding, the common axis that underlies all these modes is the semiotic nature of the source and target texts involved in the AVT process. In addition to having to deal with the communicative complexities derived from the simultaneous delivery of aural and visual input, audiovisual translators have to learn how to cope with the technical constraints that

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characterize this translation activity and be familiar with the utilization of AVT-specific software that allows them to perform the technical tasks.

1. Audiovisual translation practices

In the main, there are two overarching approaches when dealing with the linguistic transfer in AVT: revoicing and timed text. Whereas the former consists in substituting the original dialogue soundtrack with a newly recorded or live soundtrack in the target language (TL) (Chaume-Varela 2006: 6), timed text works in a chiasmic manner by rendering the original dialogue exchanges as written text, usually superimposed onto the images, and placed at the bottom of the screen. Both revoicing and timed text can be used in their more traditional way, that is to bridge linguistic barriers, or to facilitate access to audiovisual productions for audiences with sensory impairments such as the deaf, the hard-of-hearing, the blind and the partially sighted.

Revoicing is a hypernym that encompasses different AVT practices, in which the oral output of the original production also remains oral in the target text. Based on the various categorizations of revoicing practices that have been put forward by authors such as Luyken et al. (1991), Karamitroglou (2000) and, more recently, Chaume-Varela (2012), the five more prominent ones are discussed in these pages, namely voiceover, narration, dubbing, simultaneous interpreting and audio description.

Voiceover (VO) consists in orally presenting the translation of the original speech over the still audible original voice. According to Díaz-Cintas and Orero (2010), the standard approach from a technical perspective is to allow the speaker to be heard in the foreign language for a few seconds, after which the volume of the soundtrack is dimmed, so that the original utterances can be still heard in the background, and the

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translation in the TL is then narrated. The translation typically concludes whilst the speaker continues talking for a few more seconds, so that the audience can clearly hear the foreign language once more. Closely associated with the translation of factual genres, such as documentaries and interviews, it is hailed by some authors (Franco et al. 2010:26) as a transfer mode that faithfully respects the message of the original text; an assertion that is, of course, highly debatable. **Narration** is virtually identical to voiceover as regards the actual translation of the source language. The main difference resides in the fact that in the case of narration the original utterances are wiped out and replaced by a new soundtrack in which only the voice of the TL narrator can be heard. The ensuing translation is often roughly synched with the visuals.

Dubbing, also known as lip-sync and famously referred to as *traduction totale* by Cary (1960) because of its many linguistic challenges, implies the substitution of the dialogue track of an audiovisual production with another track containing the new exchanges in the TL (Chaume-Varela 2012), and is widely practiced in countries like Brazil, China, France, Germany, Japan, Italy, Thailand, Turkey and Spain, among many others. A fictional world within a wider fictional world that is cinema, dubbing's ultimate aim is to make viewers believe that the characters on screen share the same language as the viewer. To achieve this goal, three types of synchronization need to be respected: lip synchrony (lip-sync), isochrony and kinetic synchrony. Lip-sync ensures that the TL sounds fit into the mouth of the onscreen characters, particularly when they are shown in close-up. Isochrony takes care that the duration of the source and the target utterances coincide in such a way that the target lines can be comfortably fitted between the openings and closings of the character's mouth. The third type, kinetic synchrony, seeks to guarantee that the translated dialogue does not contradict the

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performance of the actor and that the voices chosen for the new recording are not at odds with the personal attributes and the physical appearance of the onscreen characters.

Interpreting, whether simultaneous or consecutive, is a practice currently restricted to the translation of live speeches and interviews that used to be reasonably common during screenings at film festivals, when the film prints arrived too late and there was not enough time to have them subtitled.

Finally, **audio description** (AD), an access service for visually impaired audiences, can be defined as: 'a precise and succinct aural translation of the visual aspects of a live or filmed performance, exhibition or sporting event for the benefit of visually impaired and blind people. The description is interwoven into the silent intervals between dialogue, sound effect or commentary.' (Hyks 2005:6)

This additional narration describes any visual or audio information that will help an individual with a visual impairment to follow the plot of the story, such as the body language and facial expressions of the characters, the surrounding landscape, the source of certain sounds, the actions taking place on screen and the costumes worn by the actors. European and nation-specific legislation aimed at encouraging the provision of assistive services in order to enhance access to audiovisual media for people with sensory disabilities has allowed for the quantitative expansion of AD, especially in public service broadcasting, but also on DVDs, in cinemas, theatres, museums and, more recently, on the internet.

The second main approach to AVT consists in adding a written text to the original production, for which some players in the industry have started to use the general term 'timed text'. These flitting chunks of text correspond to condensed, synchronized

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translations or transcriptions of the original verbal input in the source language. As a superordinate concept, timed text can be either interlingual or intralingual, and it subsumes the following related practices: subtitling, surtitling, subtitling for the deaf and the hard-of-hearing and respeaking.

Interlingual **subtitling** can be defined as a rendition in writing of the translation into a TL of the original dialogue exchanges uttered by the different speakers, as well as of all other verbal information that is transmitted visually (letters, banners, inserts) or aurally (lyrics, voices off). In a nutshell, subtitles do not usually contain more than two lines, each of which can accommodate a maximum of some 35 to 42 characters, and are displayed horizontally at the bottom of the screen (Díaz-Cintas 2010). They appear in synchrony with the dialogue and the image and remain on screen for a minimum of one second (or 20 frames) and a maximum of 6 (or 7) seconds. The assumed reading speed of the target audience dictates the rate of presentation of the text, with 12 to 17 characters per second being standard ratios (4 to 5 in the case of languages like Chinese and Japanese). It is the preferred audiovisual translation mode in countries like Belgium, Croatia, Greece, the Netherlands, Portugal and the Scandinavian countries, among many others, and it has known an exponential growth in recent years inasmuch as DVDs and today's video on demand services integrate multilingual subtitles to reach a wider audience throughout the world.

Surtitling, also known as supertitling, is the translation or transcription of dialogue and lyrics in live opera, musical shows and theatre performances. The surtitles are projected onto a screen placed above the stage and/or displayed on a screen fixed in the seat in front of the audience member (Burton 2009: 59). In a similar way to subtitles, their aim is to convey the overall meaning of what is being enunciated or sung, whilst

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complying with time and space limitations. On occasions, they may add some clarifications, for example characters' names, so that the audience finds it easier to follow the diegesis.

The other major access service in AVT, **subtitling for the deaf and the hard-of-hearing** (SDH), also known as captioning, is a practice that consists of presenting on screen a written text accounting for the dialogue, music, sounds and noises contained in the soundtrack for the benefit of audiences with hearing impairments. In SDH, subtitlers thus transfer dialogue along with information about who is saying what, how is it being said (emphasis, tone, accents and use of foreign languages), and any other relevant features that can be heard and are important for the understanding of the storyline (instrumental music, sound effects, environmental noise). The use of colours and labels to identify speakers, the displacement of the subtitles, and the description of paralinguistic features like 'sighs' or 'coughs' are some of the characteristics that define this type of subtitling.

Live subtitling is the production of subtitles for live programmes or events, which can be achieved by several means. This type of subtitling can be both intralingual and interlingual and be real live, as in a sports programme, or semi-live, as in the news, where a script of the content is usually made available shortly before the broadcast. Traditionally, professionals used stenotype techniques and keyboards to transcribe or translate the original dialogue but these days respeaking, or speech-based live subtitling, is gaining ground in the industry. This latter approach makes full use of speech recognition, whereby a respeaker listens to the original utterance and respeaks it, including punctuation marks, to a speech recognition software that then displays subtitles on the screen with the shortest possible delay (Romero-Fresco 2011:1).

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Similarly to AD, both SDH and respeaking have spread widely in the last decades thanks to national and international legislation enforcements, such as the EU Audiovisual Media Service Directive (2010). In countries like the UK, where SDH has been on offer since the 1980s, the percentage of captioned programmes on traditional TV channels is very high, with the BBC subtitling 100% of their productions. Recently, legislation has been passed in the form of the Digital Economy Act 2017, compelling on-demand broadcasters to include subtitles, AD and signing on their programmes (Wilkinson-Jones 2017).

The democratization of technology has acted as a fillip for the rise of amateur practices on the internet, giving birth to new translation activities primarily based on revoicing and subtitling. Of these, **fansubbing**, arguably the best-known manifestation of fan translation, is the subtitling of audiovisual productions, originally Japanese *anime*, done by fans for fans and nowadays normally distributed for free over the internet (Díaz-Cintas and Muñoz-Sánchez 2006). **Fandubbing**, on the other hand, implies the dubbing of a foreign language film or television show into a TL, done by amateurs or enthusiasts rather than by professional actors. The merits of the linguistic transfer and the technical dimension aside, both modes are in essence pretty similar to their professional counterparts.

According to research conducted on behalf of the Media & Entertainment Services Alliance Europe, audiovisual media content localization across Europe, the Middle East and Africa is expected to increase from \$2 billion in 2017 to over \$2.5 billion before 2020 (Tribbey 2017). The explosion in channels and video on demand platforms, driven partly by so-called over-the-top (OTT) players, who specialize in the delivery of content over the internet, has opened up more opportunities for programme makers to sell their

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titles in new markets. With this fast-growing global demand for content that needs to be translated – not only high-profile new releases but also back-catalogue TV series and films for new audiences in regions where they have not been commercialized previously –, a shortage of professional translators has become one of the industry's biggest challenges. Given the lack of formal AVT training in many countries, the situation is likely to get worse in the short term in the case of certain language combinations.

II. Research focal points

Having existed since the turn of the 20th century as a professional activity, AVT remained practically unexplored by scholars until the early 1970s. However, the rapid technological changes experienced in the last decades and a growing interest in the communication potential unleashed by multimodal productions have raised the visibility and status of AVT, now heralded by many as a dynamic, vibrant and mature field of research. Coinciding with the celebration in 1995 of the centenary of the invention of cinema, the organization of a series of international events on the translation of media content could be symbolically considered the catalyst that triggered academia's interest in these practices. Such pioneering actions sowed the seeds for the development of international bodies like the European Association for Studies in Screen Translation (ESIT) and the establishment of series of conferences that since then have taken place regularly, such as *Languages & the Media* and *Media for All*. Usually held in partnership with stakeholders from the industry, these initiatives have raised the social and academic visibility of AVT and enlightened applied research studies in the field. The publication of a substantial number of monographs and collective books on the topic, as well as the completion of doctoral theses and the launch

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of numerous undergraduate and postgraduate training courses, have also contributed to the development of this area. A special issue of *Babel*, edited by Caillé (1960), was the first one by a leading journal in translation studies to focus on AVT, albeit with a strong emphasis on dubbing to the detriment of the rest of modes. Many special issues have since been published by other first-class scholarly journals, such as *The Translator* (9:2, 2003), *Meta* (49:1, 2004), *Cadernos de Tradução* (2:16, 2005), *The Journal of Specialised Translation* (6, 2006), *InTRAlinea* (2006), *Linguistica Antverpiensia New Series* (6, 2007), *Perspectives* (21:4, 2013), *MonTI: Monographs in Translation and Interpreting* (4, 2012), *TRANS: Revista de Traductología* (17, 2013), *Target* (28:2, 2016), and *Altre Modernità* (2016). In view of this burgeoning intellectual bustle, it can be safely argued that, despite the initial hoops, AVT has been able to progressively consolidate itself as an academic field worth of serious scholarship.

In the current theoretical context where the traditional dichotomy between translation and interpreting is founded on the medial nature of the source and target texts, AVT seems to lie somewhere in-between, due to its multimodal nature. The situation is compounded by the fact that research has normally insisted in the perception of AVT as if it were a single, homogeneous and unifying activity, when in reality it is made up of a myriad of practices that can be very different from each other.

Be that as it may, theorists and industry professionals who have reflected on AVT-related issues have managed to build a substantial body of AVT-specific literature that has helped demarcate the potential and the boundaries of the discipline. As recently discussed by Ramos-Pinto and Gambier (2016), AVT specialists seem to have focused on five pivotal inquiry clusters, namely, history-related foundations, descriptive studies of

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so-called 'AVT translation problems', translating process analysis, language policies and accessibility issues.

Anxious to foreground the specificity of the field against other translation practices, many works have looked at AVT from a professional point of view, focusing on its mechanics and technical dimension (Pommier 1988; Luyken et al. 1991; Ivarsson and Carroll 1998), and on the semiotic and societal similarities / differences between dubbing and subtitling (Koolstra et al. 2002; Pettit 2004). In this search for differentiation from other linguistic transfer activities, some debates have concentrated on linguistic idiosyncrasies (Tomaszkiewicz 1993; Pavesi 2005), the impact that the pre-fabricated orality of the original dialogue has in the TL (Guillot 2008; Baños-Piñero and Chaume-Varela 2009), the nature of the translation strategies most frequently implemented (Gottlieb 1992; Martí-Ferriol 2013), the specificities of translating for children (O'Connell 2003), the case of redubbing (Zanotti 2015; Di Giovanni 2017), as well as the challenges presented by the transfer of wordplay (Schröter 2005), humour (Zabalbeascoa 1996; Martínez-Sierra 2008; De Rosa et al. 2014), cultural references (Ramière 2007; Pedersen 2011; Ranzato 2016), linguistic variation (Ellender 2015), multilingualism (de Higes Andino 2014) or swearing (Han and Wang 2014).

If the search for specific features that could justify the autonomy of AVT as a distinct branch from other translation activities was one of the main propellers in the early investigations, it is widely acknowledged these days that the way forward has to be found in its interdisciplinarity and synergies with other branches of knowledge. For many years, scholars like Chaume-Varela (2004) and, more recently, Romero-Fresco (2013) have advocated closer interaction with film studies and filmmakers, and the works of De Marco (2012) have benefit from the theoretical apparatus borrowed from

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gender studies in order to shed light on how the language used in the translated dialogue lines affects or is affected by social constructs such as gender, class and race. Similarly, premises and conceptualizations from postcolonial studies have proved highly operative in disentangling the role played by multilingualism in diasporic films (Beseghi 2017).

The heterogeneous nature of the audiovisual text rightly justifies the application of interdisciplinary methodologies and analytical approaches and it is in this expansion of interests and methods that academia and industry can initiate inchoate fruitful synergies. Establishing who informs whom in the process may not always be straightforward, as true collaboration should travel in both directions. In what follows, a deliberate attempt has been made to avoid references to research appertaining to the field of accessibility to the audiovisual media, as this topic is covered in another chapter of this volume. The main focus is thus on interlingual practices and only on a few occasions, when the contrast may prove illuminating, will mention be made of works and projects centred on access services.

III. Informing research through the industry

Sharp boundaries between theoretical assumptions and professional practices have traditionally existed in most academic disciplines. The tension between abstract and hands-on approaches is a recurrent issue in the relationship between the academic world and the industry, which is by no means unique to translation circles. Striking a happy balance between both is of paramount importance to safeguard the wellbeing of the discipline and the profession. In the particular case of AVT, research has been relatively anchored on professional practice and many publications and projects have

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(in)directly focused on the profession by studying the product, the workflows and the agents of translation. In this respect, it can be argued that, for many years, the industry has been informing research rather than the other way around. In fact, many of the works in the field have been written by practitioners and academics with vast experience in their trade, who wanted to share their knowledge with other colleagues and the academic world at large (Laks 1957; Hesse-Quack 1969; Pommier 1988; Luyken et al. 1991; Ivarsson and Carroll 1998; Karamitroglou 1998; Díaz-Cintas and Remael 2007). Of a predominantly applied nature, their insider's knowledge has helped cement the foundations of the discipline and their works have been widely used to inform training in the field and to spur additional studies.

A downside of this state of affairs is the fact that, without further research, some of these guidelines and parameters risk being perpetuated through teaching and fossilized in professional practice, thus ignoring the possibility that changes may have occurred in the way in which viewers consume audiovisual productions, and that some old conventions may have become obsolete. Contradictions about the implementation of certain standards within and across languages can be puzzling and costly for companies aiming for a global reach. It is here that reception studies instigated and conducted by academics can help assess whether viewers are satisfied with the current state of affairs and whether their needs and gratifications have evolved with time and, if so, how best to reflect these variations in real practice.

The role played by technology has been crucial not only with regard to the way AVT practices have changed and evolved but also to the manner in which research has responded to these changes. The difficulty of getting hold of the actual physical material, together with the tedium of having to transcribe the dialogue and translations, and

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having to wind and rewind the video tape containing them, may help partly justify the reluctance to conduct research on AVT in the early decades. However, the advent of digital technology and the subsequent arrival of the DVD in the mid-1990s can be hailed as an inflection point for the industry and academia (Kayahara 2005). The new distribution format acted as a research accelerator as it facilitated access to multiple language versions of the same production on the same copy and allowed, for instance, the easy extraction (i.e. ripping) of the subtitles and the timecodes. Conducting comparative analyses across languages, or getting hold of a seemingly infinite number of audiovisual programmes with their translations, had suddenly become a rather simple task. It is not surprising, therefore, that the number of scholarly publications started to grow exponentially around this time. The industry had come up with a novel way of distributing material that had not only captivated the audience but also revolutionized the way in which audiovisual translations were produced and consumed. Understandably, research interest focused on exploring and teasing out the main linguistic and technical characteristics of this 'newly discovered' field, that is AVT, with its many realizations, covering the wide range of topics already discussed in section 2 above. This academic fascination with the study of the actual product as delivered by the industry, and its imbrication in the new hosting socio-cultural environment, can also be traced in the various works that have centred on the impact that censorship and ideological manipulation have in the translation of audiovisual productions (Díaz-Cintas 2012; Mereu Keating 2016; Díaz-Cintas et al. 2016). The fact that this audiovisual media boom coincided in time with the then upcoming Descriptive Translation Studies paradigm postulated by Toury (1995) explains why a large number of projects carried out in the field subscribed to this theoretical framework.

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In the main, technical innovation, such as the development of specific AVT software or the more recent cloud-based platforms such as Ooona¹ and NuNet², has been mostly instigated by the industry, away from scholarly centres. Collaboration on this front has been traditionally minimal and scholars have been left with little margin for manoeuvre beyond the odd study assessing the functionality of the tools from a didactic perspective (Roales-Ruiz 2014). Notwithstanding the sensitivities surrounding commercial secrecy, a more advantageous relationship should be explored among the interested parties, whereby researchers could be granted wider access to the in-the-cloud platforms so that user experience tests can be conducted among practitioners and translators-to-be in exchange for advice on potential improvements. Such collaboration would also propitiate a better understanding of the functioning of these cloud-based project management systems and online subtitling/dubbing editors, which in turn would inform the training of future translators on up-to-date technologies and workflows.

One of the reasons for the lack of collaboration on the technical front is the fact that theorizing the impact of technology on activities like dubbing or subtitling can prove elusive and challenging, as few theoretical frameworks have been developed that could help scholars to conduct critical analyses. As discussed by O'Hagan (2016), one of the reasons behind this state of affairs is the fact that technological factors have never been duly considered a meaningful domain in mainstream translation theories, which have consequently failed to acknowledge the epistemological significance of technology in translational activity. To bolster current translation debates, particularly when dealing with multimodal products, more room has to be made to allow for interdisciplinary

¹ See <http://ooona.net>

² See www.undertext.se

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perspectives that will help scholars theorize the invasive role of technology. In this respect, the works published by Ehrensberger-Dow and O'Brien (2015), Massey and Ehrensberger-Dow (2017) and Teixeira and O'Brien (2017) on cognitive and ergonomic aspects of computer workstations, the workplace and working environment, tools and resources, workflow and organisation as well as health and related issues can be hailed as pioneering. A forerunner in the field of subtitling is the study by Beuchert (2017), in which she adopts a situated cognition approach to investigate subtitling processes focused not only on the subtitlers' internal, cognitive translation processes, but also on the external, contextual factors surrounding the subtitlers and their tasks, including the work environment and the role of technology.

In its social role, scholarship also endeavours to improve and advance the teaching and learning of a particular discipline in order to prepare fully qualified professionals and guarantee its sustainability into the future. The strategic design of forward-looking curricula is imperative as translators-to-be should be able to predict potential changes in the profession as well as be prepared and equipped to adapt to them. To narrow the proverbial chasm between the industry and academia, the latter would benefit from learning about the current and future needs of the former, which in turn can help scholars to conduct self-reflective research on innovative and transformational changes to the curriculum on offer at their own institutions. Yet, limited research has been carried out in this area (Díaz-Cintas 2008; Cerezo-Merchán 2012).

A closely related area that has attracted the attention of scholars is the exploration of the potential benefits that using subtitled versions or other AVT modes can have on foreign language education (Incalcaterra Mcloughlin et al. 2011; Talaván-Zanón 2013; Gambier et al. 2015). Empirical in nature, the output of this research is mainly based on

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the results obtained from conducting experiments with participants learning a second language. Worthy of mention are the European funded research projects LeVis³ and ClipFlair⁴, both of which draw their inspiration from AVT activities and had, as part of their main objectives, the design and development of tools and educational material for foreign language teaching and learning.

IV. Informing the industry through research

Traditionally, a perceived preference towards theorization with no ready application to practice has fuelled the suspicions in some quarters of the translation industry as to the worth that some of these academic fruits represent for the profession. The situation may well be changing and, as claimed by Williamson (2016) in her exploration of the impact that academic research has on professional subtitling practitioners, the social relevance of research to practice has gained prominence of late as academics are increasingly required by governments and funding bodies to demonstrate the impact of their scholarly activity outside of the academy. Research is indeed a rewarding enterprise but, for it to be embraced by industry partners, it has to have an empirical foundation. Indulging in intellectual pursuits that are wilfully disconnected from the practical concerns of the profession, or that do not take into consideration the needs of the final users, runs the risk of being perceived as a fruitless, otiose adventure of little interest to the industry. As in many other walks of life, a happy medium has to lie in a balanced coupling of theory and practice and, in this respect, the opportunities for cross-fertilization in translation are enormous and the prospects very encouraging. In

³ Learning via Subtitling, 2006-2008, see <http://levis.cti.gr>

⁴ Foreign Language Learning through Interactive Captioning and Revoicing of Clips, 2011-2014, see <http://clipflair.net>

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what follows, some research projects with a direct impact on enhancing the language industry are discussed.

The assessment of quality in translation has always been a thorny issue because of its encompassing nature, affecting as it does all phases of the process, and due to its inherent subjectivity. The rise of the Descriptive Translation Studies paradigm, as a reaction to a history of rather dogmatic approaches in our field, meant that prescriptive approximations, which tend to be preferred by the industry, were out of the question in scholarly circles. In AVT, little research was carried out on the topic before the start of the new millennium, when the situation experienced a radical turn and publications in interlingual translation as well as accessibility started to emerge. Some of these embraced new theoretical paradigms of proven currency in other disciplines, like Action Research and Actor Network Theory.

Romero-Fresco's (2011) proposed NER model to gauge the quality and accuracy rate in intralingual live subtitling and respeaking has inspired scholars like Pedersen (2017) to develop a similar model, FAR, for the assessment of quality in the more slippery context of interlingual subtitling. Kuo's (2014) study on the theoretical and practical aspects of subtitling quality opens up the scope and paints a collective portrait of the subtitling scene by also canvassing subtitlers' views and providing a glimpse of the demographic make-up of the professionals involved in this rapidly evolving industry. Research has also been carried out on other equally applied topics of interest to the industry, such as the use of templates in multilingual projects (Nikolić 2015), quality standards in dubbing (Chaume-Varela 2007), the adaptation of existing quality models to AVT (Chiaro 2008) and the dynamics of subtitling production chains within an actor-network theoretical framework (Abdallah 2011). The benefits of this line of research,

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which can be very time-consuming and beyond the reach of most small and medium-sized enterprises, are obvious and allow all stakeholders to gain a fuller picture of the internal and external parameters that affect the quality of the translated production.

Another area of great interest to the industry has been the exploration of the application of technology, in particular machine translation, to increase productivity and cope with high volumes of work and pressing deadlines. The relative ease with which quality subtitle parallel data can be obtained has been the catalyst for the introduction of statistical machine translation (SMT) technology in subtitling. Under the auspices of the European Commission, projects like SUMAT (SUBtitling by MACHine Translation, 2011-2014), have focused on building large corpora of aligned subtitles in order to train SMT engines in various language pairs. Its ultimate objective is to automatically produce subtitles, followed by human post-editing, in order to increase the productivity of subtitle translation procedures and reduce costs and turnaround times while keeping a watchful eye on the quality of the translation results (Georgakopoulou and Bywood 2014). A similar project, conducted around the same time, was EU-BRIDGE⁵, whose main goal was to test the potential of speech recognition for the automatic subtitling of videos. The works of Flanagan (2006) and Burchardt et al. (2016) on the quality of machine translation output in AVT are also a testimony to the interest raised in this area.

A vast amount of research to date on AVT has been largely based on argumentation and descriptivism, with the result that, in the main, empirical evidence accumulated has not been directed towards evaluating and appraising the prescriptive conventions applied in the profession. Perhaps surprisingly, given the experiential research tradition

⁵ 2012-2014, see <https://www.eu-bridge.eu>

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found in media studies, the views of the audience have also been conspicuously absent in many of the academic exchanges, which also tend to lack the practitioner's perspective. Recently, however, a conscious move to go beyond descriptivism has brought a shift of focus from the analysis of the textual idiosyncrasies of the original to the exploration of the effects that the ensuing translation has on viewers. Researchers aiming to gain a deeper understanding of the audience's behaviour and attitudes towards the consumption of translated audiovisual productions have started to appropriate theoretical frameworks from the social sciences in their own studies. An example of this type of work is that of Di Giovanni (2016), who, making use of the traditional questionnaire, reports on a series of studies carried out at major Italian film festivals with the aim to evaluate audience reception of subtitled films and their awareness of what contributes to, or jeopardizes, quality in subtitling.

The interest in this type of approach has been unremitting. Over the last decade, the use of interdisciplinary methods for empirical research, and with them the recourse to specialized software such as eyetrackers and, to a much lesser extent, biometric sensors that monitor and record facial expressions as well as the activity of the brain (EEG) and the heart (ECG), have opened up new and exciting avenues for better understanding the perception and reception of audiovisual texts in translation and, ultimately, for improving the quality of the end product. These biometric and imaging methods, in combination with more traditional approaches such as questionnaires, interviews and computerised tests, have the potential of yielding results of a much-applied nature that the industry can easily factor into their *modus operandi*.

Innovation on this front has so far being primarily spearheaded by academic and commercial researchers working in the field of media accessibility, who are currently

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leading the way in user-based studies. As claimed by Di Giovanni (2016:60), this may simply be 'a natural tendency, as both the research and the practice of media access for the sensory impaired are deeply grounded in the knowledge and involvement of the end users'. Yet, the fact remains that this flurry of empirical experimentation taking place in SDH and AD sharply contrasts with the scarcity and narrow scope of the reception studies being conducted in the more traditional translation areas of dubbing and subtitling. The number of studies so far carried out is still very limited and they normally include a rather small number of participants. Because of their complexity and onerous nature, large-scale empirical experiments aimed at evaluating the reception of dubbing or interlingual subtitles are thin on the ground, even though their outcomes could prove very fruitful and could feed back straight into professional practices and processes. Deciding on a subtitle presentation rate that would satisfy most if not all viewers is clearly too utopian a goal, but we can get slightly closer to it by testing and garnering information provided by the audience themselves, in an empirically objective rather than purely subjective manner.

By far, subtitling has been the activity privileged by most scholars when it comes to experimenting with eyetracking technology. The paper by Kruger et al. (2015) provides a comprehensive overview of eyetracking studies on subtitling and volunteers recommendations for future cognitive research in AVT. Likewise, the collective volume edited by Perego (2012) and the special issue of the journal *Across Languages and Cultures* (17:2, 2016) both provide a most informative account of some of the projects and experiments being conducted on AVT reception, including accessibility. If eyetracking has proved so alluring, it is because it allows researchers to explore the

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physiological and cognitive dimensions of subtitle reading and to examine participants' reactions of which they themselves may not be aware.

Some of the topics explored to date focus on the effect of linguistic variation on the reception of subtitles (Moran 2012); the impact that shot changes have on viewers' reading behaviour to test the unchallenged belief that they trigger the re-reading of subtitles (Krejtz et al. 2013); the role of poor line breaks in subtitle comprehension (Perego et al. 2010); the influence of text editing (reduced vs. verbatim subtitles) and subtitle presentation rates on the viewers' comprehension and reading patterns (Szarkowska et al. 2016); and the response of viewers to badly synchronized subtitles (Lång et al. 2013). Filizzola (2016), for her part, adopts a twofold methodology that combines the use of a survey questionnaire with eyetracking technology to discover whether the import of British stand-up comedy productions with subtitles could be successful in a dubbing country like Italy. Because of their applied nature and their emphasis on testing conventions that are part of the daily routine of AVT translators, the results yielded by many of these experiments can inject new knowledge into the profession and have the potential of effecting actual change in the industry.

Experimental approaches that rely on eyetrackers are also being used to probe the process of translation from the point of view of the primary agents, that is the translators. A pioneering pilot study under this prism is the one conducted by Massey and Jud (2015), in which they explore the opportunities and challenges of supporting the product-oriented teaching of interlingual subtitling with screen recording and eye-tracking. More recently, Hvelplund (2018) has carried out an experiment focused on the process of translating for dubbing, during which professional translators and trainees were monitored while translating an excerpt of an animated television show. Finding

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out about the professionals' and trainees' distribution of attention and their cognitive effort during the translation activity can prove most valuable for updating and advancing educational training.

Another area that has attracted scholarly attention in recent years is the activity of web-based communities of non-professional translators. Controversial practices like fansubbing (Díaz-Cintas and Muñoz-Sánchez 2006; Massidda 2015), crowdsubtitling and fandubbing (Wang and Zhang 2015) have been the subject of academic enquiry that tends to theorize them from a media studies perspective. Though, at first sight, such an approach may bear little fruit for the language industry, because of its epistemic predisposition, gaining a deeper understanding of their dynamics and the influence that these activities exert on the savvy netizens that inhabit today's digital society can provide arresting insights into the viewing habits of this youthful, growing sector of the population. In a mercurial mediascape where the volunteering of translations and the free distribution of user-generated material are ingredients of the staple diet of daily communication, companies operating in the media industry are always on the lookout for new working paradigms that could give them the edge over their competitors. Studies like the one carried out by Caffrey (2010) problematize the use of so-called headnotes, that is additional explanatory notes that usually appear on top of the screen and are anathema in professional practice but commonly used and appreciated by fansubbers. With the help of an eyetracker, the author looks into the processing effort that the use of these pop-up glosses has on viewer perception and debates whether they could become a common feature in commercial subtitling. Also working with eyetracking, Orrego-Carmona (2016) embarks on a study that explores the audience reception of subtitled TV series using professional and non-professional subtitling.

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More questionable from an ethical viewpoint, the European Commission, through their MEDIA programme, has launched two €1 million preparatory actions, in 2015⁶ and 2017⁷, to research how crowdsourcing and other innovative solutions could reduce the costs of obtaining subtitles and increase the circulation of European works.

V. Concluding remarks

Any claimed hostility between academia and industry is a symptom of shortcomings in previous conceptualizations of the relevance of research to practice, deriving from a falsely dichotomous theory-versus-practice argument that can be difficult to justify in an area as applied as AVT. While there will always be studies of a more markedly abstract nature, investigations that ultimately inform the AVT profession and developments in the industry that are of interest to academics will continue to abound.

This chapter attests to the healthy dynamics of existing and potential synergies between academia and the AVT industry. Though there is room for improvement, this is no small achievement, particularly when the relative youth of the scholarly discipline and the great strides that have been made in a very short time span are considered. From descriptive studies on the nature of the translated product and overviews of the professional environment and dynamics, to the more recent interest in the application of automation and CAT tools to the practice of AVT and the in-vogue investigations of audience reception, collaboration between academia and the industry has been gradually strengthened over the decades. In the early explorations, much progress was made in understanding the object of study. In more recent research, the focal interest

⁶ See <https://tinyurl.com/y9gzfm9m>

⁷ See <https://tinyurl.com/yaxbscsm>

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has been steadily shifting to learn how viewers behave when watching audiovisual productions in translation, which is in turn bringing academia and industry closer together in the common aim of understanding the impact of AVT on the audience. The repercussions of these efforts have been beneficial for academia, practitioners, industry and pedagogy, and are starting to be so for the audience, too. And although it is true that these and other studies have helped consolidate the field of AVT research by injecting a considerable dose of interdisciplinarity, the fact remains that there is still ample space for further testing and experimenting in a discipline as richly complex and vibrant as AVT.

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