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# **ACCESSIBILITY FOR THE SCENIC ARTS**

TESIS DOCTORAL

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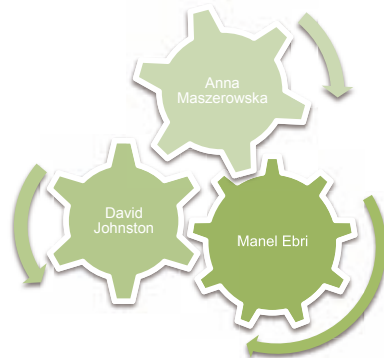


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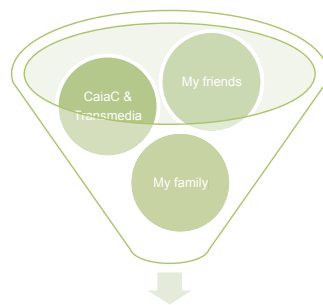
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## Abbreviation and Acronym Glossary

**ACCAPS:** Catalan Association for Deaf Parents and People.

**AD:** Audiodescription.

**ASAC Biennale:** Historical Archives of Contemporary Arts.

**ASR:** automatic speech recognition.

**AV:** Audiovisual.

**AVT:** Audiovisual Translation.

**CaiaC:** Centre d'Accessibilitat i Intelligència Ambiental de Catalunya.

**DCP:** Digital Cinema Initiative Package.

**EU-Bridge:** European project based on technologies for transcription and translation in the field of closed captions, Universities and parliamentary reports.

**EU-SUMAT/ SUMAT:** European online service for SUBtittling by MACHine Translation.

**FIAPF:** International Federation of Film Producers Association.

**HbbTV:** Hybrid Broadcast Broadband TV.

**IP TV:** Internet Protocol Television.

**LED screens:** is a flat panel display, which uses an array of light-emitting diodes as a video display.

**MID:** mobile Internet device.

**QoE:** Quality of Experience. This is a subjective measure of a customer's experiences with a service (web browsing, phone call, TV broadcast, call to a Call Center).

**QoS:** Quality of Service. Is the overall performance of a of telephony or computer network, particularly the performance seen by the users of the network.

**SDH:** Subtitles for deaf and hard-of-hearing.

**TFT screens:** Thin Film Transistor screens.

**TS:** Translation Studies.

**UAS System:** Universal Accessibility System.

**UNCRPD:** European Disability Strategy or the United Nations convention on the Right of Persons with Disabilities.

**VIPs:** visually-impaired patrons.

**VoIP:** Voice over Internet Protocol.



## **Chapter 1. Introduction.**



## 1. Introduction

The origins of the following study date back to 2011 when the Universal Access System (UAS) was developed. This system was conceived and developed by the research centre CaiaC (Centre d'Accessibilitat i Intelligència Ambiental de Catalunya) at the UAB (Spain). It aims to create and broadcast wireless media access content in different Audiovisual Translation (AVT) modalities: subtitling, audio description and audio subtitling. The main challenge was to provide real-time access to verbal and visual information to both linguistically and sensory impaired audiences. Given the many and varied types of live cultural events, it is difficult to establish a taxonomy. Therefore, the principal focus of this study has been placed on two main Audiovisual (AV) formats: stage performances, mainly theatre and opera, and films screened at international film festivals.

During the development stage of the UAS System it was observed how depending on the AVT modality to be delivered, external aspects such as the venue and the available facilities, which are not directly relevant to the translation process, determine the way in which AVT is produced, displayed, and consumed. While these aspects are not directly related to from the practice of translation, they should be considered when analysing surtitles and subtitles. Therefore, this study aims to approach accessibility services from a holistic point of view, analysing not only the AV product to be translated, but also where and how this AV content and its AVT modality are delivered. In order to provide an in depth analysis, focus has been placed on two AVT modalities: surtitles for stage performances and subtitles for international film festivals. Subtitles and surtitles in both cases are usually displayed on screens that everyone can see, but depending on the venue and the available facilities, the placement of the screen is different and the text displayed might not cover all accessibility needs of the audience.

The main objective of this thesis is first to present the UAS system, a wireless accessibility service intended for all. Secondly, two different AV formats, namely stage performances and international film festivals, where the system could be implemented will be examined and outlined. The different stages involved in this work are presented as a compendium of publications. The articles included range from the definition of the UAS System and its possible fields of application within the AV environment. Finally, the recent developments that are being introduced in the

AVT field, which trigger and demand new approaches in AVT Studies, will also be outlined.

Chapter 7 (page 109) of the present thesis includes an updated bibliography where any minor errors, otherwise spotted in the articles comprising the body of this PhD, have been corrected.

## **1.1 PhD Structure**

This PhD is presented through a compendium of publications which follows the progression and results from the research conducted. Three articles constitute the main body of this work and are now presented and contextualised.

### **1.1.1 “All Together Now: A multi-language and multi-system mobile application to make live performing arts accessible”** *JosTrans 20: “Image, Music, Text...?” Translating Multimodalities, July 2013.*

The first article portrays how accessibility services for the Scenic Arts are being increasingly required by European Directives. Yet, many barriers still make accessibility an almost utopian ideal. Recent technological developments, such as second screens, may be the way to improve and introduce access to live performances, and this is the subject of this paper.

The aim of this paper is to first present the many challenges that exist in a live production where synchronous accessibility should be provided. It then presents the system – Universal Access System (UAS) — which is a top-down solution to deliver accessibility services for live performances via a mobile application.

This article was submitted in April 2012, and its acceptance was confirmed by the publisher in February 2013.

### **1.1.2 “The tyranny of the tool: Surtitling for the scenic arts”** Perspectives: Studies in Translatology, *May 2013.*

The following article provides a revision of the existing bibliography in the field of AVT for the Scenic Arts, particularly surtitling for theatre and opera. Most of the

literature in this field mainly focuses on the translation process of the surtitles, providing a descriptive approach from a professional point of view without examining the external aspects that may determine the final text displayed on the screen.

Central to this paper is, first, to define the external aspects involved in the creation and broadcasting processes of the surtitles, namely, theatre and opera venues. Second, to analyse the current surtitling practices of stage performances. Third, to analyse and compare commercially available software programmes according to genre and considering the technical parameters proposed by Bartoll 2008. The paper concludes with a reflection on the multiple accessibility solutions that second screens, like the UAS System, could offer to stage performances.

This article was submitted in September 2012, and its acceptance was confirmed by the publisher in March 2013.

**1.1.3 “The Process of Subtitling at Film Festivals: Death in Venice?”**  
*International Journal of Humanities and Social Science, August 2013.*

International Film Festivals are a specific form of multimodal translation where, like in stage performances, the AVT practices are highly dependent on the venue and technologies available. Therefore, these venues could also be considered for the implementation of the UAS system.

The aim of this paper is to study the features of the subtitling practice at international film festivals. It takes stock of audiovisual translation practices conducted at festivals to date and raises questions about new challenges inherent to the subtitling practice due to the turn of the film industry towards digitization. Additionally, new platforms like the Internet and their effect on subtitling are presented and discussed in the context of new audiences demands such as accessibility. Secondly, the major problematic issues involved in the creation of subtitles for such events providing a critical analysis are analysed. Finally, questions related to the digitization of films and the implications for the subtitling practices will be addressed. The paper concludes with a look into future research.

This article was submitted in July 2013, and its acceptance was confirmed by the publisher in August 2013.

Additionally, the following pieces of research are attached as an annex:

#### **1.1.4 “Lavoro in corso: Accessibility at the Venice Film Festival”.**

This 20 minutes multilingual documentary is based on the past, present and future of the subtitling practice at the Venice Film Festival, which was founded in 1932 under the Mussolini’s dictatorship and is the oldest festival of its kind in the world. In 2012 the Venice Film Festival celebrated its 69th edition, but most importantly its 80th anniversary (1932-2012), which we considered as a remarkable date to create a 20 minutes documentary. It was recorded between August 29th and September 2nd, 2012. The aim was to provide an insight into the technological developments that have been introduced to the subtitling practice at this festival from the beginning. Therefore, the participation of international professionals from the film industry in such an event was crucial in order to gather information about the creation, reception and perception of the subtitles at an International Film Festival from all angles: film industry, subtitling industry and audience. Within this context, interviews with the following professionals were carried out:

- Federico Spoletti (Sub-Ti) General director of the company responsible for the subtitling at the Venice Film Festival.
- Valentina Ajello (Sub-Ti) Subtitler at the Venice Film Festival.
- Jaime Pena (Cahiers du cinema) Cinema critic
- David Martos (Canal Plus) Cinema critic
- Alfonso del Amo (Filmoteca Española) Restoration and reproduction responsible.
- Dom Elliot (Youtube and Google) UK product marketing manager.
- David Victori (Filmmaker) winner of the Your Film Festival section at the Venice Film Festival.
- Martin Samper (No hay banda) Producer and Director from Spain
- Interventions from the general audience attending the screenings.

Aiming to analyse the effect of digitization on the subtitling practice, the documentary presents a retrospective of the subtitling process at the Venice Film Festival. The subtitling company Sub-Ti has been used as a reference to outline ‘how’ the subtitling practice is delivered nowadays. In addition, new tendencies such as Internet platforms have been analysed in order to expose the new challenges that the subtitling practice could be facing in the future.



The documentary was screened in September 2013 at the 5th Media for All Conference held in Dubrovnik.

**1.1.5 “Accessibilitat als mitjans de comunicació: el Reparlat”.** *Accaps Revista 46, January 2012.*

This article was published in the Catalan language in the ACCAPS (Catalan Association for Deaf Parents and People) magazine.

Rendering real-time live events, such as conferences and meetings, accessible to deaf and hearing-impaired audiences is becoming increasingly possible in all countries, mainly thanks to the advances made in speech recognition technologies. But in the case of minority languages such as Catalan, no commercial speech recognition programme is still available in the market. Therefore, stenography-based technologies are used. However, nowadays the lack of professional stenographers is becoming an increasing problem. This restricted accessibility of information to Catalan-speaking deaf and hearing-impaired audiences is in part due to the lack of available technologies in minority languages.

The article describes the solutions proposed by the CaiaC research group to solve both linguistic and technological aspects of the problem. Firstly, it introduces speech recognition in the Catalan language developed in order to overcome the linguistic barriers. Secondly, it presents the solutions proposed to solve the technological barriers. Finally, it exposes the ongoing live captioning project implemented at the Aula Magna at the Universitat Autònoma de Barcelona.

The system was presented in March 2013 at the 4th International Symposium on Live Subtitling held in Barcelona.

**1.1.6 Review: “La subtitulació. Aspectes teòrics i pràctics”.** Bartoll, Eduard (2012). *JosTrans 18: Special issue on Terminology, Phraseology and Translation, July 2012.*

This book offers an updated classification of subtitles from a multidimensional perspective. It consists of ten chapters and the structure is from general to specific, providing first an overview of the audiovisual text, its characteristics and different modalities. Then, it proposes a classification of subtitles and their application depending on the AV product. Additionally, the book also takes stock of the recent technologies that are opening up new fields of research into AVT and into subtitling in particular.

The main purpose of the book is to provide guidance for subtitling research and practice with a didactic approach.

This review was submitted in April 2012, and its acceptance was confirmed by the publisher in June 2012.

**1.1.7 Review: “Qualitätsparameter beim Simultandolmetschen Interdisziplinäre Perspektiven”.** Collados Aís A.; Iglesias Fernández, E.; Pradas Mecías E. M.; & E.Stévaux (Eds.) . (2011). *JosTrans 18: Special issue on Terminology, Phraseology and Translation, July 2012.*

This book aims to describe quality assessment in simultaneous interpreting by using a multidisciplinary approach. Within this context, the parameters considered belong to different disciplines, such as Linguistics, Psychology, Foreign Language Studies, Speech Therapy and Media Studies.

Considering that simultaneous interpreting is closely related to the respeaking practice, this book could be also very useful for professionals, researchers, academics, as well as students related to the respeaking practice.

This review was submitted in April 2012, and its acceptance was confirmed by the publisher in June 2012.

## **1.2 Objectives**

The following work is centred on the field of Audio Visual Translation (AVT) and based on accessibility for live events. The main objective of this PhD thesis was to check the suitability of secondary platforms to cater for accessibility needs for both

linguistically and sensory impaired audiences when attending a live or a pre-recorded AV production in the field of Scenic Arts.

After reviewing the existing bibliography, two main objectives were determined:

1. To establish an interdisciplinary collaboration between the academic and the professional field in order to improve the accessibility services offered in the Scenic Arts.
2. To assess how secondary screens, like smartphones, could be used as complementary communication platforms, offering new possibilities to cater to accessibility needs.

### **1.3 Hypothesis**

The hypotheses that have been researched in the following study are:

1. To date there is no commercially available solution which can create and deliver AD, SDH and audio subtitles for live performances. An interdisciplinary collaboration between professionals and academics from the AVT and IT Engineering fields could prove to be effective for the development of an accessibility system which takes into consideration the existing accessibility guidelines .
2. The implementation of secondary screens, like smartphones, could provide the ideal platform for solving the sensory barrier posed to the impaired audience attending a stage performance or an international film festival. Second screens could also be used to increase the number of languages available for linguistically impaired audiences.

### **1.4 Theoretical framework**

The theoretical framework applied for this study is Translation Studies (TS), and in particular Media Access for the scenic arts as part of the Audio Visual Translation (AVT) field. During the bibliographical review, two main AVT modalities, namely surtitles for stage performances and subtitles at international film festivals, have been outlined. In the last decade, both AVT modalities have enjoyed an ever-increasing academic interest amongst AVT scholars.

In the case of subtitles, the practice has been broadly studied in the field of AVT Studies and the term was already included in the Routledge Encyclopedia of Translation Studies, in its first edition in 1998. Within the last decade subtitling research has passed beyond the theoretical descriptive approaches that provide a classification of the different types of subtitles based on two basic categories: namely linguistic (intralingual and interlingual subtitling) and technical (open and closed subtitling) proposed by Gottlieb (1997). Recent research in AVT Studies has placed more attention on the audience needs, favouring the establishment and assessment of subtitling guidelines for deaf and hard-of-hearing audiences (De Linde & Kay 1999; Díaz-Cintas 2004; Díaz-Cintas, Orero, P. & Remael, 2007; Neves 2005, 2009; OFCOM 2005; Orero 2004; Remael and Neves 2007). In the particular case of Spain, subtitling guidelines were first set up in 2003 (AENOR 2003) and an updated version was approved in 2012 (AENOR 2012). Within this context, the research conducted (Arnáiz-Uzquiza 2007, Pereira 2005, 2010; Pereira & Arnáiz-Uzquiza 2010; Pereira & Lozano 2005) has been crucial for the elaboration of the updated version for quality assessment. In addition, a taxonomy of the parameters for the classification of subtitles has been defined (Bartoll 2004, 2008, 2012) and a review of this taxonomy for the deaf and hard-of-hearing (Arnáiz-Uzquiza 2012) has been elaborated. Furthermore, new research lines on subtitling have been introduced such as perception and reception studies (Gambier 2006, 2008; Orero 2004), which are mainly carried out with the eye-tracking technology (Arnáiz-Uzquiza 2008, Perego 2012). Also, new subtitling practices are being researched such as live subtitling (Díaz-Cintas & Remael 2007; Romero-Fresco 2011, 2012) and its accuracy rate through the application of an assessment model (Romero-Fresco & Martínez *forthcoming*). However, it should be mentioned that most of the research in the field of AVT Studies is based on traditional distribution platforms, and only recent studies also include digital platforms, such as the Internet (Díaz-Cintas 2005a, 2005b, 2009; Bartoll 2012). Still, little research can be found about the subtitling practice at international film festivals (Di Giovanni 2012; Durovicova 2009; Nornes 2007). Since Media Access has recently been incorporated into the field of AVT (Orero, 2004; Díaz-Cintas 2005c, 2006), attention should also be paid within the practice of subtitling to international film festivals (Oncins 2013b). Focusing on the international film festival held in Venice, the most important contributions we have made are the analysis of the film festival regulations, which date back to 1950, as well as of the archives of Daily Variety, an American trade magazine, specialized in the AV industry.

Within the last decade, surtitling for the stage, has gained interest among academics and professionals from the AVT field (Bartoll, 2004, 2008; Desblache, 2007; Dewolfe, 2001; Mateo, 2001, 2002, 2007a, 2007b; Orero, 2007; Vervecken, 2012; Virkkunen, 2004, etc.). Within this field, attention has been paid to the areas of operatic translation or musical translation (Burton, 2001, 2009; Burton & Holden, 2005; Low, 2002; Matamala & Orero, 2007), libretto translation (Desblache, 2007; Dewolfe, 2001; Kaindl 1997; Virkkunen, 2004), theatrical translation (Carlson, 2006; Espasa, 2000; Ezpeleta, 2007), and surtitling techniques and practice (Griesel, 2005, 2009; Mateo, 2002, 2007a, 2007b; Oncins et al., 2013; Vervecken, 2012). Since Media Access has recently been incorporated into the field of Audiovisual Translation Studies (AVT) (Orero, 2004), attention should also be paid to the practice of surtitling within this specialised area of Media Access, which has mainly centered the attention in the opera field (Orero & Matamala 2007, Weaver, 2011).

### **1.5 Methodology**

According to the main objective of this thesis, in order to check the suitability of secondary screens as complementary communication platforms, there was first a need to gain an in-depth understanding of how surtitling for the stage and subtitling at international film festivals are being conducted. Through the analysis of descriptive studies in the AVT field, a global perspective of the different aspects and parameters currently being studied in the surtitling and subtitling field was obtained.

The taxonomy of subtitles proposed by Bartoll (2008) is the most updated classification in the AVT field and it offers a comprehensive separation of the technical parameters which were used to evaluate the external aspects and their corresponding impact on the surtitling and subtitling practices within the specific areas of the Scenic Arts. Therefore, access to closed settings proved to be crucial to obtain in-depth information about the main commercially available surtitling softwares, which were then analysed and compared according to the seven technical parameters defined by Bartoll (2008: 260-268): optionality, broadcast, colour, mobility, localization, placing, filing, typography and format. In addition, two further parameters proposed by Burton (2001) were included: brightness and fading. The former, brightness, is related to the lighting state on stage, and, depending on the surtitling system used, the original lightning design of the performance could be altered, a phenomenon called 'light pollution' (Vervecken, 2012). The latter, fading, is

mainly used in operatic performances to follow the pace of the actor's oral utterances, but it could also be used for other stage performances to provide the desired dramatic effect.

To the author's knowledge this is the first research in the field of AVT Studies which offers an analysis of the different venues and surtitling and subtitling systems used in the specific fields of stage performances and international film festivals. Therefore, observational procedures become necessary in order to gather relevant data about where and how the surtitling and subtitling practices were carried out from a technical perspective.

Additionally, it has proven to be meaningful to select a qualitative approach in the study of external aspects affecting the surtitling and subtitling practices, given that qualitative data collection enabled an analysis of issues such as the venue and the available facilities. This qualitative data was obtained thanks to the selection of a convenience sample formed by 2 European theatre companies, 3 organizations and 4 professionals working in the field of surtitling for the stage. An interview made up of open questions was used as our method of investigation (see annex V). Open questions, while difficult in terms of transcription and subsequent analysis, provided interesting data, which allowed us to complement the theoretical information obtained from the bibliography review, and also to compare and analyse the different surtitling practices conducted in the opera and theatre genres.

It needs to be pointed out that it is very important to select the different types of venues for the corpus. Therefore, the following five opera and four theatre houses were chosen and analysed to develop the corpus of the second article. The following is a brief summary of the common characteristics of the selected venues:

- Gran Teatre del Liceu in Barcelona.
- Royal Opera House in London.
- La Monnaie/De Munt Opera House in Brussels.
- Komische Oper in Berlin.

Characteristics: in-house surtitling department, surtitling practice since the 1980s, use of professional surtitling software. None of the venues provide surtitles aimed at sensory impaired audiences.

In the field of theatre the selected venues were:

- Teatre Lliure in Barcelona
- Lyric Theater in Belfast
- Old Vic Theater in London
- Lowry Theater in Manchester.

Characteristics: all venues provide surtitles to cater to the needs to sensory impaired audiences but only for few performances.

During the final stage of the research it was observed that the elaboration and broadcast processes of the subtitles for a film festival presented similarities with the surtitling process for stage performances. Both AV formats are dynamic events subject to time constraints, hence they share some challenges in terms of accessibility. However, due to the lack of academic research about the surtitling practice at international film festivals, a purposive sampling based on the exemplifying case of the Venice Film Festival was selected, given the fact that it is the oldest festival of its kind dating back to 1932. The span of the festival over almost a century and its research facilities lent themselves for the study. Though the surtitling process may not be the same as in the case of other film festivals, the underline principles remain the same.

Again, qualitative data was obtained thanks to the selection of a generic purposive sampling conducted during five days at the Venice Film Festival, where a documentary about accessibility at the Venice Film Festival was recorded (see annex I). The documentary includes open question interviews to nine professionals: three professional cinema critics, two members of the company responsible for the surtitling at the Venice Film Festival for the last eight years, two cinema directors, one director of film restoration and one responsible for new sections at the Venice Film Festival. Additionally, interviews to the audience were also carried out. Finally, a retrospective analysis has been carried out with respect to the technical developments introduced in the surtitling practice at international film festivals. However, due to the lack of information about the surtitling process at international film festivals, there was a need to gather documentary evidence to identify the technical developments introduced over the years. Therefore, the Variety magazine archives and the Historical Archives of Contemporary Arts (ASAC Biennale) were crucial to analyse and explain the surtitling process at the Venice Film Festival from 1931 to 1985, when electronic surtitling was introduced.





## **Chapter 2.**

**Article 1: “All Together Now: A multi-language and multi-system mobile application to make live performing arts accessible”**



## 2. Article 1 :“All Together Now: A multi-language and multi-system mobile application to make live performing arts accessible<sup>1</sup>”

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### Abstract:

Stage performances are usually live performances. These days, theatre or opera may be staged anywhere from the traditional seating arrangement to a popular open air representation where actors and audience move in a dynamic open *mise en scène*. In some theatre houses, accessibility to the audio (subtitles) and visual elements of the performances (audio description) has been arranged through the installation of screens on the back of seats, or through the projection of surtitles on a large screen usually located above the stage. In some cases, both practices coexist to show in written form what is being spoken or sung, translated into the vernacular, and audio described to provide a user-friendly representation.

Surtitles, subtitles, audio description, audio subtitling and some other accessible services are being increasingly required by European Directives relating to media content. Yet many barriers still make accessibility an almost utopian ideal. Intelligent mobile phones and the widespread availability of applications may be the way to solve access to live performances, and this is the subject of this paper. The article will first present the many challenges that exist in a live production where synchronous accessibility should be provided. It then presents the system – Universal Access System (UAS) — which has been developed to deliver most accessibility services for live performances via a mobile application.

### Keywords

Accessibility, scenic arts, mobile application, live performance, Opera, Theatre.

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## 2.1 The challenges of live accessibility

All media present accessibility needs, and the practical means and services available differ according to numerous variables. To name three: the content to be made accessible, the formats in which the media is digitised, and the location where the event is taking place. From the user's perspective, there are two very different ways to receive an access service: open and closed. The former is when all users, regardless of their needs, receive an access service, for example the surtitling in an opera house projected at the top of the proscenium (see Figure 1). Access services can also be 'closed,' which is when the service will only be activated at the user's command. Many services can be available concurrently, but the user decides which to access. This is the case for the wide choice of accessible services on offer in Digital TV, Internet Protocol Television (IP TV) and Hybrid Broadcast Broadband TV (HbbTV) with subtitling for the deaf and hard-of-hearing (SDH) or audio description, or audio subtitles, or sign language<sup>2</sup>.

Apart from the challenges posed by making the actual content accessible — the multisemiotic translation of the audio into written form, and of the visual into audio — many issues have to be considered in order to deliver accessible content for all in real time. Drafting a comprehensive and robust taxonomy is an almost impossible task; to move forward and find solutions we have therefore categorised a list of obstacles under four headings: audio and visual channels, time, cost, and technology. These four headings have been taken into consideration when drafting the "Universal Accessible System" (UAS) requirements for making live events accessible.

### 2.1.1 Audio and visual channels

Both channels, with their semiotic implications, must be represented in a new code in a different system and for different audiences, which can be broadly divided into two groups: sensory- and linguistically-impaired audiences (Oncins *forthcoming*). In the first group two communities can be identified: deaf and hearing-impaired<sup>3</sup> and blind

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<sup>2</sup> This paper has been written in Europe, and follows EU terminology for Access Services, as opposed to US or Canadian terminology, such as: caption, closed caption, spoken captions, and video description.

<sup>3</sup> Due to the fact that the deaf and hearing-impaired community is of a very heterogeneous nature, the purpose of this project is to provide a multiplatform tool which allows different types of subtitles which

and visually-impaired audiences. A common barrier for deaf and hearing-impaired audiences when attending a stage performance is, for example, when a telephone rings on the stage in a play; not only does what is said by the characters have to be subtitled, but some written annotation is also necessary to inform the audience what can be heard. Likewise, for blind and visually-impaired audiences if, in an operatic production, the lights turn red, blue and white and are reflected onto the background to form the French flag, this visual clue has to be relayed by audio to the visually-impaired patrons (VIPs). On the other hand, in the case of linguistically-impaired audiences, beyond symbolic languages like colour, or lighting (Maszerowska 2012), movement or music (Corral and Lladó 2011), actual languages, such as German, may also become a barrier if used, for example, in a play in Wales. When talking about accessibility, we should also take into consideration the comprehension of different languages and different writing systems. An opera could be being performed in language X (for the purposes of this example, let us say Russian) and need subtitling in language Y (for our example, let us say Danish) to make it accessible to those who do not understand the source language. In this case, with Danish subtitles for Russian opera singing, VIPs will also need audio subtitles to be able to follow the performance. For opera, theatre and film festivals, this solution is a common standard modality: open subtitles which everyone can see. In some film festivals, such as the Locarno International Film Festival in Switzerland, up to three different sets of subtitles are projected for three different languages (English, Italian and German). Hence, creating a system which could offer both written and audio information was the first priority when designing the UAS.

### 2.1.2 Time

Synchronicity is a key issue, and perhaps the one which poses the greatest challenge: live or recorded is the key challenge. Synchronicity has a direct implication, and is a much debated topic in relation to subtitling and SDH. Live subtitles produced by re-speaking (Romero-Fresco 2011) and their mode of display and the delay (Romero-Fresco and Martínez Pérez *forthcoming*) are the focus of much discussion by world-wide media access standardisation bodies such as the ITU. It is also a recurrent topic in the popular press, since some errors produce

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are adapted to the different end user needs, including the needs of deaf audiences whose mother tongue is sign language.

amusing utterances<sup>4</sup>. Aside from technical problems, delivering AD in real time during a stage performance presents the additional challenge of unexpected changes or improvisations. Additionally, in the case of opera the singer might vary the rhythm and therefore start singing following a silence (Cabeza i Cáceres 2011: 230 ). Attempting to devise a system which synchronises the delivery of different media services (SDH and AD) was also a priority.

### 2.1.3 Cost

Producing, delivering, broadcasting and consuming content has a cost which, in live productions, calls into question the viability of access services. The need to offer AD or SDH for an F1 race or a live football match is often queried. Should the number of expected users be taken into consideration in order to prioritise access services? If media access becomes a legally binding requirement in publicly funded institutions, cost will probably be the priority. When delivering subtitles and AD at a live performance, at least one operator is required for each service. The UAS system was also designed to optimise multimodal delivery of content by a single operator.

### 2.1.4 Technology

This group comprises the many technological solutions which go hand in hand with the different stages in the chain of producing, encrypting, encoding, broadcasting, receiving and delivering content. Explaining how the UAS system was designed to offer one solution which could solve many problems is the aim of this article.

## 2.2. What is currently available

Though electronic media may be considered a new development, theatre and opera have been around for centuries. However, only recently has the technology been available to produce and project surtitles — or supertitles/subtitles — in live productions (Burton 2009, Matamala and Orero 2007, Weaver 2010). Whilst subtitles for language accessibility in the cinema have a long history, the first projections of surtitles in opera and theatre were made in the early 1980s (Desblache 2007: 163).

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<sup>4</sup> For further references see the article “Reading the news” available on the BBC website quoted under the “Websites” section of the present paper.

More recently, they have also appeared in festivals. Whilst subtitles or surtitles (as in Figure 1) were projected, nowadays different displays are also available.



Figure 1. Surtitles or supertitles of the performance *Die Zauberflöte* (2012) at the Grand Teatre de Liceu, Barcelona, Spain.

Some opera houses also offer surtitles in different formats, such as the small screens available at the Barcelona opera house, Grand Teatre del Liceu (Figure 2).



Figure 2. Different screens available at the Grand Teatre del Liceu, Barcelona, Spain.

Other services such as AD are a very new development and have not yet become widely established. Live audio subtitling is less common still, and to our knowledge is only offered at the Liceu Opera House in Barcelona as part of the AD service (Orero 2007: 141).

The use of surtitles in the performing arts has increased considerably (Mateo 2007: 137). However, when we searched for standards, a guide of good practice or guidelines on the process of making and delivering surtitles, we found that there is no clear consensus amongst the different professionals. There are several accessibility

solutions, associated with different manufacturers, and the service that theatres and opera houses offer very much depends on their technology and its capacity to deliver. If a theatre does not have the necessary equipment and system in place to deliver AD, a costly investment is required either to replace the existing subtitling system, or to add or rent a new system and equipment with the concomitant rental or maintenance costs.

Since most theatre houses and almost every opera houses have their own system for delivering surtitles, they follow a practically customised process of creating media access services, which sometimes does not coincide with the director's decisions, needs or taste (Udo and Fels 2009, 2010). The surtiller may also disagree with the result, but little can be changed when the available system does not allow for any updating.

New mobile phone technology is ubiquitous and has also entered cinemas and theatres. The displaying of access services is beginning to be available as inhouse technology, such as the iPhone subtitler in Figure 3.

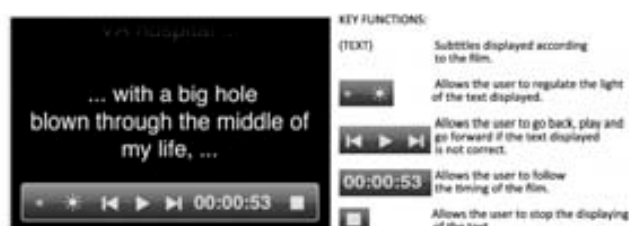


Figure 3. iPhone subtitles.

The existing iPhone subtitling service<sup>5</sup> and its applications show the many possibilities on offer for recorded performances, as is the case with Moviereading<sup>6</sup> (see Figure 4). This is an application for Apple, Android and Samsung smartphones created by an Italian company, which is already available in some Italian film theatres. The application synchronises the subtitles with the audio from the film at any given time through speech recognition. Recently, the audio description function has also been included in this application.

<sup>5</sup> For further references see the article website "Watch movies with subtitles on the iPhone" quoted under the "Websites" section of the present paper.

<sup>6</sup> For further references see the project website "Moviereading" quoted under the "Websites" section of the present paper.



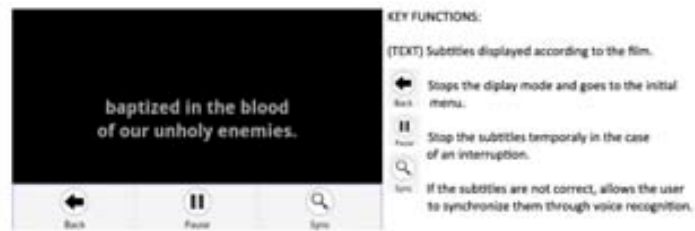


Figure 4. Moviereading.

Not only do all these applications provide media access, but they also offer an important opportunity for testing issues related to reception, user interaction and the quality of the experience, since the split attention between subtitle and film screen is perhaps the biggest deterrent.

Moving from the display of access services to the creation of content to be displayed, an analysis of the market was also undertaken in order to understand what is available and which services manufacturers had yet to cover.

While many subtitling software programmes are currently available, the choice for use in live performances is limited. This is mainly due to the fact that creating subtitles in a pre-determined format has a direct impact on the way they will be broadcast and displayed.

In Table 1 below, we enumerate the most popular software used in theatres and opera houses across Europe and list the many services which are also offered.

Product Name	Description	Multilanguage platform	Speed regulation (fade-in/out)	Close Caption	Supports Audio
<b>Figaro</b>	Mainly used in operas. Displays both open and close captions in seatbacks (wired system) and also on smartphones (wireless system).	Yes	Yes	Yes*	No
<b>Viacom</b>	Used in operas and theatres. Displays both open and close captions only in seatbacks (wired system).	Yes	Yes	Yes	No
<b>Opera Voice</b>	Used in operas, theatres and concerts. Available for Apple and Android (wireless system)	Yes	No	Yes	No
<b>Proscenio Naotek</b>	Used mainly in theatre houses and festivals, only with their own LED screens (open captions) receiving content through a wired network.	No	No	No	No
<b>Supertitles</b>	Used mainly in theatre houses and festivals. Allows content creation and delivery in open caption.	Yes	No	No	No
<b>Airscript</b>	A handset which operates wirelessly mainly used in theatre houses. This system allows the inclusion of information for the deaf and hearing impaired audience and is also multilanguage.	Yes	No	Yes	No

\*Currently only available for Apple.

Table 1. List of software subtitling programmes.

As is evident in the previous table, there is no commercial software available which integrates both SDH and ADs, and allows for the creation and sending of AD files to the audience by means of a wireless system. Furthermore, at present, users who wish to receive AD have to resort to either receiving it through headphones using infrared technology or an FM transmitter — the same system for receiving a translation during a conference or meeting — or sitting in specific seats where an audio input jack can be inserted in order to receive the AD through wired facilities (Matamala and Orero 2007). An additional problem is that most of the systems listed in Table 1 require the technical services and support of the manufacturer or are linked to the manufacturer’s own devices or services, which increases the costs of making and staging the performance.

At the time of writing this article, and while designing and creating our own system, there is no commercially available solution which can create and deliver AD,

SDH and audio subtitles for live performances. It is worth noting that, whilst systems seem to be able to cope with the creation and display of SDH, opera and theatre houses have resorted to generating subtitles, not SDH<sup>7</sup>, for all audiences. As Oncins (*forthcoming*) explains, accessibility to live performances has been mainly conceived to break down linguistic barriers through transmitting a foreign language production on stage into another language. However, when dealing with deaf and hearing-impaired audiences, extra linguistic information has to be provided because they depend more fully on the access to non-verbal information.

### 2.3 Drafting and editing scripts

When the linear development of access content creation is followed, translation is the very first step. A new text should be adapted from other languages through translation or intralingual translation. In the case of the latter, the many features which characterise SDH should be added. To date, there is no automatic software to translate surtitles, though it is only a matter of time before such a facility exists since there is a European project SUMAT: An Online Service for SUBtitling by MACHine<sup>8</sup> which should aid development in this direction.

As with everything related to AD, this area enjoys less popularity and interest on the part of industry and academia than subtitling. The creation of AD and SDH depends on human production, which has a cost in terms of both time and money.

### 2.4 A universal solution to live media access

Since there is no system which is comprehensive in terms of services, languages etc., we decided in 2011 to embark on the creation of a universal system for media access: UAS.

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<sup>7</sup> Arnáiz Uzquiza (2012: 109) in her classification of parameters for the SDH (subtitles for deaf-and-hard of hearing) introduces the category “extralinguistic information” referring to the representation of all non-verbal sound information provided in the audiovisual text. In this category she provides the following parameters: character identification, paralinguistic information, sound effects and music. In the case of opera, the dimension of music would be excluded, because it represents an inherent element of the performance. But in the case of stage performances all four parameters should be considered with in the process of the surtitles.

<sup>8</sup> For further references see the project website “SUMAT: An Online Service for SUBtitling by MACHine Translation” quoted under the “Websites” section of the present paper.

The system has been designed to offer the following access services:

1. Subtitling: multilanguage subtitling and SDH.
2. Audio description: multilanguage AD.
3. Spoken subtitles: through speech synthesis: subtitles --> voiced subtitles.
4. Automatic AD: through speech synthesis: AD text --> voice to create AD in an automatic mode.
5. Delivery of spoken subtitles and the whole performance or AD through VoIP for those who use hearing aids.
6. Emergency pack: which adds a pre-recorded sign language for some emergency messages to all these previous services, since sign language is usually delivered live, and the interpreter may not have access to the message. The emergency will also activate the vibration mode on the mobile phone to alert deaf users to the incoming information.

The interface designed by our team has the following features for creating content (Figure 5):

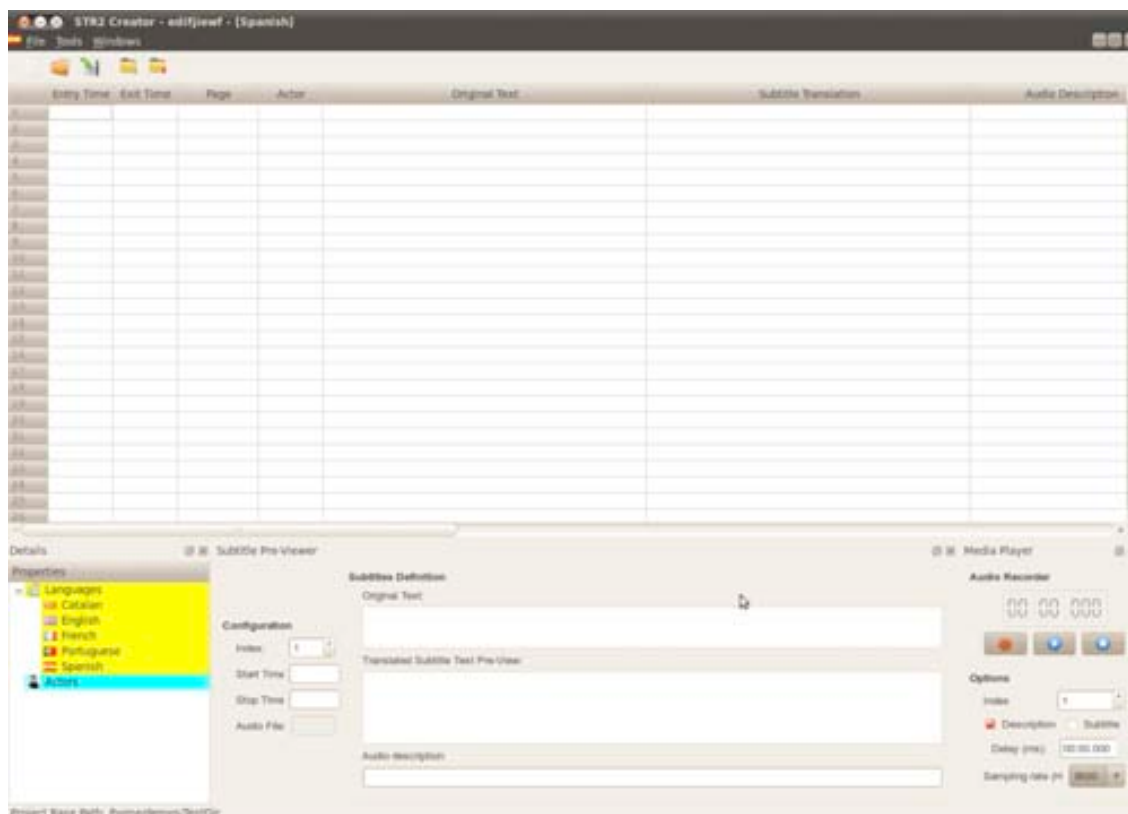


Figure 5. System interface for editing text.

The page has been divided in two main horizontal areas. The top resembles an Excel document displaying five columns: page, author, original text, subtitle, and audio description.

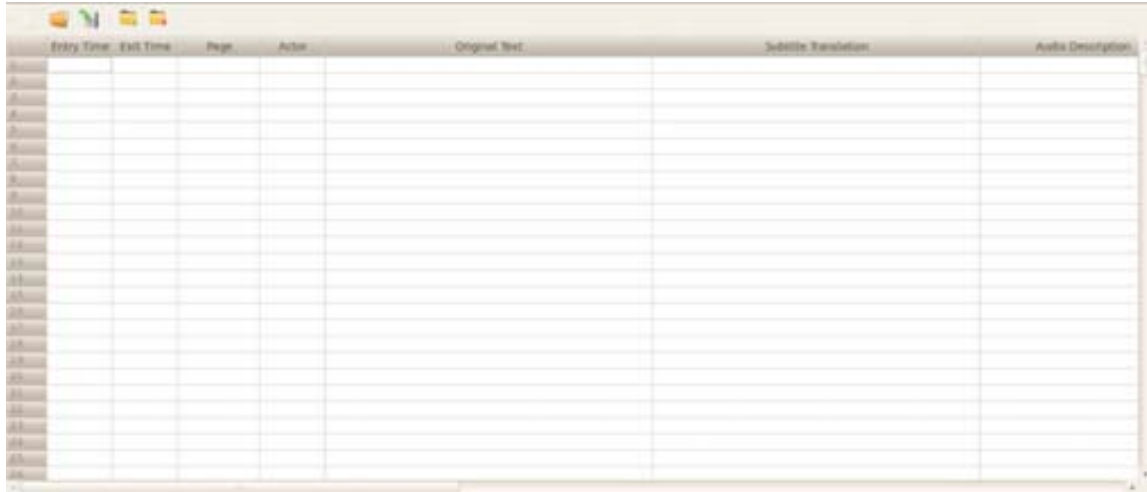


Figure 6. The top part of the interface.

The functions to create the text for the columns can be found in the lower part of the screen; in the bottom left corner there is a window dealing with two functions: languages and character identification.

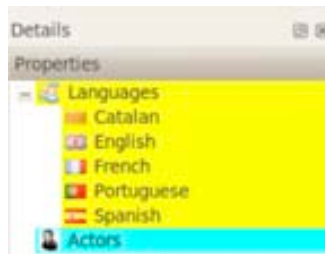


Figure 7. Section of the interface for language and character identification.

The UAS system will store as many language files as required, with the possibility of choosing different language writing systems, such as Japanese. Here we can also pair characters with the subtitle colour which is identified when projected, as shown below in Figure 8, where two characters are speaking to each other and are individually identified by either white or yellow.



Figure 8. Character identification by colour in subtitles.

The centre of the lower part of the screen is used to create three different services: the original language subtitle in the first window, its translation in the second window and the AD in the third.

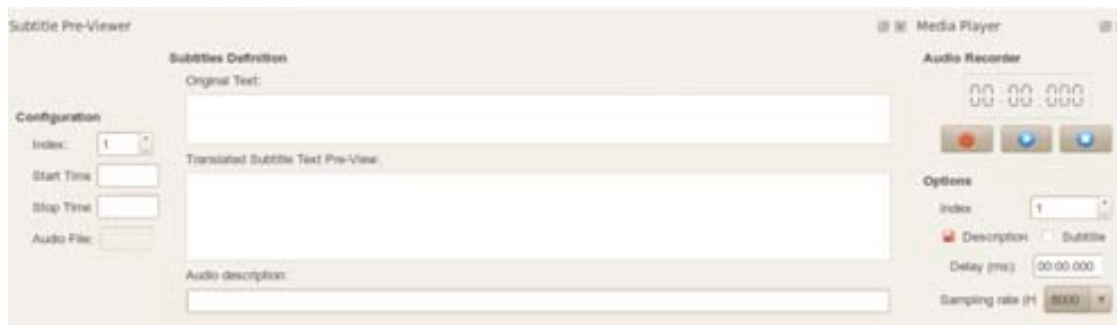


Figure 9. Section of the interface for creating texts.

It is important to understand that, even if a Shakespeare play is being represented, the original canonic text is adapted for subtitles, and hence subtitles are created for the source subtitles and their many possible translations.

With regard to AD, the UAS system has been designed to create a dependency of the AD text on the subtitles. This does not mean AD is created without taking dialogue into consideration; this 'dependency' has been created for delivery purposes only. AD content is created and recorded in the same way as it is traditionally done for live performances. This is perhaps one of the most interesting developments of the UAS. The concept which inspired this dependency is that AD is usually never delivered when meaningful audio can be heard; in short, the AD is complementary to the subtitles. When entering the venue the patron will select subtitling, audio subtitling or AD. This fact allows to use a single product to provide accessibility services to both audiences: deaf and hard-of-hearing and blind and visually impaired. To achieve this aim, we have exploited to automate the delivery of AD. At the end of certain subtitles, there will be a period of silence — a time void of dialogue — allowing the AD to be delivered. In other words, certain subtitles are

tagged to deliver the previously prepared AD. This fact facilitates the task of the system operator, allowing him/her to use SDH as a point of reference while providing also AD.

Once the texts are ready, they are stored in cloud format or on the PC which will later be used to deliver the scripts.

## 2.5 System architecture

The system designed has an architecture comprising three elements (see Figure 9): a content server, a Wi-Fi network and mobile Internet devices (MID).

The content server stores the files containing subtitles, SDH or AD in as many languages as necessary, including in languages with different alphabets. It allows the operator to start a new session and to launch files containing content accordingly. It is also possible to launch advertising material during breaks.

The server, using the Wi-Fi network, distributes content to the MIDs around the theatre. The MIDs must have installed an application specially developed to interact with the content server. At the beginning of the performance, users choose from a list of available languages and services. The choice of language is for both the application interface and for the content.

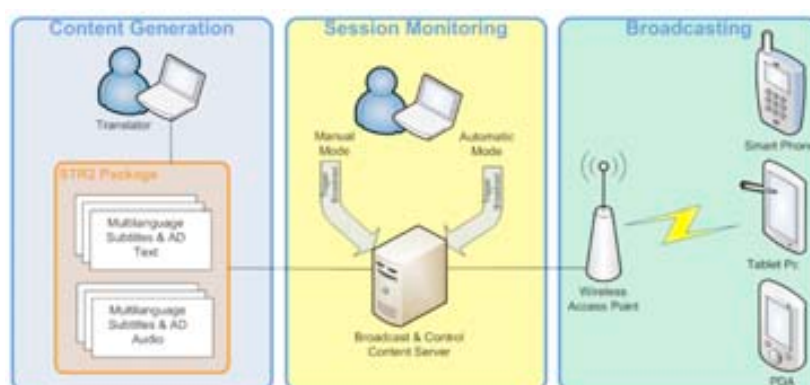


Figure 10. System architecture.

The system has been designed to allow access content to be displayed in any operating system, such as on Android, iOS and in any existing screen format, such as Smartphones, Tablets or iPads, with Internet connectivity.

## 2.6 Data storage

The content generated by the application for each language is then stored in an XML format file, with a well-defined structure. Each file contains all the subtitling and audio description information (both written and spoken) presented in the language tables (Figure 4).

Finally, the application compresses, packages and exports all these pieces of content into a single file for ease of handling by the operator. This approach means that it is faster and easier to set up the real-time broadcasting service, avoiding possible errors due to missing or misplaced files.

## 2.7 Real time delivery of services

Once all the files have been stored, and the performance begins, one operator manages all the services. This has been achieved through cueing AD to subtitle time codes.

Given the fact that each performance is different, 'real-life' accessibility services will always be exposed to unexpected changes, thereby leading to surprises even if the professional involved has attended rehearsals or previews or has received a recorded DVD of the stage performance. As Griesel (2009: 123) points out: "In the real translation situation when the performance is shown on stage, the source text can change. There might be improvisations and the translator has to react spontaneously as in an interpreting situation." This means that it is impossible to know, with any level of accuracy, the exact length of any silence gap for AD<sup>9</sup>. Thus, even if a real person were to deliver the AD, the same state of uncertainty regarding the silence span will exist. Taking this into consideration, the possibility of linking AD files to the end of subtitles offers the possibility of optimising delivery, allowing several access services to coexist with just a single operator present.

While AD and subtitles or surtitles are standard services, speech technologies also allow for automatic delivery of spoken subtitles. Such services should be offered for two important reasons. The first is that visually impaired patrons (VIPs) and those with low reading proficiency have the opportunity to listen to

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<sup>9</sup> Throughout the period when we have been offering AD at Liceo Opera House in Barcelona, we can safely say that no two performances have been the same in elapsed time.



subtitles. The second is to avoid the split attention of the user, since having simultaneously to read from a handheld mobile application and look up at the stage may cause fatigue.

Since technology allows for sound to be delivered through VoIP to those with hearing aids via Wi-Fi, this service — which falls under the category of audio subtitling — has also been included.

Finally, the emergency service comprises a finite group of messages, for example “Fire in the theatre. Please evacuate” or “The car with the registration no. XYZ should be removed from the fire exit.” Messages are also sent using haptic communication through the vibration of the mobile device. This additional system of communication has been introduced particularly for deaf and hearing-impaired audiences, who usually communicate through sign language. These emergency messages are previously agreed with the management of the venue and will be delivered independently from the access files created for the performance. Delivery is both through written subtitles, and also in sign language, through the use of avatars, which are animations in the form of artificial 2D or 3D characters.

## **2.8 Reception**

The patron can download the application, together with the emergency files, onto their smartphone beforehand or once seated in the theatre. The system has been created with the possibility of offering a carousel of promotions and advertisements, and also information regarding the theatre or opera production, which may be the first screen the user sees in real time. Once the language and services have been chosen, the operator delivers the services, avoiding the need to synchronise each individual service, since only one file is delivered.

A black background has been chosen for the screen, and the default colour of the subtitles is orange rather than white. This is to avoid excessive luminosity to maximise readability, and battery performance. However, the system may also deliver colour-coded subtitles if files have been created in this mode.

The following additional features of the system, of particular interest to the professional, should be considered:

- It supports all major subtitle formats such as SubRip (.srt), SubViewer 1 and 2 (.sub), SubStation Alpha (.ssa/.ass) and MicroDVD.
- Matroska (.mkv) subtitles, like .ssa/.ass and .srt, are automatically converted to soft subtitle tracks when imported.
- Subtitles are synced in real-time using the time offset stepper.
- It allows automatic and manual metadata tagging.
- Character identification using colour can be created manually or automatically.
- It facilitates audio subtitling from text to speech language synthesis.
- It permits audio description either from existing mp3 files or created through speech-to-text speech synthesis
- It contains an emergency suite with messages in all formats and also with sign language avatars.
- It has offline versions including video with subtitles and audio descriptions.

## 2.9 Conclusions

This article has presented a new system for creating and delivering media access content in different modalities: subtitling, audio description and audio subtitling. The system supports many different languages and alphabets, and has been developed taking into account existing systems and their capabilities. It is hoped that, with an all-inclusive system, the cost of delivery can be kept to a minimum, with one operator delivering all content in a synchronic fashion. While the system is not currently commercially available, it is fully operational in the cinema at Universitat Autònoma de Barcelona (Spain) where five films were programmed and delivered in the academic year 2011/12 and one play in 2012/2013. The system takes into consideration the four categories of obstacles to providing live access services, and could be a viable solution to real-time media access.

## 2.10 Bibliography

- **Arnáiz Uzquiza, Verónica** (2012). “Los parámetros que identifican el Subtitulado para Sordos. Análisis y clasificación.” Rosa Agost Canós, Pilar Orero Clavero and Elena di Giovanni (eds) (2012). *MonTI 4: Multidisciplinarity in Audiovisual Translation/ Multidisciplinarietat en traducció audiovisual*, 103–132.
- **Burton, Jonathan** (2001). “Writing Surtitles.” Unpublished manuscript provided by the author written for the Royal Opera House, Covent Garden, 1–17.

- — (2009). “The Art and Craft of Opera Subtitling.” Jorge Díaz Cintas and Gunilla Anderman (eds) (2009). *Audiovisual Translation: Language Transfer on Screen*. Basingstoke: Palgrave Macmillan, 58–70.
- **Cabeza i Cáceres, Cristobal** (2011). “Opera Audio description at Barcelona’s Liceu Theatre.” Jorge Díaz Cintas, Anna Matamala and Josélia Neves (eds) (2010). *New Insights into Audiovisual Translation and Media Accessibility: Media for All 2*. Amsterdam: Rodopi, 227–237.
- **Corral, Anna and Ramon Lladó** (2011). “Opera Multimodal Translation: Audio Describing Karol Szymanowski’s Król Roger for the Liceu Theatre, Barcelona.” *The Journal of Specialised Translation* 15, 163–179.
- **Desblache, Lucile** (2007). “Music to My Ears, but Words to My Eyes? Text, Opera and Their Audiences.” *Linguistica Antverpiensia New Series – Themes in Translation Studies* 6, 155–70.
- **Griesel, Yvonne** (2009). “Subtitling: Subtitles another hybrid on a hybrid stage.” *TRANS: Revista de Traductologia* 13, 119–127.
- **Maszerowska, Anna** (2012). “Casting the light on cinema – how luminance and contrast patterns create meaning.” Rosa Agost, Pilar Orero and Elena di Giovanni (eds) *MonTI 4: Multidisciplinarity in Audiovisual Translation / Multidisciplinarietat en traducció audiovisual*, 65–85.
- **Matamala, Anna and Pilar Orero** (2007). “Accessible Opera in Catalan: Opera for All.” Jorge Díaz Cintas, Pilar Orero and Aline Remael (eds) *Media for All: Subtitling for the Deaf, Audio Description and Sign Language*. Amsterdam: Rodopi, 201–14.
- **Mateo, Marta** (2007). “Subtitling Nowadays: New Uses, Attitudes and Developments.” *Linguistica Antverpiensia New Series – Themes in Translation Studies* 6, 135–54.
- **Oncins, Estel·la** (*forthcoming*). “The tyranny of the tool: Subtitling live performances.” *Perspectives: Studies in Translatology* 22.
- **Orero, Pilar** (2007) “Audiosubtitling: A Possible Solution for Opera Accessibility in Catalonia.” Franco, Eliana and Santiago Araújo, V. (eds) *TradTerm*, vol. 13, 135–49.
- **Romero-Fresco, Pablo** (2011). *Subtitling through Speech Recognition: Respeaking*. Manchester: St. Jerome Publishing.
- **Romero-Fresco, Pablo and Juan Martínez** (*forthcoming*). “Accuracy rate in live subtitling – the NER model.” Jorge Díaz Cintas, Josélia Neves and Diana Sánchez (eds) *Audiovisual Translation – Taking Stock. Media for All 4*. Amsterdam: Rodopi.
- **Udo, John Patrick and Deborah I. Fels** (2009). “‘Suit the Action to the Word, the Word to the Action’: the Unconventional Approach to Describe Shakespeare’s Hamlet.” *The Journal of Visual Impairment and Blindness*, vol. 103, n. 3, 178–183.

- **Udo, John Patrick and Deborah I. Fels** (2010). "Universal design on stage: live audio description for theatrical performances." *Perspectives: Studies in Translatology* 18(3), 189–203.
- **Weaver, Sarah** (2010). "Opening Doors to Opera: the strategies, challenges and general role of the translator." *InTralinea* 12.  
[http://www.intralinea.org/archive/article/Opening\\_doors\\_to\\_opera](http://www.intralinea.org/archive/article/Opening_doors_to_opera)  
(consulted 26.01.2012)

### Websites

- "Figaro Systems Inc." <http://www.figaro-systems.com> (consulted 26.01.2012)
- "Vicom Visual Communication." <http://www.vicom-usa.com/surtitle-systems.html> (consulted 26.01.2012)
- "OperaVoice." <http://www.operavoice.it> (consulted 26.01.2012)
- "Naotek Staging Systems." <http://www.naotek.com> (consulted 26.01.2012)
- "SuperTitles." <http://www.supertitles.gr> (consulted 26.01.2012)
- "Showtranslations." <http://www.showtranslations.com> (consulted 26.01.2012)
- "Reading the news"  
[http://news.bbc.co.uk/newswatch/ifs/hi/newsid\\_5150000/newsid\\_5150600/5150650.stm](http://news.bbc.co.uk/newswatch/ifs/hi/newsid_5150000/newsid_5150600/5150650.stm) (consulted 13.01.2012)
- "SUMAT: An Online Service for SUBtitling by MACHine Translation"  
[http://ec.europa.eu/information\\_society/apps/projects/factsheet/index.cfm?project\\_ref=270919](http://ec.europa.eu/information_society/apps/projects/factsheet/index.cfm?project_ref=270919) (consulted 13.01.2012)
- "Watch movies with subtitles on the iPhone"  
<http://hints.macworld.com/article.php?story=2009081913171253> (consulted 13.03.2012)
- "Moviereading"  
<http://www.moviereading.com/static/doc/en/MovieReading.pdf> (consulted 13.03.2012)

## **Chapter 3.**

### **Article 2: “The tyranny of the tool: Surtitling live performances”**



### 3. Article 2: “The tyranny of the tool<sup>10</sup>: Surtitling live performances”

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#### **Abstract:**

Surtitling is a complementary communication system which renders the verbal utterances taking place on stage into a written format and makes this accessible to members of the audience. Beyond the decisions of the professionals involved in the surtitling process, many of the characteristics related to surtitling content and its format are determined by a number of paralinguistic aspects. In this context, the effectiveness of both the surtitling process and the end result will depend on the following: the facilities for accessible services within the building where live performances take place, the development of technological innovations included in live performances, and the specifications of the surtitling technologies used.

Central to the study detailed by this paper are the technical aspects related to the existing surtitling systems used in different live performances in scenic art venues. After a short introduction dealing with the main features of stage performances, such as music, drama, stage, translation and surtitling practise, section 5.2 examines the different indoor and outdoor spaces where live performances take place. In section 5.3, new live performance spaces are presented. In section 5.4, the surtitling practices of stage performances are outlined. In section 5.5, commercially available software programmes are analysed, following the specifications for each genre. Section 5.6 concludes with a reflection on the multiple accessibility solutions that the latest developments in technology could offer to live performances.

**Keywords:** Surtitles, performance venues, live performances, opera, theatre, surtitling software, accessibility, deaf and hearing-impaired audience, new technologies.

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### 3.1 Introduction

Surtitling can be studied from a number of different academic perspectives. It can be considered to be a service for operatic performances (Music Studies) and theatrical plays (Drama, Performance or Theatre Studies). When examining the linguistic features, surtitling also falls into the field of Translation Studies in terms of the verbal sources that surtitlers produce. Librettos can be analysed from the Literary perspective, and finally, when looking at surtitling from the perspective of translation and media access, surtitles form part of the field of Audiovisual Translation Studies.

Within the last decade, surtitling has been of interest to the field of Audiovisual Translation (Bartoll, 2004, 2008; Desblache, 2007; Díaz-Cintas & Remael, 2007; Dewolf, 2001; Mateo, 2001, 2002, 2007a, 2007b; Verbecken, forthcoming; Virkkunen, 2004 etc). Within this field, attention has been paid to the areas of operatic translation or musical translation (Burton, 2001, 2009; Burton & Holden, 2005, Low, 2002, Matamala & Orero 2007), libretto translation (Desblache, 2007; Dewolf, 2001; Kaindl, 1997; Virkkunen, 2004), theatrical translation (Carlson 2006, Espasa, 2000, Ezpeleta 2007), surtitling techniques and practice (Griesel, 2005 & 2009; Mateo, 2002, 2007a & 2007b; Oncins *et al.*, forthcoming; Verbecken, forthcoming). Since Media Access has recently been incorporated into the field of AVT (Orero, 2005), attention should also be paid to the practice of surtitling within this specialised area of Media Access (Weaver, 2011).

Despite the emergent research into accessibility within Audiovisual Translation Studies (AVT), rendering a live performance fully accessible still remains an unusual research topic in both its theory and practice. Rapid technological developments have opened up new surtitling possibilities which have not yet been considered in this research field. In this context, and in order to fully appreciate the input from further studies into this area, it is very important to establish a surtitle differentiation between stage productions (comprising mainly opera and theatre) and other live events (such as “conferences”) which may be described as live performances but differ from stage productions – an obvious example of such an event would be the Oscar awards ceremony. Given the many and varied live events, and the difficulty in establishing exact taxonomies and classifications for the study of



surtitling, this article will focus specifically on the two main types of stage performances (namely opera and drama), and will not deal with other live performances such as musicals, concerted operas or rehearsed readings.

This article will examine elements which impact on surtitles both in terms of their form and content and which, whilst not directly relevant to translation, dictate the way in which surtitles are produced, displayed, and consumed. While these aspects are separate from the practice of translation, they should be considered when analysing surtitles. Issues such as the performance venue (i.e. the physical theatre or opera house building), the different requirements of the two genres (opera and theatre), and the surtitling software available will be analysed in the following sections.

### **3.2 Different buildings, different needs: making a move towards accessibility**

In the following section, the focus will be on the development of physical surtitling facilities and their impact on the surtitling practice for live performances. To this end, new building uses and stage tendencies and formats will be described in order to show how accessibility needs should be addressed by taking into consideration the many and rapidly changing technological trends.

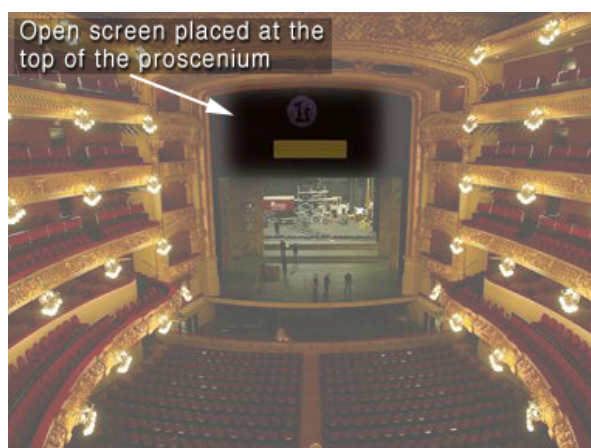
#### **3.2.1 Evaluating opera houses**

Opera houses undergo constant change in order to improve their facilities. The introduction of the surtitling practice was an improvement made in order to both meet current audience expectations and to attract new audiences. Surtitling was first introduced to opera during the 1980s and ‘offered a way of presenting the verbal content of the opera simultaneously with its performance in the original language’ (Low, 2002: 99). However, surtitling was not initially fully accepted by some stage directors, producers and art critics, who considered surtitles to be ‘a prophylactic between the opera and the audience’ (Burton & Holden, 2005: 4). At first it was seen as obstructive rather than as an aid to communication (Desblache, 2007; Mateo, 2007b). However, surtitles have been shown to be very effective as a means of rendering the opera accessible to the audience (Burton, 2009; Low, 2002; Mateo, 2007b), as is pointed out by Mateo:

If, not many years ago, opera goers assumed non-comprehension as part of this

experience (unless they knew the pieces by heart – which was not uncommon – or studied the libretto before the performance), today’s audiences show a desire to understand the verbal text at the same time as they receive the music. (2007a: 155)

In view of the fact that surtitles have an increasing positive audience reception, most opera houses have adapted their facilities, and since mid 80’s have created in-house surtitling departments to carry out the production and projection of surtitles. The first technologies employed were not specific to surtitling, as Bonwit 1998<sup>11</sup> explains: ‘surtitles were made on slides and two slide projectors were used to project them on the screen. This was an expensive and tedious process involving photography, processing, and sorting into projector trays’. However, opera houses soon began to look for new surtitling possibilities and incorporated new technological developments in order to improve both results and cost-effectiveness. In this context, the introduction of wired systems to opera houses was an obvious evolution, since these systems allowed for the projection of surtitles directly from the computer to a screen over the proscenium, meaning that the surtitles could be managed more effectively, allowing the surtitlers to process changes and modifications on the surtitles easily. .



*Figure 11. An open screen onto which surtitles are projected at the Grand Teatre del Liceu, Barcelona, Spain*

The open screen with surtitles was the first accessibility service introduced to performance venues and is still the most common practice within opera houses. However, in recent years, further technological developments have been being introduced to increase the efficacy of accessibility services. Several papers (Matamala & Orero, 2007; Matamala & Orero, 2004; Cabeza & Matamala, 2008;

<sup>11</sup> <http://www.wap.org/journal/surtitles/surtitles.html> (Consulted on 12 April 2012)

Cabeza, 2010) mention the facilities at the Grand Teatre del Liceu, Barcelona, where Thin Film Transistor (TFT) screens on the back of every seat were introduced in order to compensate for seats in which the visibility of the stage is either reduced or non-existent. Audience members are able to individually choose from subtitles in Catalan, Spanish or English.

At the Grand Teatre del Liceu, there are three different screens available displaying titles. The first (Figure 11) is the screen situated at the top of the proscenium, where Catalan surtitles are shown to all. Figure 12 shows the first row of seats in which a special screen is fitted to offer synchronic titles like those shown above the stage in Catalan. There is a choice for these titles of three different languages: Catalan, English and Spanish. In addition, in some seats with reduced or no vision of the stage, there are TFT screens on which both the action taking place on stage and also the choice of surtitles (which in this case become subtitles) can be displayed, again in either Catalan, English or Spanish.



*Figure 12. Different screens at the Grand Teatre del Liceu, Barcelona, Spain.*

Other opera houses, such as the Royal Opera House in London, have also introduced TFTs, but here the language on offer for the surtitles is English only. At La Monnaie/De Munt Opera House in Brussels, there are two open screens above the stage, on which surtitles are offered in both French and Flemish (see figure 13). After the break, the language presentation is reversed between these two screens to Flemish and French.

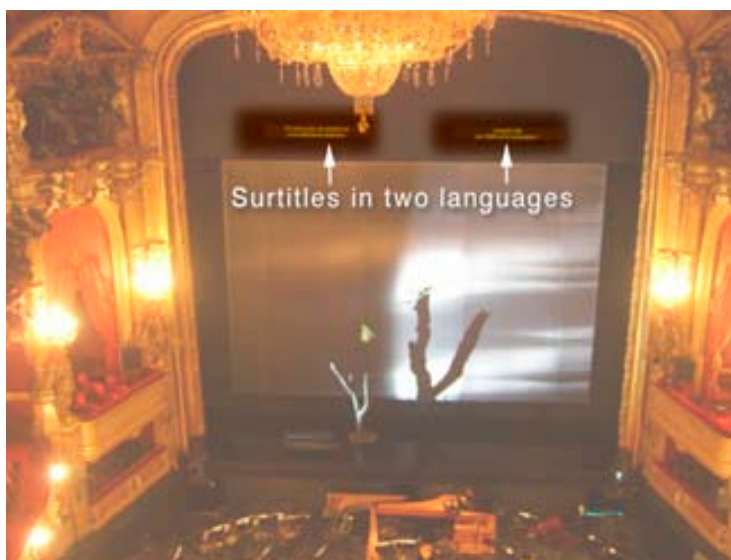


Figure 13. Screens with two languages at La Monnaie/De Munt Opera House in Brussels.

In 2009, the Komische Oper, in Berlin, replaced all their seats with new models with a built-in screen at the back (see Figure 14). This enables them to offer synchronic titles in German and English, with Turkish and Russian also planned for next season (2012/2013). In addition, the surtitling big screen above the stage was removed (see Figure 4).



Figure 14. Screens placed in different positions at the Komische Oper, Berlin.

At present, in the Grand Teatre del Liceu a new ad hoc technology is being developed and tests are carried out to implement a system which allows for the creation of surtitles and their wireless transmission to smartphones in real time (Oncins *et al*, forthcoming).

### 3.2.2 Evaluating theatre houses

In conventional theatres and play houses, surtitling was adopted later than in opera houses and is mainly used at theatrical festivals where foreign theatre companies perform plays in a different language to that of the majority of the audience. Compared to its use in opera, theatrical surtitling still remains an uncommon practice. When surtitles are offered, most theatres outsource their surtitling service to specialized companies and hire the technical equipment. Furthermore, when comparing the positioning of the open screen displays in opera and theatre houses, in opera, surtitling displays are mainly placed on the top part of the stage over the proscenium, whereas displays in theatres are positioned in a number of different places, such as in the front area of the stage or behind the actors over the stage (see figure 15), in the front area but beneath the stage (see figure 16) or even in the peripheral area of the stage (see figure 17).



Figure 15. Surtitles placed at the rear part of the stage in a play performed at the 24th Street Theatre in California, USA.



Figure 16. Surtitles placed in front of and below the stage in a play performed at The Lowry Theatre, Manchester, UK.



*Figure 17. Surtitles placed at the lateral part of the stage in a play performed at the Old Vic Theatre, London, UK.*

No standard can therefore be identified for the position of the open screen display in theatre houses, and no reception studies have been undertaken to evaluate user satisfaction according to the various positions and presentations. As stated in a description of the surtitling service provided by Stagatext, a British company which offers accessibility in theatre houses for the deaf and hard-of-hearing audience in UK, 'Stagatext caption unit is placed as near to the stage as possible – sometimes even on the set. Positioning will vary from show to show, depending on the set design, lighting states, sound equipment and any moving scenery.'<sup>12</sup> Clearly then, the positioning of the surtitling display within theatres seems to be decided by the technical facilities available and the considerations of the stage director rather than the by audience needs.

### **3.2.3 Evaluating theatrical and operatic festivals**

In addition to surtitling practice in theatre productions, surtitles are especially used at international theatre and opera festivals to render stage productions of foreign companies accessible in the local audience's native language. A major problem faced at festivals is the stage setup, usually for outdoor performances. When the production takes place in the open air, technical installations have to be arranged accordingly and in short periods of time, especially in the case of theatrical performances. Outdoor stages also present further accessibility problems: the reception of access services and the positioning of surtitle displays (see Figure 18). It should be noted that stage productions for theatrical festivals will only be performed

<sup>12</sup> <http://ablemagazine.co.uk/stagetext-captioning-10-years-on/> (consulted on 14 April 2012)

once or twice at different international theatre festivals such as the Festival d'Avignon in France, the Edinburgh Fringe Festival in Scotland, the Festival Grec in Barcelona and the Athens-Epidaurus Festival in Greece.



Figure 18. The outdoor stage at the Athens-Epidaurus Festival in Greece.

On the other hand, opera festivals largely present just a few productions (between three and five) and the open-air venues are generally larger than in theatrical festivals. Examples of operatic festivals include the Sferisterio Opera Festival in Italy (with 3000 seats) and the Bregenz Festsspiele in Austria (with 7000 seats). The stage setup for operatic festivals is prepared far in advance due to the production dimensions. In this case, surtitles are mainly projected directly on the scenography and in the language of the audience (See Figure 19).

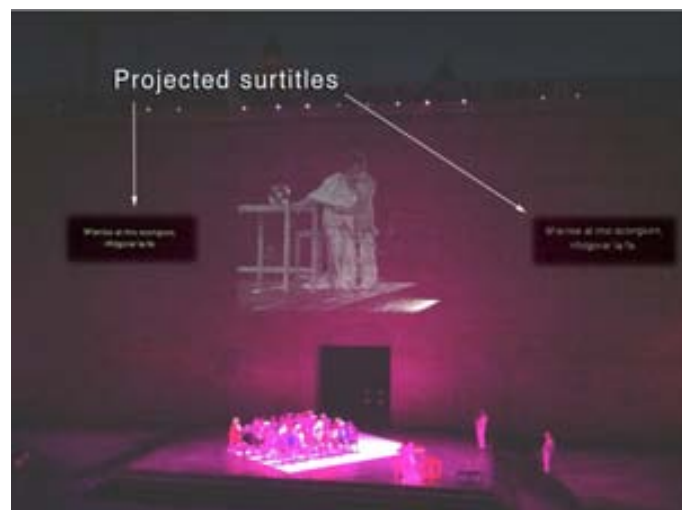


Figure 19. Outdoor stage with projected surtitles at the Sferisterio Opera Festival in Italy.

When comparing the technical developments towards linguistic accessibility introduced by all venues: conventional theatres, play houses, opera houses as well

as theatrical festivals, considerable differences can be observed. Opera houses are at the forefront of technical developments in surtitling. The predominance of opera over theatre in this area may be due to budgetary issues, *mise-en-scène* requirements, and auditorium dimensions.

### 3.2.4 Making room for accessibility

As previously stated, most studies dealing with operatic surtitles highlight their positive impact on the audience. Nowadays, opera goers might well complain if an opera were performed without surtitles, even if the performance took place in the audience's own language. However, surtitles were intended to overcome a linguistic rather than a sensory barrier and, as Mateo (2007:155) states, 'they were first created to facilitate comprehension of the opera plot'. Thus far however, there has been little discussion concerning the need for the inclusion of extralinguistic information,<sup>13</sup> with the aim of making the performance accessible to deaf and hard-of-hearing audiences.

In the case of theatre, surtitling has also been mainly conceived to break down linguistic barriers through interlingual surtitles. In the words of Griesel (2009:123) 'Theatre surtitling is a means of transmitting a foreign language production on stage into another language'. In this context, some organisations provide intralingual captions<sup>14</sup> for stage performances to deaf and hard-of-hearing audiences in a small number of countries (e.g. Stagertext in the UK or Media Access in Australia). A few theatre houses provide intralingual surtitles, such as the Teatre Lliure in Barcelona, but only for several selected performances.

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<sup>13</sup> Arnáiz-Uzquiza (2012) in her classification of parameters for the SDH (subtitles for deaf-and-hard of hearing) introduces the category 'extralinguistic information' referring to the representation of all non-verbal sound information provided in the audiovisual text. In this category she provides the following parameters: character identification, paralinguistic information, sound effects and music. In the case of opera, the dimension of music would be excluded, because it represents an inherent element of the performance. But in the case of stage performances all four parameters should be considered with in the process of the surtitles.

<sup>14</sup> In an interview with Tabitha Allum (Chief Executive at Stagertext), she clarifies that the use of the term captions is used for surtitles in the same language as the performance (intralingual surtitles) addressed to hearing impaired people, whereas the term surtitles is used for surtitles in another language than the performance (interlingual surtitles). However, Stagertext sometimes provides interlingual surtitling for foreign plays. This fact, shows the lack of agreement, between organizations, practitioners and researchers, for the use of an standard terminology regarding intralingual and interlingual accessibility services.



### 3.3 Opening up new spaces to live performances

In recent years, technological innovations have demonstrated a wish to improve the process of the conception, creation and reception of live performance - a desire to move away from the fixed and closed spaces of stage productions leading to new uses of technology and attitudes to theatre. As Miquel-Iriarte *et al.* (2012: 260) explain, 'in today's society, multimedia and multimodal content can be present almost anywhere, and subtitles are not exclusively displayed on screens of cinemas, computers and televisions, but also on mobile phones, smart phones and tablets, and on TFT screens in opera houses, theatres etc.'

The introduction of surtitles in opera was the first step towards the broadcast of live operas first available on TV. As Mateo (2007:159) says, in relation to Spain: 'opera lovers are now used to a watching-reading reception of performances, and this has made TV broadcasts of operas – which were very rare only a few years ago – and the subtitles in them – in a dubbing country – more acceptable.' Indeed Desblache (2003: 167) asserts that 'surtitles are overwhelmingly requested by the public'. Nowadays, technological developments allow the audience to follow the opera live online from any country, in cinemas or even using new platforms such as the iPad. This is the case for the Metropolitan Opera from New York with the project: 'The Met: Live in HD'<sup>15</sup>. Some opera houses, such as the Royal Opera House or the Metropolitan offer live opera via streaming on the android and iphone devices. Another example of the impact of new technological developments is the project 'Open Opera'<sup>16</sup>, offered by the Gran Teatre Liceu in Barcelona and the Teatro Real in Madrid and aimed at universities around the world.

The introduction of new technologies is a growing tendency within theatre but largely remains linked to stage production. The use of pre-recorded audiovisual material, videogames or interactivity between actors and the audience is leading to a change in the paradigm of theatre production. However, compared to opera, live broadcasting in this genre still remains rare, only being offered for large scale productions or by experimental theatre companies such as 'La Fura dels Baus'<sup>17</sup>, a Spanish theatre multimodal company which explores not only new theatrical forms but also new spaces.

<sup>15</sup> [http://www.metoperafamily.org/metopera/broadcast/on\\_air.aspx](http://www.metoperafamily.org/metopera/broadcast/on_air.aspx) (consulted on 12 April 2012)

<sup>16</sup> <http://www.opera-oberta.org/inav.html> (consulted on 12 April 2012)

<sup>17</sup> <http://www.lafura.com/web/index.html> (consulted on 12 April 2012)



Figure 20. The play *Titus Andronicus* from *La Fura dels Baus* performed in San Sebastián, Spain.

As we have seen, venues are constantly evolving and adapting their facilities in order to render stage performances accessible to a wider audience. In this context, opera houses have taken a leading role, with large investments in technology. As explained by Matamala and Orero (2004: 201), 'the new hi-tech Liceu, plus the determined attitude of the Liceu management to make opera accessible to a wider audience, has placed Catalan Opera at the forefront of a new approach to opera and its reception'.

Paradoxically, accessibility in theatre houses remains an area for improvement. Access services are offered sporadically and are mainly outsourced to professional freelancers or user organizations. Nevertheless, theatrical productions are constantly adopting new technological developments for use in their performances. As Griesel (2009: 6) points out, 'the development of new media again and again triggers and demands new forms of translation'. This may cause further problems when trying to render the stage performance accessible.

### 3.4 Different genres, different styles

After having reviewed the technical developments introduced within performance venues, the following section presents an overview of the basic principles of surtitling in live performances, and outlines the importance of surtitling for the transfer of oral content to the audience. Whilst aiming to describe the technical aspects that determine the elaboration and broadcasting process of the surtitles, common aspects and particularities of the surtitling practice within both genres are analysed.

Recently, with the new regulations relating to media access at a national and international level<sup>18</sup>, the focus should not only be placed on linguistic transfer but should also include sensorial elements. While there is necessary to draw distinction between the genres of opera and theatre, due to their own particular characteristics and specific performance features, both genres also share common aspects that affect the overall process of surtitling. This is particularly the case when dealing with the technical aspects of surtitling. Within this context, Griesel (2009:124) asserts that ‘theatre surtitling has to deal with wrongly positioned surtitles that cannot be seen from all places, with poor lighting or with surtitles that are projected too fast, etc.’ This paper will therefore now focus on defining the common technical aspects and particularities that determine the style of the surtitles for each genre.

### **3.4.1 Technical aspects of surtitling practice for live performances**

After having reviewed the technical developments introduced in performance venues, in the following section, focus is placed on the surtitling process with special attention paid to its technical aspects. Within this context, Mateo (2007a) considers four technical aspects which impact on the surtitling process: software systems, projection, the person in charge of the projection and unexpected changes to the performance. However, these technical aspects only take into consideration the final part of the surtitling process. Considering the definition provided by Griesel (2009: 123) that ‘surtitles are prepared and projected onto the stage with the help of special software combined with a video projector’, the surtitling process is therefore first divided into two parts: the elaboration process and the broadcasting process. Each of these is subject to specific technical aspects. Therefore, a definition of the technical aspects relating to each process and their importance in terms of the final result will first be provided.

It should be mentioned here that Bartoll provides a definition of the technical parameters in his taxonomy of subtitles, considering surtitles to be ‘electronic subtitles’ (2004: 59). The author of this current paper provides a definition of both terms from the same perspective. In fact, most academics working in this field consider that surtitles ‘are close relative to subtitles’ (Díaz-Cintas & Remael, 2007: 25) or ‘have derived from them’ (Mateo, 2007a: 171). Therefore, in AVT Studies, the

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<sup>18</sup> Actions at international level like the European Disability Strategy or the United Nations convention on the Right of Persons with Disabilities (UNCPRD) have imposed new regulations regarding accessibility to the member countries of these institutions.

term 'surtitle' has yet to be standardized. For the purpose of this paper, surtitles are considered to be a single entity in AVT Studies, agreeing with several authors (Burton, 2004; Griesel, 2005; Low, 2002; Mateo 2007; and Vervecken, forthcoming), who argue that the display of the text of the surtitle 'borrows heavily from subtitles' (Griesel, 2005: 10) but assert that both AVT forms should be studied separately. However, the fact that surtitles will never be a final and static product suitable for every performance, quite apart from the need for a simultaneous synchronization with the source text, make them a unique topic in AVT Studies.

In order to provide a definition of the technical aspects of surtitling which determine the elaboration and broadcasting process of surtitling practice, the following parameters first defined by Bartoll (2008: 260-268) will be considered: optionality, broadcast, colour, mobility, localization, placing, filing, typography and format, as all of these require special technical resources for each case. For the purpose of this paper, the parameter '**broadcast**' refers to how surtitles are projected for the audience. As several authors explain (Burton, 2001; Griesel, 2005; and Vervecken, forthcoming), surtitles will always be broadcasted manually in order to achieve synchronization between the 'source text' of the stage performance and the 'target text' of the written surtitles. Because of this, broadcasting is considered to be part of the process rather than a technical aspect in itself.

Furthermore, other technical aspects, mentioned by other professionals and academics in the field, such as '**brightness**' and '**fading**' (Burton, 2001), will be included and described. As previously stated, a differentiation between the creation and broadcasting processes will be provided. This is due to the fact that some technical aspects such as placing, mobility, colour, brightness and fading are determined during the creation process. However, filing, location and optionality, are subject to the broadcast process and the technical facilities available at each performance venue.

### **3.4.2 Consideration of technical aspects of the creation process**

Given the fact that most opera houses have an in-house surtitling department, the possibility of a 'house style' arises (Burton & Holden, 2004: 4), allowing surtitling professionals to establish a communication system with the audience 'such as the use of italics for "offstage", brackets for "aside", and dashes to indicate two voices'

(Burton & Holden, 2004: 4). On the other hand, theatrical surtitling remains a sporadic practice for programmed performances in a different language which is largely outsourced to specialized companies or organizations with their own 'house style'. This may cause confusion for the audience in a specific theatre house in the event that the venue deals with different surtitling companies or changes its surtitling provider.

In terms of the language of surtitles, there is a consensus amongst professionals and academics about the need to be brief, to use simple and clear structures and to be unobstructive in style (Burton, 2001; Low, 2002; Desblache, 2007; Griesel, 2009). Therefore, it could be said that surtitles in live performances present a common form 'of two lines of text per title, with a maximum of about 35 characters per line (this will vary according to the font used)' (Burton 2001: 1). However, a format of a maximum of three lines or up to 40 characters per line can also be found in theatres and operas, depending on the conventions established by the in-house surtitling department, surtitling company or freelancer.

The technical aspect of '**placing**' refers to the centred or non-centred position of the surtitles text within the display screen. In this case, two different positions can be identified: centred text and left-aligned text, the use of which will vary depending on the conventions established by in-house departments or professionals in opera houses, companies and surtitling organizations.

A further aspect is '**mobility**', which refers to whether or not the text moves synchronically with its emission by the actor (i.e. scroll up) or whether it instead appears on the screen in blocks and remains fixed. Despite the use of block surtitles in most live performances, some accessibility organizations for hearing-impaired audiences, such as Stagertext in England use an upwards scroll in their intralingual captions, arguing that they are aimed at deaf and hard-of-hearing audiences and that they therefore need the synchronicity. However, there seems to be a lack of consensus between organizations and companies about 'mobility'. Whilst the organization Stagertext uses upwards scrolling and three lines of amber text, the Teatre Lliure in Barcelona provides intralingual surtitles in blocks of one or two lines of text. Some eye-tracking research has been carried out into this field with relation to real-life surtitling. Reading patterns are directly influenced by the text display and its 'mobility', and it has been proven by data results from Romero-Fresno (2012) that pop on is the most user-friendly for the display of both intralingual and interlingual

surtitles, arguing that with scroll display the user tends to return to the beginning of every sentence when the word or line moves forward.

**'Colour'** refers to the colour which is chosen for displaying surtitles. In both genres, surtitles are presented in monochrome on a black background, which may cause problems for the deaf and hard-of-hearing audience in terms of identifying the actor<sup>19</sup>. In operatic surtitles, the text displayed on the big screen is white. Yet the same text can be displayed in amber, green or red due to the technical specifications of the TFT screens or of individual handheld devices. In theatrical surtitles, the colour of the text displayed is mainly subject to the lighting in the scene. For instance, for dark scenes with a poor lighting the colour used might be red in order to avoid 'light pollution' (Vervecken, forthcoming). However, in some cases blue (See Figure 15), amber (See Figure 16 and Figure 17), green or white are also used, depending on the available screen colours and considering the aesthetic needs of the stage production, rather than in response to the needs of the audience.

The aspect of **'typography'** refers to the font, size and style presented for each surtitle; as style can be presented in different forms in the same text, font and size remain unchanged for all cues. In this context, style is important especially in the use of italics, because in the case of opera, it indicates off-stage and on-stage information. The use of style for the differentiation between of in stage and off stage information is crucial for hearing-impaired audience. In terms of these three aspects, style can be changed in the same text in most programmes, but all aspects of the typography must remain unchanged throughout for the complete text, thereby constraining any creativity intention on the part of the surtitlers.

Another common aspect in the creation process of the surtitles that should be considered is the effect of **'brightness'**, which should vary depending on 'the lighting states on stage, scene by scene' (Burton, 2001: 4). Within this context, 'light pollution' (Vervecken, forthcoming) is a common problematic aspect which affects both genres, presenting major difficulties in the practice of surtitling, especially when

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<sup>19</sup> Pereira (2004) describes three main strategies used to identify individual speakers in SDH: positioning the subtitles under the speaker; using labels with the name of the speaker before the subtitles; and assigning a different color to each speaker. The first strategy could hardly be generally used in surtitling because of the physical constraints of the surtitling screen, the second strategy is used by the organization Stagertext because intralingual captions are provided, the third strategy is considered by Pereira the most effective because viewers are used to it. The colours generally used in SDH for television: yellow for the main character, green for the second, cyan for the third, magenta for the fourth, and white for the rest. Therefore, the introduction of colours for character identification implemented in hand-held devices could improve the reception of hearing-impaired audiences.

the onstage scene is very dark. As in the case of colour, brightness is mainly subject to aesthetic parameters decided by stage directors.

Last but not least, **'fading'** will draw this section of the main common technical aspects of the creation process to a close. Fading refers to the fade in and out speed which is set in the surtitles according to pace of the actor's oral utterances (Burton, 2001). This aspect has received special attention in operatic productions where, as is pointed out by several authors (Burton, 2001; Desblache, 2007; Dewolf, 2001; Low, 2002; Virkkunen, 2004), the music tempo is important. As Burton (2001: 4) highlights, 'If you have the facility to fade titles in and out – perhaps at differing speeds – you should match this to the pace of the music. Fast recitative should 'cut' between titles, and/or fade as quickly as possible. Slower music can fade in and out. ' The surtitler should therefore 'reconcile the artistic impression of a fade with the need to have the title visible for as long as possible to read it' (Burton, 2001: 4). This fact allows the professional to use the surtitles as a communication aid with the audience whilst maintaining the musical tempo. On the other hand, theatrical surtitling has not introduced this fading effect, which in some cases could in fact help professionals working in this field maintain the dramaturgic effect.

Finally, the parameter **'format'** refers to the extension that the surtitles will have once the text is produced and saved (i.e. .txt, .ppt). Paradoxically, files in the most common text formats (i.e. .txt, .doc) can be imported, but the resulting text will mostly be exported in another form specific for the programme used and not convertible to any other software. In fact, this is one of the main problems with the format, especially the commercial software developed for the surtitling practice.

### **3.4.3 Consideration of technical aspects of the broadcasting process**

Once surtitles have been prepared, the next step in the surtitling process is broadcasting: i.e. sending the files to the screens. Within this context, the technical aspect of **'filing'** should be considered. Filing refers to whether or not surtitles are independent and can be detached from the audiovisual product and if they could therefore be altered. Because of the hybrid nature of live performances, surtitles in both genres (drama and opera) are separable from the audiovisual product. This is important in order to differentiate between surtitling for the stage and subtitling for the screen. Whilst the former might be defined as an 'unfinished product' (Vervecken,

forthcoming) and is usually modified after each performance, the latter could be considered to be a 'finished product' (Vervecken, forthcoming) because once subtitles are engraved remain unchanged for each projection. Surtitles can therefore be modified for each performance. As Desblache (2007: 164) highlights, 'opera and theatre surtitles require flexibility of timing as they are issued for each performance and also, to some degree, of meaning, as each production and at some level, each performance gives a new meaning to the work interpreted'. Hence, surtitles will usually be altered for each performance according to the production requirements and the considerations of the director.

The remaining technical aspects are '**localization**' and '**optionality**'. Localization refers to the position of the screen in reference to the stage performance, since surtitles can be displayed in different positions: above or beneath the proscenium, to the side of the stage, on the back of seats or on smartphones. Optionality refers to open and individual screen surtitles. As mentioned previously, surtitles can be presented in both forms. However, open screen surtitles are still the most common across both genres. That said, recent and continuing technological developments are increasing the new surtitling possibilities for live performances.

#### **3.4.4 Consideration of unexpected factors in live performances**

Because of the independent nature of surtitles in relation to the audiovisual production, synchronization may cause major problems when displaying the surtitles simultaneously with the live onstage performance. This is largely due to external and unexpected changes that could occur during the staging process. As Griesel (2009: 124) points out, 'contextual factors like temporal restrictions, a high tempo of speech, technical malfunctions or individual mistakes' may render the creation process of the surtitles useless. Therefore, as Vervecken (forthcoming) comments, 'that is where the surtitling software comes into play'.

All in all, it could be said that the technical aspects related to the creation and broadcasting processes of surtitles in both genres are largely the same. These aspects are namely localization, placing, filing, mobility, optionality and colour. While fading and brightness effects remain specific to opera, theatrical surtitling could also benefit from these.



In both cases, it should be mentioned that all the technical aspects described are mainly aimed at not interfering with the stage production, rather than at providing accessibility to the audience. This could lead to a reception problem due to the split attention effect. As Miquel-Iriarte *et al.* (2012: 263) explain, ‘split attention and change of focus whilst reading are two major issues regarding reception and the demand on a viewer’s attention’. Therefore, depending on the definition of the technical aspects, the attention of the audience will inevitably be affected because they will have to divide their attention between the written text of the surtitles and the visual input from the stage performance.

In the following section, the main commercial surtitling software available will be analysed whilst considering the technical aspects for the surtitling creation and broadcasting processes previously described. In addition, solutions presented by surtitling software for dealing with unexpected factors will be outlined.

### **3.5 Different software, different surtitles**

A further important factor related to the surtitling process is the software (SW) used for the creation and broadcast of the surtitles. No research has yet been carried out analysing the main commercial surtitling software available (namely PowerPoint, Figaro, Vicom, Naotek, Supertitles, and Opera Voice) and relating these to the technical needs described in section 5.4 of this paper. The following surtitling software has been selected whilst considering the following factors: the requirements of both genres, their popularity among professionals and performance venues, and the view of academics working in the surtitling field.

PowerPoint has been considered because, as several authors mention (Griesel, 2009; Mateo, 2007a and Verbecken, forthcoming), it still remains one of the most popular pieces of surtitling software used in opera and theatre, despite being a program, which was not developed to cater to the needs of surtitling. The broadcast set up when using this programme is in combination with an LED screen or a video projector. Some reasons for using PowerPoint in the surtitling process may be that ‘it is the cheapest solution’ (Vervecken, forthcoming) and that it also permits ‘flexibility in the amount of text and number of lines and characters’ (Mateo, 2007a: 160). However, when compared to other surtitling programs, PowerPoint lacks the

flexibility to react and manage unexpected factors which may occur during live performances.

For opera, the most popular surtitling software titles are Figaro and Vicom. Figaro is currently being used at the Royal Opera House in London and Vicom at the Grand Teatre Liceu in Barcelona and La Monnaie in Brussels. Another interesting piece of surtitling software is Opera Voice, which has been developed to make use of new smartphone platforms and is currently being tested at the Maggio Musicale Theatre in Florence (Table 2).

Process	Creation Process							Broadcasting Process		
	Placing	Mobility	Colour	Typogr.	Bright	Fading	Format	Local.	Option.	Filing
PowerPoint	Different	Block	Mono	Different in the same text	No	No	Convertible	Single	Open	Separable
Figaro	Centred	Block	Mono	One	Yes	Yes	Non-convertible	Different	Open & individual	Separable
Vicom	Centred	Block	Mono	One	Yes	Yes	Non-convertible	Different	Open & close	Separable
Naotek	Aligned left	Block	Mono	One	No	No	Non-convertible	Single	Open	Separable
Supertitles	Aligned left	Block	Mono	Different in the same text	No	No	Non-convertible	Single	Open	Separable
Opera Voice	Centred	Block	Mono	One	No	No	Non-convertible	Single	Close	Separable
Stagetext	Aligned left	Scroll	Mono	One	No	No	Non-convertible	Single	Open	Separable

Table 2. Comparison table of surtitling softwares

Regarding the theatrical genre, as previously stated, the practice of surtitling is largely outsourced to external companies and organizations. Therefore, the selection of software has been made by following that used in the surtitling practice of international theatre performance companies. Within this context, Naotek and Supertitles SW 'are some European industry leaders' (Vervecken, forthcoming).

Regarding operatic performances, it can be said that surtitles are presented centred, in blocks, in monochrome, and largely including brightness and fading effects for the creation process. In addition, for the broadcasting process, surtitles can be offered in different localizations (on an open screen above the proscenium or on individual screens placed in the front, rear or to the side of seats) and also on open screens and multilanguage individual screen options.

Theatre surtitling, on the other hand, is presented mainly left aligned, in blocks, always in monochrome and with neither brightness nor fading effects. In addition, for the broadcasting process, surtitles are offered in a single localization (above, beneath, at the back or to the side of the stage) and always on an open screen for all the audience. As can be observed in Figure 17, when dealing with the technical aspects which each piece of software presents, most decisions affecting the creation and broadcasting process have been determined by surtitling practices, which have again been determined by the technical facilities available at the performance venue. Therefore, it should be noted that most companies offering surtitles and most organizations offering accessibility solutions have developed their own software in order to adapt their services to specific performances venues. Hence, research into this field has begun to emerge in some countries and still remains linked to industry.

In venues for both types of performance, wired systems are used and only in a few cases are wireless systems currently being tested. Two such examples are Opera Voice at the Maggio Musicale Theatre in Florence and the UAS system at the Grand Teatre del Liceu. It should be noted that apart from considerably reducing maintenance costs, wireless systems particularly within opera houses could also solve the technical issues relating to surtitling and offer new surtitling possibilities. In addition, accessibility could be provided in other venues like museums or any other public building, as Miquel-Irarte *et al.* state:

Digital and portable devices could be useful tools when attempting to remove the barrier of simultaneity, since they can be used to make a vast array of live events and performances accessible, from theatres through to museums and universities (Miquel-Irarte *et al.*, forthcoming)

Within this context, the Universal Access System (UAS), which has been developed by the research centre CaiaC at the UAB (Spain) in order 'to deliver most accessibility services for live performances via a mobile application' (Oncins *et al.*, forthcoming) could present a single solution for both performance venues and for outdoor spaces, whereby, most importantly, the spectator would not be obliged to sit or stand in specific areas of the venue, but could enjoy the performance from any place and receive the information depending on his/her linguistic or sensorial needs. Furthermore, the technical aspects could be adapted for each performance instead of for each genre.

### 3.6 Conclusions

Accessibility studies and practices have largely focused on the professional elements of the surtitling practice and on translation work. However, it should be noted that most performance venues have still not implemented the technological facilities required to offer accessible live performances. Nowadays, the audience can fully enjoy a live performance online from almost any place in the world, yet deaf and hard-of-hearing audiences are at risk of being excluded from live events.

Surtitling practices across both opera and theatre have been largely oriented to cater to the linguistic needs of hearing audiences and focus on avoiding interference with the stage production, rather than on providing accessibility to the entire audience. In addition, while it can be observed that standard guidelines on both intralingual and interlingual surtitling practice exist, each surtitling department, company or organization also has its own in-house conventions. This diversity leads to a variety of different styles which may result in confusion for the audience, especially in the case of hearing-impaired in that they depend more fully on the information provided.

Furthermore, stage performances are constantly adopting new technologies, offering new multimodal and multimedia content to audiences. Within this context, the existing accessibility gap not only remains open, but could also increase due to the difficulties that new spaces may present, such as stage performances taking place in open spaces, which are an added challenge for the set up of display screens. Technical problems therefore still remain a common major issue in the surtitling practice of both the genres examined in this paper. As Griessel (2009: 124) states, 'theatre surtitling has to deal with wrongly positioned surtitles that cannot be seen from all places, with poor lighting or with surtitles that are projected too fast, etc. Unfortunately, obstacles of this kind seem to be the rule in theatre surtitling.'

There is an existing need to define audience requirements. Within this context, the adoption of new technologies and wireless systems such as 'digital portable devices' (Miquel-Iriarte *et al*, 2012) or the 'UAS system' (Oncins *et al*, forthcoming) within performance venues could offer new surtitling possibilities and improve the

services offered at the venue, rendering stage productions accessible to all and providing the audiences with a more user-friendly experience.

### 3.7 Bibliography

Arnáiz-Uzquiza, Verónica. (2012) “Los parámetros que identifican el Subtitulado para Sordos. Análisis y clasificación.” In: Agost Canós, Rosa, Pilar Orero Clavero & Elena di Giovanni (eds.) 2012. *MonTI 4: Multidisciplinarity in Audiovisual Translation/ Multidisciplinarietat en traducció audiovisual*. pp. 103-132

Bartoll, Eduard (2012) *La subtitulació: Aspectes teòrics i practices*. Vic: Eumo Editorial.

- (2008) *Paràmetres per a una taxonomia de la subtitulació*. Universitat Pompeu Fabra. Doctoral thesis. [on line] <http://www.tdx.cat/handle/10803/7572>. (consulted on 12 April 2012)

Bartoll, Eduard (2004): “Parameters for the Classification of Subtitles” in Pilar Orero, ed. (2004): *Topics in Audiovisual Translation*, Amsterdam: John Benjamins, pp. 53-60. (manuscript provided by the author pp. 1-9)

Bonwit, Stuart (1998): “Mac at the Opera”. <[www.wap.org/journal/surtitles/surtitles.html](http://www.wap.org/journal/surtitles/surtitles.html)> (consulted on 12 April 2012)

Burton, Jonathan (2001): “Writing Surtitles”, unpublished paper provided by the author written for the Royal Opera House, Covent Garden, pp. 1-17.

- (2009): “The Art and Craft of Opera Surtitling” in Jorge Díaz-Cintas & Gunilla Anderman, eds. (2009): *Audiovisual Translation: Language Transfer on Screen*, Basingstoke, Palgrave Macmillan, pp. 58-70 (original version “The Joy of Opera: the Art and Craft of Opera Surtitling” manuscript based on the paper given at the *In So Many Words* conference (London, 6 February 2004) (provided by the author, pp. 1-16).

Burton, Jonathan & Holden, Amanda (2005): “Oper Übersetzen”, *Die Horen, Zeitschrift für Literatur, Kunst und Kritik*, 218:124, (original English version “Translating Opera” manuscript provided by the authors, pp. 1-7).

Cabeza, Cristóbal (2011): "Opera Audio Description at Barcelona's Liceu Theatre". In Díaz-Cintas, J.; A. Matamala & Josélia Neves (eds.) *New Insights into Audiovisual Translation and Media Accessibility*. Amsterdam: Rodopi.

Cabeza, Cristóbal & Matamala, Anna (2008): "La audiodescripción de ópera: la nueva propuesta del Liceu". In Álvaro Perez-Ugena & Ricardo Vizcaino-Laorga, eds. (2008): *Ulises y la Comunidad Sorda*, Madrid: Observatorio de las Realidades Sociales y la Comunicación, pp. 195-208.

Desblache, Lucile (2007): "Music to my ears, but words to my eyes?: Text, opera and their audiences". *Linguistica Antverpiensa, New Series, 6 (A tool for social integration? Audiovisual translation from different angles)*, pp. 155-170.

Dewolfe, Linda (2001): "Surtitling Operas. With Examples of Translations from German into French and Dutch". In Yves Gambier & Henrik Gottlieb (eds.) (2001) *(Multi)Media Translation, Concepts, Practices and Research*, Translation Library, vol. 34. Amsterdam/Philadelphia, John Benjamins, pp. 179-188.

Espasa, Eva (2000): "Performability in Translation: Speakability? Playability? or Just Saleability?," in Upton, C.-A. (ed.) *Moving Target. Theatre. Translation and Cultural Relocation*. Manchester: St. Jerome, p. 49-62.

- (2001): *La traducció dalt de l'escenari*. Vic: Eumo Editorial, Biblioteca de Traducció i Interpretació 6.

Gorlée, Dinda, L. (ed.) (2005). *Song and Significance. Virtues and Vices of Vocal Translation. Approaches to Translation Studies*. Amsterdam: Rodopi.

- (1997). "Intercode Translation: Words and Music in Opera", *Target*. 9, (2), pp. 235-270.

Griesel, Yvonne (2005): "Surtitles and Translation Towards an Integrative View of Theater Translation", *MuTra 2005 – MuTra 2005 – Challenges of Multidimensional Translation: Conference Proceedings*, pp. 1-14.

- (2009): "Surtitling: Surtitles another hybrid on a hybrid stage" *TRANS Num 13*, pp.

119-127, (consulted 3 April 2012).

Kaindl, Klaus (1997). "Die Übersetzung als Inszenierung: Ein interdisziplinärer Rahmen zur Analyse von Opernübersetzung" (Translation as staging: An interdisciplinary framework for opera translation), *Target* 9 (2), pp. 271-287

Lefevre, André (1980): "Translation: Changing the Code; Soyinka's Ironic Aetiology". In O. Zuber (ed.) *The Languages of Theatre: Problems in the Translation and Transposition of Drama*, Oxford: Pergamon.

- (1984). "Refraction: Some Observations on the Occasion of Wole Soyinka's Opera Wonyosi". In O. Zuber (ed.) *Page to Stage: Theatre as Translation*, Amsterdam: Rodopi, pp. 191-198.

Low, Peter. (2002). "Surtitles for Opera. A Specialised Translating Task". *Babel* 48 (2), pp. 97-110.

Matamala, Anna & Orero, Pilar (2007): "Accessible Opera in Catalan: Opera for All". In Jorge Díaz-Cintaz, Pilar Orero & Aline Remael, eds. (2007): *Media for All: Subtitling for the Deaf, Audio Description and Sign Language*, Amsterdam/New York: Rodopi, pp. 201-214.

Mateo, Marta (2001). "Performing musical texts in a target language: the case of Spain". *Across Languages and Cultures* 2 (1), pp. 31-50.

- (2002). "Los sobretítulos de ópera: dimensión técnica, textual, social e ideológica". J. Sanderson (ed.) (2002). *Traductores para todo. Actas de las III Jornadas de doblaje y subtitulación*. Alicante: Universidad de Alicante, pp. 51-73.

- (2007a). "Surtitling nowadays: new uses, attitudes and developments". *Linguistica Antverpiensia, New Series*, 6 (*A tool for social integration? Audiovisual translation from different angles*), Antwerp: Hoger Instituut voor vertalers en tolken, pp. 135-154.

- (2007b). "Reception, text and context in the study of opera surtitles". Y. Gambier, M. Shlesinger & R. Stolze (eds.) *Doubts and Directions in Translation Studies*. Amsterdam: John Benjamins, pp. 169-182.

Miquel-Iriarte, M., Vilaro, A., Orero, P., Serrano, J. and Delgado, H. (2012) "Entitling: A Way Forward for Accessibility". In E. Perego (Ed.), *Eyetracking in audiovisual translation*. Roma, Italy: ARACNE Editrice, pp. 259-276.

Oncins, E., Lopes, O., Orero, P., Serrano, J., Carrabina, J. (forthcoming) "Multi language and multi system mobile application to make accessible live performing arts: All Together Now". *JosTrans 20*. "Image, Music, Text...?" *Translating Multimodalities: Especial Issue*. (manuscript provided by the author).

Orero, Pilar (2007a): "Sampling Audio Description in Europe" in Jorge Díaz-Cintas, Pilar Orero & Aline Remael (eds.) *Media for All: Subtitling for the Deaf, Audio Description and Sign Language*, Amsterdam/New York: Rodopi, pp. 111-125.

- (2007b): "Audiosubtitling: A Possible Solution for Opera Accessibility in Catalonia" in Eliana P.C. Franco & Santiago Araújo Vera (eds.), *TradTerm 13*, São Paulo: Universidade Estadual de São Paulo, pp. 135-149.

- (2009): "Voice-over in Audiovisual Translation" in Jorge Díaz-Cintas & Gunilla Anderman, (eds.) *Audiovisual Translation: Language Transfer on Screen*, Basingstoke: Palgrave Macmillan, pp. 130-139.

Orero, Pilar & Matamala, Anna (2007) "Accessible Opera: Overcoming Linguistic and Sensorial Barriers" in *Perspectives. Studies in Translatology*, 15:4, pp. 262-278.

Pavis, Patrice (1989). "Problems of Translation for the Stage: Interculturalism and Post-Modern Theatre", en H. Scolnicov y P. Holland (eds.) *The Play Out of Context: transferring Plays from Culture to Culture*, Cambridge: Cambridge University Press, traducción inglesa del artículo de L. Kruger, pp. 25-44.

Pereira, Ana (2010) "Criteria for elaborating subtitles for deaf and hard-of-hearing adults in Spain: Description of a case study" in Pilar Orero and Anna Matamala (eds.) *Listening to Subtitles: Subtitles for the Deaf and Hard of Hearing*. Bern: Peter Lang, pp. 97-102.

Romero-Fresco, Pablo (2012). "Quality in live subtitling. The reception of respoken subtitles in the UK". In Aline Remael, Pilar Orero and Mary Carroll (eds). *Audiovisual Translation and Media Accessibility at the Crossroads. Media for All 3*.



Amsterdam/New York: Rodopi, pp. 111-132.

Stagetext (2003): "Stagetext: Current Access Provision"

<<http://www.stagetext.org/content.asp?content.id=1010>> (Consulted on 12 April 2012)

Vervecken, Annika (forthcoming): "Some types and functions of surtiltes". (manuscript provided by the author).

Virkkunen, Riitta (2004): "The Source Text of Opera Surtitles". *Meta* 49 (1), 89-97.

Weaver, Sarah (2011): "Opening doors to opera. The strategies, challenges and general role of the translator". *InTralinea* 12. <<http://www.intralinea.org/archive/article/1660>> (consulted on 12 April 2012)



## **Chapter 4.**

### **Article 3: “The Process of Subtitling at Film Festivals: Death in Venice?”**



**4. Article 3: “The Process of Subtitling at Film Festivals: Death in Venice?”<sup>20</sup>**

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**Abstract**

Much has been written on subtitling films and TV content, but little is known about the process of subtitling for film festivals. Compared to ordinary films seen in the cinemas or on TV, in the case of film festivals technology has a higher impact on both the process and the display. This contribution presents a retrospective analysis of the subtitling practice at film festivals, data gathered from the Venice Film Festival - which is the oldest festival of its kind dating from 1932. Though the subtitling process may not be the same as in other film festivals, the underline principles remain the same.

**Keywords:** Subtitling, Surtitling, Film Festivals, Multilingual Subtitling, Venice Film Festival

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#### 4.1. Introduction

Until 1985 with the introduction of the electronic subtitling, the creative process of subtitles was difficult and costly, these surprised given the fact that its use was ephemeral: usually one or two showings. While, on the other hand the final product itself was used only for the festival<sup>21</sup>. After the film premiere at the festival, the print could not be further distributed in Italian, which has mainly a dubbing tradition. Furthermore, the elaboration process of the subtitles for a film festival presents three main particularities: timing, material available and medium of display. These features rarely have the same impact in other subtitling practices. Finally, over the last two decades a digital process has emerged to challenge photochemical filmmaking, affecting all stages from the film script to the screening of the film. Hence, as part of the audiovisual product, new subtitling practices are being adapted to the new digital products presented at the Venice Film Festival. Digitization of audiovisual products has opened new questions related to subtitling requirements and processes. But it also offers new subtitling possibilities adapted to the changing patterns of audiovisual products consumption.

The purpose of this paper is to study the characteristics of subtitling practices at film festivals. It takes stock of audiovisual translation practices conducted at festivals to date, and raises questions about new challenges inherent for subtitling practice, especially taking into consideration both the turn towards digitization and the rise of new distribution platforms like the Internet. The paper in the first instance will outline the essential features of film festivals, arguing that international film festivals are a specific form of multimodal translation, where audiovisual translation is highly dependent on the venue and technologies available. For that reason it will put forward a diachronic analysis of the technical developments introduced at the Venice Film Festival from the first documented guidelines in the 1950s until 2012. Moreover, new platforms like the Internet, and possible viewing formats such as complementary second screens as Smartphone (Oncins et al forthcoming), their effect on subtitling will be presented and discussed in the context of the demands of new audiences,

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<sup>21</sup> As the article '“ORANGE” to Venice with Italo’ published in Variety in 1972, points out: “Stanley Kubrick’s, ‘A clockwork Orange’, which gets an official Venice Film Festival screening Aug. 23, will be shown at the Lido event in its original English-language version plus Italo subtitles. Though Venice regulations ‘suggest’ Italo titles on foreign pix, French-titled prints are accepted and, since these can be used in Paris playoffs anyway, are generally preferred to an Italian titling job, which gets almost no play after its Venice exposure’. Variety (1972) July 26, p 15.

such as accessibility. Secondly, the paper will deal with the user's reception needs in such events. Finally, it will address questions related to the digitization of films and the implications for the subtitling practices. The paper will conclude with some considerations for future research.

#### **4.2 Defining International Film Festivals**

Film festivals are held mainly annually, usually for one or two weeks, with the purpose of celebrating, rewarding and evaluating new film productions as well as recognizing outstanding achievement in the cinematic arts. Depending on the film festival sponsorship may come from national or local government, industry, service organizations or individual linked to the film industry, experimental film groups or any organization or individual related to the film industry. Festivals provide an opportunity for filmmakers, distributors, critics, and anyone interested in the film industry to attend film screenings and discuss current and to new artistic developments in the industry. Festivals consist of several film sections that are determined by the festival organization. Each section has a director who will choose which films will feature in it, according to the indications of a committee of film experts. Additionally, films may only be submitted for consideration by the festival providing that they meet the demands of the structural framework established by the festival organization.

According to the report from the International Federation of Film Producers Association (FIAPF), in 2008 'the number of film festivals with the word "international" in their title has continued on its lineally, exponentially growth curve, with various estimates now putting the number at between 700 and 800 worldwide'. However, not all film festivals have the same impact on the film industry. Within this context, Venice, Cannes and Berlin are the most prestigious film festivals in Europe, and Toronto has grown to be the most influential film festival in North America. The table below provides statistics concerning participation and attendance of the major four film festivals:

	Venice (66 <sup>th</sup> ed)	Cannes (62 <sup>th</sup> ed)	Berlin (59 <sup>th</sup> ed)	Toronto (34 <sup>th</sup> ed)
Number of films presented	184	84	389	332
Number of world premieres	109	77	139	135
Number of international premieres	9	7	50	47
Number of press and correspondents covering the festival	2.276	4.245	3.983	1.104
Proportion of press from outside the country in which the festival is located	41%	55%	NC	40%
Number of sales companies and distributors or other buyers	174	NA	1.058	1.353
Proportion of sales companies and buyers from outside the host country	30%	NA	NA	95%
Number of screening facilities	8	5	52	33
Total number of seating capacities	5.201	5.300	15.823	13.203
Number of admissions	165.701	183.109	486.955	470.000

*Table 3. Participation and attendance of the major four film festivals, FIAPF (2009)*

It is clear from this data that the number of press correspondents covering the film festival can conform up to half of the audience capacity. Journalists and film writers cover the entire festival and have exclusive entrance to press screenings of the films, which are then followed by press conferences with the crew and production team of the film. One of the main aims of any international film festival is to provide a reliable platform for the promotion of films internationally. As Nornes (2007: 65) points out 'The film Festival is a scene of power. Festivals make and break careers'. Filmmakers, distributors, producers, critics, actors and any professional related to the film industry attend these events to join in the network. The cultural and symbolic value of film festivals means that all countries aim at having their own film festival and all film productions plan at some of point to be present at an international film festival. Therefore, the success of a film premiere at any international film Festival will depend in great part on its reception. Within this context, it could be said that translation renders film festivals possible and accessible to an international attendance, because it is necessary in most of the events organised within the festival beyond the actual screening, from press conferences to business meetings or presentations before screenings.

As the operational procedures for any film festival are similar this paper focuses on the Venice Film Festival, which is the oldest film festival in the world.



### 4.3 Defining the Venue

The Venice Film Festival was founded in 1932, under the dictatorship of Mussolini, as part of the Venice Biennale and was a non-competitive event. The second edition was held in 1934, this time with a competitive dimension. From 1935 onwards it became an annual event with the exception for the years during the Second World War. The Festival was held again in 1946 and ever since it takes place annually, during two weeks, in late August or early September on the island of the Lido in Venice (Italy). In 2012 the festival celebrated its 69th edition, but most important its 80th anniversary (1932-2012). This film festival is recognised as one of the most important events in the film industry. In the 69th edition, 113 films (including feature, documentaries and short films) were screened at the official sections, from which 50 were world premieres. The Festival presents two main types of events: official and independent sections. While the former is managed by the Venice organization, the latter sections are independent from the Venice Film Festival and managed by the *Sindacato Nazionale Critici Cinematografici Italiani* (National Union of Italian Film Critics in Italian), with the aim of promoting new cinematic trends. Since in both types of events the films present the same formal characteristics, this article will focus on the official sections. Furthermore, the new non-competitive section *Your Film Festival*, which runs within the Venice Film Festival, will be outline in section 5.3, with the aim of explaining the impact of digitization on both - film and the subtitling practice.

The official sections, which screen only new films, are:

- *Venezia 69* (international competition of feature films),
- *Out of Competition* (important works by directors already established in previous editions of the Festival),
- *Orizzonti* (new trends in world cinema)

While restored films are also presented in the following sections:

- Retrospective section *80!* (rare films from the Biennale's Historical Archives)
- Retrospective *Venezia Classici* (a selection of restored classic films and documentaries on cinema).

Depending on whether the film is a new production or a restored film the screening will take place in a specific venue. This fact affects the viewer experience since it is not the same to sit at the Sala Grande (see figure 21) or Pale Biennale (see figure 22), with 1,032 and 1,700 seats, respectively, than the Sala Passinetti or Sala Volpi (see figure 23), both with 150 seats. Within this context, films competing at the official sections *Venezia 69*, *Out of Competition* and *Orizzonti* are mainly screened at the Sala Grande and Pale Biennale, while restored films from the *Retrospective 80!* and *Venezia Classici* are mainly screened at the Sala Passinetti and Sala Volpi.



Figure 21. Main screen at the Sala Grande with 1,032 seats



Figure 22. Main screen and screen with subtitles at the Pale Biennale 1,700 seats



Figure 23. Sala Volpi with 150 seats

Moreover, the Venice Film Festival has adapted to new technologies and has included a new venue and viewing format, the *Sala Web*, where the films are streamed. The user can connect to the purposely-designed Internet platform, which allows film viewing in streaming of 10 feature-length films and 13 short films from the *Orizzonti* section from a computer all over the world with access to Internet. The *Sala Web* concept has 500 virtual seats, and tickets might be purchased online, then a personal link is sent for one-off viewing in streaming on a computer within a restricted 24-hour period. Films are provided in the original version with English subtitles. From the many Festival sections and the cinema theatres it can be safely said that not only the film content, but film screening has an influence on the audience.

The events held at the Venice Film Festival present three main forms of translation: simultaneous interpretation, simultaneous translation<sup>22</sup> and subtitles. The first translation form, simultaneous interpretation, can be mainly found at press conferences and it is provided from any language into Italian, English and French. The second form, simultaneous translation, is provided in French language but only for selected premieres screened in original version at the Sala Grande (see figure 21). This technique was introduced at the Berlin Film Festival in 1959, where high-frequency receivers were offered to non-German speaking audiences for simultaneous translation in English, French and Spanish. During the 60s earphones

<sup>22</sup> This form of translation at film festivals has already been dealt in AVT studies (Agost 1999, Bartoll 2008, Chaume 2003, Diaz-Cintas 2003, Gambier 1996). However, as argued by Bartoll (2008) no agreement among the authors can be found about the use of a standard term. Some authors refer to it as 'simultaneous interpretation' and others describe it as 'simultaneous translation'. For the purpose of this paper the term used will be 'simultaneous translation' in order to differentiate it from the simultaneous interpretation provided at the press conferences.

were also used in other festivals like Karlovy Vary and Moscow<sup>23</sup>. The use of earphones has also been a polemic issue among professionals from the film industry. Some directors, producers and distributors have favoured the use of earphones since they feel that screen pollution with subtitles ‘ruined the photographic look of the picture’<sup>24</sup>. The fact is that simultaneous translation has remained over the years and can still be found in most film festivals in combination with subtitles.

The third translation form, subtitles, is used at the Venice screenings, where the subtitles are provided in Italian and English. Subtitles in Italian are embedded at the bottom of the screen and subtitles in English are projected on a small screen placed outside the main screen (see figure 22). As part of the audiovisual product, subtitles are imposed by both regulations and technological facilities. The former are determined by each constituent organization within the overall film festivals and are mostly determined by their historical context. The latter refers to the technological developments introduced over the years at the film festival in terms of subtitling practice. Both aspects aim to overcome the linguistic needs of the audience – linguistic accessibility--, at the expense of neglecting the issue of accessibility for sensory disabilities. In the following section a retrospective analysis of subtitling regulations and technologies introduced at the Venice Film Festival will be provided.

#### 4.4 Regulations

Regulations at film festivals establish the parameters by which filmmakers are allowed to present their audiovisual product to a broad and international audience. Nowadays, subtitles are part of the power play implicit in this process, but during the early years of the Venice Film Festival the decisions about any element related to the film translation were made at a political level. In fact, if we look at the early years of the festival, subtitling was not mentioned in the regulations and films had to be submitted in their original versions. Therefore, no translation in Italian –or any other language- was provided during the screening. As Durovicova (2009: 98) states:

As a direct reaction to the threat of such linguistically threaded trade competition (and in full congruence with Mussolini’s nationalist film policies) the Venice Film Festival

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<sup>23</sup> “Boxoffice, Art, Politics Not all that Complicates Fest O’seas; also Lingo” Variety (1968), 25 September, p.39.

<sup>24</sup> Ibid.

asserted itself from its very beginning in 1932 as a *translatio-free*<sup>25</sup> zone, refusing to accept any versions as any translated films, whether dubbed or subtitled.

Subtitles were first mentioned in Venice Film Festival regulations in the 1950s, and only for non-Italian speaking films. Subtitles could be submitted in Italian or French but it was only a recommendation. In the event of a film not being submitted with subtitles, there was an increased possibility of poor reception on the part of the critics from the specialized film press<sup>26</sup>, thereby jeopardising any possibility of winning a prize<sup>27</sup> at the festival. However, subtitles have tended to generate polemic among all kind of audiences, from general viewers to professionals from the film and press industry. The article “Subtitles must go!”<sup>28</sup> by Crowther (1960) was a negative critique against the subtitles arguing in favour of dubbing practices. Most film distributors and producers welcomed Crowther’s article, mainly because subtitling films for a dubbing countries represents an additional cost for the film industry, especially in the case of film festivals, where subtitles remain an intermediate step before the release in other distribution platforms mainly: theatres, DVD or Blu-ray or Video-on-demand. It is important to remember that Italy has been always a dubbing country so subtitles have represented an additional cost for the film industry. A clear example is the case of Giuseppe Amato a famous Italian producer, who agreed with Crowther’s vision and added that for Fellini’s film *La Dolce Vita* he was planning to make two English language versions one for the British market, and the other for the US. However, for the festival the film was screened with subtitles. In his own words: ‘the film may nevertheless open first in titled form (“to get the reviews”), and then follow up with a mass release in dubbed form’<sup>29</sup>. In this sense, as Cronin (2009) remarks it could be stated that subtitling signals otherness, while dubbing delivers it masked to the audience. However, both practices have to deal with the problems posed by the technical constrains of synchronization of the original sound of the film with subtitling and dubbing.

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<sup>25</sup> The author argues that by using the term *translatio* an extended description of the translation process is provided. Including the social and political ground-rules of text transfer (Durovicova 2009: 95)

<sup>26</sup> In 1952 the screenings of the American film Metro’s “Ivanhoe” and the British films “The Importance of Being Earnest” and “Mandy” were screened and without subtitles and in an article published at Variety the reaction of the audience was that: ‘Its weak point was a lack of subtitles to explain the wordy dialog’ “Hollywood entries nab good reaction as Venice Film Fete in final week”. Variety (1952), 10 September.

<sup>27</sup> In 1968 the film “Faces” that obtained an acting prize was screened untitled and in an article from Variety it asserts that: ‘one jury member confided it did not get a bigger one due to being untitled’ “Boxoffice, Art, Politics Not all that Complicates Fest O’s seas; also Lingo” Variety (1968), 26 July.

<sup>28</sup> The article “Subtitles must go!” was published in the New York Times on 7 August 1960, some weeks before the opening of the 13th Venice Film Festival and opened a polemic within the film industry.

By the late 60's the regulations in Venice, like in most international film festivals, stipulated that all films submitted had to be in their original versions with subtitles in the language of the festival host country. In Venice as has been noted subtitles were accepted in Italian or French. But since the late 80's film festivals started to include also subtitles in English, which had emerged as a 'lingua franca' (Nornes 2007: 165) in influential fields such as politics and finance. Today, the producer has to provide subtitles in Italian and the festival pays for the subtitles in English. However, in Italy it is difficult to get films printed with subtitles, once again because general distribution uses dubbing. Moreover, as we have seen if a producer presents a film with Italian subtitles embedded, the film will have no shelf-life after the festival. Therefore, as Federico Spoletti points out: 'The festival fights a lot to get prints with subtitles in Italian. But directors are allowed to screen a film with English subtitles engraved and Italian subtitles displayed'. It can be said that the role of the technological developments introduced in subtitling practice has been crucial in rendering the films accessible to international audiences in permitting language accessibility to foreign films.

The section that follows will deal with the impact of new projection technologies, introduced in 1985 which enabled the combination of different languages for the same screening. Additionally, mention will be made to the influence that digitization is having in all steps involved in the audiovisual field, from production to distribution and final reception, which also affects the subtitling practice. Finally, mention will be made to the improvements and challenges that new projection platform - such as the Internet and second screens as Smartphone or tablets - are having on subtitling practice, particularly in the new sections that are being presented at the Venice Film Festival.

#### 4.5 Projection technologies

In 1940 most films were produced in black-and-white, in America only 4 per cent of the films were in colour<sup>30</sup>. In terms of conventions it should be mentioned that from the beginning, the position of the subtitles in western countries was placed at the bottom of the screen and in white colour. Therefore, when the bottom part of the

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<sup>30</sup> According to Cook and Bernink (1999:51) 'In 1940, only 4 per cent of American features were in colour. By 1951, this figure had risen to 51 per cent as a result of shrinking budgets and the emergence of the black-and-white television. By 1967, however, the television networks having turned to colour broadcasting, the percentage rose once more to 75 per cent, and in 1976, to 94 per cent.'

screen was white, subtitles could not be read<sup>31</sup>. Another further problem with the subtitles, which directly affected the film, was that mechanical, thermal and chemical processes provided a burned-in text in the screen, which could neither be removed nor modified. According to Nornes (2007) all these process required technical rather than linguistic skilled professionals and subtitles with misspellings and typos became a common problem. It was not until 1988 with the introduction of laser subtitling that problems related to the subtitle colour, misspelling and elaboration times were improved. This technology is a computer-based system, which allows the user to typeset and cue the video display by means of time coding or frame counting. Therefore, subtitles are more effective in both: elaboration time and costs, but still required 'a higher investment in equipment' (Ivarsson 2002: 3). However, the need to burn-in the subtitle text still remains a problem in terms of distribution costs and time, especially in the specific case of film festivals which have their own regulations and film copies usually have to be submitted in original version with subtitles in the language of the festival's country.

#### **4.5.1 The impact of Softitler**

In 1984 a new age for subtitling in film festivals started with the developments introduced by the company Softitler, based in Florence (Bartoll 2008). In 1985 this company presented a revolutionary electronic subtitling technology at the Florence Film Festival. This new system was mainly conceived for film festivals. For the first time a subtitling system provided an alternative to the burned-in subtitles. It was a computer-based system that displayed the subtitles in a LED screen and could deliver two languages simultaneously. As Bartoll explains:

The program is used to subtitle 16 mm, as well as, 35 mm films. In the case of 35 mm, a barcode is usually registered in the celluloid and a reader system, placed in the projector, automatically identifies when the subtitles have to pop up in the display. In the case of 16 mm, the display of subtitles is determined by the time. Therefore, when the projection of film starts, the broadcast of the subtitles have to be manually activated (My translation). (Bartoll 2008: 372)

This technical development was especially important for international film festivals taking place in non-English speaking countries, where subtitles are provided in the host country's language and English. In fact, this new technology was introduced in different film festivals around the world like: Toronto, Cannes, Bafta,

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<sup>31</sup> This question also caused discomfort among audiences attending theaters that provided films in original versions with subtitles.

Florence or Turkey and was welcomed by both audiences and festivals organizations<sup>32</sup>.

#### 4.5.2 New projection technologies

During the many years at Venice Film Festival subtitling practices and companies have coexisted offering the services, making the study of the subtitling practice is almost impossible given the lack of data kept regarding this issue in the Festival archives, but from 2005, the company SubTi based in London provides the subtitles. The stability provided by one single company in the last seven years offers the first real opportunity to study and understand how the service is provided along the many challenges posed by the process. SubTi started using electronic subtitles displayed on a LED screen but nowadays they use video projection screens (see figure 22), which allow more flexibility for the text presentation in terms of colours, font or size than a LED screen. Furthermore, they have developed their own software, which allows them to automatize the projection of the subtitles. Once the film starts subtitles are automatically synchronized with the film, nevertheless for quality control an operator is always present to check the correct synchronization, especially at the beginning and at the end of each reel. Since the current regulations require subtitles in Italian and English for films in another third language, subtitles in both languages are displayed in two different screens: Italian subtitles for non-Italian speaking films are provided in the main screen and English subtitles are projected in a smaller screen outside the main screen (see figure 22). Within this context, the technological developments introduced in the film industry with the digital technology over the years, have been crucial to increase storage capacities, reduce production times and costs and allowing new projection platforms to distribute the films worldwide.

#### 4.5.3 New projection platforms

Nowadays, most films are produced with digital technology, which has been improved since its beginnings. This revolutionary technology has completely changed the film production mainly in terms of time saving, easy conversion to other formats and financial costs improvements. It allows filmmakers to visualize and edit the film on-time, deletes conversion problems from analogue technology, and

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<sup>32</sup> "A Turkish delight despite fears of war" Variety (1991), 4 August.



minimizes the production time and costs compared to the previous process of burned in or laser subtitles in photochemical films. Additionally, digitization is also having a great impact on the distribution system with the introduction of the Digital Cinema Initiative Package (DCP), which enables audiovisual works to cross-border distribution and gain access to other countries. This fact is also affecting the subtitling industry and practices. As Federico Spoletti mentions 'we started in Venice in 2005 every film was in 35 mm or DigiBeta. Nowadays, probably the 10% of the film is in prints and 90% is in DCP.' One of the main advantages of the audiovisual productions in digital format for the subtitling practice is that subtitles can be inserted easily and for a smaller cost than embedded subtitles, allowing also to convert the format to different distribution platforms easily, compared to the unfeasible conversion of the embedded subtitles. Additionally, DCP solves the distribution problem presented in the host countries of film festivals with a dubbing tradition because subtitles can be switched off once the festival is finished. However, as Durovicova asserts:

Digitized cinema, capable of near-infinite and near-instantaneous global circulation, is thus bound to depend on an adequate translation track even more than photo-cinema ever did' (Durovicova 2009: 108)

One of the main reasons of the increasing need on producing adequate translations, is that a rising amount of digital audiovisual materials is being constantly uploaded and circulate on the Internet, throughout emerging platforms like YouTube or Vimeo or 'video on demand' to name the most popular. In this sense, the Venice Film Festival in 2012 introduced a non-competing new section: *Your Film Festival*, which runs in parallel with the other official sections and was sponsored by YouTube and Emirates Airlines in partnership with The Venice Film Festival and Scott Free to promote the work of novel filmmakers. This section in 2012 consisted of ten short films from new filmmakers and was screened at the Sala Pasinetti (see figure 23). The *Your Film Festival* received a total of 15,000 submissions and an internal first selection of 50 videos was carried out, later votes Internet users voted the ten finalists for the festival. The winner short film was 'La Culpa'<sup>33</sup> (The Guilt) from David Victori, which was available on the web in Spanish with subtitles in ten languages (see figure 24)

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<sup>33</sup> The short film 'La Culpa' can be found on: <http://www.youtube.com/watch?v=FiikS2xRSdE> <retrieved on 10 November 2012>

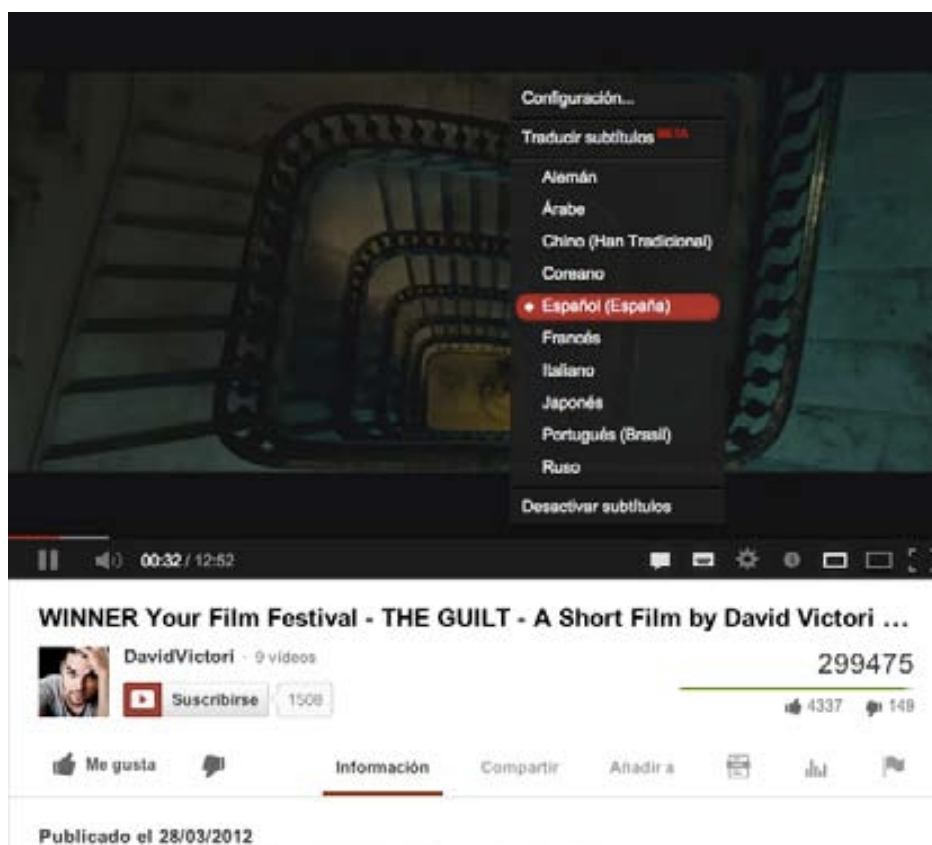


Figure 24. Languages available for the short film 'La Culpa' on YouTube platform.

The submission of a short film was subjected to given rules and the process required to upload the short film on the *Your Film Festival* website, which was using the YouTube platform offering auto-captioning service through Google automatic speech recognition (ASR). In addition, YouTube also offers the possibility to upload the transcript of the film. In this case, speech recognition is used to match the transcript to the video and thus generate a caption file automatically. In both cases, once the captions are created the film owner can download the file in .srt format and make the corrections. Within this context, attention should be made to the increasing number of tools for subtitling/captioning online audiovisual material on the Internet<sup>34</sup>.

In terms of subtitling quality, auto-captioning and subtitles translation on YouTube videos, they present accuracy problems both in language and synchronization. One of the main reasons is that accuracy of any transcription provided throughout ASR, is highly dependent on having an acceptable quality of sound. Therefore, to have the sound quality under control is crucial. In this sense,

<sup>34</sup> For more information regarding specifications and features of tools for captioning on line audiovisual materials visit: <http://www.accessiq.org/content/tools-for-captioning-online-videos> <retrieved on 10 November 2012>

videos containing music or superimposed dialogues present quality problems in the auto-captioning process and thus the derived translations might be further affected. In addition, language accuracy hardly depends on the existing data available on the Internet, where the text information is retrieved. Since most of the data on the web is in English, accuracy for English-speaking videos is more accurate than for other minority languages like Catalan for instance. In this sense, following the explanations provided by Dom Elliot, product marketing manager of Google and YouTube in London: 'Wikipedia is actually a very effective source of languages because humans translate a lot of that data and that helps to power the search and keeps improving the database'. But, the question about the quality standards of an 'adequate translation' remains unanswered: Therefore, further research in this field especially in AVT studies is crucial. Because as Federicco Spoletti asserts: 'automatic translation will take definitely control. Good translators will be involved anyway because there is a need of proofreading and to check everything, but we are definitely going to automatic translation and subtitling'. In this sense, new platforms are challenging the figure of the subtitler not only at film festivals but also in the current practice. Therefore, major attention should be made to the clear influence that the Internet is having on AVT studies and practice. Because this platform is also affecting the user's attitudes on the consumption of audiovisual works, a subject that also deserves much attention in AVT studies.

#### **4.5.4 New projection needs**

The main function of subtitles is to render films accessible to all audiences overcoming the linguistic barrier, regardless of their language combination. However, accessibility services for sensory impaired audiences at the Venice Film Festival were first introduced in 2008, announced outside the official program and only for some Italian films in competition. Since then accessibility at the festival has not been improved and is provided free of charge by the subtitling company SubTi, in sponsorship basis. Therefore, these audiences are still being excluded from such events<sup>35</sup> even if the technologies are available and could be adapted to the existing

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<sup>35</sup> In the film *Babel*, which won an award at the Cannes Film Festival, there is a figure playing a deaf student in Japan. According to an article from *Variety* in January 2007, nearly 500 hearing-impaired people were invited to a preview screening in Tokyo, but the Japanese-language scenes from the film were not subtitled. Therefore, they left disappointed because it was hard for them to follow the story. "Babel subtitles plea falls on deaf ear" *Variety* (2007), 7 March.

facilities at the festival. For instance, audio descriptions (AD) for visually impaired audiences could be provided with the same earphones or receivers addressed to the French speaking audiences. In addition, accessibility solutions could be provided with the use of new technologies that are already available in the market. As Oncins *et al* (2013) point out: 'New mobile phone technology is ubiquitous and has also entered cinemas and theatres. The displaying of access services is beginning to be available as in-house technology'. Within this context, the Venice Film Festival has developed a Smartphone application which allows the user to check the different screenings and venues. Therefore, accessibility services could be introduced in the application improving the accessibility services available.

#### 4.6 User reception

Another important factor is the mode in which the subtitles are displayed. Depending if the audience need embedded or displayed subtitles, the gaze movement of the viewer will differ. The films that include both displays formats present, what Spoletti calls, the 'Christmas tree effect', which is produced by the combination of the subtitles embedded or projected appearing at the same time during the screening of the film. In order to minimize this effect, subtitles in both languages have the same spotting but present different lengths due to the language differences and also exposition time might be slightly larger for the projected subtitles to allow readability times. Also, it might occur that audiences relying in the projected subtitles have longer gaze fixations in the screen displaying the subtitles because it is placed outside the main screen. In this sense eye-tracking experiments could provide significant data on the reception effects generated by the use of both display modes in the screening of a film.

A further reason for the use of two different displays at film festivals is that as Federico Spoletti explains 'Filmmakers do not want to have two strips of subtitles on the image because they do not want you to cover the image'. As mentioned in section 5.1. the use of secondary screens such as Smartphone could allow the inclusion of subtitles in multiple language versions and also increase and improve the existing accessibility services, which at the moment are still very limited. Also, the use of Smartphone would allow the subtitle company to include all parameters

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needed to render the films accessible to sensory impaired audiences in a more effective form.

#### 4.7 Conclusions

The Venice Film Festival can be considered a relevant subject of study in order to analyse the developments introduced in the electronic subtitling process to date. Three main factors have been reviewed in this paper: structure and regulations of the venue, technological developments, and reception. While the first is mainly conditioned by contextual political decisions, the second has resolved long and costly elaboration processes, adapting the final product to new consumer needs and trends. But the third factor, that of reception, still remains a factor that clearly requires more research in AVT Studies in order to determine the effect of the use of different displays and platforms on audience perception.

Films screened at the festival may be in any language, and most recently, in any language combination. Thus, success of the screening depends on an adequate translation, which may determine the film's international success. Within this context, the introduction of the electronic subtitling system in 1985 could be considered as the first turning point in improving the subtitling process and display at film festivals. However, the recent technological developments introduced by digitization are generating a second turn in this particular AVT field.

Over recent decades digitization has emerged as a main player in the audiovisual industry, revolutionizing all steps involved in the production of the film, from the production to final screening at the venue, including also the subtitling process. Questions relating to the lengthy preparation time and high costs of the subtitling process have been mitigated with the introduction of digital products like the DCP, which allows the subtitles to be turned off after the festival screenings and the digital copy to be distributed without subtitles in other countries. Furthermore, the introduction of new platforms, like the Internet, is changing user's attitudes towards audiovisual consumption. The Internet is also starting to be used at film festivals, like in the case of the *Sala Web* launched in 2012 at the Venice Film Festival or the live broadcasting for the web in events such as press conferences and daily interviews, also available in Cannes, Berlin and Venice. This fact will inevitably have an effect on both: the subtitling practice and the traditional consumer's attitude towards the cinematic experience. Additionally, the increasing number of audiovisual distribution

platforms is already challenging researchers and professionals in the subtitling field, forcing them to approach new technologies related to automatic and semi-automatic transcription and translation processes, which are being improved over the years. Moreover, increasing transnational and European projects - such as the EU-Bridge (based on technologies for transcription and translation in the field of closed captions, Universities and parliamentary reports) or EU-SUMAT (an online service for subtitling by machine translation) - are determining the future of subtitling practice. Therefore, the engagement of researchers and professionals in the subtitling field is vital in order to preserve the quality standards.

Finally, one of the limitations still in force at film festivals is the use of only two languages and the need of more effective accessibility services in a larger number of films. As argued by Oncins *et al* (2013) Smartphone could render the display and visibility of subtitles more effective, especially in large venues like the *Pale Biennale* in Venice, which has 1,700 seats. These platforms would also allow the increase of languages available for each film and benefit the introduction of new accessibility services, addressed to sensory impaired audiences, which still remain a problem to be resolved at international film festivals.

#### 4.8 Bibliography

Arnáiz-Uzquiza, Verónica. (2012) "Los parámetros que identifican el Subtitulado para Sordos. Análisis y clasificación" in *MonTI 4: Multidisciplinarity in Audiovisual Translation/ Multidisciplinarietat en traducció audiovisual*, Rosa Agost Canós, Pilar Orero, and Elena di Giovanni (eds), Alicante, Publicaciones de la Universidad de Alicante: 103-132.

Bartoll, Eduard. (2012) *La subtitulació: Aspectes teòrics i pràctics*. Vic, Eumo Editorial.

--- (2008). "Paràmetres per a una taxonomia de la subtitulació". Universitat Pompeu Fabra. PhD. Full-text version at: <<http://hdl.handle.net/10803/7572>> (accessed 10 May 2012)

Chaume, Frederic. (2004). "Film Studies and Translation Studies: Two Disciplines at Stake in Audiovisual Translation", in *Meta* 49 (1): 12-24.

Cook, Pam and Mieke, Bernink (1999). *The cinema book (2<sup>nd</sup> Edition)*. London, British Film Institute.

Corrigan, Timothy and White, Patricia (2009). *The Film Experience: An introduction (2<sup>nd</sup> Edition)*. Boston, Bedford/St. Martin's.

Cronin, Michael (2009). *Translation goes to movies*. New York and London, Routledge.

Crowther, Bosley (1960) "Subtitles must go!", *New York Times*, 7 August.

Dawtre, Adam (2007) "Babel subtitles plea falls on deaf ear", *Variety*, 7 March.

Díaz-Cintas, Jorge (2004). "In Search of a Theoretical Framework for the Study of Audiovisual Translation" in *Topics in Audiovisual Translation*, Pilar Orero (ed.). Amsterdam/Philadelphia, PA: John Benjamins Publishing: 21–34.

Díaz-Cintas, Jorge and Remael, Aline (2007). *Audiovisual Translation: Subtitling*. Manchester, St. Jerome Publishing.

Di Giovanni, Elena (2012) "From darkness to light in subtitling", in *Between Text and Image. Updating Research in Screen Translation*, Ciara Bucaria, Delia Chiaro and Christine Heiss (eds). Amsterdam, John Benjamins: 197-210.

Durovicova, Natasa (2009) "Vector, flow, zone: towards a history of cinematic *translatio*" in *World Cinemas, Transnational Perspectives*, Natasa Durovicova and Kathleen Newman (eds)  
<[http://www.academia.edu/1576649/Vector\\_Flow\\_Zone\\_Towards\\_a\\_History\\_of\\_Cinematic\\_Translatio](http://www.academia.edu/1576649/Vector_Flow_Zone_Towards_a_History_of_Cinematic_Translatio)> (accessed 12 November, 2012)

Egoyan, Atom and Balfour, Ian (2004) "Introduction" in *Subtitles. On the foreignness of film*, Atom Egoyan and Ian Balfour (eds). Cambridge, Massachusetts: MIT Press and Alphabet City Media: 21-30.

Foerster, A. (2010) "Towards a creative approach in subtitling: a case study" in *Media for All 2: New Insights into Audiovisual Translatio and Media Accessibility*,

Jorge Díaz Cintas, Anna Matamala and Joselia Neves (eds.). Amsterdam: Rodopi: 81-88.

Gambier, Yves (2008) "Recent developments and challenges in audiovisual translation research" in *Between Text and Image: Updating Research in Screen Translation*, Pilar Orero (ed.), Amsterdam/Philadelphia, PA: John Benjamins Publishing: 11–33.

Gottlieb, Henrik (2007) "Multidimensional Translation: Semantics turned Semiotics", in proceedings of the Marie Curie Euroconferences MuTra. *Challenges of Multidimensional Translation*. Saarbrücken 2- 6 May 2005. [http://www.euroconferences.info/proceedings/2005\\_Proceedings/2005\\_Gottlieb\\_Henrik.pdf](http://www.euroconferences.info/proceedings/2005_Proceedings/2005_Gottlieb_Henrik.pdf) (accessed 30 October, 2012)

--- (2002) "Titles on Subtitling 1929-1999. An International Annotated Bibliography: Interlingual Subtitling for Cinema, TV, Video and DVD" in *Cinema: Paradiso delle lingue. I sottotitoli nell'apprendimento linguistico*. Rassegna Italiana di Linguistica Applicata, Anno XXXIV, 1/2-2002, Annamaria Caimi (ed.). Bulzoni Editore, Roma: 215-397.

Ivarsson, Jan (2002) "A Short Technical History of Subtitles in Europe".

< [www.transedit.st/history.htm](http://www.transedit.st/history.htm) > (accessed 15 November, 2012)

McClarty, Rebecca (2012) "Towards a Multidisciplinary Approach in Creative Subtitling." in *MonTI 4: Multidisciplinarity in Audiovisual Translation/ Multidisciplinarietat en traducció audiovisual*, Rosa Agost Canós, Pilar Orero, and Elena di Giovanni (eds), Alicante, Publicaciones de la Universidad de Alicante: 133-153.

Moskowitz, Gene (1968) "Boxoffice, Art, Politics Not all that Complicates Fest O'seas; also Lingo", *Variety*, 25 September.

Murch, Walter (2001) *In the blink of an eye: a Perspective on Film Editing*. Los Angeles, Silman-James Press.



Neves, Josélia (2009) "Interlingual subtitling for the Deaf and Hard-of-Hearing", in *Audiovisual Translation: Language Transfer on Screen*, Jorge Díaz-Cintas and Anderman, Gunilla (eds.) Basingstoke: Palgrave MacMillan: 151-169.

Nornes, Abé Mark (1999) "For an abusive subtitling", in *Film Quarterly* 52:3: 17-34.

--- (2007). *Cinema Babel: Translating Global Cinema*. Minneapolis: University of Minnesota Press.

O'Hagan, M. (2007), "Impact of DVD on Translation: Language Options as an Essential Add-On Feature", in *Convergence: The International Journal of Research into New Media Technologies* : 157 -168.

Oncins, Estella *et al.* (2013) "Multi language and multi system mobile application to make accessible live performing arts: All Together Now", in *JosTrans (Issue 20): Image, Music, Text...? Translating Multimodalities*, Margaret Clarke, Caterina Jeffcote and Carol O'Sullivan (eds.) (manuscript provided by the author).

Orero, Pilar (2004) "Audiovisual Translation: A New Dynamic Umbrella", in *Topics in Audiovisual Translation*, Pilar Orero (ed.). Amsterdam and Philadelphia, PA: John Benjamins Publishing: vii–xiii.

Remael, Aline and Neves, Josélia (2007) "A tool for social integration? Audiovisual translation from different angles", in *A tool for social integration? Audiovisual translation from different angles*, Aline Remael and Josélia Neves (eds.). Amberses, Linguistica Antverpiensia: New Series: 11-22.

Tenzel, Samantha (1991) "A Turkish delight despite fears of war", *Variety*, 4 August.

No author (1972) "'ORANGE' to Venice with Italo", *Variety*, July 26.

No author (1952) "Hollywood entries nab good reaction as Venice Film Fete in final week", *Variety*, 10 September.



## Chapter 5. Resum



## 5.1 Resum

Els orígens de la següent tesis doctoral es remunten a l'any 2011, quan es va iniciar una col·laboració en un projecte interdisciplinar entre acadèmics del camp de la enginyeria i de la traducció audiovisual del centre de recerca de la Universitat Autònoma de Barcelona CaiaC (Centre d'Accessibilitat i Intel·ligència Ambiental de Catalunya). La finalitat del projecte era desenvolupar el Sistema d'Accessibilitat Universal (UAS per les seves sigles en anglès) una aplicació que permet la creació i l'enviament de continguts en diverses modalitats de Traducció Audiovisual (TAV): subtitulació, audiodescripció i audio subtitulació. Des d'un inici, el principal repte d'aquesta tesis fou proporcionar accés en temps real a la informació verbal i visual a una audiència que pot presentar una discapacitat lingüística o sensorial.

Si es consideren els múltiples i variats tipus d'esdeveniments culturals en viu resulta difícil establir una taxonomia. Per tant, el focus principal d'aquest estudi s'ha centrat en dos formats audiovisuals (AV) principals: representacions teatrals, principalment, teatre i òpera; i pel·lícules projectades en festivals internacionals de cinema. Durant l'etapa de desenvolupament del Sistema UAS es va observar com determinats aspectes externs, com el lloc i les instal·lacions disponibles, que no estan directament relacionats amb el procés de traducció, determinen la forma en què es produeixen, es mostren i es consumeixen les diverses modalitats de la TAV. Si bé aquests aspectes externs són independents de la pràctica de la traducció, s'han de tenir en compte per l'anàlisi dels subtítols i els sobretítols. Per aquesta raó, el present estudi analitza els serveis d'accessibilitat a les arts escèniques des d'un punt de vista global, considerant no només el producte AV a traduir, sinó també on i com es lliure aquest contingut i quina modalitat de TAV s'utilitza. A fi de proporcionar un anàlisi en profunditat, aquesta tesi es centra en dues modalitats específiques de TAV: sobretítols per a representacions escèniques i subtítols per a festivals internacionals de cinema.

## 5.2 Summary

The origins of the following study date back to 2011 when the Universal Access System (UAS) was developed. This system was conceived and developed by the research centre CaiaC (Centre d'Accessibilitat i Intelligència Ambiental de Catalunya) at the UAB (Spain). It aims to create and broadcast wireless media access content in different Audiovisual Translation (AVT) modalities: subtitling, audio description and audio subtitling. The main challenge was to provide real-time access to verbal and visual information to both linguistically and sensory impaired audiences. Given the many and varied types of live cultural events, it is difficult to establish a taxonomy. Therefore, the principal focus of this study has been placed on two main Audiovisual (AV) formats: stage performances, mainly theatre and opera, and films screened at international film festivals.

During the development stage of the UAS System it was observed how depending on the AVT modality to be delivered, external aspects such as the venue and the available facilities, which are not directly relevant to the translation process, determine the way in which AVT is produced, displayed, and consumed. While these aspects are not directly related to from the practice of translation, they should be considered when analysing surtitles and subtitles. Therefore, this study aims to approach accessibility services from a holistic point of view, analysing not only the AV product to be translated, but also where and how this AV content and its AVT modality are delivered. In order to provide an in depth analysis, focus has been placed on two AVT modalities: surtitles for stage performances and subtitles for international film festivals. Subtitles and surtitles in both cases are usually displayed on screens that everyone can see, but depending on the venue and the available facilities, the placement of the screen is different and the text displayed might not cover all accessibility needs of the audience.

The main objective of this thesis is first to present the UAS system, a wireless accessibility service intended for all. Secondly, two different AV formats, namely stage performances and international film festivals, where the system could be implemented will be examined and outlined. The different stages involved in this work are presented as a compendium of publications. The articles included range from the definition of the UAS System and its possible fields of application within the AV environment. Finally, the recent developments that are being introduced in the AVT field, which trigger and demand new approaches in AVT Studies, will also be outlined.

## Chapter 6. Conclusions





## 6. Conclusions

As it has been explained in this doctoral thesis, in the specific case of accessibility for the Scenic Arts the intervention of technology between the event and the audience is necessary in order to provide real time access to verbal and visual information to the audience attending the event. Therefore, the implementation of second screens, like smartphones, to cover and improve the accessibility services is likely to increase. The use of these platforms for accessibility purposes is already starting to be implemented in different venues, like cinemas, theatres or opera houses (Moviereading<sup>36</sup> for cinemas, and OperaVoice<sup>37</sup> for theatres and opera houses). While the former project currently provides access to linguistically and sensory impaired audiences, the latter mainly caters to the needs of linguistically impaired audiences. Yet, to the author's knowledge, there is still no project available on the market providing an all-inclusive solution to cover the accessibility needs for live and pre-recorded AV content.

For this reason, the first objective of this PhD was to improve the accessibility services offered in the Scenic Arts. To this end an interdisciplinary collaboration between IT engineers and AV translators was established in order to develop an all-inclusive accessibility system for the Scenic Arts. Since this system was conceived to be used in secondary screens, the second objective of this PhD thesis was to check the suitability of secondary screens to cater to accessibility needs for live and pre-recorded AV content.

The conclusions of this doctoral thesis will now be presented, with the intention of approving or rejecting the hypotheses that have been presented in the introduction, and checking if the objectives set out have been accomplished. Therefore, the conclusions of each article will be outlined in order to provide an overview of the whole project. Finally, departing from the observations that have been made over the course of the project, possible future lines of research will be proposed for further consideration.

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<sup>36</sup> More information about the Moviereading project available on line at: <http://www.moviereading.com/en/about/>

<sup>37</sup> More information about the Opera Voice Project available on line at: <http://www.operavoce.it/ENG/index.html>

## 6.1 The UAS System

According to the first hypothesis of the present thesis, it was expected that the development of the UAS system could prove to be a single solution suitable to any kind of venue. The result was that the UAS system was conceived as an all-inclusive system covering all accessibility needs. However, while the user could select the AVT modality needed, the venues had to always implement the full UAS package without the ability to integrate their own system with the new one. Therefore, depending on the existing subtitling or surtitling systems available at each venue and the accessibility policy adopted, not all accessibility services will always be needed. As a consequence, the first part of the hypothesis can be considered true, but only based on venues that present no accessibility service and therefore need to implement the complete system, or full replacement of existing systems would have to be considered.

The first objective set in this PhD thesis was to establish an interdisciplinary collaboration between the academic and the professional field to develop a new and innovative system for creating and delivering media access content in different modalities: subtitling, audio description and audio subtitling. This objective was achieved through an interdisciplinary collaboration at the CaiaC research center between academics from the AVT studies and IT Engineering. This objective has been achieved with the development of the UAS System.

## 6.2 Different AV forms, same accessibility needs

During the development phase of the system, it was noted that some external aspects which are not directly relevant to the translation, such as the typology of the event, the venue, i.e. the physical theatre and opera house building or the festival venue, and the available facilities may determine the way in which AVT is produced, displayed and consumed. Given the difficulties to establish an exact taxonomy which classifies the different types of events, this work has dealt with two main AV formats: stage performances (Article 2) and international film festivals (Article 3). Despite the inherent differences that both AV formats present, in both cases accessibility services have to be provided to cater to the needs of the audience attending the

events.

With regards to the second hypothesis it was expected that the implementation of secondary screens, such as smartphones, could prove to be an effective solution to provide accessibility services to both, sensory and linguistically impaired audience attending either a stage performance or an international film festival. As it has been explained in article 2 and 3, most venues have still not implemented the technological facilities required to offer accessibility services, and the use of an all-inclusive system could prove to be effective. Therefore, this hypothesis is valid but only for venues that have no accessibility service available. In the case of venues offering accessibility services, the system should be adapted to the UAS System.

In order to check the suitability of the UAS System in the Scenic Arts, the second objective considered in the thesis was to assess how secondary screens, like smartphones, could be used as complementary communication platforms, offering new possibilities to cater to accessibility needs. As argued in article 2 and 3, two main limitations still in force in both AV formats are the use of only two or three languages and the need of more effective accessibility services. Therefore, the use of second screens could render the display and visibility of surtitles and subtitles more effective, especially in large venues like the *Pale Biennale* in Venice, which has 1,700 seats or the Gran Teatre Liceu in Barcelona, which has 2,292 seats. In addition, these platforms would allow the increase of languages available for each film or performance. Also they would enhance the introduction of new accessibility services addressed to sensory impaired audiences, which still remains a problem to be solved at performance venues and international film festivals. This objective is also believed to have been achieved with the implementation of the UAS System at the UAB theatre and cinema.

As it has been presented, the use of new platforms, such as smartphones, for the delivery of accessible content could prove to be an effective solution for venues that require real time access to the verbal and visual content performed on stage or screened at the cinema venue. The implementation of the UAS System in the theatre and cinema at the Universitat Autònoma de Barcelona (UAB) in Spain has been an excellent way to check the operability of the system and its possible implementation could be considered for different venues, such as cinemas, theatres, operas and film festivals. It should be mentioned that no experimental data has been gathered due to the technical restrictions posed by the eye-tracking technology. The need to evaluate

the gaze movements of the audience interacting between the second screen device and the actual event poses an additional limitation to obtain reliable experimental data for evaluation.

Finally, it must be stressed that the results obtained in this doctoral thesis cannot be extrapolated to all types of venues within the Scenic Arts. The reason for this is because the venues selected and the interviews carried out were part of a convenience sample. Therefore, further research needs to be carried out.

### **6.3 Further research**

The above mentioned contributions and the scope of the present thesis as a whole helped identify a series of possible considerations for future research related to the implementation of second screens to cover accessibility needs.

It could be of interest to:

- a) carry out reception studies that would made a formal usability evaluation of the application, both in quantitative and qualitative methodologies.
  
- b) carry out experimental studies evaluating the effect of new digital platforms on the AVT sectors: new opportunities and challenges.

#### **6.3.1 Meeting accessibility and usability**

As exposed in this work, the UAS system has mainly focused on providing access to visual and verbal content to both, linguistically and sensory impaired audiences in different venues, without any formal usability evaluation of the application. As Gambier (2006:4) points out 'Accessibility is not just an issue for the disabled: it does not only mean a barrier-free situation; it also means that services are available and that information is provided and easy to understand'. It is not sufficient to render an AV product accessible, the system used also has to be easy to use and to fit in with the work practices of the AVT professionals and comply with specific requirement of the end-users in a particular environment. Within this context, further research involving reception studies should be carried out in order to assess the quality of the UAS system.

There are increasing expectations for quality assessment from all agents involved in the use of the UAS System: the system administrator, the end-user and the venue organization. Therefore, an important role of evaluating the UAS System should be to measure in terms of effectiveness, efficiency and satisfaction of all agents using the UAS system: Quality of Experience (QoE) and Quality of Service (QoS).

Additionally, as exposed in Article 3, digitization is revolutionizing all steps involved in the production of AV content, from the film or stage production to the final viewing, affecting also the AVT practices. In fact, films are less often released following a hierarchical distribution chain, and more and more released in a multiplatform way. Within this context, changes in consumer attitudes are to be expected when consuming AV content. Therefore, a relevant issue that should be considered for further investigation could be: the implications that the convergence of the media could have on the users attitude when consuming AV content.

### **6.3.2 Consumer attitudes towards the convergence of the media**

The convergence of the media started as a hierarchical process: a film was first released in a cinema, then it was available for home entertainment on DVD or more recently on the Internet, and finally it was broadcast on the TV. Therefore, the audience had to adapt to the contents offered in the available distribution channels. In terms of AVT practices, this fact implied that subtitles had to be adapted for each medium.

The introduction of new digital platforms, such the Internet, allows the release of a film in multiple platforms at the same time, and audiences can choose their preferred device to enjoy any AV contents. In this sense, there has already been a turnover regarding the audiences' attitudes towards the viewing experience. Within this context, it seems necessary to broaden the study to include the increasing number of AV distribution platforms that are challenging researchers and professionals in the AVT field, posing new questions related to the impact of new technologies, such as automatic and semi-automatic transcription and translation processes, on the AVT quality. The continuous introduction of new technological developments in the AVT field and the scarce research focused on user reception

and perception, corroborate the need to establish a closer collaboration between the different areas involved in the AVT field.

## Chapter 7. Updated Bibliography





## 7. Updated Bibliography

Asociación Española de Normalización y Certificación (AENOR) (2012). *Norma Española UNE 153010. Subtitulado para personas sordas y personas con discapacidad auditiva. Subtitulado a través del teletexto*. Madrid: AENOR.

Arnáiz-Uzquiza, V. (2007). Research on Subtitling for the Deaf and Hard of Hearing: Top Secret?. *Translation Watch Quarterly* 3(2), 10-25.

- (2008). La Objetividad en el Subtitulado. Justificación de los Parámetros Formales Mediante EyeTracking. In A. Pérez-Ugena & R. Vizcaíno (Eds.), *ULISES: Hacia el desarrollo de tecnologías comunicativas para la igualdad de oportunidades. Retos y perspectivas para sordos signantes* (pp. 73-85). Madrid: Observatorio de las Realidades Sociales y de la Comunicación.

- (2012) Los parámetros que identifican el Subtitulado para Sordos. Análisis y clasificación. In R. Agost, P. Orero & E. di Giovanni (Eds.), *MonTI 4: Multidisciplinarity in Audiovisual Translation/ Multidisciplinarietat en traducció audiovisual* (pp. 103–132). Alicante: Publicaciones de la Universidad de Alicante.

Baker, M., & Saldanha, G. (Eds.). (1998). *The Routledge. Encyclopedia of Translation Studies*. London/New York: Routledge.

Bartoll, E. (2004). Parameters for the classification of subtitles. In P. Orero (Ed.), *Topics in audiovisual translation* (pp. 53-60). Amsterdam: John Benjamins.

- (2008). *Paràmetres per a una taxonomia de la subtitulació*. Doctoral thesis. Barcelona: Universitat Pompeu Fabra. Available at TDX Tesis Doctorals en Xarxa. Retrieved from <http://www.tdx.cat/handle/10803/7572> (last consulted: 21/11/2013)

- (2012). *La subtitulació: Aspectes teòrics i pràctics*. Vic: Eumo Editorial.

Bonwit, S. (1998, may/june). Mac at the opera. Retrieved from <http://www.wap.org/journal/surtitles/surtitles.html> (last consulted: 21/11/2013).

Bryman, A. (2008). *Social Research Methods* (4th ed.) Oxford: Oxford University Press.

Burton, J. (2001). *Writing Surtitles*. Unpublished manuscript provided by the author written for the Royal Opera House, Covent Garden, London.

- (2009). The Art and Craft of Opera Surtitling. In A. Gunilla & J. Díaz-Cintas (Eds.), *Audiovisual Translation: Language Transfer on Screen* (pp. 58 –70). Basingstoke: Palgrave Macmillan.

Burton, J. & Holden, A. (2005). Translating Opera'. Unpublished manuscript provided by the authors.

Cabeza-Cáceres, C. (2010). Opera Audio Description at Barcelona's Liceu Theatre. In J. Díaz-Cintas, A. Matamala & J. Neves (Eds.), *New Insights into Audiovisual Translation and Media Accessibility* (pp. 227-237) Amsterdam: Rodopi.

Carlson, M. (2006). *Speaking in Tongues: Languages at Play in the Theatre*. Ann Arbor: University of Michigan Press.

Chaume, F. (2004). Film Studies and Translation Studies: Two Disciplines at Stake in Audiovisual Translation. *Meta* 49(1), 12-24.

Cook, P. & Bernink, M. (1999). *The cinema book* (2<sup>nd</sup> ed.). London: British Film Institute.

Corral, A. & Lladó, R. (2011). Opera Multimodal Translation: Audio Describing Karol Szymanowski's *Król Roger* for the Liceu Theatre, Barcelona. *The Journal of Specialised Translation* 15, 163–179.

Corrigan, T. & White, P. (2009). *The Film Experience: An introduction* (2<sup>nd</sup> ed.). Boston: Bedford/St. Martin's.

Cronin, M. (2009). *Translation goes to movies*. New York and London: Routledge.

Crowther, B. (1960, August 7). Subtitles must go!. *New York Times*, sec.2, pp 1-3.

Dawtre, A. (2007, March 7). Babel subtitles plea falls on deaf ear. *Daily Variety*, sec. World News, p.6.

De Linde, Z. & Neil, K. (1999). *The Semiotics of Subtitling*. Manchester: St Jerome Publishing.

Desblache, L. (2007). Music to My Ears, but Words to My Eyes? Text, Opera and Their Audiences. *Linguistica Antverpiensia New Series – Themes in Translation Studies* 6, 155–70.

Dewolf, L. (2001). Surtitling operas. With examples of translations from German into French and Dutch. In Y. Gambier and H. Gottlieb (Eds.), *(Multi)Media translation, concepts, practices and research* (pp. 179-188). Amsterdam: John Benjamins.

Díaz-Cintas, J. (2004). In Search of a Theoretical Framework for the Study of Audiovisual Translation. In P. Orero (Ed.), *Topics in Audiovisual Translation* (pp. 21–34). Amsterdam/Philadelphia, PA: John Benjamins Publishing.

- (2005a). Back to the Future in Subtitling. In M Carroll, H. Gerzymisch Arbogast and S. Nauert (Eds.), *Audiovisual Translation Scenarios Challenges of Multidimensional Translation: Proceedings of the first MuTra Conference in Saarbrücken, 2-6 May*. Retrieved from [http://www.euroconferences.info/proceedings/2005\\_Proceedings/2005\\_DiazCintas\\_Jorge.pdf](http://www.euroconferences.info/proceedings/2005_Proceedings/2005_DiazCintas_Jorge.pdf) (last consulted 21/11/2013).

- (2005b). The ever-changing world of subtitling: some major developments. In J. D. Sanderson (Ed.), *Research on Translation for Subtitling in Spain and Italy* (pp. 17-26). Murcia: Universitat d'Alacant.

- (2005c). Audiovisual Translation Today – A Question of Accessibility for All. *Translating Today* 4, 3-5.

- (2006). Competencias profesionales del subtitulador y el audiodescriptor. Retrieved from [http://www.cesya.es/es/actualidad/documentacion/documentacion\\_cesya/03](http://www.cesya.es/es/actualidad/documentacion/documentacion_cesya/03) (last consulted 21/11/2013).

Díaz Cintas, J. & Remael, A. (2007). *Audiovisual Translation: Subtitling*. Manchester: St. Jerome Publishing.

Díaz-Cintas, J.; Orero, P. & Remael, A. (Eds.) (2007). *Media for All. Subtitling for the*

*Deaf, Audio Description, and Sign Language*. Amsterdam/New York: Rodopi.

Di Giovanni, E. (2012). From darkness to light in subtitling. In C. Bucaria, D. Chiaro and C. Heiss (Eds.), *Between Text and Image. Updating Research in Screen Translation* (pp. 197-210). Amsterdam: John Benjamins.

Durovicova, N. (2009). Vector, flow, zone: towards a history of cinematic *translation*. In N. Durovicova, & K. Newman (Eds.), *World Cinemas, Transnational Perspectives*, 90-120. Retrieved from

[http://www.academia.edu/1576649/Vector\\_Flow\\_Zone\\_Towards\\_a\\_History\\_of\\_Cinematic\\_Translation](http://www.academia.edu/1576649/Vector_Flow_Zone_Towards_a_History_of_Cinematic_Translation) (last consulted: 21/11/2013).

Egoyan, A., & Balfour, I. (2004). Introduction. In A. Egoyan & I. Balfour (Eds.), *Subtitles. On the foreignness of film* (pp. 21-30). Cambridge, Massachusetts: MIT Press and Alphabet City Media.

Espasa, E. (2000). Performability in translation: Speakability? Playability? or just saleability?. In C-A. Upton (Ed.), *Moving target. Theatre. Translation and cultural relocation* (pp. 49-62) Manchester: St. Jerome.

Ezpeleta, P. (2007). *Teatro y traducción. Aproximación interdisciplinaria desde la obra de Shakespeare*. Madrid: Cátedra.

Gambier, Y (2006). Multimodality and Audiovisual Translation. In M. Carroll, H. Gerzymisch-Arbogast & S. Nauert (Eds.), *Audiovisual Translation Scenarios: Challenges of Multidimensional Translation*. Proceedings of the Second MuTraConference in Copenhagen 1-5 May. Retrieved from [http://www.euroconferences.info/proceedings/2006\\_Proceedings/2006\\_Gambier\\_Yves.pdf](http://www.euroconferences.info/proceedings/2006_Proceedings/2006_Gambier_Yves.pdf) (last consulted: 21/11/2013).

Gambier, Y (2008). Recent developments and challenges in audiovisual translation research. In P. Orero (Ed.), *Between Text and Image: Updating Research in Screen Translation* (pp. 11–33). Amsterdam/Philadelphia, PA: John Benjamins Publishing.

Gottlieb, H. (1997). *Subtitles, Translation and Idioms*. Doctoral thesis. Copenhagen: University of Copenhagen.

- (2002). *Titles on Subtitling 1929-1999. An International Annotated Bibliography*:

Interlingual Subtitling for Cinema, TV, Video and DVD. In A. Caimi (Ed.), *Cinema: Paradiso delle lingue. I sottotitoli nell'apprendimento linguistico* (pp. 215-397). Rassegna Italiana di Linguistica Applicata, Anno XXXIV, 1/2-2002. Roma: Bulzoni Editore.

- (2005). Multidimensional Translation: Semantics turned Semiotics. In M. Carroll, H. Gerzymisch Arbogast & S. Nauert (Eds.), *Challenges of Multidimensional Translation*. Proceedings of the first MuTra Conference in Saarbrücken, 2-6 May. Retrieved from [www.euroconferences.info/proceedings/2005\\_Proceedings/2005\\_Gottlieb\\_Henrik.pdf](http://www.euroconferences.info/proceedings/2005_Proceedings/2005_Gottlieb_Henrik.pdf) (last consulted: 21/11/2013).

Griesel, Y. (2005). Surtitles and translation towards an integrative view of theater translation. In H. Gerzymisch-Arbogast and S. Nauert (Eds.), *Challenges of Multidimensional Translation*. Proceedings of the first MuTra Conference in Saarbrücken, 2-6 May. Retrieved from [http://www.euroconferences.info/proceedings/2005\\_Proceedings/2005\\_Griesel\\_Yvonne.pdf](http://www.euroconferences.info/proceedings/2005_Proceedings/2005_Griesel_Yvonne.pdf) (last consulted: 21/11/2013).

- (2009). Surtitling: Surtitles another hybrid on a hybrid stage. *TRANS: Revista de Traductologia* 13, 119–127.

Ivarsson, J. (2002). A Short Technical History of Subtitles in Europe. Retrieved from <http://www.transedit.se/history.htm> (last consulted: 21/11/2013).

John Patrick, U., & Fels, D. I. (2009). Suit the Action to the Word, the Word to the Action: the Unconventional Approach to Describe Shakespeare's Hamlet. *The Journal of Visual Impairment and Blindness* 103(3), 178–183.

- (2010) Universal design on stage: live audio description for theatrical performances. *Perspectives: Studies in Translatology* 18(3), 189–203.

Kaindl, K. (1997). Die Übersetzung als Inszenierung: Ein interdisziplinärer Rahmen zur Analyse von Opernübersetzung. *Target* 9(2), 271-287.

Low, P. (2002) Surtitles for opera. A specialised translating task. *Babel* 48(2), 97-110.

Maszerowska, A. (2012). Casting the light on cinema – how luminance and contrast patterns create meaning. In R. Agost, P. Orero & E. di Giovanni (Eds.), *MonTI 4: Multidisciplinarity in Audiovisual Translation / Multidisciplinarietat en traducció audiovisual* (pp. 65–85). Alicante: Publicaciones de la Universidad de Alicante.

Matamala, A., & Orero, P. (2007). Accessible Opera in Catalan: Opera for All. In J. Díaz-Cintas, P. Orero & A. Remael (Eds.), *Media for All: Subtitling for the Deaf, Audio Description and Sign Language* (pp. 201–214). Amsterdam: Rodopi.

Mateo, M. (2001). Performing musical texts in a target language: The case of Spain. *Across Languages and Cultures* 2(1), 31-50.

- (2002). Los sobretítulos de ópera: dimensión técnica, textual, social e ideológica. In J. D. Sanderson (Ed.) *Traductores para todo. Actas de las III Jornadas de doblaje y subtitulación* (pp. 51-73). Alicante: Universidad de Alicante.

- (2007a). Surtitling nowadays: new uses, attitudes and developments. In A. Remael & J. Neves (Eds.), *A tool for social integration? Audiovisual translation from different angles* (pp. 135-154). Antwerp: Linguistica Antverpiensia: New Series.

- (2007b). Reception, text and context in the study of opera surtitles. In Y. Gambier, M. Shlesinger & R. Stolze (Eds.), *Doubts and directions in translation studies* (pp. 169- 182). Amsterdam: John Benjamins.

Miquel-Iriarte, M., Vilaro, A., Orero, P., Serrano, J. & Delgado, H. (2012). Entitling: A Way Forward for Accessibility. In E. Perego (Ed.), *Eyetracking in audiovisual translation* (pp. 259-276). Roma, Italy: ARACNE Editrice.

Moskowitz, G. (1968, September, 25). Boxoffice, Art, Politics Not all that Complicates Fest O'seas; also Lingo. *Weekly Variety*, 39.

Murch, W. (2001). *In the blink of an eye: a Perspective on Film Editing*. Los Angeles: Silman-James Press.

Neves, J. (2005). *Audiovisual Translation: Subtitling for the Deaf and Hard-of-Hearing*. Doctoral Thesis. Londres: University of Surrey-Roehampton. Retrieved from

<http://roehampton.openrepository.com/roehampton/bitstream/10142/12580/1/neves%20audiovisual.pdf> (last consulted: 21/11/2013).

- (2009). Interlingual subtitling for the Deaf and Hard-of-Hearing. In J. Díaz Cintas & A. Gunilla (Eds.), *Audiovisual Translation: Language Transfer on Screen* (pp. 151-169). Basingstoke: Palgrave MacMillan.

Nornes, A. M. (1999). For an abusive subtitling. *Film Quarterly* 52(3), 17-34.

- (2007). *Cinema Babel: Translating Global Cinema*. Minneapolis: University of Minnesota Press.

O'hagan, M. (2007). Impact of DVD on Translation: Language Options as an Essential Add-On Feature. *Convergence: The International Journal of Research into New Media Technologies*, 157 -168.

Office of Communications (OFCOM). (2005). Subtitling: An issue of speed?. Retrieved from <http://stakeholders.ofcom.org.uk/binaries/research/tv-research/subt.pdf> (last consulted 21/11/2013).

Oncins, E. (2013a). The tyranny of the tool: Surtitling live performances. *Perspectives: Studies in Translatology* 22, 1-20.

Oncins, E. (2013b). The Process of Subtitling at Film Festivals: Death in Venice?. *International Journal of Humanities and Social Science* 3(14), 70-80 (Special Issue - July 2013). Retrieved from [http://www.ijhssnet.com/journals/Vol\\_3\\_No\\_14\\_Special\\_Issue\\_July\\_2013/9.pdf](http://www.ijhssnet.com/journals/Vol_3_No_14_Special_Issue_July_2013/9.pdf) (last consulted: 21/11/2013).

Oncins, E.; Lopes, O.; Orero P. & Serrano, J. (2013). Multi language and multi system mobile application to make accessible live performing arts: All together now. In M. Clarke, C. Jeffcote and C. O'Sullivan (Eds.), *JosTrans 20. Image, Music, Text...?. Translating Multimodalities: Special Issue*, 147-164. Retrieved from [http://www.jostrans.org/issue20/art\\_oncins.php](http://www.jostrans.org/issue20/art_oncins.php) (last consulted: 21/11/2013).

Orero, P. (2004). Audiovisual Translation: A New Dynamic Umbrella. In P. Orero (Ed.) *Topics in Audiovisual Translation* (pp. vii-xiii). Amsterdam and Philadelphia, PA: John Benjamins Publishing.

Orero, P. (2005). La inclusión de la accesibilidad en comunicación audiovisual dentro de los estudios de traducción audiovisual. *Quaderns. Revista de Traducció*, 173-185.

- (2007a). Sampling audio description in Europe. In J. Díaz-Cintas, P. Orero & A. Remael (Eds.). *Media for all: Subtitling for the deaf, audio description and sign language* (pp. 111-125). Amsterdam: Rodopi.

- (2007b). Audiosubtitling: A Possible Solution for Opera Accessibility in Catalonia. *TradTerm* 13, 135–149.

Orero, P. & Matamala, A. (2007). Accessible Opera: Overcoming Linguistic and Sensorial Barriers. *Perspectives. Studies in Translatology* 15(4), 262-278.

Pavis, P. (1989). Problems of translation for the stage: Interculturalism and post-modern theatre. In H. Scolnicov & P. Holland (Eds.), *The play out of context: Transferring plays from culture to culture* (pp. 25-44). Cambridge: Cambridge University Press.

Perego, E. (Ed.). (2012). *Eyetracking in audiovisual translation*. Roma, Italy: ARACNE Editrice.

Pereira, A. (2005). El subtitulado para sordos: estados de la cuestión en España. *Quaderns. Revista de traducció* 12, 161-172. Retrieved from <http://ddd.uab.es/pub/quaderns/11385790n12p161.pdf> (last consulted: 21/11/2013).

- (2010). Criteria for elaborating subtitles for deaf and hard of hearing adults in Spain: Description of a case study. In A. Matamala & P. Orero (Eds.), *Listening to Subtitles: Subtitles for the Deaf and Hard of Hearing* (pp. 87-102). Berna: Peter Lang.

Pereira, A. & Lorenzo L. (2005). Evaluamos la norma UNE-153010. Subtitulado para personas sordas y personas con discapacidad auditiva. Subtitulado a través del teletexto. *Puentes* 6, 21-26.

Pereira, A & V. Arnáiz-Uzquiza, V. (2010). A comprehensive bibliography on subtitling for the deaf and hard of hearing from a multidisciplinary approach. In P. Orero & A. Matamala (Eds.), *Listening to Subtitles* (pp. 219-227) Berna: Peter Lang.



Remael, A. & Neves, J. (2007). A tool for social integration? Audiovisual translation from different angles. In A. Remael & J. Neves (Eds.), *A tool for social integration? Audiovisual translation from different angles* (pp.11-22). Antwerp: Linguistica Antverpiensia: New Series.

Romero-Fresco, P. (2011). *Subtitling through Speech Recognition: Respeaking*. Manchester: St. Jerome Publishing.

- (2012). Quality in live subtitling. The reception of respoken subtitles in the UK. In A. Remael, P. Orero & M. Carroll (Eds.), *Audiovisual translation and media accessibility at the crossroads* (pp. 111-132). Amsterdam: Rodopi.

Romero-Fresco, P. and Martínez, J. (*forthcoming*). Accuracy rate in live subtitling – the NER model. In J. Díaz-Cintas, J. Neves & D. Sánchez (Eds.), *Audiovisual Translation – Taking Stock. Media for All 4*. Amsterdam: Rodopi.

Vervecken, A. (2012). Surtitles: Types and functions. In S. Bruti & E. Di Giovanni (Eds.), *Audiovisual Translation across Europe. An Ever-changing Landscape. Series: New Trends in Translation Studies. Vol 7* (pp. 235-256). Berlin: Peter Lang.

Weaver, S (2010). Opening Doors to Opera: the strategies, challenges and general role of the translator. *InTralinea* 12. Retrieved from [http://www.intralinea.org/archive/article/Opening\\_doors\\_to\\_opera\\_](http://www.intralinea.org/archive/article/Opening_doors_to_opera_) (last consulted: 21/11/2013).

Tenzel, S. (1991, August 4). A Turkish delight despite fears of war. *Weekly Variety*, sec. International, p. 51.

No author (1972, July 26). ORANGE' to Venice with Italo. *Weekly Variety*, sec. Pictures, p.15.

No author (1952, September 10). Hollywood entries nab good reaction as Venice Film Fete in final week. *Weekly Variety*, sec. Miscellany, p.2.

## Websites

“Figaro Systems Inc.” Retrieved from <http://www.figaro-systems.com>  
(last consulted: 21/11/2013).

“Moviereading” Retrieved from  
<http://www.moviereading.com/static/doc/en/MovieReading.pdf> (last consulted:  
21/11/2013).

“Naotek Staging Systems.” Retrieved from  
<http://www.naotek.com> (last consulted: 21/11/2013).

“OperaVoice.” Retrieved from  
<http://www.operavoice.it> (last consulted: 21/11/2013).

“Reading the news” Retrieved from  
[http://news.bbc.co.uk/newswatch/ifs/hi/newsid\\_5150000/newsid\\_5150600/5150650.s  
tm](http://news.bbc.co.uk/newswatch/ifs/hi/newsid_5150000/newsid_5150600/5150650.stm) (last consulted: 21/11/2013).

“Showtranslations.” Retrieved from  
<http://www.showtranslations.com> (last consulted: 21/11/2013).

“Stagetext” Retrieved from  
<http://www.stagetext.org/about-stagetext/theatre-captioning>  
(last consulted: 21/11/2013).

“SUMAT: An Online Service for SUBtitled by MACHine Translation” Retrieved from  
[http://ec.europa.eu/information\\_society/apps/projects/factsheet/index.cfm?project\\_ref  
=270919](http://ec.europa.eu/information_society/apps/projects/factsheet/index.cfm?project_ref=270919) (last consulted: 21/11/2013).

“SuperTitles.” Retrieved from  
<http://www.supertitles.gr> (last consulted: 21/11/2013).

“Tools for captioning online videos”.  
Retrieved from <http://www.accessiq.org/content/tools-for-captioning-online-videos>  
(last consulted: 21/11/2013).

“Vicom Visual Communication.” Retrieved from  
<http://www.vicom-usa.com/surtitle-systems.html> (last consulted: 21/11/2013).

“Watch movies with subtitles on the iPhone” Retrieved from  
<http://hints.macworld.com/article.php?story=2009081913171253> (last consulted:  
21/11/2013).



## Chapter 8. Annexes



## 8. Annexes

### 8.1 Annex I: Documentary “Lavoro in corso: Accessibility at the Venice Film Festival”

This annex is presented in electronic format and can be consulted on the web under the following link:

“Lavoro in corso: Accessibility at the Venice Film Festival”

**<https://www.youtube.com/watch?v=1tHlcAKuIJ0>**





8.2 Annex II: Article "Accessibilitat als mitjans de comunicació: el Reparlat"

**Accessibilitat als mitjans de comunicació: el Reparlat**

**Estelà de Ocaso Noguer**  
 Doctorada en Accessibilitat i Informació Ambiental (CAIAC-UIAB)

En els últims anys els serveis en línia han experimentat un desenvolupament espectacular i les formes d'accessibilitat han estat considerablement millorades, principalment en els mitjans de comunicació. L'entorn en rigor de la Llei 1/2013 General de la Comunicació Audiovisual, de 21 de març, imposa a les cadenes de televisió que tinguin un pla de treball amb accés per part de la seva audiència.

Tercera d'accessibilitat per a persones amb discapacitat en la programació de canals de televisió. Períodes: 10h30 a 11h i 11h30 a 12h.

Tipus de canal de televisió	2013	2014	2015	2016
Canals de televisió	25%	25%	25%	25%
Canals de televisió de pagament	25%	25%	25%	25%
Canals de televisió de pagament de servei públic	25%	25%	25%	25%
Canals de televisió de pagament de servei públic	25%	25%	25%	25%
Canals de televisió de pagament de servei públic	25%	25%	25%	25%

Com podem observar els mitjans de comunicació han experimentat un desenvolupament espectacular i les formes d'accessibilitat han estat considerablement millorades, principalment en els mitjans de comunicació. L'entorn en rigor de la Llei 1/2013 General de la Comunicació Audiovisual, de 21 de març, imposa a les cadenes de televisió que tinguin un pla de treball amb accés per part de la seva audiència.

Subtitulació Reparat TVE 1

La metodologia de treball dels professionals que es dediquen al reparlat és escollir el locutor que més s'ajusta al mateix temps que qualifiqui altres canals.

Entenent, una forma que consisteix en un servei de formació i acompanyament, tant per a les persones amb discapacitat com per a les cadenes de televisió. En aquest aspecte, les noves tecnologies han jugat un paper clau i indispensable en el desenvolupament de nous serveis que permeten millorar l'accessibilitat. Actualment, el reparlat és la forma que ha resultat més efectiva i més costosa per a la subtitulació en directe. El procés de formació es realitza a 2-3 mesos i es pot assolir un resultat qual que millorant l'entorn.

En els casos en els quals la subtitulació en directe es realitza mitjançant

1. CAIAC 2015 "Informe de accessibilitat en les cadenes de televisió" <http://www.caiac.es/adjuntos/informe-de-accessibilitat-2015.pdf>

2. Observatori d'Accessibilitat (2014), "El Estado Actual de la Accesibilidad de los Servicios de la Información y la Comunicación (CAIAC)" <http://www.caiac.es/adjuntos/Informe-de-accessibilitat-2014.pdf>

3. RTVE, 2014. "El servicio de subtitulada de TVE" <http://www.rtve.es/informacion/comunicacion/comunicacion/2014/12/15/subtitulada-de-tve-2014.pdf>

4. Martínez & Ocaso (2015) "Accessibilitat a Televisió de Catalunya parlat amb Rosa Vilanova", director del departament de Subtitulació de TNC. Quaderns Res-Tnc, 37-38, Pàg. 303. <http://www.res-tnc.cat/informacio/quaderns-res-tnc/37-38-accessibilitat-10131904791132>

una pantalla. Actualment, el programa més utilitzat a nivell mundial en matèria de reparlat és el Dragon NaturallySpeaking.

Tot i els avanços tecnològics assolits fins ara queden qüestions pendents per solucionar. Un cas exemple és la manca d'un programa de reconeixement de paraula en català que legi correctament amb les necessitats actuals d'accessibilitat. El grup de recerca CAIAC de la UIAB es troba en fase de desenvolupament d'un programa de reconeixement de paraula en català per tal de fer accessible qualitat servei en català.

Finalment, cal destacar la necessitat de realitzar estudis de percepció i satisfacció amb col·lectius d'usuaris finals per tal d'ajustar la tècnica a les seves necessitats reals.

Accessibilitat trobada

**Fanny Llorens**

A ACAPEL treballarem des de fa molts anys per tal que l'accessibilitat per a tothom en tots els àmbits sigui una realitat. Les persones sordes són discriminades en molts aspectes. Cal continuar la feina, en clar que sempre falta molt, però... fa 12 anys no teníem res. Actualment comptem amb un servei de subtitulació en català i així mateix amb un servei de subtitulació "petita" detalla.

**FERROCARRILS DE LA GENERALITAT:**

- FENT VIA CAP A MONTSENI: A les estacions i també a l'interior dels trens una solució als mitjans d'informació indiquen que la comunicació també és accessible per nosaltres, però... sempre, això no sol dir que ens vinguin a atendre a tots els estats per fer de per persones sordes. Comencem a parlar amb el mateix temps que qualifiqui altres canals.

**MUSEU DE MONTSERRAT:**

- Diàleg de visites: Enllaç gratuït amb la teja acústica de la discapacitat.
- Tren de Montserrat, equipat amb un anglès.

**VILLA OLÍMPICA:**

- El plaforma d'informació i solució alternativa al telèfon.

**MAJÓ GUARDADO:**

- Instal·lació d'un telèfon i a la sala d'entrada.

**SI EN PASE CLARET:**

- Cap problema a l'hora de no passar per la porta de seguretat.

**CADA FÒRUM:**

- Cada cop més col·laboració amb els professionals de les comunicacions. Cada cop més col·laboració amb les persones sordes. Continuem treballant en català.

**OFICINA VODAFONE A GRAN DE SANT ANDREU:**

- Observem que l'oficina de Vodafone al carrer Gran de Sant Andreu 151, a més de la rampa per a la discapacitat física, han instal·lat l'orella magnètica.

**PLAÇA BLAU AL FÒRUM:**

- Enllaç gratuït amb la teja acústica de la discapacitat.

**LA PEDRERA:**

- Exposició CATALA-ROCA: Molt de text explicatiu i al llarg de l'exposició. Tot els vídeos subtitulats (en català i anglès).

**HOSPITAL DE SANT PAU:**

- En anglès, davant el projecte d'un nou hospital on l'accessibilitat seria completada, diversos membres d'ACAFTS van assistir a les sessions i visites. Van parlar molt, els sords no van resultar. Sigueron visitats el pas de seguretat a les reunions. Recorrem tot el servei de visita a una habitació. El telèfon no estava subtitulat, al mateix temps del comandament indicava l'horari de funció. No estava el botó "subtitulat". Malgrat que el dispositiu de resposta a la possible trucada a la infermera del malalt és una pantalla. Segura la funció, i ho feu per tot des del telèfon en català. La resposta quan s'entra les informacions en cas d'emergència continua sent català.

**OFICINA D'ATENCIÓ AL PÚBLIC A LA PL. DE SANT MIGUEL:**

- CAIAC recomana. Sentint d'espere davant una pantalla de televisió, un surt STV. STV no subtitula. És una altra discriminació cap a les persones sordes.

**Diversos al llarg de quèvolts, entre:**

- Les persones sordes existeix. Tancat les necessitats de subtitulació són grans: STV no subtitula. Tancat davant el canal de televisió dels serveis d'espere. És una discriminació de cara a molts ciutadans.
- Marc la caixa per rebre resposta i en el moment de rebre resposta en català, envia la resposta per correu postal.
- La caixa, breu, etc.



### 8.3 Annex III: Review “La subtitulació. Aspectes teòrics i pràctics”

*The Journal of Specialised Translation*

Issue 18 – July 2012

**Bartoll, Eduard (2012). *La subtitulació. Aspectes teòrics i pràctics*. Vic: Eumo, pp 215, €25. ISBN: 978-84-9766-442-4.**

The rapid developments in technologies are opening up new fields of research into Audiovisual Translation (AVT) and into subtitling in particular. New types of subtitles have appeared and the existing classifications published to date need to be reviewed. The classification proposed by Bartoll may be considered a multidimensional approach dealing with numerous aspects related to the subtitling practice and process. The main purpose of the book is to provide guidance for subtitling research and practice. As a result, it can prove very useful to translation scholars and AVT researchers, as well as, to any professional or newcomer in the field.

The book consists of ten chapters and is structured from general to specific. Therefore, the first chapter includes an introduction into the term ‘audiovisual text’ and its main characteristics. Bartoll analyses the combination of different elements that form the audiovisual text, like verbal and non-verbal codes, and channels, like acoustic and visual. It next introduces a new type of text, which has not considered until now in AVT, that is — the ‘tactile.’ A clear example of this type of text is the Braille alphabet for the blind and visually impaired. Although this communication system is not new, it is closely related to accessibility, a rising field in AVT.

Chapter two reviews the definition of general translation and places the term AVT within Translation Studies. In addition, the author analyses the evolution of the term AVT and distinguishes it from the term ‘constrained translation’. Within this context, chapter three offers a definition of the different modalities and sub-modalities of AVT, illustrating each of them with relevant examples.

In chapter four Bartoll focuses on subtitling with special attention to subtitles in Catalan language. The author also provides a retrospective of the subtitling practice according to the format of the audiovisual product, e.g. the celluloid, television, VHS, DVD, Blu-ray, computer and electronic subtitles.

Chapter five presents a classification of subtitles, taking into account both the subtitling process and the audiovisual product. The classification results from the application of predetermined parameters, which are interrelated. This allows the author to consider all types of subtitles and to extend previous subtitle classifications published to date.

Chapter six explores formal aspects of the subtitle text, which are mostly determined and limited by space and time. In addition, it highlights the importance and implications of the switch from the oral to written channel

and examines the relation between image and text. Finally, the author offers a useful review of the orthotypographic conventions established mainly among professionals.

Chapter seven represents the most practical part of the book and offers different strategies to solve time and space limitations in the subtitling practice. Additional tips how to solve other translation challenges, such as the transfer of humour or translation of songs, are presented.

Chapter eight describes the complete process of subtitling, presenting different steps from the elaboration of subtitles to the display on the screen.

Chapter nine provides an insight into the subtitling practice from the professional perspective. It describes the entrepreneurial situation, organization and conditions in this field. An important contribution in this chapter is the description of the main subtitling programmes available for professionals and newcomers alike.

Chapter ten offers an extensive and useful bibliography of academic books and articles referred to in the book. This allows readers interested in subtitling to delve into relevant topics.

What is particularly helpful in the book is its didactic approach. The summing up questions at the end of each chapter can facilitate the learning of terms, strategies and techniques introduced in the different sections.

To sum up, the book presents insights into different theoretical questions, as well as the actual practice of subtitling. As such, it makes an important contribution to the literature on AVT and on subtitling in particular.

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#### 8.4 Annex IV: Review “Qualitätsparameter beim Simultandolmetschen Interdisziplinäre Perspektiven”

*The Journal of Specialised Translation*

Issue 18 – July 2012

**Ángela Collados Aís, Emilia Iglesias Fernández, E. Macarena Pradas Mecías and Elisabeth Stévaux (eds) (2011).**

***Qualitätsparameter beim Simultandolmetschen Interdisziplinäre Perspektiven*. Tübingen: Narr Verlag, pp. 295, €64. ISBN: 978-3-8233-6637-9.**

The following book is tied to preliminary research dated 2007: “La evaluación de la calidad en interpretación simultánea: parámetros de incidencia.” The research was part of a collaborative project carried out by researchers from four different universities (Granada, Córdoba, Jaume I and Las Palmas de Gran Canaria). This joint project aimed at assessing quality in simultaneous interpreting. In the following book, Collados *et al.* provide an in-depth look at the eleven quality parameters established by the research group.

To date there has been little research on quality assessment in Interpreting Studies, especially based in experimental data. Therefore, this book could be regarded as an innovative study in this field.

Due to the complexity of assessing quality in simultaneous interpreting, a multifaceted perspective is required. Therefore, this book aims to describe the established quality parameters by using a multidisciplinary approach. Within this context, the parameters considered belong to different disciplines, such as Linguistics, Psychology, Foreign Language Studies, Speech Therapy and Media Studies.

Their book is written for professionals, researchers, academics, as well as students seeking to improve and study their interpreting skills and effectiveness in depth.

The book is organised into ten chapters. Each of them focuses on a quality parameter starting with the first impressions of the simultaneous interpretation users. Later, ten other output-related quality parameters are described: voice, intonation, fluency, dictation, accent, logical cohesion, style, terminology, correct meaning transfer and consistent meaning transfer. Each chapter is structured with different subsections related to the parameter under study as follows: introduction, interdisciplinary approaches considered, outlook in Simultaneous Interpreting Studies, prospect for research, quality expectations and evaluation, résumé and outlook.

In chapter one Olalla García Becerra begins by laying out the ‘first impression’ (*Eindrucksbildung*) of the simultaneous interpretation addressees’ and looks at how it affects the evaluation of the quality. Therefore, the author provides an insight of the user’s expectations, purpose and their stereotypes from a sociological point of view, which may influence the evaluation of the addressee. Furthermore, stimuli and non-

verbal communication may also play an important role in the quality evaluation.

In chapter two Emilia Iglesias Fernández outlines the 'voice' (*Stimme*) parameter, which in the interpreting research has been defined considering the voice quality and pleasantness. Hence the author considers the spectral speech properties, such as phonetics quality, pitch of the voice and tone colour, as well as the prosodic phenomena such as: tone, volume and length. In order to provide a definition of the term, the author relies on phonetics and **psycholinguistics**. Furthermore, to approach the perception question, the author takes the results from the social and cognitive psychology studies and also from the media studies.

In chapter three Rafael Barranco Droege, Ángela Collados Aís and José Manuel Pazos Bretaña provide an exhaustive analysis of the parameter 'intonation' (*Intonation*). On the one hand, the authors refer to methodologies and results obtained in linguistics, psychoacoustics and foreign-language studies in order to describe the prosodic aspects of the interpreter performance and the communication function of the intonation. On the other hand, the authors approach the vocal expression and its associate perception following *psychoemotional* results.

In chapter four E. Macarena Pradas Macías examines the 'fluency' (*Flüssigkeit*) of delivery of the interpretation, which is based on a form-based parameter, as well as a content-based one. This parameter plays a major role in measuring the progresses made by the students in foreign-language studies. However, to establish the speaker's results and the determination of the fluency in interpretation the author refers to disciplines such Linguistics and Psycholinguistics. In addition, further insights in Psychology and Sociology are made to provide a better understanding of the fluency parameter.

In chapter five María J. Blasco Mayor analyses the 'diction' (*Diktion*) and looks at the clearness of the accent from the perspective of the phonetic articulation and psycholinguistic. Furthermore, the author also considers possible interlingual interferences and speech errors from the speech therapy point of view. Finally, the definition of the term diction in the field of simultaneous interpretation is provided referring to the media studies.

In chapter six Elisabeth Stévaux explains the 'accent' (*Akzent*) as found in non-native speakers. The author considers contributions, which deal with non-native pronunciation features, which have been developed from disciplines, such as Linguistics, Psycholinguistics and Speech Therapy. In addition, the author takes into account research based on comprehensibility, pronunciation training and evaluation developed in foreign-language studies. Finally, the author considers the results obtained on the impact on the user of a constant perception and the

stereotypes, which affect the evaluation of a non-native simultaneous interpretation, from the social psychology and social linguistic disciplines.

In chapter seven Amparo Jiménez Ivars argues for the creation of 'logical cohesion' (*logischen Kohäsion*) with regard to form and content levels by means of specific speech techniques and cognitive strategies, evaluating both levels from the perspective of psycholinguistic and foreign-language studies disciplines. Finally, considerations on the modification of both levels from the Translation Studies perspective are provided.

In chapter eight Jessica Pérez Luzardo Díaz and Rafael Barranco Droege present the parameter 'style' (*Stil*) of the target speech. For the definition of this complex parameter, the authors base their arguments on Stylistics and Translation Studies. This establishes a clear relation between the selection of a speech technique and the transfer of connotations and implications. Furthermore, on the basis of different style guides, the authors illustrate that traditional principles of the interpreters' work are still valid.

In chapter nine Mercedes García de Quesada discusses 'terminology' (*Terminologie*) in the interpretation work, considering the correct and accurate use of the technical speech. The author highlights that the importance of communicative factors is gaining recognition, in modern terminology and documentation learning applied to Linguistics and Translation Studies.

Finally, in chapter ten Marie-Louise Nobs Federer, E. Macarena Pradas Macías and M.<sup>a</sup> Manuela Fernández Sánchez deal with 'correct meaning transfer' (*korrekte Sinnübertragung*) and 'consistent meaning transfer' (*vollständige Sinnübertragung*), both considered closely related parameters from the translation, as well as the interpretation perspective. The authors point at the loss of importance of the correct sense transfer, arguing that the translator undertakes a more active role in the process of 'meaningful creation' (*Sinnschaffung*).

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## 8.5 Annex V: Interview “Surtitling for the stage”

### 8.5.1 Entrevista: Eduard Bartoll

1.- *Quan es van començar a utilitzar sobretítols al Festival Grec? Per quina raó?*

No ho sé amb seguretat, però l'ús dels sobretítols als diversos teatres comença a inicis dels anys 90 i es dona sobretot perquè hi ha representacions estrangeres, en altres llengües. Fins aleshores, aquestes obres es traduïen mitjançant interpretació simultània.

2.- *Com es gestiona el procés de sobretitulació al Festival Grec: es disposa d'un equip intern que els edita, s'encarreguen a un empresa especialitzada en el tema, a un traductor freelance o a un altre especialista, o bé, els gestiona la pròpia companyia estrangera?*

Generalment, s'encarreguen o bé a una empresa que ho gestiona tot: traducció i projecció, o bé s'encarreguen a un traductor i després una altra empresa s'encarrega de la projecció. Darrerament també es fan projeccions en power point. Molt poques vegades els porta la pròpia companyia.

3.- *Quan temps transcorre des de l'encàrrec dels sobretítols fins a la representació de l'obra? Quins són els principals processos de la creació dels sobretítols? Quin material s'entrega a la persona encarregada dels sobretítols?*

En el cas del Festival Grec, pot ser un mes o fins i tot més temps. En altres teatres, pot ser de pocs dies. El procés que se segueix és el següent: lliurar el text, amb la darrera versió (sovint es produeixen canvis a darrera hora), lliurar una gravació recent (el Festival i la companyia de teatre no sempre són conscients de la necessitat de fer-ho, però no hi ha altra manera de poder fer els sobretítols). El traductor fa els sobretítols tenint el compte el ritme de dicció segons la gravació. Generalment cal fer un assaig general el dia abans o el mateix dia de la representació, però gairebé mai es fa complet o al ritme real de la representació.

4.- *Qui és la persona encarregada de la projecció dels sobretítols durant la representació de l'obra, el propi traductor o una altra persona?*

En principi, el mateix traductor, perquè és qui millor coneix l'obra. Sovint durant les representacions es produeixen canvis, bé perquè els actors se salten un tros o perquè fan canvis d'ordre involuntaris, i qui projecta els sobretítols ha de ser capaç de trobar ràpidament el text que estan dient en aquell moment.

També els pot projectar una altra persona que, però, s'hagi mirat bé la gravació i la traducció.

5.- *Considera que es pot diferenciar entre traductor i sobretitulador? I entre sobretitulador i subtítolador? En cas afirmatiu, quines diferències destacaria?*

Es pot, en el cas en què algú faci una traducció íntegra del text i una altra persona, el sobretitulador, ajusti la traducció segons el pausatge (ritme de dicció, quantitat de caràcters, etc.)

6.- *Quin és el sistema utilitzat per l'edició i projecció dels sobretítols al Festival Grec? Per què es va escollir? Estàs satisfet amb el sistema? Quins aspectes d'aquest sistema consideres millorables?*

Generalment es fa servir un panell lluminós de LED. Això és molt comú. No està malament, però té limitacions, com ara que els llums són de color taronja o ambre i que no permet fer servir cursiva ni accents a les majúscules. Però potser hi ha altres panells que sí que ho

permeten. L'altra possibilitat és fer servir un power point projectat en una pantalla qualsevol, i ofereix més prestacions.

*7.- Quantes representacions d'una mateixa obra amb sobretítols s'ofereixen? Es realitza alguna modificació de la primera versió de sobretítols o sempre es treballa amb la versió inicial?*

Generalment, les obres estrangeres no duren més de dos o tres dies. I, com he dit abans, sempre cal anar fent canvis perquè l'obra evoluciona.

*8.- En la creació dels sobretítols s'inclou informació no verbal pel públic sord o amb deficiències auditives? En cas negatiu, per quina raó?*

No, perquè són sobretítols per a persones oients. Malgrat això, el Teatre Lliure sempre fa alguna sessió amb sobretítols intralingüístics (català-català, per exemple), especialment adreçats a persones sordes.

*9.- En el cas que l'obra sigui una adaptació moderna d'un clàssic, s'adapta una traducció existent o es tradueix el text de nou? En el cas que existeixin dues traduccions de la mateixa obra per quins motius s'opta per una de les dues?*

Sempre que es tradueix un clàssic antic s'intenta tenir presents les traduccions que ja se n'ha fet, però mai es poden aprofitar totalment, perquè els sobretítols tenen una limitació de temps i d'espai que fa que el text final hagi de ser molt més breu. Et passaré un power point amb aquesta informació.

*10. Si l'original és en vers i rima quina és la seva opció?*

Els sobretítols (i els subtítols) no porten rima perquè l'espectador no la percep. Si un sobretítol rimés amb l'anterior o amb dos abans és impossible adonar-se'n. Per això la traducció se centra més en el contingut que en la forma (sense oblidar el registre, és clar).

*11. En el cas de corpus canònic, com ara Shakespeare/Lope considera que els sobretítols han de mantenir aquest llenguatge, o s'adapta a la llengua "actual"?*

Quan es fa una traducció d'una obra antiga, es fa en la llengua actual, habitualment.

*12.- Quin és l'element més difícil en la creació dels sobretítols? Quins són els errors més comuns?*

El problema és que no es faci un assaig íntegre i al mateix ritme que la representació final. A més, els actors sempre fan canvis involuntaris durant la representació.

*13.- En quin element rau la satisfacció de l'espectador?*

Això ho han de dir els espectadors, però l'objectiu és poder veure una obra en una altra llengua i poder-la seguir. Però els espectadors no són conscients del que implica subtítular ni traduir en general.

*14. Coincideix la satisfacció de l'espectador amb la del professional? I amb la de la companyia?*

Això també és difícil de dir, perquè depèn de cadascú. Un bon professional ha de saber defensar la seva traducció. En general, quan es critiquen els subtítols (i per tant també els sobretítols), la gent no és conscient que cal reduir el text de la traducció. Generalment, un subtítol (o sobretítol) no dura més de 6 segons i no pot tenir més de 36 caràcters per línia (en un total de 2 línies), per això no es pot posar tot.

Curiosament, les companyies tampoc no són gaire conscients de què implica sobretítular i, a més, tenen una actitud reàcia als sobretítols, que consideren una ingerència en la seva feina.

*15.- El Festival Grec ofereix obres amb sobretítols intralingües o són sempre sobretítols en un altre idioma?*

Sempre són interlingüístics. El Teatre Lliure sí que n'ofereix d'intralingüístics, per a sords.

*16.- Els sobretítols del festival són sempre en obert o també s'ofereixen en tancat? Quina de les dues opcions consideres més efectiva i per quina raó?*

De moment, l'únic teatre que ofereix subtítols (i no sobretítols) en tancat és el Gran Teatre del Liceu. Es tracta de pantalletes de cristall líquid situades al darrere dels respallers de les butaques. L'avantatge d'aquest sistema és que permet triar la llengua (en aquest cas: català, castellà o anglès) i podria oferir subtítols per a persones sordes, a banda de l'avantatge de ser opcionals, per a qui els vulgui tenir.

*17.- Creus que els sobretítols agraden al públic? Quina és la reacció del públic vers les obres sobretitulades?*

En general, la gent més aviat ho critica, però quan no n'hi ha o no funcionen, també se'n queixa. Malauradament hi ha un gran desconeixement per part de la societat de què vol dir traduir en general i subtitular, en concret.

*18.- Creus que els sobretítols agraden a la companyia? Quins són els comentaris més comuns per part del director de l'obra?*

En un principi, no els volen i sempre intenten que se situïn al més lluny possible de l'escenari. Però un cop acabada la representació sempre s'adonen que han anat bé i que són necessaris.

*19.- El fet d'incloure sobretítols ha influït en el nombre d'espectadors al festival? I la projecció del festival a nivell internacional?*

Això no ho puc respondre jo, no ho sé. Ho hauria de dir algú del Festival.

*20.- El festival s'ha plantejat mai doblar alguna obra? En cas afirmatiu quin resultat s'ha obtingut?*

Seria gairebé impossible. De fet, fa uns 6 anys al Mercat de les Flors es va fer una obra italiana en què els mateixos actors es doblaven en una part projectada, però seria molt complicat doblar una obra de teatre.

*21.- De quina procedència són les companyies amb major predisposició a col·laborar en el procés de sobretitulació?*

Potser d'Alemanya, però depèn. També cal dir que les obres en general són o bé alemanyes o angleses. N'hi ha poques d'altres països, potser Polònia, Itàlia, França. Un cop vaig treballar amb una companyia portuguesa i van ser molt amables.

*22.- Tens idees de com millorar la tasca del traductor?*

En tot cas, com millorar les condicions: pagar més i que la societat i les empreses el valoressin més. I facilitar tot el que li pugui fer falta: contacte amb la companyia, un text recent, una gravació recent, un assaig general íntegre...

*23.- Respecte a la tasca de llençament quines millores inclouries?*

A l'empresa amb què treballo generalment, la projecció es fa prement la tecla del número 3. I això és molt pesat. A part, generalment qui llança s'ha de seure en un tamburet en un lloc on gairebé no veu l'obra. Cal facilitar tot això i fer-ho més còmode per a qui llança els sobretítols.

*24.- Com es podria millorar la projecció? Més línies? Més caràcters? Un altre display?*

Més línies i més caràcters farien que la lectura fos pràcticament impossible. Un display més gran i amb les lletres més clares i amb la possibilitat de tenir cursiva, etc. estaria bé. Si no, el power point no està malament, i ja ofereix més espai i altres estils de lletra.

*25.- Agraïm qualsevol comentari adicional que consideris rellevant en l'estudi de la sobretitulació. MOLTES GRÀCIES PER LA COL·LABORACIÓ!*

## 8.5.2 Interview to Jonathan Burton/ Judy Palmer

*1.- When did the Royal Opera House in London (ROH) start using surtitles? And which was the reason?*

1986, on an experimental basis. A senior member of staff had seen them abroad in 1984 and thought they were a good idea!

*2.- Does the ROH has a surtitling department? How many people work in the production process? Do you also outsource the surtitling or is always an inhouse job from the surtitling department?*

The Surtitling Department consists of two people. Each takes turns in the editing/preparation and cueing of titles. Judi will tell you more about commissioning translators from outside ROH. The actual editing and cueing is always done in-house.

*3.- Could you let us know which are the main the differences between a surtitler and a translator? And how about the differences between subtitles and surtitles?*

A surtitler has to be a musician who is experienced in the pacing of surtitles, i.e. knowing when they are needed and how fast or slow they should be, to suit the music. He or she is not simply a translator, as the text needs to be reduced (usually to about one third of the original length) to create concise titles which can be quickly read without distraction.

Subtitles (for TV or DVD) can be faster and more detailed than live surtitles – following camera shots (e.g. close-ups or reactions, or different members of the cast during ensembles) rather than just what the audience can easily hear.

*4.- In which steps would you divide the surtitling process? Which material do you receive for each opera? How long does it take from the first step until the performance?*

When the coming season's repertoire is known, Judi (as Surtitling Coordinator) will decide, for each new production or revival, whether existing titles can be used (if it's an opera we have performed before) or whether new titles need to be commissioned. She will then select a suitable translator and commission him/her, ideally several months in advance of the first night. The translator will be supplied with the vocal score of the opera, in the correct version and edition (and the correct original language!), ideally with any musical cuts or changes already noted.

The translator will deliver a text by a given deadline. This will be then converted to our surtitling software and edited to fit our 'house style' for punctuation, etc. The Surtitling Department will then 'rehearse' the titles with a CD recording of the opera and edit them to make sure the pacing and sense are right, and the blanks between titles are in the right places. The editor of the titles will also select the speed of fades for each title, to suit the pace of the music.

A print-out of the titles will then be sent to various interested parties, e.g. conductor, stage director (and assistants), music staff, language coach. Any comments/corrections will be considered, and changes made to the titles if necessary. (Judi has the ultimate authority over the final text.)

During Stage and Orchestra rehearsals (usually for a week or so before the first performance), we rehearse the titles with the 'live' stage action and make any further corrections day by day, with the aim of arriving at a definitive version by the time of the final Dress Rehearsal. We also allocate luminances (brightness) to the titles to match the stage lighting of each scene.

*5.- Who is in charge of the surtitling projection during the performance: the translator of the play or another person?*

One of the two members of the Department will operate the titles for every performance of a particular opera. This will usually NOT be the translator.

*6.- Which is the system used at the ROH for the editing and performance process of the opera? Why did the ROH chose it? Are you satisfied with it? Which improvements would you include?*

Judi will be better qualified to advise you on this question! We use custom-designed digital projection software, with which we can edit the titles in our office and then download them to the system for rehearsals and performances. The software was developed to suit the requirements of the ROH and therefore is designed to deliver exactly what we need. Various updates are currently in progress, including High Definition images. The makers of the system are aware of our detailed requests for improvements (mainly in editing and formatting options) and are constantly seeking to incorporate them.

*7.- How many performances with surtitles does the ROH plan per play? Is there any modification from the first version of the surtitles or the master version is always kept?*

Every performance is subtitled (even when the opera is sung in English). Once the titles have been finalized (ideally by the final Dress Rehearsal) there is usually no need to change them, although alterations may be made to accommodate changes in the musical version (e.g. cuts) or, for example, if a different performer uses different spoken dialogue.

*8.- In the opera you are provided with a libretto, how important is the text from the libretto in the surtitles? Or do you consider that surtitles have to communicate what is happening in the stage? Why?*

The original libretto (as printed in the musical score) is the basis for the translator's surtitle text. As outlined above, he/she will seek to simplify and reduce the libretto text, usually by up to 2/3rds – omitting flowery language, interjections, repetitions and complicated grammatical constructions. The aim is for the titles to convey the meaning of the text, although this will sometimes be contradicted by what the audience sees on stage (depending on the stage director's approach and 'concept'). In such cases we try to reach a compromise that doesn't contradict either the original meaning or the action on stage.

*9. If the original text rhymes which is your surtitling approach?*

Normally we would ignore rhymes, except in (very rare) special cases, e.g. when a character is 'singing a song' or reading a poem as part of the dramatic action and the original rhyme scheme seems to be important.

*10. In the case of a canonical corpus do you consider that surtitles should maintain the original language style or change to "current" language?*

We aim to use neutral modern English where possible – not too many contractions or slang words (can't, won't, OK, etc.) – for maximum comprehensibility and minimum distraction. In the case of a libretto based on a well-known text, e.g. a Shakespeare play, we would avoid quoting the original unless it's so obvious as to be inescapable (e.g. 'To be or not to be' in an opera based on *Hamlet*).

*11.- Which is the most difficult element in the creation of surtitles? And the most common errors? Any examples from the professional experience?*

Probably getting the pacing right – not too fast to be readable, nor too slow to convey sufficient information. Putting up the titles when the audience will expect them – not leaving too many blanks ('Oh, the titles must have broken down!') or conversely filling the screen with excessive verbiage or repetition. All these things come with experience.

Errors? Including too much text or too many repetitions; not simplifying grammar and syntax sufficiently for the audience's comprehension; anticipating comic lines so that the audience laughs too soon. Not realising that something will get a laugh when it's not MEANT to be funny (example – 'Fa gli occhi neri' in Puccini's *Tosca* translated as 'Give her black eyes').

*12.- Do you also offer intralingual surtitles, or these are always translated in another language? How many languages are used in the stage? And in the surtitles?*

As stated above, we supply English titles even when the original language is English. We don't currently offer surtitles in other languages, although potentially the technology does exist for the seatback screens. Sung languages in opera include Italian, German, French, Russian and Czech, and occasionally Hungarian. No Spanish yet as far as I can recall!

*13.- The surtitles at the ROH are offered in two ways: open surtitles at the upper part of the stage and close caption surtitles for the seats with limited or without view, which of both options do you consider more effective and why?*

The main screen projection system ('open' titles) gives us more subtle control over layout, format, brightness, speed of fades, etc. And there's a certain communal sense in the fact that all the audience will be looking up at the same titles.

The disadvantage is that from some parts of the auditorium it is a long way to look up to the screen, and therefore distractingly far from the eye-line of the stage action.

Conversely, the seatback (and new 'head height') screens are easier to look at (despite the change of focal distance) but the data transmission is limited (e.g. no italics, subtle fades or formatting).

*14.- Do you also include non verbal information for the deaf and hard of hearing people? Why?*

No – this is not part of our brief. Deaf and hard-of-hearing people are catered for by a Sign Language interpreter at some performances.

*15.- In which element lies in the satisfaction of the surtitler? Does the satisfaction of the surtitler coincide with the satisfaction of the audience? And the director?*

Hard to say! If we can convey the required information without distracting the audience, we consider our job well done. If audience and critics DON'T comment on the surtitles, that is probably a good sign.

Directors are notoriously hard to please. Some do not like surtitles at all, others are constantly trying to interfere with the text and the way we display the titles. Others do realise what we are trying to do and are grateful for it.

*16.- From your point of view, does the audience like the surtitles?*

Very much so. Any complaints tend to be about legibility or mechanical breakdowns – the titles themselves are generally appreciated.

*17.- Do you consider that since you offer surtitles the audience has increased?*

Hard to say over such a long time span, but certainly surtitles make opera more accessible, which must improve the demographic spread of the audience ('non-elitist') as well as the overall numbers.

*18.- Has the ROH ever thought in dubbing an opera? If yes, which was the result?*

No. Difficult to imagine how this could be done!

*19. Any ideas about how to improve the tasks of the translator?*

More understanding from stage directors! More efficient notification e.g. of cuts, text changes, directorial input. But generally the translators are left on their own to do their job, which they are very good at.

*20. And how to improve the launch of surtitles?*

Can't really be improved upon without major redesign, e.g. offering additional languages. Audiences expect them now and are happy with them as they are.

*21. How would you improve the projection? More lines? More characters? Another display?*

We reckon that audiences cannot take in more than two lines at once, and more characters would make the titles harder and slower to read, so not a good idea. The only problem we have had is very bright stage lighting which the projector cannot cope with – titles illegible because not bright enough.

*22.- Please feel free to add any comment that you consider relevant for the study of the surtitles?*

We are heartened by the ever-increasing interest in what we do from academic circles, i.e. people such as yourself! While we have evolved our surtitling system and practice by experience, trial and error over the past 25 years, it is interesting that our task is now analysed and assessed in a context of various academic and linguistic disciplines, all of which adds to our expertise and efficiency as well as creating a wider appreciation of surtitling in the world outside.

Thank you very much for your time and collaboration in this interview. We'll get back to you with news regarding the possible publication.



### 8.5.3 Entrevista Ruben (36 Caracteres)

Hola Estella,

Algunos comentarios sobre la información que me comentas.

Por un lado el índice parece oportuno, ya que el único enfoque que se puede dar a esto es de trabajo de campo, ya que no hay bibliografía ni investigación académica sobre la que trabajar.

Te indico algunas cosas que puedan serte de utilidad:

-Respecto a sistemas utilizados:

-Supertitles es un software no un sistema completo, he probado muchos y de los que se comercializan me parece el más completo, se nota que lo han desarrollado sobretituladores con experiencia.

-Naotec: su software maestro es razonablemente bueno pero solo compatible con sus pantallas de leds.

-Tortícoli no está mal, aunque más que un sistema en sí es una empresa que realiza el servicio.

-Figaro (In vision) no lo he probado, parece que su fuerte está en la parte técnica (instalación de asientos con pantallas)

-Stage Text en UK. Creo que están empezando a utilizar rehablado para sobretitulación.

-Hay algunos más, de menor uso: Title Driver (americano, malísimo), Surttitlepro de Vicom (no conozco a nadie que lo haya usado)

-El Cesya acaba de sacar un sistema que es compatible con tabletas y móviles.

-En España hay tres empresas que tienen sistemas propios y que realizan sobretitulaciones de manera continuada. Softitular en Cataluña, Savinen de Valencia y 36caracteres en Madrid. Supongo que lo sabrás pero te lo comento teniendo en cuenta que estás en la UAB. Un profesor de allí (creo que da clases en el máster de TAV) Eduard Bartoll, me consta que tiene mucha experiencia en sobretitulado de teatro e igual lo tienes a mano.

Lo último que te comento es que en 36caracteres estamos en fase de preparación de un nuevo sistema que incluirá un nuevo software, adaptado a la experiencia de los últimos años y compatibilidad con diferentes opciones técnicas de presentación (proyección de vídeo, leds, dispositivos móviles, etc) De momento está en fase de desarrollo, cuando el software pase a fase beta (en algún momento después de verano) si tienes interés podría pasarte una versión demo.

### 8.5.4 Interview to Allayne Woodford (MEDIA ACCESS, Australia)

1.- *From your point of view which is the situation of the captioning in the scenic arts in your country?*

The situation of captioning of performing arts in Australia is poor compared to territories such as North America and the United Kingdom. From an enthusiastic beginning in 2004 through a pilot project, our major cities of Sydney and Melbourne saw an increase for a couple of years in the number of productions offered with captions, but a very quick plateau was reached, with some major production companies ceasing captioned services after a few seasons.

Today, we have just one supplier of the service, providing what could be considered an expensive service that does not necessarily have the patrons' best interests at heart.

2.- *When did Media Access start working for the introduction of captions in theatre, opera and other venues? Why this decision was adopted?*

Captioning of theatre in Australia was first introduced in 2004 through an Australia Council grant. The joint venture project between Media Access Australia (MAA), then known as the Australian Caption Centre, Arts Access and the Melbourne Theatre Company, saw two different productions captioned: *Dinner* on 13 and 14 September, and *The Sapphires* on 15 and 16 December.

The decision to introduce captioned theatre came from talks we had and research we'd done into theatre captioning in the USA and the UK. Surtitling of operas had been done for many years but was not recognised as a form of access (and still isn't) in Australia. Our research and subsequent meetings with Arts Access and the Melbourne Theatre Company identified an enthusiasm to emulate international territories in providing access to the Deaf and hearing impaired, which led to the funding application being submitted to the Australia Council.

3.- *In an interview made to you on the Deafness Forum in 2007, you state: "captions not only cover the dialogue (which is simply subtitling), but also include descriptions such as the music and sound effects for a more complete understanding of what's happening." Would you use the same definition for the scenic arts? Why?*

Yes. The standards employed for the creation of captions in Australia do not vary across formats. Having said that, there are no formal standards adopted across the entire industry, just guidelines that are available via the Deafness Forum. Although formatting standards may vary depending on suppliers (this is for TV and DVD generally), the text itself does not vary too much, in that the

4.- *Do you consider that captions offered at theatre are conceived for the deaf and heard of hearing? And at opera houses? Why?*

5.- *Does Media Access has a captioning department?*

No. We are not a service provider.

- *If yes, which are the main tasks of the department? Do you offer specific training for captioners for theater/opera? And for the captioners for cinema?*

- *If not, do you outsource the captioning service? Do you provide any specific guidelines?*

MAA receives a small Federal Government grant to caption educational DVDs. We outsource the work between four service providers: The SubStation, Red Bee Media, Ai-Media and Captioning and Subtitling International. We do not provide guidelines. There is no official guideline that has been adopted by the Australian industry for the production of captions, although the Australian Communications and Media Authority, consumer groups and TV stations are developing standards by which it can judge the adequacy of captions.

*4.- In which steps would you divide the captioning process of a performance? Which material do you receive for each play? How long does it take from the first step until the performance?*

In Australia, captioning for theatre is done by one organisation called [The Captioning Studio](#). They caption from a remote location and do a small number of plays per year. I am unsure of their production methods.

When Media Access Australia first did the pilot project in 2004, our method was:

- Receive a script that is recorded as a text document by a captioner. This was either transcribed from a hard copy or provided on disc.
- This document was then converted into captions via CaptionView software and fine-tuned for the performance.
- The captioner then attended rehearsals at the earliest possible convenience to amend dialogue changes and insert sound effects and other audio cues.
- At the time, Australian Caption Centre captioning standards were followed for uniformity.
- For performances, captions were cued out live by a captioner sitting in the control booth. The captions were cued live to ensure that the timing accurately reflected the performance.
- Captions appeared on an LED screen that was placed within the stage setting.

The Captioning Studio employ a different method, using a stenocaptioner who cues out pre-written captions but also can caption live if required. They use plasma screens placed high on each side of the proscenium arch.

Opera Australia use surtitling. It isn't something that MAA has ever had anything to do with.

*5.- Who is in charge of the caption projection during the performance: the captioner of the play or another person?*

Unknown at present, but captions are generally remotely sent by The Captioning Studio.

*6.- Which system is used for the edition and performance of captions at the theater/ opera? Why did you choose it? Are you satisfied with it? Which improvements would you include?*

The Captioning Studio has developed its own system call GoTheatrical.

*7.- How many performance with captions does the theaters/operas plan per play?*

Generally there is one performance for smaller plays while the premier theatre and opera companies will have two captioned performances.

*8.- Which is the most difficult element in the creation of the captions? And the most common errors? Any examples from the professional experience?*

I can say from our 2004 pilot project that ad-libbing by actors is troublesome when a stenocaptioner is not on hand to caption live when the script is not suitable. Also, getting the approval of an artistic director to caption their play can prevent problems. Some directors are very particular about how their work is presented and balk at the idea of a screen possibly distracting patrons from their work.

*9.- In which percentage do theaters/opera houses offer intralingual captions?*

All of Australia's major opera houses offer surtitles – that is in Sydney, Melbourne, Adelaide, Brisbane and Perth.

*10.- Do the foreign plays offer the same captions as for the intralingual plays? If not, which are the main differences?*

Generally, foreign language plays are not performed in Australia.

*11.- Captions in theaters/ operas houses can be offered in two ways: open caption and close caption, which of both options do you consider more effective and why?*

Both methods have merits. I believe that open captions placed in a screen within the set is the best method. This way, eyeline and focal point do not differ. Captions are also available for all audience members to see, although priority seating should be given for Deaf and hearing impaired patrons nearer to the stage.

Closed captions were trialled in Australia very briefly via a handheld device. The problem with this, is that patrons had to hold it for the entire performance and look down for the captions then up to the stage. Closed captions that are provided on a screen on a gooseneck stand that can be adjusted are a better option, although there are reports of people complaining about having to refocus from the screen to the stage repeatedly.

*12.- In which element lies in the satisfaction of the captioner? Does the satisfaction of the captioner coincides with the satisfaction of the audience? And the director?*

Unknown.

*13.- From your point of view, does the audience like captions?*

166 people filled in a survey from our 2004 trial, which was over a quarter of the total audience.

Surprising results included:

- 80% of the surveyed audience did not find the captioning distracting.
- 84% of the surveyed audience knew someone who would benefit from the service.

Other results were:

- 46% thought the captioning added to the performance, 13% said they didn't know.
- 79% said the captioning didn't distract from the performance, 2% said they didn't know.

Overall, the partners were pleased with the very positive response from the audience, and this had led to the theatre company scheduling 6 more captioned performances in the 2005 program. As stated earlier, the growth reached a plateau within a couple of seasons and this company in particular ceased captioned performances.

*14.- Do you consider that since theaters/operas offer captions the audience has increased?*

Unknown.

*15. Any ideas about how to improve the tasks of the captioner?*

With appropriate training, captioning could be done either by a venue staff member or production company staff member. This eliminates the need for third party caption providers, thus reducing costs. Another idea, which is used in the UK, is for arts companies to 'cluster' into geographic groups, sharing equipment and staffing options to deliver accessible performances within the cluster.

*16. And how to improve the launch of captions?*

Unknown.

*17. How would you improve the projection? More lines? More characters? Another display?*

Unknown.

*18.- Please feel free to add any comment that you consider relevant for the study of the captions?*

Thank you very much for your time and collaboration in this interview! We'll get back to you if the interview is accepted for publication!

### 8.5.5 Interview to Tabitha Allum (STAGETEXT, UK)

*1.- From your point of view which is the situation of the captioning in the scenic arts in your country?*

Pretty positive. We provide English captioning for deaf and HOH people in about 60 venues per year and there are another 40 that provide an in-house service. It has taken us 11 years to get to this point though.

*2.- When did Stagertext start working for the introduction of captions in theatre and other live venues? Why this decision was adopted?*

In 1999, a group of deaf Americans who had just got captioning on Broadway came to London on a cultural tour and brought a captioning display and a captioner with them so that they could go to the theatre. Some HOH British people were invited to those shows and the three founders of STAGETEXT were amazed at the access captioning gave them. They flew to America to buy a captioning display and came home and founded STAGETEXT as a registered charity (non-profit organisation) in 2000.

*3.- Would you make a difference between surtitles and captions? Why?*

Surtitles are meant for a hearing audience. They do not contain the names of the characters speaking/singing, any descriptions of the music or sound effects and repetitions tend to only be captioned once which would be confusing for the deaf audience who need to know what's being said or sung all the time.

*4.- The main purpose of your organization is to offer accessibility to the scenic arts for deaf and heard impaired? Which are the most demanding scenic art places? Why?*

It is the shows that are demanding not the places – so performances where we don't have much time to prepare or where there is not an electronic version of the script or a DVD of the performance for the captioner to rehearse with are problematic. It's also difficult when the actors don't stick to their lines, but then that's what live theatre is all about.

*5.- Does Stagertext has a captioning department?*

We are a very small organisation of 6 people – only 2 full-time, the other 4 work 3 days per week. Our purpose is to provide and advocate for captioning in theatre and speech-to-text in other arts and cultural settings. We also research and develop the technology and do a lot to increase awareness of the services among the people who could benefit.

The people who do the captioning for us are freelancers and not on staff.

- If yes, which are the main tasks of the department? Do you offer specific training for captioners for theater?

Please see the Powerpoint slide which I have attached which shows what we do.

We do have a training course for captioners and around 40 people in the UK are trained as theatre captioners.

- If not, do you outsource the captioning service? Do you provide any specific guidelines?

We don't outsource the captioning but we do help theatres to develop an in-house captioning service. We give them advice about equipment, marketing, scheduling and we train local people to be theatre captioners.

*6.- In which steps would you divide the captioning process of a performance? Which material do you receive for each play? How long does it take from the first step until the performance?*

The time from first step to the first performance really varies but really the captioner will begin trying to work on their script as soon as they are able to. The Powerpoint slide shows the steps we take. We receive an electronic copy of the script and a DVD of the performance for each show we do. The captioners will also see the performance at least twice to check their script against what the actors say.

*7.- Who is in charge of the caption projection during the performance: the captioner of the play or another person?*

The captioner is in charging of cuing the captions so they are delivered to the display at the right time. If it's a performance that STAGETEXT is captioning then we usually send along a technician to install the displays, but if the theatre has its own equipment then their technicians will be in charge.

*8.- Which system is used for the edition and performance of captions at the theater? Why did you choose it? Are you satisfied with it? Which improvements would you include?*

We developed our own bespoke theatre captioning software which we're really happy with. It can output to LED, LCD, data projector and over the web to a browser. Occasionally we think of new things we'd like it to be able to do, but at the moment we are quite satisfied with it.

We use LED displays for theatre performances as we find this is the most visible display technology around.

*9.- How many performance with captions does the theater plan per play?*

It really depends, but maybe one or two.

*10.- Which is the most difficult element in the creation of the captions? And the most common errors? Any examples from the professional experience?*

It's difficult when the actors don't know their lines or when an understudy plays a part for the captioned performance as different actors deliver the same lines differently. It's also difficult when theatre staff are not helpful or tolerant of the fact that deaf audiences need captioning in order to come to the performance.

*11.- In which percentage do theaters offer intralingual captions compared to the number of theatre plays in the UK?*

I'm sorry, I don't know the answer as a percentage. Around 110 theatres in the UK offer captioning, though some not very regularly.

*12.- Do the foreign plays offer the same captions as for the intralingual plays? If not, which are the main differences?*

Foreign plays would tend to offer surtitles which don't contain the additional information which captions include – see question 3.

*13.- Captions in theaters/ operas houses can be offered in two ways: open caption and close caption, which of both options do you consider more effective and why?*

Open captions are the most effective because:

- 1) No change in focus between the stage and reading the words
- 2) Users don't have to declare that they will be using the captions – important for people who aren't comfortable declaring their deafness
- 3) Users don't have to hold anything or wear anything which marks them out as "different"
- 4) Users can spend all their time watching the show rather than reading something that they are holding in their hands or on their laps

Closed captioning is effective for situations where the performance is moving around (promenade) and for which open captioning would be impossible.

*14.- In which element lies in the satisfaction of the captioner? Does the satisfaction of the captioner coincides with the satisfaction of the audience? And the director?*

Both – captioners feel happy when the audience leaves the show talking about the play not the captions and when the director feels that the captions have added rather than detracted from the show.

*15.- From your point of view, does the audience like captions?*

The deaf/HOH audience could not attend if it were not for the captions. The hearing audience is mainly tolerant of captions and actually finds them useful for understanding dialects/dense dialogue and for working out which character is which.

*16.- Do you consider that since theaters/operas offer captions the audience has increased?*

Yes. For popular shows we can have 50 to 150 deaf/HOH people attending each performance.

*17.- Do you consider that captions in opera are conceived for deaf and hearing-impaired audience? Why?*

Do you mean surtitles? If so, no, for the reasons outlined in question 3. If you mean captions in opera, then I would hope so if it provides the deaf audience with the missing information that they need.

*18.- Any ideas about how to improve the tasks of the captioner?*

Pay them more – the captioners feel they are paid too little and the theatres feel that captioning costs too much and both are right.

*19. In some videos posted in the Internet we can see that you use scrolling surtitles instead of block surtitles, why?*

With block captions it's very hard to get the timing right and to not pre-empt what the actors are saying. We don't use pop-on-pop-off surtitles because this can be more distracting for people not using the captions.

*20. How would you improve the projection? More lines? More characters? Another display?*

We hope to have a larger display soon for use in big auditoria. And it would be nice to have white LEDs rather than amber, but white LEDs are very expensive.

*21.- Please feel free to add any comment that you consider relevant for the study of the captions?*

I don't think I have anything further to add, but please do ask me more questions if I haven't been clear.

Thank you very much for your time and collaboration in this interview! We'll get back to you if the interview is accepted for publication!



### 8.5.6 Interview Fiach OBroin-Molloy – Equalities officer Fringe Festival, UK.

1.- *From your point of view which is the situation of the captioning in the scenic arts in your country?*

It is fairly limited. The equipment is costly and the provision of a captioner is also costly so companies tend to have only one captioned performance of a show run. However there is a commitment within the creative sector to make adaptations to content to allow people with disabilities to access it.

2.- *When did the Festival Fringe start working for the introduction of captions in the theatre performances and other live venues? Why this decision was adopted?*

There has been captioning at the fringe since the 1980s.

3.- *Would you make a difference between surtitles and captions? Why?*

Yes. Captioning is on a larger board. Sound effects, music and inference are indicated on the captioning equipment but they would not be in surtitles. Surtitles are normally for plays which are in languages other than English. We do advertise subtitled performances to Deaf, and hearing impaired audiences but this is always with the above caveat.

4.- *Does the equalities department at the Festival Fringe offer caption exclusively for deaf and hearing-impaired? Or captions are also conceived for newcomers and tourists? Why?*

Captioned performances are open to all.

5.- *Is the equalities department also responsible for the making of the surtitles?*

No. We do not have an input on the creative content of our Festival. We exist to facilitate, encourage and promote performers who choose to take part in the Edinburgh festival fringe. We can play a role in putting performers in contact with established and recognised providers of captioning services.

- *If yes, which are the main tasks of the department? Do you offer specific training for captioners for theater?*

N/A

- *If not, do you outsource the captioning service? Do you provide any specific guidelines?*

There is an established training course in the UK which is run in England for people hoping to become captioners. We would normally suggest that a person sources services from a qualified captioner.

6.- *In which steps would you divide the captioning process of a performance? Which material do you receive for each play? How long does it take from the first step until the performance?*

N/A

7.- *Who is in charge of the caption projection during the performance: the captioner of the play or another person?*

The Federation of Scottish theatres has captioning equipment which was secured through a grant from the Scottish Arts Council. This is loaned to theatres and companies for free but they must pay the costs of their open captioner.

8.- *Which system is used for the edition and performance of captions at the theater? Why did you choose it? Are you satisfied with it? Which improvements would you include?*

Unknown.

*9.- How do you make the selection of the plays that will be captioned?*

We do not choose. The performers choose to have the service.

*10.- How many performances with captions does the festival plan per play? Why?*

Normally no more than two for captioning. If the show is subtitled it will have subtitles for all performances.

*11.- From the performances planned in the program which percentage is with intralingual captions (English play with English subtitles), with interlingual captions (foreign play with English subtitles) and without captions?*

No answer

*12.- Do the foreign plays offer the same captions as for the intralingual plays? If not, which are the main differences?*

No sure I understand this question

*13.- Captions in theaters/ operas houses can be offered in two ways: open caption and close caption, which of both options do you consider more effective and why?*

We do not take a position on this and allow our performers to decide.

*14.- Does the satisfaction of the equalities department coincides with the satisfaction of the audience? And the director?*

Not sure I understand this question.

*15.- From your point of view, does the audience like captions?*

Yes we get many enquiries about our captioned performances from disabled audience members.

*16.- Do you consider that since the festival offer captions the audience has increased?*

We have, until now had no way of measuring the audience of our captioned performances. We have certainly seen year on year growth in our ticket sales in general having sold 1.9 million last year.

*17. How would you improve the projection? More lines? More characters? Another display?*

We do not have control over the captioning equipment. However we would like to see more adaptable equipment which could be used in some of our smaller venues and could output onto any screen rather than a specific captioning screen.

*18.- Please feel free to add any comment that you consider relevant for the study of the captions?*

Thank you very much for your time and collaboration in this interview! We'll get back to you if the interview is accepted for publication!

### 8.5.7 Entrevista Pep Gatell – La Fura dels Baus, Espanya

1.- *Quan es van començar a utilitzar sobretítols a la Fura dels Baus? Per quina raó?*

La primera experiencia con subtítulos es en el MTM 1994 cuando en el espectáculo hay una presencia abrumadora de una pantalla de video que articula una parte de la dramaturgia, es en esta pantalla, donde por primera vez se puede hablar de una subtítulo del texto pues aún no usamos texto hablado en nuestro espectáculo, pero si de unos textos que acompañan y clarifican las acciones desarrolladas por los actores que el público lee en la pantalla. O sea que cumplen una función casi de subtítulo. Esto se repetirá una vez usado en MTM en casi todos los siguientes espectáculos de lenguaje furero y en las óperas. En aquellos que en general usan el vídeo como disciplina y usan imágenes pregrabadas o circuitos de cámaras en directo. Si hablamos de un subtítulo al uso es ya en la cantata del Martirio de San Sebastián 1997 de Claude Debussy que se crean unos textos (Guillem Martínez) para el personaje del narrador en la adaptación del libreto de D'Annunzio y que al hacer gira fuera de España se han de subtítulo.

2.- *El procés de sobretitulació s'elabora dins de la propia companyia o s'encarrega a una persona o companyia externa?*

En principio y hasta ahora como siempre hemos elaborado nuestras puestas en escena se han hecho desde dentro de la Cía. Sólo cuando los libretos están en húngaro o en algún idioma que desconocemos absolutamente necesitamos de un colaborador externo, pero acaba siempre diseñando los textos en función de lo que pasa en escena.

3.- *Quan temps transcorre des de l'encàrrec dels sobretítols fins a la representació de l'obra? Quins són els principals processos de la creació dels sobretítols? Quin material s'entrega a la persona encarregada dels sobretítols?*

Los subtítulos se empiezan a desarrollar una vez la puesta en escena está clara y sabemos lo que ocurre, esto a veces no está listo hasta los últimos momentos antes del estreno. Siempre en los últimos ensayos ya hay una persona atenta a los que se dice y cuando se dice en escena. Esta persona tiene una escaleta de guión tanto técnico como artístico en el que irá variando los lanzamientos según lo que se vaya cambiando en escena.

4.- *Considera que es pot diferenciar entre traductor de teatre i sobretitulador? I entre sobretítols d'òpera i de teatre? En cas afirmatiu, quines diferències destacaria?*

El traductor de teatro debe tener una idea muy profunda de la dramaturgia para entrever los subtextos de la obra y que no pierda la esencia del libreto original. En cambio el subtítulo trabaja siempre para una adaptación del texto. Para él lo importante es saber poner los textos consecuentemente a la adaptación que tiene delante, por lo tanto su labor es completamente distinta. A veces tendrá que cortar aquellos textos que implícitamente se entiendan y buscar que no explica el entorno y decidir que parte del texto aunque no coincida con el texto hablado explique el argumento de forma sencilla. A veces los ritmos de lectura y de dicción son inencajables. Es aquí donde reside un buen trabajo del subtítulo. Que muchas veces tendrá que hablarlo directamente con el director de la obra.

5.- *Qui és la persona encarregada de la projecció dels sobretítols durant la representació de l'obra, el traductor o una altra persona?*

Eso depende del material utilizado. Si hay un técnico de video que lanza proyecciones y los subtítulos van incrustados en el video será el propio técnico, En caso de que estéticamente vayan separados y los subtítulos salgan por una pantalla independiente, un subtítulo que entienda los dos idiomas.

*6.- Quin és el sistema utilitzat per l'edició: i projecció dels sobretítols? Per què es va escollir? Estàs satisfet amb el sistema? Quins aspectes d'aquest sistema considera millorables?*

En cuanto a la edición un Word power point – el editor de pantallas de leds – programación en el qlab

En cuanto a la proyección para cada ocasión hemos utilizado sistemas distintos: Pantalla de Leds – Pantalla de video normal. Pantallas de agua. Equipo persona-persona en los teatros que lo tienen instalados. Incrustado en nuestros propios videos editados con ese fin. etc... No siempre puedes escoger en los teatros cada uno lanza los subtítulos en un formato y son reacios a cambiar abogando que su público está acostumbrado a su formato.

Hay sistemas mejores que otros. Yo creo que el mejor es cuando está pensado e integrado en la puesta en escena, pero a veces se crea una obra sin pensar en su traducción subtitulada y acabas siempre con sistemas convencionales. Si tengo que escoger alguno de ellos el mejor sin duda es el display personal pues no irrumpe estéticamente en el escenario y es bastante cómodo para el público.

Supongo que las nuevas tecnologías son las que nos darán la respuesta ojala estuvieran a disposición unas gafas polarizadas para ver el espectáculo y los subtítulos al mismo tiempo así no nos perderíamos nada.

*7.- Quantes representacions d'una mateixa obra amb sobretítols s'ofereixen? Es realitza alguna modificació de la primera versió de sobretítols o sempre es treballa amb la versió inicial? Segueixen el mateix procediment en teatre que en òpera?*

Si he entendido bien la pregunta, eso depende del éxito de cada una en el mercado y depende también de los coproductores etc... no hay un número.

Si no hay cambios en la representación no hay porqué modificar los subtítulos a no ser que veamos una equivocación. A veces ha ocurrido que otro traductor nos hace alguna rectificación para mejor entendimiento de alguna palabra. En principio las óperas al uso con libreto y partitura clásica no tienen cambios. En teatro siempre estamos variando más pues al ser cosecha de casa siempre tendemos a intentar mejorar.

*8.- En la creació dels sobretítols s'inclou informació no verbal pel públic sord o amb deficiències auditives? En cas negatiu, per quina raó?*

En principio, no. La razón es sencillamente porque en el proceso no contamos con alguien experto en la materia y otra razón es muchas veces por presupuesto. Algunas por tiempo.

*9.- Quin és l'element més difícil en la creació dels sobretítols? Quins són els errors més comuns?*

Sincronizar la actividad física con el discurso escrito. Otro tema importantísimo es la estética y la facilidad de lectura, o están demasiado arriba o demasiado abajo para tener una visión general que recoja todos los detalles escénicos y los subtitulados. Las ironías del subtexto a veces quedan en el aire.

*10.- En el cas que l'obra sigui una adaptació moderna d'un clàssic, s'adapta una traducció existent o es tradueix el text de nou? En el cas que existeixin dues traduccions de la mateixa obra per quins motius s'opta per una de les dues?*

Siempre manda la puesta en escena y la adaptación de la obra casi siempre son los textos de los actores los que se sobretitulan y no el original.

*11.- Si l'original és en vers i rima quina és la seva opció com a director per els sobretítols?*

En este caso casi siempre se conserva la rima pues el componente poético no debe perderse.

12.- *En el cas de corpus canònic, com ara "Titus Andrònic" de Shakespeare els sobretítols han de mantenir el llenguatge original, o s'adapta a la llengua "actual"?*

Cuando vamos al extranjero al tener un ritmo trepidante y tener cuatro pantallas que rodean al espectador los sobretitulados no tienen espacio. Por tanto en cada acto damos una explicación de lo que acontecerá y usamos así un lenguaje parecido al cómic, una explicación y después unas viñetas sin texto, que puedes seguir gracias a lo que has leído a priori.

13.- *En quin element rau la satisfacció de l'espectador?*

En poder seguir la obra que sin los subtítulos hubiera perdido el hilo y de esta manera el interés por el desarrollo de la obra. Agradece que los subtítulos sean una línea dramática que le guíe durante la representación.

14. *Coincideix la satisfacció de l'espectador amb la del director? I amb el responsable de projectar els sobretítols?*

Así debería ser

15.- *En opera s'ofereix un libretto als espectadors, en el seu cas de les òperes de la Fura dels Baus també és així? En cas afirmatiu, quina és el pes d'aquest text en el resultat final dels sobretítols? O considera que els sobretítols han de reflectir el que està succeïnt a l'escenari? Per què?*

Sí, en el libreto se explica desde que punto de vista se ha desarrollado todo el trabajo de concepción de la obra, en nuestros libretos casi siempre se pone el texto que se ha usado en la obra que se está a punto de mostrar, ya sea adaptación u obra original. Hay obras que se distancian del original porque a veces se empiezan por el final, o se interpretan en un futuro lejano o se descontextualizan del ambiente inicial. Los subtítulos en estas ocasiones reflejan lo que sucede en escena.

Los subtítulos son una herramienta de comprensión más. Si la usamos en contra de lo que sucede en escena estamos obligando o direccionando al espectador en una percepción que nos irá en contra es obvio.

16.- *Ofereixen obres amb sobretítols intralingües o són sempre sobretítols en un altre idioma que el de l'escenari?*

Hay partituras complicadas que el libretista debe afrontar separando a veces mucho las palabras e incluso las sílabas para que cuadren con la música. En estos casos como en La hija del Cielo 2007 se subtituló en castellano y los cantantes cantaban en castellano.

17.- *Els sobretítols es poden oferir en obert com a part de l'escenari, però també en tancat mitjançant l'ús d'un display personal, quina de les dues opcions considera més efectiva i per quina raó?*

Dependerá si el director quiere integrar la pantalla de los subtítulos, esto lo tienes generalmente en cuenta cuando estás haciendo una obra que los cantantes hablan Húngaro: El Castillo de Barba Azul 2008 y lo vas a representar en Francia, durante la realización y concepción es algo que ya tienes presente. En general si no es este caso o parecido lo mejor son los displays personales, creo que son muy cómodos.

18.- *Creu que els sobretítols agraden al públic? Quina és la reacció del públic vers les obres sobretitulades?*

En general creo que el público agradece que haya subtítulos, en cuanto a su lectura hay muchas personas que conocen la obra y que leen poco y otras que no se pierden uno, es una opción muy personal, y cada obra te pide una u otra cosa.

*19.- Creu que els sobretítols agraden a la companyia? Quins són els comentaris més comuns per part del director de l'obra?*

Por norma la compañía está inmersa en su propio trabajo y pocas veces se preocupan por los subtítulos pues casi nunca les afectan de una forma directa. El director ha de confiar plenamente en el subtitulador, pues muchas veces carece de la comprensión del idioma al cual se está traduciendo la obra, siempre han de repasar los textos casi al final de la realización de la puesta en escena y ver si cada uno de ellos corresponde exactamente con lo que está pasando en escena, y el momento exacto en que se lanzan. Es una tarea de los dos. Director y subtitulador, no se puede dejar en manos de nadie más. Tiene que comprender el subtitulador todos los entresijos de la obra para poder adelantarse o retrasarse en función de las acciones de los intérpretes no puede ser en ningún caso una ejecución mecánica. El subtitulador es un intérprete más de la obra y ha de vibrar en la misma dirección.

*20.- El fet d'incloure sobretítols ha influït en el nombre d'espectadors a les seves funcions? I la projecció de la companyia a nivell internacional?*

Suponemos que sí, pero no tenemos datos que lo puedan confirmar, al no haber elaborado encuesta alguna al respecto con el público asistente.

*21.- La Fura dels Baus s'ha plantejat mai doblar alguna obra?*

Sí, siempre que ha sido necesario, hemos doblado nuestros textos a idiomas extranjeros para mejor entendimiento. Ya haya sido en texto hablado, proyectado o en cualquiera de los formatos de texto utilizados.

*22.- Quins països dels que han actuat han trobat una millor preparació i acceptació dels sobretítols?*

Todos aquellos países que en el cine no doblan las películas al idioma oficial si están hechas en otro idioma le ponen subtítulos y se ven en general en version original, al contrario de España en donde si quieres ver la versión original has de ir a cines especializados.

*23.- Té idees de com millorar la tasca del traductor?*

*24.- Respecte a la tasca de llençament quines millores inclouria?*

*25.- Com es podria millorar la projecció? Més línies? Més caracters? Un altre display?*

*26.- Agraïm qualsevol comentari adicional que consideri rellevant en l'estudi de la sobretitulació. MOLTES GRÀCIES PER LA COL·LABORACIÓ!*

### 8.5.8 Interview Elke Janssens – Needcompany, Belgium

1.- *When did you start using surtitles? And which was the reason?*

Early 90s. We start using them to get closer to the audience, because we usually use different languages in the same theatre piece.

2.- *How did you manage the surtitling process: do you have a responsible in the company? Do you outsource the surtitling process to a specialized company, to a freelance translator or to another specialist?*

Since I am the artistic coordinator, I am always responsible for the surtitles. We work close with the different translators or freelancers in each country where we play.

3.- *Could you let us know which are the main differences between a surtitler and a translator? And how about the differences between subtitles and surtitles?*

Unknown

4.- *How long does it take from ordering the surtitles until the performance? How many steps are in between the process? Which material do you provide to the person in charge of making the surtitles? Do you make the segmentation or is part of the surtitling work?*

5.- *Who is in charge of the surtitling projection during the performance: the translator of the play or another person?*

Myself and another person Eva.

6.- *Which is the system used by your company for the editing and performance process of the play? Why did you choose it? Are you satisfied with it? Which improvements would you include?*

We use supertitles. Because we consider that it is the best that we have tried. Yes we are very satisfied. No improvements need for the moment.

7.- *How many performances with surtitles do you plan per play? Is there any modification from the first version of the surtitles or the master version is always kept?*

The number of performances depends on the year. We always make modifications.

8.- *Which is the most difficult element in the creation of surtitles? And the most common errors?*

To keep the same prosody of the actors in the text is very difficult. For me the typing mistakes are worst than keeping synchronicity.

9.- *In the case of canonical corpus do you consider that surtitles should maintain the original language style or change to “current language”?*

We do not work with canonical corpora only with Jan texts (the company's director)

10.- *Do you also include non verbal information for the deaf and hard of hearing people? Why?*

Not yet

11.- *From your point of view, does the audience like the surtitles?*

They always appreciate them to follow the play.

*12. In which elements lies the satisfaction of the surtiller? Does the satisfaction of the surtiller coincide with the satisfaction of the audience? And with the director?*

The satisfaction lies in hitting in the right moment. The audience is usually very satisfied. The director follows every step of the surtitling process.

*13.- Do you consider that since you offer surtitles the audience has increased?*

Yes.

*14. Any ideas about how to improve the tasks of the translator?*

With good translators is always about money.

*15. And how to improve the launch of surtitles?*

Better projectors.

*16. How would you improve the projection? More lines? More characters? Another display?*

It always depends on the needs of the audience.

*17.- Which of the visited countries do you consider that is most aware or prepared for the acceptance of the surtitles?*

It depends on the country for instance in Belgium and the Netherlands the audience is very used to surtitles.

Thank you very much for your time and collaboration in this interview. We'll get back to you with news regarding the possible publication.



**8.6 Annex VI: Publications.**

**8.6.1 Annex: “All Together Now: A multi-language and multi-system mobile application to make live performing arts accessible”**

**8.6.2 Annex: “The tyranny of the tool: Surtitling live performances”**

**8.6.3 Annex: “The Process of Subtitling at Film Festivals: Death in Venice?”**

## **All Together Now: A multi-language and multi-system mobile application to make live performing arts accessible<sup>1</sup>**

**Estel·la Oncins, Oscar Lopes, Pilar Orero, Javier Serrano, Universitat Autònoma de Barcelona<sup>2</sup>**

### **ABSTRACT**

Stage performances are usually live performances. These days, theatre or opera may be staged anywhere from the traditional seating arrangement to a popular open air representation where actors and audience move in a dynamic open *mise en scène*. In some theatre houses, accessibility to the audio (subtitles) and visual elements of the performances (audio description) has been arranged through the installation of screens on the back of seats, or through the projection of surtitles on a large screen usually located above the stage. In some cases, both practices coexist to show in written form what is being spoken or sung, translated into the vernacular, and audio described to provide a user-friendly representation.

Surtitles, subtitles, audio description, audio subtitling and some other accessible services are being increasingly required by European Directives relating to media content. Yet many barriers still make accessibility an almost utopian ideal. Intelligent mobile phones and the widespread availability of applications may be the way to solve access to live performances, and this is the subject of this paper. The article will first present the many challenges that exist in a live production where synchronous accessibility should be provided. It then presents the system – Universal Access System (UAS) – which has been developed to deliver most accessibility services for live performances via a mobile application.

### **KEYWORDS**

Accessibility, scenic arts, mobile application, live performance, Opera, Theatre.

## **1. The challenges of live accessibility**

All media present accessibility needs, and the practical means and services available differ according to numerous variables. To name three: the content to be made accessible, the formats in which the media is digitised, and the location where the event is taking place. From the user's perspective, there are two very different ways to receive an access service: open and closed. The former is when all users, regardless of their needs, receive an access service, for example the surtitling in an opera house projected at the top of the proscenium (see Figure 1). Access services can also be 'closed,' which is when the service will only be activated at the user's command. Many services can be available concurrently, but the user decides which to access. This is the case for the wide choice of accessible services on offer in Digital TV, Internet Protocol Television (IP TV) and Hybrid Broadcast Broadband TV (HbbTV) with subtitling for the deaf and hard of hearing (SDH) or audio description, or audio subtitles, or sign language<sup>3</sup>.

Apart from the challenges posed by making the actual content accessible — the multisemiotic translation of the audio into written form, and of the visual into audio — many issues have to be considered in order to deliver accessible content for all in real time. Drafting a comprehensive and robust taxonomy is an almost impossible task; to move forward and find solutions we have therefore categorised a list of obstacles under four headings: audio and visual channels, time, cost, and technology. These four headings have been taken into consideration when drafting the “Universal Accessible System” (UAS) requirements for making live events accessible.

### **(a) Audio and visual channels**

Both channels, with their semiotic implications, must be represented in a new code in a different system and for different audiences, which can be broadly divided into two groups: sensory- and linguistically-impaired audiences (Oncins *forthcoming*). In the first group two communities can be identified: deaf and hearing-impaired<sup>4</sup> and blind and visually-impaired audiences. A common barrier for deaf and hearing-impaired audiences when attending a stage performance is, for example, when a telephone rings on the stage in a play; not only does what is said by the characters have to be subtitled, but some written annotation is also necessary to inform the audience what can be heard. Likewise, for blind and visually-impaired audiences if, in an operatic production, the lights turn red, blue and white and are reflected onto the background to form the French flag, this visual clue has to be relayed by audio to the visually-impaired patrons (VIPs). On the other hand, in the case of linguistically-impaired audiences, beyond symbolic languages like colour, or lighting (Maszerowska 2012), movement or music (Corral and Lladó 2011), actual languages, such as German, may also become a barrier if used, for example, in a play in Wales. When talking about accessibility, we should also take into consideration the comprehension of different languages and different writing systems. An opera could be being performed in language X (for the purposes of this example, let us say Russian) and need subtitling in language Y (for our example, let us say Danish) to make it accessible to those who do not understand the source language. In this case, with Danish subtitles for Russian opera singing, VIPs will also need audio subtitles to be able to follow the performance. For opera, theatre and film festivals, this solution is a common standard modality: open subtitles which everyone can see. In some film festivals, such as the Locarno International Film Festival in Switzerland, up to three different sets of subtitles are projected for three different languages (English, Italian and German). Hence, creating a system which could offer both written and audio information was the first priority when designing the UAS.

## **(b) Time**

Synchronicity is a key issue, and perhaps the one which poses the greatest challenge: live or recorded is the key challenge. Synchronicity has a direct implication, and is a much debated topic in relation to subtitling and SDH. Live subtitles produced by re-speaking (Romero-Fresco 2011) and their mode of display and the delay (Romero-Fresco and Martínez Pérez *forthcoming*) are the focus of much discussion by world-wide media access standardisation bodies such as the ITU. It is also a recurrent topic in the popular press, since some errors produce amusing utterances<sup>5</sup>. Aside from technical problems, delivering AD in real time during a stage performance presents the additional challenge of unexpected changes or improvisations. Additionally, in the case of opera the singer might vary the rhythm and therefore start singing following a silence (Cabeza i Cáceres 2011: 230 ). Attempting to devise a system which synchronises the delivery of different media services (SDH and AD) was also a priority.

## **(c) Cost**

Producing, delivering, broadcasting and consuming content has a cost which, in live productions, calls into question the viability of access services. The need to offer AD or SDH for an F1 race or a live football match is often queried. Should the number of expected users be taken into consideration in order to prioritise access services? If media access becomes a legally binding requirement in publicly funded institutions, cost will probably be the priority. When delivering subtitles and AD at a live performance, at least one operator is required for each service. The UAS system was also designed to optimise multimodal delivery of content by a single operator.

## **d) Technology**

This group comprises the many technological solutions which go hand in hand with the different stages in the chain of producing, encrypting, encoding, broadcasting, receiving and delivering content. Explaining how the UAS system was designed to offer one solution which could solve many problems is the aim of this article.

## **2. What is currently available**

Though electronic media may be considered a new development, theatre and opera have been around for centuries. However, only recently has the technology been available to produce and project surtitles — or supertitles/subtitles — in live productions (Burton 2009, Matamala and Orero 2007, Weaver 2010). Whilst subtitles for language accessibility in the cinema have a long history, the first projections of surtitles in opera and theatre were made in the early 1980s (Desblache 2007: 163). More

recently, they have also appeared in festivals. Whilst subtitles or surtitles (as in Figure 1) were projected, nowadays different displays are also available.



**Figure 1. Surtitles or supertitles of the performance *Die Zauberflöte* (2012) at the Grand Teatre de Liceu, Barcelona, Spain.**

Some opera houses also offer surtitles in different formats, such as the small screens available at the Barcelona opera house, Grand Teatre del Liceu (Figure 2).



**Figure 2. Different screens available at the Grand Teatre del Liceu, Barcelona, Spain.**

Other services such as AD are a very new development and have not yet become widely established. Live audio subtitling is less common still, and to our knowledge is only offered at the Liceu Opera House in Barcelona as part of the AD service (Orero 2007: 141).

The use of surtitles in the performing arts has increased considerably (Mateo 2007: 137). However, when we searched for standards, a guide of good practice or guidelines on the process of making and delivering surtitles, we found that there is no clear consensus amongst the different

professionals. There are several accessibility solutions, associated with different manufacturers, and the service that theatres and opera houses offer very much depends on their technology and its capacity to deliver. If a theatre does not have the necessary equipment and system in place to deliver AD, a costly investment is required either to replace the existing subtitling system, or to add or rent a new system and equipment with the concomitant rental or maintenance costs.

Since most theatre houses and almost every opera houses have their own system for delivering surtitles, they follow a practically customised process of creating media access services, which sometimes does not coincide with the director's decisions, needs or taste (Udo and Fels 2009, 2010). The surtiller may also disagree with the result, but little can be changed when the available system does not allow for any updating.

New mobile phone technology is ubiquitous and has also entered cinemas and theatres. The displaying of access services is beginning to be available as inhouse technology, such as the iPhone subtiller in Figure 3.



**Figure 3. iPhone subtitles.**

The existing iPhone subtitling service<sup>6</sup> and its applications show the many possibilities on offer for recorded performances, as is the case with Moviereading<sup>7</sup> (see Figure 4). This is an application for Apple, Android and Samsung smartphones created by an Italian company, which is already available in some Italian film theatres. The application synchronises the subtitles with the audio from the film at any given time through speech recognition. Recently, the audio description function has also been included in this application.



**Figure 4. Moviereading.**

Not only do all these applications provide media access, but they also offer an important opportunity for testing issues related to reception, user interaction and the quality of the experience, since the split attention between subtitle and film screen is perhaps the biggest deterrent.

Moving from the display of access services to the creation of content to be displayed, an analysis of the market was also undertaken in order to understand what is available and which services manufacturers had yet to cover.

While many subtitling software programmes are currently available, the choice for use in live performances is limited. This is mainly due to the fact that creating subtitles in a pre-determined format has a direct impact on the way they will be broadcast and displayed.

In Table 1 below, we enumerate the most popular software used in theatres and opera houses across Europe and list the many services which are also offered.

Product Name	Description	Multilanguage platform	Speed regulation (fade-in/out)	Close Caption	Supports Audio
<b>Figaro</b>	Mainly used in operas. Displays both open and close captions in seatbacks (wired system) and also on smartphones (wireless system).	Yes	Yes	Yes*	No
<b>Viacom</b>	Used in operas and theatres. Displays both open and close captions only in seatbacks (wired system).	Yes	Yes	Yes	No
<b>Opera Voice</b>	Used in operas, theatres and concerts. Available for Apple and Android (wireless system)	Yes	No	Yes	No
<b>Proscenio Naotek</b>	Used mainly in theatre houses and festivals, only with their own LED screens (open captions) receiving content through a wired network.	No	No	No	No
<b>Supertitles</b>	Used mainly in theatre houses and festivals. Allows content creation and delivery in open caption.	Yes	No	No	No
<b>Airscript</b>	A handset which operates wirelessly mainly used in theatre houses. This system allows the inclusion of information for the deaf and hearing impaired audience and is also multilanguage.	Yes	No	Yes	No

\*Currently only available for Apple.

**Table 1. List of software subtitling programmes.**

As is evident in the previous table, there is no commercial software available which integrates both SDH and ADs, and allows for the creation

and sending of AD files to the audience by means of a wireless system. Furthermore, at present, users who wish to receive AD have to resort to either receiving it through headphones using infrared technology or an FM transmitter — the same system for receiving a translation during a conference or meeting — or sitting in specific seats where an audio input jack can be inserted in order to receive the AD through wired facilities (Matamala and Orero 2007). An additional problem is that most of the systems listed in Table 1 require the technical services and support of the manufacturer or are linked to the manufacturer's own devices or services, which increases the costs of making and staging the performance.

At the time of writing this article, and while designing and creating our own system, there is no commercially available solution which can create and deliver AD, SDH and audio subtitles for live performances. It is worth noting that, whilst systems seem to be able to cope with the creation and display of SDH, opera and theatre houses have resorted to generating subtitles, not SDH<sup>8</sup>, for all audiences. As Oncins (*forthcoming*) explains, accessibility to live performances has been mainly conceived to break down linguistic barriers through transmitting a foreign language production on stage into another language. However, when dealing with deaf and hearing-impaired audiences, extra linguistic information has to be provided because they depend more fully on the access to non-verbal information.

### **3. Drafting and editing scripts**

When the linear development of access content creation is followed, translation is the very first step. A new text should be adapted from other languages through translation or intralingual translation. In the case of the latter, the many features which characterise SDH should be added. To date, there is no automatic software to translate subtitles, though it is only a matter of time before such a facility exists since there is a European project SUMAT: An Online Service for SUBtitled by MACHine<sup>9</sup> which should aid development in this direction.

As with everything related to AD, this area enjoys less popularity and interest on the part of industry and academia than subtitling. The creation of AD and SDH depends on human production, which has a cost in terms of both time and money.

### **4. A universal solution to live media access**

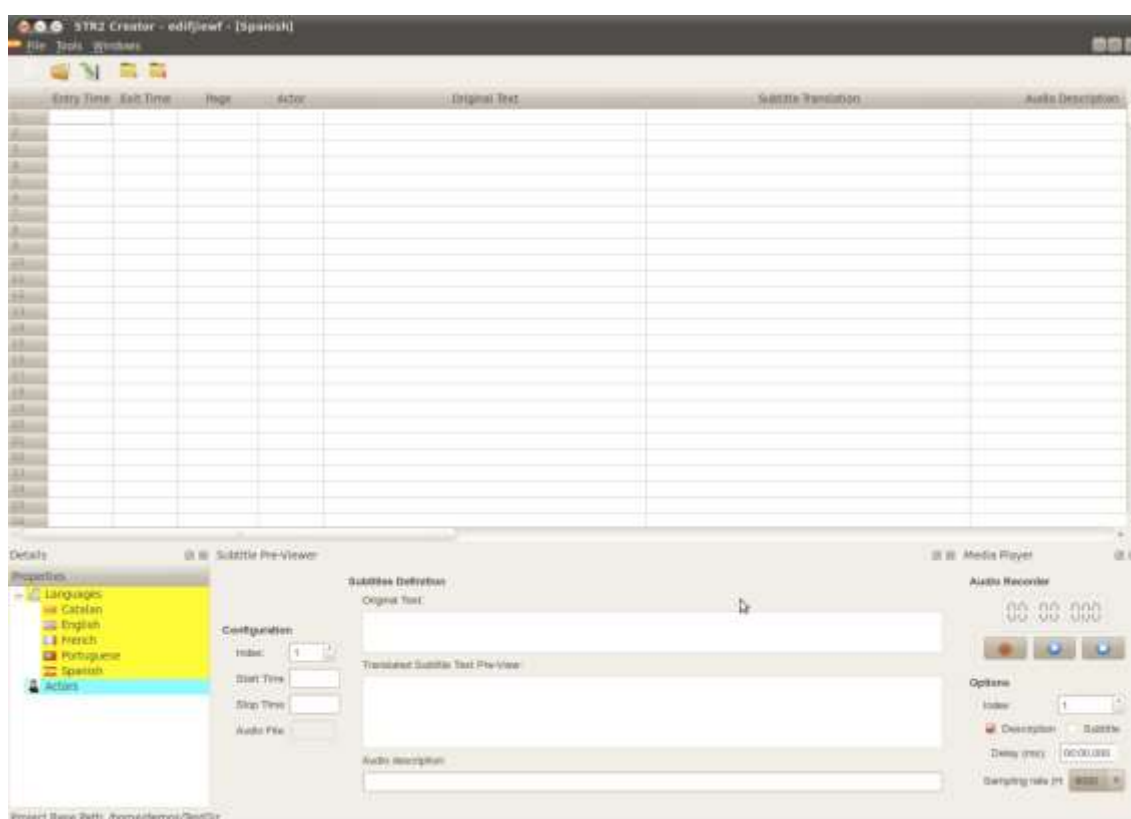
Since there is no system which is comprehensive in terms of services, languages etc., we decided in 2011 to embark on the creation of a universal system for media access: UAS.

The system has been designed to offer the following access services:



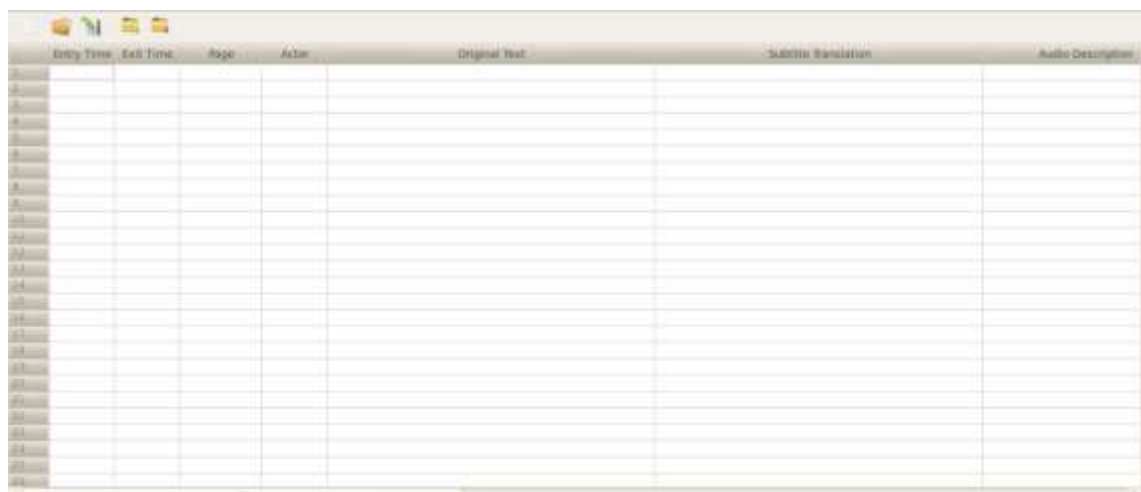
1. Subtitling: multilanguage subtitling and SDH.
2. Audio description: multilanguage AD.
3. Spoken subtitles: through speech synthesis: subtitles --> voiced subtitles.
4. Automatic AD: through speech synthesis: AD text --> voice to create AD in an automatic mode.
5. Delivery of spoken subtitles and the whole performance or AD through VoIP for those who use hearing aids.
6. Emergency pack: which adds a pre-recorded sign language for some emergency messages to all these previous services, since sign language is usually delivered live, and the interpreter may not have access to the message. The emergency will also activate the vibration mode on the mobile phone to alert deaf users to the incoming information.

The interface designed by our team has the following features for creating content (Figure 5):



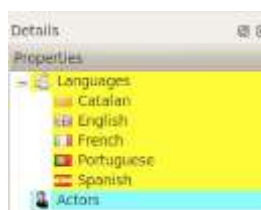
**Figure 5. System interface for editing text.**

The page has been divided in two main horizontal areas. The top resembles an Excel document displaying five columns: page, author, original text, subtitle, and audio description.



**Figure 6. The top part of the interface.**

The functions to create the text for the columns can be found in the lower part of the screen; in the bottom left corner there is a window dealing with two functions: languages and character identification.



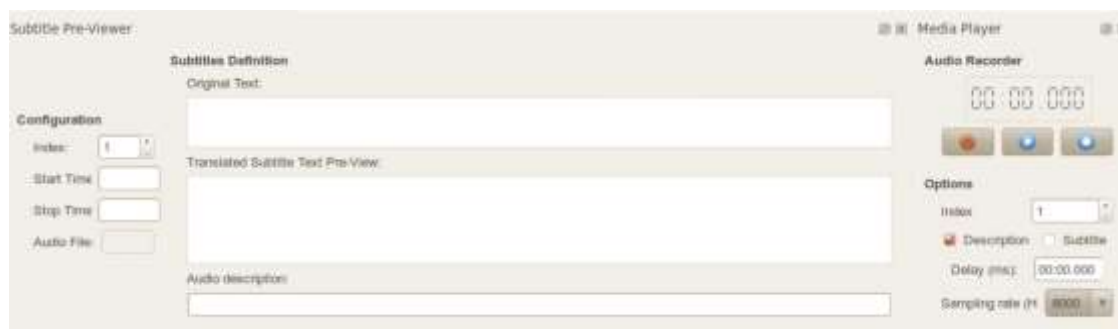
**Figure 7. Section of the interface for language and character identification.**

The UAS system will store as many language files as required, with the possibility of choosing different language writing systems, such as Japanese. Here we can also pair characters with the subtitle colour which is identified when projected, as shown below in Figure 8, where two characters are speaking to each other and are individually identified by either white or yellow.



**Figure 8. Character identification by colour in subtitles.**

The centre of the lower part of the screen is used to create three different services: the original language subtitle in the first window, its translation in the second window and the AD in the third.



**Figure 9. Section of the interface for creating texts.**

It is important to understand that, even if a Shakespeare play is being represented, the original canonic text is adapted for subtitles, and hence subtitles are created for the source subtitles and their many possible translations.

With regard to AD, the UAS system has been designed to create a dependency of the AD text on the subtitles. This does not mean AD is created without taking dialogue into consideration; this 'dependency' has been created for delivery purposes only. AD content is created and recorded in the same way as it is traditionally done for live performances. This is perhaps one of the most interesting developments of the UAS. The concept which inspired this dependency is that AD is usually never delivered when meaningful audio can be heard; in short, the AD is complementary to the subtitles. When entering the venue the patron will select subtitling, audio subtitling or AD. This fact allows the use of a single product to provide accessibility services to both audiences: deaf and hard-of-hearing and blind and visually impaired. To achieve this aim, we have automated the delivery of AD. At the end of certain subtitles, there will be a period of silence — a time void of dialogue — allowing the AD to be delivered. In other words, certain subtitles are tagged to deliver the previously prepared AD. This fact facilitates the task of the system operator, allowing him/her to use SDH as a point of reference while providing also AD.

Once the texts are ready, they are stored in cloud format or on the PC which will later be used to deliver the scripts.

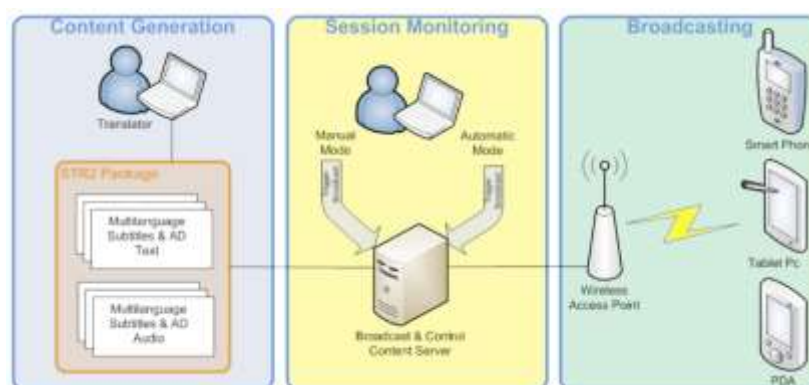
## **5. System architecture**

The system designed has an architecture comprising three elements (see Figure 9): a content server, a Wi-Fi network and mobile Internet devices (MID).

The content server stores the files containing subtitles, SDH or AD in as many languages as necessary, including in languages with different

alphabets. It allows the operator to start a new session and to launch files containing content accordingly. It is also possible to launch advertising material during breaks.

The server, using the Wi-Fi network, distributes content to the MIDs around the theatre. The MIDs must have installed an application specially developed to interact with the content server. At the beginning of the performance, users choose from a list of available languages and services. The choice of language is for both the application interface and for the content.



**Figure 10. System architecture.**

The system has been designed to allow access content to be displayed in any operating system, such as on Android, iOS and in any existing screen format, such as Smartphones, Tablets or iPads, with Internet connectivity.

## 6. Data storage

The content generated by the application for each language is then stored in an XML format file, with a well-defined structure. Each file contains all the subtitling and audio description information (both written and spoken) presented in the language tables (Figure 4).

Finally, the application compresses, packages and exports all these pieces of content into a single file for ease of handling by the operator. This approach means that it is faster and easier to set up the real-time broadcasting service, avoiding possible errors due to missing or misplaced files.

## 7. Real time delivery of services

Once all the files have been stored, and the performance begins, one operator manages all the services. This has been achieved through cueing AD to subtitle time codes.

Given the fact that each performance is different, 'real-life' accessibility services will always be exposed to unexpected changes, thereby leading to surprises even if the professional involved has attended rehearsals or previews or has received a recorded DVD of the stage performance. As Griesel (2009: 123) points out: "In the real translation situation when the performance is shown on stage, the source text can change. There might be improvisations and the translator has to react spontaneously as in an interpreting situation." This means that it is impossible to know, with any level of accuracy, the exact length of any silence gap for AD<sup>10</sup>. Thus, even if a real person were to deliver the AD, the same state of uncertainty regarding the silence span will exist. Taking this into consideration, the possibility of linking AD files to the end of subtitles offers the possibility of optimising delivery, allowing several access services to coexist with just a single operator present.

While AD and subtitles or surtitles are standard services, speech technologies also allow for automatic delivery of spoken subtitles. Such services should be offered for two important reasons. The first is that visually impaired patrons (VIPs) and those with low reading proficiency have the opportunity to listen to subtitles. The second is to avoid the split attention of the user, since having simultaneously to read from a handheld mobile application and look up at the stage may cause fatigue.

Since technology allows for sound to be delivered through VoIP to those with hearing aids via Wi-Fi, this service — which falls under the category of audio subtitling — has also been included.

Finally, the emergency service comprises a finite group of messages, for example "Fire in the theatre. Please evacuate" or "The car with the registration no. XYZ should be removed from the fire exit." Messages are also sent using haptic communication through the vibration of the mobile device. This additional system of communication has been introduced particularly for deaf and hearing-impaired audiences, who usually communicate through sign language. These emergency messages are previously agreed with the management of the venue and will be delivered independently from the access files created for the performance. Delivery is both through written subtitles, and also in sign language, through the use of avatars, which are animations in the form of artificial 2D or 3D characters.

## **8. Reception**

The patron can download the application, together with the emergency files, onto their smartphone beforehand or once seated in the theatre. The system has been created with the possibility of offering a carousel of promotions and advertisements, and also information regarding the theatre or opera production, which may be the first screen the user sees in real time. Once the language and services have been chosen, the

operator delivers the services, avoiding the need to synchronise each individual service, since only one file is delivered.

A black background has been chosen for the screen, and the default colour of the subtitles is orange rather than white. This is to avoid excessive luminosity to maximise readability, and battery performance. However, the system may also deliver colour-coded subtitles if files have been created in this mode.

The following additional features of the system, of particular interest to the professional, should be considered:

- It supports all major subtitle formats such as SubRip (.srt), SubViewer 1 and 2 (.sub), SubStation Alpha (.ssa/.ass) and MicroDVD.
- Matroska (.mkv) subtitles, like .ssa/.ass and .srt, are automatically converted to soft subtitle tracks when imported.
- Subtitles are synced in real-time using the time offset stepper.
- It allows automatic and manual metadata tagging.
- Character identification using colour can be created manually or automatically.
- It facilitates audio subtitling from text to speech language synthesis.
- It permits audio description either from existing mp3 files or created through speech-to-text speech synthesis
- It contains an emergency suite with messages in all formats and also with sign language avatars.
- It has offline versions including video with subtitles and audio descriptions.

## **9. Conclusions**

This article has presented a new system for creating and delivering media access content in different modalities: subtitling, audio description and audio subtitling. The system supports many different languages and alphabets, and has been developed taking into account existing systems and their capabilities. It is hoped that, with an all-inclusive system, the cost of delivery can be kept to a minimum, with one operator delivering all content in a synchronic fashion. While the system is not currently commercially available, it is fully operational in the cinema at Universitat Autònoma de Barcelona (Spain) where five films were programmed and delivered in the academic year 2011/12 and one play in 2012/2013. The system takes into consideration the four categories of obstacles to providing live access services, and could be a viable solution to real-time media access.

## Bibliography

- **Arnáiz Uzquiza, Verónica** (2012). "Los parámetros que identifican el Subtitulado para Sordos. Análisis y clasificación." Rosa Agost Canós, Pilar Orero Clavero and Elena di Giovanni (eds) (2012). *MonTI 4: Multidisciplinarity in Audiovisual Translation/ Multidisciplinarietat en traducció audiovisual*, 103–132.
- **Burton, Jonathan** (2001). "Writing Surtitles." Unpublished manuscript provided by the author written for the Royal Opera House, Covent Garden, 1–17.
- — (2009). "The Art and Craft of Opera Surtitling." Jorge Díaz Cintas and Gunilla Anderman (eds) (2009). *Audiovisual Translation: Language Transfer on Screen*. Basingstoke: Palgrave Macmillan, 58–70.
- **Cabeza i Cáceres, Cristobal** (2011). "Opera Audio description at Barcelona's Liceu Theatre." Jorge Díaz Cintas, Anna Matamala and Josélia Neves (eds) (2010). *New Insights into Audiovisual Translation and Media Accessibility: Media for All 2*. Amsterdam: Rodopi, 227–237.
- **Corral, Anna and Ramon Lladó** (2011). "Opera Multimodal Translation: Audio Describing Karol Szymanowski's Król Roger for the Liceu Theatre, Barcelona." *The Journal of Specialised Translation* 15, 163–179.
- **Desblache, Lucile** (2007). "Music to My Ears, but Words to My Eyes? Text, Opera and Their Audiences." *Linguistica Antverpiensia New Series – Themes in Translation Studies* 6, 155–70.
- **Griesel, Yvonne** (2009). "Surtitling: Surtitles another hybrid on a hybrid stage." *TRANS: Revista de Traductologia* 13, 119–127.
- **Maszerowska, Anna** (2012). "Casting the light on cinema – how luminance and contrast patterns create meaning." Rosa Agost, Pilar Orero and Elena di Giovanni (eds) *MonTI 4: Multidisciplinarity in Audiovisual Translation / Multidisciplinarietat en traducció audiovisual*, 65–85.
- **Matamala, Anna and Pilar Orero** (2007). "Accessible Opera in Catalan: Opera for All." Jorge Díaz Cintas, Pilar Orero and Aline Remael (eds) *Media for All: Subtitling for the Deaf, Audio Description and Sign Language*. Amsterdam: Rodopi, 201–14.
- **Mateo, Marta** (2007). "Surtitling Nowadays: New Uses, Attitudes and Developments." *Linguistica Antverpiensia New Series – Themes in Translation Studies* 6, 135–54.
- **Oncins, Estel·la** (forthcoming). "The tyranny of the tool: Surtitling live performances." *Perspectives: Studies in Translatology* 22.
- **Orero, Pilar** (2007) "Audiosubtitling: A Possible Solution for Opera Accessibility in Catalonia." Franco, Eliana and Santiago Araújo, V. (eds) *TradTerm*, vol. 13, 135–49.
- **Romero-Fresco, Pablo** (2011). *Subtitling through Speech Recognition: Respeaking*. Manchester: St. Jerome Publishing.
- **Romero-Fresco, Pablo and Juan Martínez** (forthcoming). "Accuracy rate in live subtitling – the NER model." Jorge Díaz Cintas, Josélia Neves and Diana Sánchez (eds) *Audiovisual Translation – Taking Stock. Media for All 4*. Amsterdam: Rodopi.

- **Udo, John Patrick and Deborah I. Fels** (2009). "Suit the Action to the Word, the Word to the Action': the Unconventional Approach to Describe Shakespeare's Hamlet." *The Journal of Visual Impairment and Blindness*, vol. 103, n. 3, 178–183.
- — (2010). "Universal design on stage: live audio description for theatrical performances." *Perspectives: Studies in Translatology* 18(3), 189–203.
- **Weaver, Sarah** (2010). "Opening Doors to Opera: the strategies, challenges and general role of the translator." *InTralinea* 12.  
[http://www.intralinea.org/archive/article/Opening\\_doors\\_to\\_opera](http://www.intralinea.org/archive/article/Opening_doors_to_opera)  
(consulted 26.01.2012)

## Websites

- "**Figaro Systems Inc.**" <http://www.figaro-systems.com> (consulted 26.01.2012)
- "**Vicom Visual Communication.**" <http://www.vicom-usa.com/surtile-systems.html>  
(consulted 26.01.2012)
- "**OperaVoice.**" <http://www.operavoice.it> (consulted 26.01.2012)
- "**Naotek Staging Systems.**" <http://www.naotek.com> (consulted 26.01.2012)
- "**SuperTitles.**" <http://www.supertitles.gr> (consulted 26.01.2012)
- "**Showtranslations.**" <http://www.showtranslations.com> (consulted 26.01.2012)
- "**Reading the news**"  
[http://news.bbc.co.uk/newswatch/ifs/hi/newsid\\_5150000/newsid\\_5150600/5150650.stm](http://news.bbc.co.uk/newswatch/ifs/hi/newsid_5150000/newsid_5150600/5150650.stm) (consulted 13.01.2012)
- "**SUMAT: An Online Service for SUBtitling by MACHine Translation**"  
[http://ec.europa.eu/information\\_society/apps/projects/factsheet/index.cfm?project\\_ref=270919](http://ec.europa.eu/information_society/apps/projects/factsheet/index.cfm?project_ref=270919) (consulted 13.01.2012)
- "**Watch movies with subtitles on the iPhone**"  
<http://hints.macworld.com/article.php?story=2009081913171253> (consulted 13.03.2012)
- "**Moviereading**"  
<http://www.moviereading.com/static/doc/en/MovieReading.pdf> (consulted 13.03.2012)

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## Notes

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<sup>2</sup> This work has been carried out within the scope of the doctoral program in Ambient Intelligence and Accessibility offered in the Centre for Ambient Intelligence and Accessibility of Catalonia (CAiAC), Department of Translation and Interpreting at the Universitat Autònoma de Barcelona.

<sup>3</sup> This paper has been written in Europe, and follows EU terminology for Access Services, as opposed to US or Canadian terminology, such as: caption, closed caption, spoken captions, and video description.

<sup>4</sup> Due to the fact that the deaf and hearing impaired community is of a very heterogeneous nature, the purpose of this project is to provide a multiplatform tool which allows different types of subtitles which are adapted to the different end user needs, including the needs of deaf audiences whose mother tongue is sign language.

<sup>5</sup> For further references see the article "Reading the news" available on the BBC website quoted under the "Websites" section of the present paper.

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<sup>6</sup> For further references see the article website “Watch movies with subtitles on the iPhone” quoted under the “Websites” section of the present paper.

<sup>7</sup> For further references see the project website “Moviereading” quoted under the “Websites” section of the present paper.

<sup>8</sup> Arnáiz Uzquiza (2012: 109) in her classification of parameters for the SDH (subtitles for deaf-and-hard of hearing) introduces the category “extralinguistic information” referring to the representation of all non-verbal sound information provided in the audiovisual text. In this category she provides the following parameters: character identification, paralinguistic information, sound effects and music. In the case of opera, the dimension of music would be excluded, because it represents an inherent element of the performance. But in the case of stage performances all four parameters should be considered with in the process of the surtitles.

<sup>9</sup> For further references see the project website “SUMAT: An Online Service for SUBtitling by MAchine Translation” quoted under the “Websites” section of the present paper.

<sup>10</sup> Throughout the period when we have been offering AD at Liceo Opera House in Barcelona, we can safely say that no two performances have been the same in elapsed time.

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### The tyranny of the tool: surtitling live performances

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## The tyranny of the tool<sup>1</sup>: surtitling live performances

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Surtitling is a complementary communication system that renders the verbal utterances taking place on stage into a written format and makes this accessible to members of the audience. Beyond the decisions of the professionals involved in the surtitling process, many of the characteristics related to surtitling content and its format are determined by a number of paralinguistic aspects. In this context, the effectiveness of both the surtitling process and the end result will depend on the following: the facilities for accessible services within the building where live performances take place; the development of technological innovations included in live performances; and the specifications of the surtitling technologies used.

Central to the study detailed by this paper are the technical aspects related to the existing surtitling systems used in different live performances in scenic art venues. After a short introduction, dealing with the main features of stage performances, such as music, drama, stage, translation and surtitling practice, Section 2 examines the different indoor and outdoor spaces where live performances take place. In Section 3, new live performance spaces are presented. In Section 4, the surtitling practices of stage performances are outlined. In Section 5, commercially available software programmes are analysed, following the specifications for each genre. Section 6 concludes with a reflection on the multiple accessibility solutions that the latest developments in technology could offer to live performances.

**Keywords:** surtitles; performance venues; live performances; opera; theatre; surtitling software; accessibility; deaf and hearing-impaired audience; new technologies

### 1. Introduction

Surtitling can be studied from a number of different academic perspectives. It can be considered to be a service for operatic performances (Music Studies) and theatrical plays (Drama, Performance or Theatre Studies). When examining the linguistic features, surtitling also falls into the field of Translation Studies in terms of the verbal sources that surtitlers produce. Librettos can be analysed from the literary perspective, and, finally, when looking at surtitling from the perspective of translation and media access, surtitles form part of the field of Audiovisual Translation Studies.

Within the last decade, surtitling has been of interest to the field of Audiovisual Translation (Bartoll, 2004, 2008; Desblache, 2007; Dewolfe, 2001; Mateo, 2001, 2002, 2007a, 2007b; Orero, 2007; Verweken, 2012; Virkkunen, 2004, etc.). Within this field, attention has been paid to the areas of operatic translation or musical

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translation (Burton, 2001, 2009; Burton & Holden, 2005; Low, 2002; Matamala & Orero, 2007), libretto translation (Desblache, 2007; Dewolfe, 2001; Kaindl 1997; Virkkunen, 2004), theatrical translation (Carlson, 2006; Espasa, 2000; Ezpeleta, 2007), and surtitling techniques and practice (Griesel, 2005, 2009; Mateo, 2002, 2007a, 2007b; Oncins, Lopes, Orero, Serrano, & Carrabina, 2013; Verweken, 2012). Since Media Access has recently been incorporated into the field of Audiovisual Translation Studies (AVT) (Orero, 2004), attention should also be paid to the practice of surtitling within this specialised area of Media Access (Weaver, 2011).

Despite the emergent research into accessibility within AVT, rendering a live performance fully accessible still remains an unusual research topic in both its theory and practice. Rapid technological developments have opened up new surtitling possibilities that have not yet been considered in this research field. In this context, and in order to fully appreciate the input from further studies into this area, it is very important to establish a surtitle differentiation between stage productions (comprising mainly opera and theatre) and other live events (such as 'conferences') that may be described as live performances but differ from stage productions; an obvious example of such an event would be the Oscar awards ceremony. Given the many and varied live events, and the difficulty in establishing exact taxonomies and classifications for the study of surtitling, this article will focus specifically on the two main types of stage performances (namely opera and drama), and will not deal with other live performances such as musicals, concerted operas or rehearsed readings.

This article will examine elements that impact on surtitles both in terms of their form and content and that, whilst not directly relevant to translation, dictate the way in which surtitles are produced, displayed, and consumed. While these aspects are separate from the practice of translation, they should be considered when analysing surtitles. Issues such as the performance venue (i.e. the physical theatre or opera house building), the different requirements of the two genres (opera and theatre), and the surtitling software available will be analysed in the following sections.

## **2. Different buildings, different needs: making a move towards accessibility**

In this section, the focus will be on the development of physical surtitling facilities and their impact on the surtitling practice for live performances. To this end, new building uses and stage tendencies and formats will be described in order to show how accessibility needs should be addressed by taking into consideration the many and rapidly changing technological trends.

### **2.1. Evaluating opera houses**

Opera houses undergo constant change in order to improve their facilities. The introduction of the surtitling practice was an improvement made in order to meet both the current audience expectations and to attract new audiences. Surtitling was first introduced to opera during the 1980s and 'offered a way of presenting the verbal content of the opera simultaneously with its performance in the original language' (Low, 2002, p. 99). However, surtitling was not initially fully accepted by some stage directors, producers and art critics, who considered surtitles to be 'a prophylactic between the opera and the audience' (Burton & Holden, 2005, p. 4). At first it was seen as obstructive rather than as an aid to communication (Desblache, 2007; Mateo,

2007b). However, surtitles have been shown to be very effective as a means of rendering the opera accessible to the audience (Burton, 2009; Low, 2002; Mateo, 2007b), as is pointed out by Mateo:

If, not many years ago, opera goers assumed non-comprehension as part of this experience (unless they knew the pieces by heart – which was not uncommon – or studied the libretto before the performance), today's audiences show a desire to understand the verbal text at the same time as they receive the music. (2007a, p. 155)

In view of the fact that surtitles have an increasing positive audience reception, most opera houses have adapted their facilities and, since the mid-1980s, have created in-house surtitling departments to carry out the production and projection of surtitles. The first technologies employed were not specific to surtitling, as Bonwit (1998)<sup>2</sup> explains: 'surtitles were made on slides and two slide projectors were used to project them on the screen. This was an expensive and tedious process involving photography, processing, and sorting into projector trays'. However, opera houses soon began to look for new surtitling possibilities and incorporated new technological developments in order to improve both results and cost-effectiveness. In this context, the introduction of wired systems to opera houses was an obvious evolution, since these systems allowed for the projection of surtitles directly from the computer to a screen over the proscenium, meaning that the surtitles could be managed more effectively, allowing the surtitlers to process changes and modifications on the surtitles easily.

The open screen with surtitles was the first accessibility service introduced to performance venues and is still the most common practice within opera houses. However, in recent years, further technological developments have been introduced to increase the efficacy of accessibility services. Several papers (Cabeza, 2010; Cabeza & Matamala, 2008; Matamala & Orero, 2007) mention the facilities at the Grand Teatre del Liceu, Barcelona, where Thin Film Transistor (TFT) screens on the back of every seat were introduced in order to compensate for seats in which the visibility of the stage is either reduced or non-existent. Audience members are able to individually choose from subtitles in Catalan, Spanish or English.

At the Grand Teatre del Liceu, there are three different screens displaying titles. The first (Figure 1) is the screen situated at the top of the proscenium, where Catalan surtitles are shown to all. Figure 2 shows the first row of seats in which a special screen is fitted to offer synchronic titles like those shown above the stage in Catalan. There is a choice of three different languages for these titles: Catalan, English and Spanish. In addition, in some seats with reduced or no vision of the stage, there are TFT screens on which both the action taking place on stage and also the choice of surtitles (which in this case become subtitles) can be displayed, again in either Catalan, English or Spanish.

Other opera houses, such as the Royal Opera House in London, have also introduced TFTs, but here the language on offer for the surtitles is English only. At La Monnaie/De Munt Opera House in Brussels, there are two open screens above the stage, on which surtitles are offered in both French and Flemish (see Figure 3). After the break, the language presentation is reversed between these two screens to Flemish and French.

In 2009, the Komische Oper in Berlin replaced all their seats with new models with a built-in screen at the back (see Figure 4). This enables them to offer synchronic



Figure 1. An open screen onto which surtitles are projected at the Grand Teatre del Liceu, Barcelona, Spain.

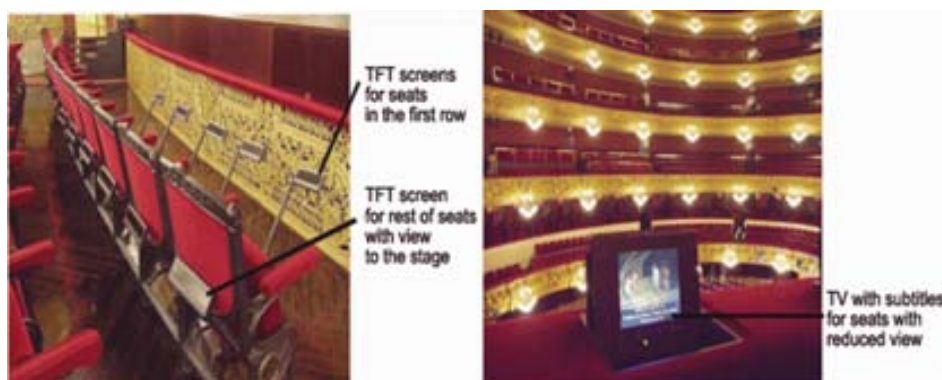


Figure 2. Different screens at the Grand Teatre del Liceu, Barcelona, Spain.

titles in German and English, with Turkish and Russian also planned for next season (2012/2013). In addition, the surtitling big screen above the stage was removed (see Figure 4).

At present, in the Grand Teatre del Liceu a new ad hoc technology is being developed and tests are carried out to implement a system that allows for the creation of surtitles and their wireless transmission to smartphones in real time (Oncins et al., 2013).

## 2.2. Evaluating theatre houses

In conventional theatres and play houses, surtitling was adopted later than in opera houses and is mainly used at theatrical festivals, where foreign theatre companies perform plays in a different language to that of the majority of the audience.





Figure 3. Screens with two languages at La Monnaie/De Munt Opera House in Brussels.



Figure 4. Screens placed in different positions at the Komische Oper, Berlin.

Compared to its use in opera, theatrical surtitling still remains an uncommon practice. When surtitles are offered, most theatres outsource their surtitling service to specialized companies and hire the technical equipment. Furthermore, when comparing the positioning of the open screen displays in opera and theatre houses, in opera, surtitling displays are mainly placed on the top part of the stage over the proscenium, whereas displays in theatres are positioned in a number of different places, such as in the front area of the stage or behind the actors over the stage (see Figure 5), in the front area but beneath the stage (see Figure 6), or even in the peripheral area of the stage (see Figure 7).

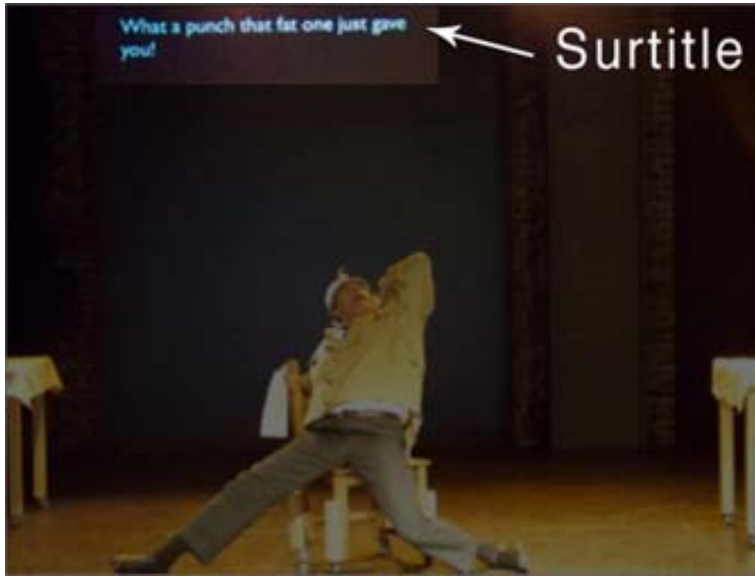


Figure 5. Surtitles placed at the rear part of the stage in a play performed at the 24th Street Theatre in California, USA.

No standard can therefore be identified for the position of the open screen display in theatre houses, and no reception studies have been undertaken to evaluate user satisfaction according to the various positions and presentations. As stated in a description of the surtitling service provided by Stagertext, a British company that offers accessibility in theatre houses for the deaf and hard-of-hearing audience in

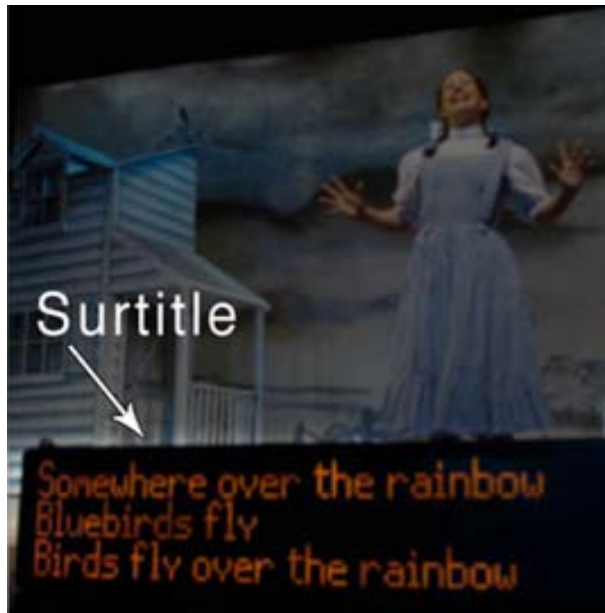


Figure 6. Surtitles placed in front of and below the stage in a play performed at The Lowry Theatre, Manchester, UK.



Figure 7. Surtitles placed at the lateral part of the stage in a play performed at the Old Vic Theatre, London, UK.

UK, the ‘Stagatext caption unit is placed as near to the stage as possible – sometimes even on the set. Positioning will vary from show to show, depending on the set design, lighting states, sound equipment and any moving scenery’.<sup>3</sup> Clearly then, the positioning of the surtitling display within theatres seems to be decided by the technical facilities available and the considerations of the stage director rather than the by audience needs.

### 2.3 Evaluating theatrical and operatic festivals

In addition to surtitling practice in theatre productions, surtitles are especially used at international theatre and opera festivals to render stage productions of foreign companies accessible in the local audience’s native language. A major problem faced at festivals is the stage setup, usually for outdoor performances. When the production takes place in the open air, technical installations have to be arranged accordingly and in short periods of time, especially in the case of theatrical performances. Outdoor stages also present further accessibility problems: the reception of access services and the positioning of surtitle displays (see Figure 8). It should be noted that stage productions for theatrical festivals will only be performed once or twice at different international theatre festivals, such as the Festival d’Avignon in France, the Edinburgh Fringe Festival in Scotland, the Festival Grec in Barcelona and the Athens-Epidauros Festival in Greece.

On the other hand, opera festivals largely present just a few productions (between three and five), and the open-air venues are generally larger than in theatrical festivals. Examples of operatic festivals include the Sferisterio Opera Festival in Italy (with 3000 seats) and the Bregenser Festspiele in Austria (with 7000 seats). The stage setup for operatic festivals is prepared far in advance due to the production dimensions. In this case, surtitles are mainly projected directly on the scenography and in the language of the audience (See Figure 9).

When comparing the technical developments towards linguistic accessibility introduced by all venues (conventional theatres, play houses, and opera houses, as



Figure 8. The outdoor stage at the Athens-Epidauros Festival in Greece.

well as theatrical festivals) considerable differences can be observed. Opera houses are at the forefront of technical developments in surtitling. The predominance of opera over theatre in this area may be due to budgetary issues, *mise en scène* requirements, and auditorium dimensions.

#### 2.4. Making room for accessibility

As previously stated, most studies dealing with operatic surtitles highlight their positive impact on the audience. Nowadays, opera goers might well complain if an

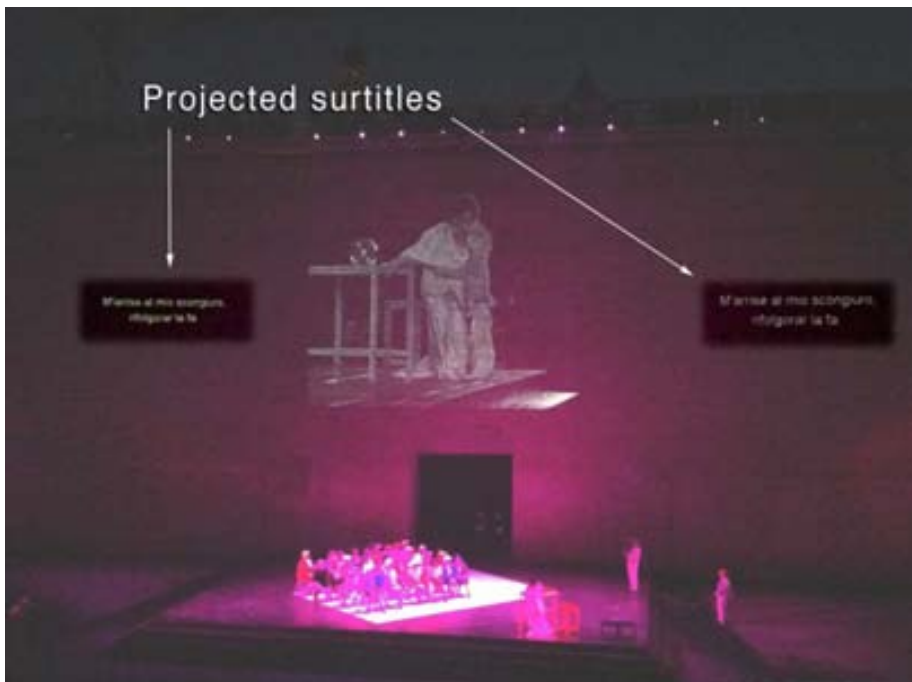


Figure 9. Outdoor stage with projected surtitles at the Sferisterio Opera Festival in Italy.

opera were performed without surtitles, even if the performance took place in the audience's own language. However, surtitles were intended to overcome a linguistic rather than a sensory barrier and, as Mateo (2007a, p. 137) states, 'they were first created to facilitate comprehension of the opera plot'. Thus far, however, there has been little discussion concerning the need for the inclusion of extralinguistic information,<sup>4</sup> with the aim of making the performance accessible to deaf and hard-of-hearing audiences.

In the case of theatre, surtitling has also been mainly conceived to break down linguistic barriers through interlingual surtitles. In the words of Griesel (2009, p. 123), 'Theatre surtitling is a means of transmitting a foreign language production on stage into another language'. In this context, some organisations provide intralingual captions<sup>5</sup> for stage performances to deaf and hard-of-hearing audiences in a small number of countries (e.g. Stagertext in the UK or Media Access in Australia). A few theatre houses provide intralingual surtitles, such as the Teatre Lliure in Barcelona, but only for several selected performances.

### **3. Opening up new spaces to live performances**

In recent years, technological innovations have demonstrated a wish to improve the process of the conception, creation and reception of live performance, a desire to move away from the fixed and closed spaces of stage productions leading to new uses of technology and attitudes to theatre. As Miquel-Iriarte, Vilaro, Orero, Serrano, and Delgado (2012 p. 260) explain, 'in today's society, multimedia and multimodal content can be present almost anywhere, and subtitles are not exclusively displayed on screens of cinemas, computers and televisions, but also on mobile phones, smart phones and tablets, and on TFT screens in opera houses, theatres etc.'

The introduction of surtitles in opera was the first step towards the broadcast of live operas on TV. As Mateo (2007a, p. 141) states, in relation to Spain: 'opera lovers are now used to a watching-reading reception of performances, and this has made TV broadcasts of operas – which were very rare only a few years ago – and the subtitles in them – in a dubbing country – more acceptable'. Indeed, Desblache (2007, p. 167) asserts that 'surtitles are overwhelmingly requested by the public'. Nowadays, technological developments allow the audience to follow the opera live online from any country, in cinemas or even using new platforms such as the iPad. This is the case for the Metropolitan Opera from New York with the project: 'The Met: Live in HD'.<sup>6</sup> Some opera houses, such as the Royal Opera House or the Metropolitan, offer live opera via streaming on the android and iPhone devices. Another example of the impact of new technological developments is the project 'Open Opera',<sup>7</sup> offered by the Gran Teatre Liceu in Barcelona and the Teatro Real in Madrid and aimed at universities around the world.

The introduction of new technologies is a growing tendency within theatre but largely remains linked to stage production. The use of pre-recorded audiovisual material, videogames or interactivity between actors and the audience is leading to a change in the paradigm of theatre production. However, compared to opera, live broadcasting in this genre still remains rare, only being offered for large scale productions or by experimental theatre companies such as 'La Fura dels Baus',<sup>8</sup> a Spanish theatre multimodal company, which explores not only new theatrical forms but also new spaces.



Figure 10. The play *Titus Andronicus* from La Fura dels Baus performed in San Sebastián, Spain.

As we have seen, venues are constantly evolving and adapting their facilities in order to render stage performances accessible to a wider audience. In this context, opera houses have taken a leading role, with large investments in technology. As explained by Matamala and Orero (2007, p. 201), ‘the new hi-tech Liceu, plus the determined attitude of the Liceu management to make opera accessible to a wider audience, has placed Catalan Opera at the forefront of a new approach to opera and its reception’.

Paradoxically, accessibility in theatre houses remains an area for improvement. Access services are offered sporadically and are mainly outsourced to professional freelancers or user organizations. Nevertheless, theatrical productions are constantly adopting new technological developments for use in their performances. As Griesel (2009, p. 6) points out, ‘the development of new media again and again triggers and demands new forms of translation’. This may cause further problems when trying to render the stage performance accessible.

#### 4. Different genres, different styles

After having reviewed the technical developments introduced within performance venues, this section presents an overview of the basic principles of surtitling in live performances, and outlines the importance of surtitling for the transfer of oral content to the audience. Whilst aiming to describe the technical aspects that determine the elaboration and broadcasting process of the surtitles, common aspects and particularities of the surtitling practice within both genres are analysed.

Recently, with the new regulations relating to media access at a national and international level,<sup>9</sup> the focus should not only be placed on linguistic transfer but should also include sensorial elements. While it is necessary to draw distinction between the genres of opera and theatre, due to their own particular characteristics and specific performance features, both genres also share common aspects that affect the overall process of surtitling. This is particularly the case when dealing with the technical aspects of surtitling. Within this context, Griesel (2009, p. 124) asserts that ‘theatre surtitling has to deal with wrongly positioned surtitles that cannot be seen

from all places, with poor lighting or with surtitles that are projected too fast, etc.'. This paper will therefore now focus on defining the common technical aspects and particularities that determine the style of the surtitles for each genre.

#### ***4.1. Technical aspects of surtitling practice for live performances***

In this section focus is placed on the surtitling process, with special attention paid to its technical aspects. Within this context, Mateo (2007a) considers four technical aspects that impact on the surtitling process: software systems, projection, the person in charge of the projection and unexpected changes to the performance. However, these technical aspects only take into consideration the final part of the surtitling process. Considering the definition provided by Griesel (2009, p. 123) that 'surtitles are prepared and projected onto the stage with the help of special software combined with a video projector', the surtitling process is therefore first divided into two parts: the elaboration process and the broadcasting process. Each of these is subject to specific technical aspects. Therefore, a definition of the technical aspects relating to each process and their importance in terms of the final result will first be provided.

It should be mentioned here that Bartoll provides a definition of the technical parameters in his taxonomy of subtitles, considering surtitles to be 'electronic subtitles' (2004, p. 59). The author of this current paper provides a definition of both terms from the same perspective. In fact, most academics working in this field consider that surtitles 'are close relative to subtitles' (Orero, 2007, p. 25) or 'have derived from them' (Mateo, 2007a, p. 171). Therefore, in AVT Studies, the term 'surtitle' has yet to be standardized. For the purpose of this paper, surtitles are considered to be a single entity in AVT Studies, agreeing with several authors (Burton, 2001, 2009; Griesel, 2005; Low, 2002; Mateo 2007a, 2007b; Verweken, 2012) who argue that the display of the text of the surtitle 'borrows heavily from subtitles' (Griesel, 2005, p. 10) but assert that both AVT forms should be studied separately. However, the fact that surtitles will never be a final and static product suitable for every performance, quite apart from the need for a simultaneous synchronization with the source text, make them a unique topic in AVT Studies.

In order to provide a definition of the technical aspects of surtitling that determine the elaboration and broadcasting process of surtitling practice, the following parameters, first defined by Bartoll (2008, p. 260–268), will be considered: optionality, broadcast, colour, mobility, localization, placing, filing, typography and format, as all of these require special technical resources for each case. For the purpose of this paper, the parameter '**broadcast**' refers to how surtitles are projected for the audience. As several authors explain (Burton, 2001; Griesel, 2005; Verweken, 2012), surtitles will always be broadcasted manually in order to achieve synchronization between the 'source text' of the stage performance and the 'target text' of the written surtitles. Because of this, broadcasting is considered to be part of the process rather than a technical aspect in itself.

Furthermore, other technical aspects, mentioned by other professionals and academics in the field, such as '**brightness**' and '**fading**' (Burton, 2001), will be included and described. As previously stated, a differentiation between the creation and broadcasting processes will be provided. This is due to the fact that some technical aspects, such as placing, mobility, colour, brightness and fading, are determined during the creation process. However, filing, location and optionality are

subject to the broadcast process and the technical facilities available at each performance venue.

#### *4.2. Consideration of technical aspects of the creation process*

Given the fact that most opera houses have an in-house surtitling department, the possibility of a ‘house style’ arises (Burton & Holden, 2005, p. 4), allowing surtitling professionals to establish a communication system with the audience ‘such as the use of italics for “offstage”, brackets for “aside”, and dashes to indicate two voices’ (Burton & Holden, 2005, p. 4). On the other hand, theatrical surtitling remains a sporadic practice for programmed performances in a different language and is largely outsourced to specialized companies or organizations with their own ‘house style’. This may cause confusion for the audience in a specific theatre house in the event that the venue deals with different surtitling companies or changes its surtitling provider.

In terms of the language of surtitles, there is a consensus amongst professionals and academics about the need to be brief, to use simple and clear structures and to be unobstructive in style (Burton, 2001; Desblache, 2007; Griesel, 2009; Low, 2002). Therefore, it could be said that surtitles in live performances present a common form ‘of two lines of text per title, with a maximum of about 35 characters per line (this will vary according to the font used)’ (Burton, 2001, p. 1). However, a format of a maximum of three lines or up to 40 characters per line can also be found in theatres and operas, depending on the conventions established by the in-house surtitling department, surtitling company or freelancer.

The technical aspect of ‘**placing**’ refers to the centred or non-centred position of the surtitle text within the display screen. In this case, two different positions can be identified: centred text and left-aligned text, the use of which will vary depending on the conventions established by in-house departments or professionals in opera houses, companies and surtitling organizations.

A further aspect is ‘**mobility**’, which refers to whether or not the text moves synchronically with its emission by the actor (i.e. scroll up) or whether it instead appears on the screen in blocks and remains fixed. Despite the use of block surtitles in most live performances, some accessibility organizations for hearing-impaired audiences, such as Stagertext in the UK, use an upwards scroll in their intralingual captions, arguing that they are aimed at deaf and hard-of-hearing audiences and that they therefore need the synchronicity. However, there seems to be a lack of consensus between organizations and companies about ‘mobility’. Whilst the organization Stagertext uses upwards scrolling and three lines of amber text, the Teatre Lliure in Barcelona provides intralingual surtitles in blocks of one or two lines of text. Some eye-tracking research has been carried out in this field with relation to real-life surtitling. Reading patterns are directly influenced by the text display and its ‘mobility’, and it has been proven by data results from Romero-Fresco (2012) that pop on is the most user-friendly for the display of both intralingual and interlingual surtitles, arguing that with scroll display the user tends to return to the beginning of every sentence when the word or line moves forward.

‘**Colour**’ refers to the colour that is chosen for displaying surtitles. In both genres, surtitles are presented in monochrome on a black background, which may cause problems for the deaf and hard-of-hearing audience in terms of identifying the actor.<sup>10</sup> In operatic surtitles, the text displayed on the big screen is white. Yet the



same text can be displayed in amber, green or red due to the technical specifications of the TFT screens or of individual handheld devices. In theatrical surtitles, the colour of the text displayed is mainly subject to the lighting in the scene. For instance, for dark scenes with a poor lighting, the colour used might be red in order to avoid ‘light pollution’ (Vervecken, 2012). However, in some cases blue (See Figure 5), amber (See Figures 6 and 7), green or white are also used, depending on the available screen colours and considering the aesthetic needs of the stage production, rather than in response to the needs of the audience.

The aspect of ‘**typography**’ refers to the font, size and style presented for each surtitle; as style can be presented in different forms in the same text, font and size remain unchanged for all cues. In this context, style is important, especially in the use of italics, because in the case of opera, it indicates off-stage and on-stage information. The use of style for the differentiation between on-stage and off-stage information is crucial for hearing-impaired audiences. In terms of these three aspects, style can be changed in the same text in most programmes, but all aspects of the typography must remain unchanged throughout for the complete text, thereby constraining any creative intention on the part of the surtitlers.

Another common aspect in the creation process of the surtitles that should be considered is the effect of ‘**brightness**’, which should vary depending on ‘the lighting states on stage, scene by scene’ (Burton, 2001, p. 4). Within this context, ‘light pollution’ (Vervecken, 2012) is a common problematic aspect that affects both genres, presenting major difficulties in the practice of surtitling, especially when the on-stage scene is very dark. As in the case of colour, brightness is mainly subject to aesthetic parameters decided by stage directors.

‘**Fading**’ refers to the fade in and out speed that is set in the surtitles, according to pace of the actor’s oral utterances (Burton, 2001). This aspect has received special attention in operatic productions where, as is pointed out by several authors (Burton, 2001; Desblache, 2007; Dewolfe, 2001; Low, 2002; Virkkunen, 2004), the music tempo is important. As Burton (2001, p. 4) highlights, ‘If you have the facility to fade titles in and out – perhaps at differing speeds – you should match this to the pace of the music. Fast recitative should “cut” between titles, and/or fade as quickly as possible. Slower music can fade in and out.’ The surtitler should therefore ‘reconcile the artistic impression of a fade with the need to have the title visible for as long as possible to read it’ (Burton, 2001, p. 4). This fact allows the professional to use the surtitles as a communication aid with the audience whilst maintaining the musical tempo. On the other hand, theatrical surtitling has not introduced this fading effect, which in some cases could in fact help professionals working in this field maintain the dramaturgic effect.

Finally, the parameter ‘**format**’ refers to the extension that the surtitles will have once the text is produced and saved (i.e. .txt, .ppt). Paradoxically, files in the most common text formats (i.e. .txt, .doc) can be imported, but the resulting text will mostly be exported in another form, specific for the programme used and not convertible to any other software. In fact, this is one of the main problems with the format, especially the commercial software developed for the surtitling practice.

#### **4.3. Consideration of technical aspects of the broadcasting process**

Once surtitles have been prepared, the next step in the surtitling process is broadcasting: i.e. sending the files to the screens. Within this context, the technical

aspect of **'filing'** should be considered. Filing refers to whether or not surtitles are independent and can be detached from the audiovisual product and if they could therefore be altered. Because of the hybrid nature of live performances, surtitles in both genres (drama and opera) are separable from the audiovisual product. This is important in order to differentiate between surtitling for the stage and subtitling for the screen. Whilst the former might be defined as an 'unfinished product' (Vervecken, 2012) and is usually modified after each performance, the latter could be considered to be a 'finished product' (Vervecken, 2012), because once subtitles are engraved they remain unchanged for each projection. Surtitles can therefore be modified for each performance. As Desblache (2007, p. 164) highlights, 'opera and theatre surtitles require flexibility of timing as they are issued for each performance and also, to some degree, of meaning, as each production and at some level, each performance gives a new meaning to the work interpreted'. Hence, surtitles will usually be altered for each performance according to the production requirements and the considerations of the director.

The remaining technical aspects are **'localization'** and **'optionality'**. Localization refers to the position of the screen in reference to the stage performance, since surtitles can be displayed in different positions: above or beneath the proscenium, to the side of the stage, on the back of seats or on smartphones. Optionality refers to open and individual screen surtitles. As mentioned previously, surtitles can be presented in both forms. However, open screen surtitles are still the most common across both genres. That said, recent and continuing technological developments are increasing the new surtitling possibilities for live performances.

#### *4.4. Consideration of unexpected factors in live performances*

Because of the independent nature of surtitles in relation to the audiovisual production, synchronization may cause major problems when displaying the surtitles simultaneously with the live onstage performance. This is largely due to external and unexpected changes that could occur during the staging process. As Griesel (2009, p. 124) points out, 'contextual factors like temporal restrictions, a high tempo of speech, technical malfunctions or individual mistakes' may render the creation process of the surtitles useless. Therefore, as Vervecken (2012) comments, 'that is where the surtitling software comes into play'.

All in all, it could be said that the technical aspects related to the creation and broadcasting processes of surtitles in both genres are largely the same. These aspects are namely: localization, placing, filing, mobility, optionality and colour. While fading and brightness effects remain specific to opera, theatrical surtitling could also benefit from these.

In both cases, it should be mentioned that all the technical aspects described are mainly aimed at not interfering with the stage production, rather than at providing accessibility to the audience. This could lead to a reception problem due to the split attention effect. As Miquel-Iriarte et al. (2012, p. 263) explain, 'split attention and change of focus whilst reading are two major issues regarding reception and the demand on a viewer's attention'. Therefore, depending on the definition of the technical aspects, the attention of the audience will inevitably be affected because they will have to divide their attention between the written text of the surtitles and the visual input from the stage performance.

In the following section, the main commercial surtitling software available will be analysed, whilst considering the technical aspects for the surtitling creation and broadcasting processes previously described. In addition, solutions presented by surtitling software for dealing with unexpected factors will be outlined.

### **5. Different software, different surtitles**

A further important factor related to the surtitling process is the software (SW) used for the creation and broadcast of the surtitles. No research has yet been carried out analysing the main commercial surtitling software available (namely PowerPoint, Figaro, Vicom, Naotek, Supertitles, and Opera Voice) and relating these to the technical needs described in Section 4 of this paper. The surtitling software discussed has been selected whilst considering the following factors: the requirements of both genres, their popularity among professionals and performance venues, and the view of academics working in the surtitling field.

PowerPoint has been considered because, as several authors mention (Griesel, 2009; Mateo, 2007a; Vervecken, 2012), it still remains one of the most popular pieces of surtitling software used in opera and theatre, despite being a program that was not developed to cater for the needs of surtitling. The broadcast set up when using this program is in combination with an LED screen or a video projector. Some reasons for using PowerPoint in the surtitling process may be that 'it is the cheapest solution' (Vervecken, 2012) and that it also permits 'flexibility in the amount of text and number of lines and characters' (Mateo, 2007a, p. 160). However, when compared to other surtitling programs, PowerPoint lacks the flexibility to react and manage unexpected factors that may occur during live performances.

For opera, the most popular surtitling software titles are Figaro and Vicom. Figaro is currently being used at the Royal Opera House in London and Vicom at the Grand Teatre Liceu in Barcelona and La Monnaie in Brussels. Another interesting piece of surtitling software is Opera Voice, which has been developed to make use of new smartphone platforms and is currently being tested at the Maggio Musicale Theatre in Florence (Table 1).

Regarding the theatrical genre, as previously stated, the practice of surtitling is largely outsourced to external companies and organizations. Therefore, the selection of software has been made by following that used in the surtitling practice of international theatre performance companies. Within this context, Naotek and Supertitles SW 'are some European industry leaders' (Vervecken, 2012).

Regarding operatic performances, it can be said that surtitles are presented centred, in blocks, in monochrome, and largely including brightness and fading effects for the creation process. In addition, for the broadcasting process, surtitles can be offered in different localizations (on an open screen above the proscenium or on individual screens placed in the front, rear or to the side of seats) and also on open screens and multi-language individual screen options.

Theatre surtitling, on the other hand, is presented mainly left aligned, in blocks, always in monochrome and with neither brightness nor fading effects. In addition, for the broadcasting process, surtitles are offered in a single localization (above, beneath, at the back or to the side of the stage) and always on an open screen for all the audience. As can be observed in Figure 7, when dealing with the technical aspects that each piece of software presents, most decisions affecting the creation and broadcasting process have been determined by surtitling practices, which have again

Table 1. Comparison table of surtitling softwares.

Process Software	Creation Process							Broadcasting Process		
	Placing	Mobility	Colour	Typography	Brightness	Fading	Format	Local.	Option.	Filing
PowerPoint	Different	Block	Mono	Different in the same text	No	No	Convertible	Single	Open	Separable
Figaro	Centred	Block	Mono	One	Yes	Yes	Non-convertible	Different	Open & individual	Separable
Vicom	Centred	Block	Mono	One	Yes	Yes	Non-convertible	Different	Open & close	Separable
Naotek	Aligned left	Block	Mono	One	No	No	Non-convertible	Single	Open	Separable
Supertitles	Aligned left	Block	Mono	Different in the same text	No	No	Non-convertible	Single	Open	Separable
Opera Voice	Centred	Block	Mono	One	No	No	Non-convertible	Single	Close	Separable
Stagetext	Aligned left	Scroll	Mono	One	No	No	Non-convertible	Single	Open	Separable

been determined by the technical facilities available at the performance venue. Therefore, it should be noted that most companies offering surtitles and most organizations offering accessibility solutions have developed their own software in order to adapt their services to specific performance venues. Hence, research into this field has begun to emerge in some countries and still remains linked to industry.

In venues for both types of performance, wired systems are used and only in a few cases are wireless systems currently being tested. Two of such examples are Opera Voice at the Maggio Musicale Theatre in Florence and the UAS system at the Grand Teatre del Liceu. It should be noted that, apart from considerably reducing maintenance costs, wireless systems, particularly within opera houses, could also solve the technical issues relating to surtitling and offer new surtitling possibilities. In addition, accessibility could be provided in other venues, like museums or any other public building, as Miquel-Irarte et al. state:

Digital and portable devices could be useful tools when attempting to remove the barrier of simultaneity, since they can be used to make a vast array of live events and performances accessible, from theatres through to museums and universities (Miquel-Irarte et al., 2012)

Within this context, the Universal Access System (UAS), which has been developed by the research centre Caiac at the UAB (Spain) in order 'to deliver most accessibility services for live performances via a mobile application' (Oncins et al., 2012), could present a single solution for both performance venues and for outdoor spaces, whereby, most importantly, the spectator would not be obliged to sit or stand in specific areas of the venue, but could enjoy the performance from any place and receive the information depending on his/her linguistic or sensorial needs. Furthermore, the technical aspects could be adapted for each performance rather than for each genre.

## **6. Conclusions**

Accessibility studies and practices have largely focused on the professional elements of the surtitling practice and on translation work. However, it should be noted that most performance venues have still not implemented the technological facilities required to offer accessible live performances. Nowadays, the audience can fully enjoy a live performance online from almost any place in the world, yet deaf and hard-of-hearing audiences are at risk of being excluded from live events.

Surtitling practices across both opera and theatre have been largely oriented to cater to the linguistic needs of hearing audiences and focus on avoiding interference with the stage production, rather than on providing accessibility to the entire audience. In addition, while it can be observed that standard guidelines on both intralingual and interlingual surtitling practice exist, each surtitling department, company or organization also has its own in-house conventions. This diversity leads to a variety of different styles, which may result in confusion for the audience, especially in the case of the hearing-impaired, in that they depend more fully on the information provided.

Furthermore, stage performances are constantly adopting new technologies, offering new multimodal and multimedia content to audiences. Within this context, the existing accessibility gap not only remains open, but could also

increase due to the difficulties that new spaces may present, such as stage performances taking place in open spaces, which are an added challenge for the setup of display screens. Technical problems therefore still remain a common major issue in the surtitling practice of both the genres examined in this paper. As Griesel (2009, p. 124) states, ‘theatre surtitling has to deal with wrongly positioned surtitles that cannot be seen from all places, with poor lighting or with surtitles that are projected too fast, etc. Unfortunately, obstacles of this kind seem to be the rule in theatre surtitling.’

There is an existing need to define audience requirements. Within this context, the adoption of new technologies and wireless systems such as ‘digital portable devices’ (Miquel-Iriarte et al., 2012) or the ‘UAS system’ (Oncins et al., 2013) within performance venues could offer new surtitling possibilities and improve the services offered at the venue, rendering stage productions accessible to all and providing the audiences with a more user-friendly experience.

## Notes

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2. <http://www.wap.org/journal/surtitles/surtitles.html>
3. <http://ablemagazine.co.uk/stagetext-captioning-10-years-on/>
4. Arnáiz-Uzquiza (2012), in her classification of parameters for the SDH (subtitles for deaf and hard-of-hearing), introduces the category ‘extralinguistic information’, referring to the representation of all non-verbal sound information provided in the audiovisual text. In this category she provides the following parameters: character identification, paralinguistic information, sound effects and music. In the case of opera, the dimension of music would be excluded, because it represents an inherent element of the performance. But in the case of stage performances, all four parameters should be considered within the process of the surtitles.
5. In an interview with Tabitha Allum (Chief Executive at Stagertext), she clarifies that the term ‘captions’ is used for surtitles in the same language as the performance (intralingual surtitles), addressed to hearing-impaired people, whereas the term ‘surtitles’ is used for surtitles in another language than the performance (interlingual surtitles). However, Stagertext sometimes provides interlingual surtitling for foreign plays. This fact shows the lack of agreement between organizations, practitioners and researchers for the use of a standard terminology regarding intralingual and interlingual accessibility services.
6. [http://www.metoperafamily.org/metopera/broadcast/on\\_air.aspx](http://www.metoperafamily.org/metopera/broadcast/on_air.aspx)
7. <http://www.opera-oberta.org>
8. <http://www.lafura.com/web/index.html>
9. Actions at the international level, like the European Disability Strategy or the United Nations convention on the Right of Persons with Disabilities (UNCRPD), have imposed new regulations regarding accessibility to the member countries of these institutions.
10. Describes three main strategies used to identify individual speakers in SDH: positioning the subtitles under the speaker; using labels with the name of the speaker before the subtitles; and assigning a different colour to each speaker. The first strategy could hardly be generally used in surtitling because of the physical constraints of the surtitling screen; the second strategy is used by the organization Stagertext, because intralingual captions are provided; the third strategy is considered by Pereira the most effective, because viewers are used to it. The colours generally used in SDH for television are: yellow for the main character, green for the second, cyan for the third, magenta for the fourth, and white for the rest. Therefore, the introduction of colours for character identification implemented in hand-held devices could improve the reception of hearing-impaired audiences.

### Notes on contributor

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### References

- Arnáiz-Uzquiza, V. (2012). Los parámetros que identifican el Subtitulado para Sordos. Análisis y clasificación. In R. Agost Canós, P. Orero Clavero, & E.D. Giovanni (Eds.), *Multidisciplinarietat en traducció audiovisual* [A taxonomy on the parameters of subtitles for the Deaf and Hard-of-Hearing. Analysis and classification] (pp. 103–132). Alacant: Universitat d'Alacant
- Bartoll, E. (2004). Parameters for the classification of subtitles. In P. Orero (Ed.), *Topics in audiovisual translation* (pp. 53–60). Amsterdam: John Benjamins.
- Bartoll, E. (2008). Paramètres per a una taxonomia de la subtitulació. PhD thesis. Barcelona: Universitat Pompeu Fabra. Retrieved April 12, 2012 from <http://hdl.handle.net/10803/7572>
- Bonwit, S. (1998). Mac at the opera. Retrieved April 12, 2012 from <http://www.wap.org/journal/surtitles/surtitles.html>
- Burton, J. (2001). Writing surtitles. Unpublished paper provided by the author written for the Royal Opera House, Covent Garden, pp. 1–17.
- Burton, J. (2009). The art and craft of opera surtitling. In J. Díaz-Cintas & G. Anderman, (Eds.), *Audiovisual translation: Language transfer on screen* (pp. 58–70). Basingstoke: Palgrave Macmillan. (original version “The Joy of Opera: the Art and Craft of Opera Surtitling” manuscript based on the paper given at the *In So Many Words* conference (London, 6 February 2004) (provided by the author, pp. 1–16).
- Burton, J., & Holden, A. (2005). Oper ubersetzen. *Die Horen, Zeitschrift für Literatur, Kunst und Kritik*, 218, 124. (original English version “Translating Opera” manuscript provided by the authors, pp. 1–7).
- Cabeza, C. (2010). Opera audio description at Barcelona’s Liceu Theatre. In J. Díaz-Cintas, A. Matamala, & J. Neves (Eds.), *New insights into audiovisual translation and media accessibility* (pp. 227–237). Amsterdam: Rodopi.
- Cabeza, C., & Matamala, A. (2008). La audiodescripción de ópera: la nueva propuesta del Liceu. In Á. Perez-Ugena & R. Vizcaino-Laorga (Eds.), *Ulises y la Comunidad Sorda* (pp. 195–208). Madrid: Observatorio de las Realidades Sociales y la Comunicación.
- Carlson, M. (2006). *Speaking in Tongues: Languages at Play in the Theatre*. University of Michigan Press.
- Desblache, L. (2007). Music to my ears, but words to my eyes?: Text, opera and their audiences. *Linguistica Antverpiensa, New Series*, 6, 155–170. (A tool for social integration? Audiovisual translation from different angles).
- Dewolfé, L. (2001). Surtitling operas. With examples of translations from German into French and Dutch. In Y. Gambier & H. Gottlieb (Eds.), *(Multi) Media translation, concepts, practices and research* (pp. 179–188). Amsterdam: John Benjamins.
- Espasa, E. (2000). Performability in translation: Speakability? Playability? or just saleability? In C.-A. Upton (Ed.), *Moving target. Theatre. Translation and cultural relocation* (pp. 49–62). Manchester: St. Jerome.
- Ezpeleta, P. (2007). “Teatro y traducción. Aproximación interdisciplinaria desde la obra de Shakespeare”. Madrid: Cátedra.
- Griesel, Y. (2005). Surtitles and translation towards an integrative view of theater translation, *MuTra 2005 – MuTra 2005 – Challenges of Multidimensional Translation: Conference Proceedings*, pp. 1–14. Retrieved April 2, 2012 from [http://www.euroconferences.info/proceedings/2005\\_Proceedings/2005\\_Griesel\\_Yvonne.pdf](http://www.euroconferences.info/proceedings/2005_Proceedings/2005_Griesel_Yvonne.pdf)
- Griesel, Y. (2009). Surtitling: Surtitles another hybrid on a hybrid stage. *TRANS*, 13, 119–127. (consulted 3 April 2012).

- Kaindl, K. (1997). Die Übersetzung als Inszenierung: Ein interdisziplinärer Rahmen zur Analyse von Opernübersetzung. *Target*, 9(2), 271–287.
- Low, P. (2002). Surtitles for opera. A specialised translating task. *Babel*, 48(2), 97–110.
- Matamala, A., & Orero, P. (2007). Accessible opera in Catalan: Opera for all. In J. Díaz-Cintas, P. Orero, & A. Remael (Eds.), *Media for all: Subtitling for the deaf, audio description and sign language* (pp. 201–214). Amsterdam: Rodopi.
- Mateo, M. (2001). Performing musical texts in a target language: The case of Spain. *Across Languages and Cultures*, 2(1), 31–50.
- Mateo, M. (2002). Los sobretítulos de ópera: dimensión técnica, textual, social e ideológica. In J. Sanderson (Ed.), *Traductores para todo. Actas de las III Jornadas de doblaje y subtitulación* (pp. 51–73). Alicante: Universidad de Alicante.
- Mateo, M. (2007a). Surtitling nowadays: new uses, attitudes and developments. *Linguistica Antverpiensia, New Series*, 6, 135–154. (*A tool for social integration? Audiovisual translation from different angles*). Antwerp: Hoger Instituut voor vertalers en tolken.
- Mateo, M. (2007b). Reception, text and context in the study of opera surtitles. In Y. Gambier, M. Shlesinger, & R. Stolze (Eds.), *Doubts and directions in translation studies* (pp. 169–182). Amsterdam: John Benjamins.
- Miquel-Iriarte, M., Vilaro, A., Orero, P., Serrano, J., & Delgado, H. (2012). Entitling: A way forward for accessibility. In E. Perego (Ed.), *Eyetracking in audiovisual translation* (pp. 259–276). Roma: ARACNE Editrice.
- Oncins, E., Lopes, O., Orero, P., Serrano, J., & Carrabina, J. (2013) Multi language and multi system mobile application to make accessible live performing arts: All together now. *JosTrans 20. "Image, Music, Text ...?" Translating Multimodalities: Special Issue*.
- Orero, P. (Ed.) (2004). Topics in Audiovisual Translation. Benjamins Translation Library 56. Amsterdam: Benjamins.
- Orero, P. (2007). Sampling audio description in Europe. In J. Díaz-Cintas, P. Orero, & A. Remael (Eds.), *Media for all: Subtitling for the deaf, audio description and sign language* (pp. 111–125). Amsterdam: Rodopi.
- Pavis, P. (1989). Problems of translation for the stage: Interculturalism and post-modern theatre. In H. Scolnicov & P. Holland (Eds.), *The play out of context: Transferring plays from culture to culture* (pp. 25–44), Cambridge: Cambridge University Press. traducción inglesa del artículo de L. Kruger.
- Pereira, A. (2010). Criteria for elaborating subtitles for deaf and hard of hearing adults in Spain: Description of a case study. In P. Orero & A. Matamala (Eds.), *Listening to subtitles: Subtitles for the deaf and hard of hearing* (pp. 97–102). Bern: Peter Lang.
- Romero-Fresco, P. (2012). Quality in live subtitling. The reception of respoken subtitles in the UK. In A. Remael, P. Orero, & M. Carroll (Eds.), *Audiovisual translation and media accessibility at the crossroads* (pp. 111–132). Amsterdam: Rodopi.
- Stagetext. (2003). Stagetext: Current access provision. Retrieved April 12, 2012 from <http://www.stagetext.org/content.asp?content.id=1010>
- Vervecken, A. (2012). Audiovisual Translation across Europe. An Ever-changing Landscape. In S. Bruti & E. Di Giovanni (Eds.), *Series: New Trends in Translation Studies*. Vol 7. Berlin: Peter Lang.
- Weaver, S. (2011). Opening doors to opera. The strategies, challenges and general role of the translator. *InTralinea*, 12. Retrieved April 12, 2012 from <http://www.intralinea.org/archive/article/1660>



## “The Process of Subtitling at Film Festivals: Death in Venice?”<sup>1</sup>

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### **Abstract**

*Much has been written on subtitling films and TV content, but little is known about the process of subtitling for film festivals. Compared to ordinary films seen in the cinemas or on TV, in the case of film festivals technology has a higher impact on both the process and the display. This contribution presents a retrospective analysis of the subtitling practice at film festivals, data gathered from the Venice Film Festival - which is the oldest festival of its kind dating from 1932. Though the subtitling process may not be the same as in other film festivals, the underline principles remain the same.*

**Keywords:** Subtitling, Surtitling, Film Festivals, Multilingual Subtitling, Venice Film Festival

### **1. Introduction**

Until 1985 with the introduction of the electronic subtitling, the creative process of subtitles was difficult and costly, these surprised given the fact that its use was ephemeral: usually one or two showings. While, on the other hand the final product itself was used only for the festival<sup>2</sup>. After the film premiere at the festival, the print could not be further distributed in Italian, which has mainly a dubbing tradition. Furthermore, the elaboration process of the subtitles for a film festival presents three main particularities: timing, material available and medium of display. These features rarely have the same impact in other subtitling practices. Finally, over the last two decades a digital process has emerged to challenge photochemical filmmaking, affecting all stages from the film script to the screening of the film. Hence, as part of the audiovisual product, new subtitling practices are being adapted to the new digital products presented at the Venice Film Festival. Digitization of audiovisual products has opened new questions related to subtitling requirements and processes. But it also offers new subtitling possibilities adapted to the changing patterns of audiovisual products consumption.

The purpose of this paper is to study the characteristics of subtitling practices at film festivals. It takes stock of audiovisual translation practices conducted at festivals to date, and raises questions about new challenges inherent for subtitling practice, especially taking into consideration both the turn towards digitization and the rise of new distribution platforms like the Internet. The paper in the first instance will outline the essential features of film festivals, arguing that international film festivals are a specific form of multimodal translation, where audiovisual translation is highly dependent on the venue and technologies available. For that reason it will put forward a diachronic analysis of the technical developments introduced at the Venice Film Festival from the first documented guidelines in the 1950s until 2012. Moreover, new platforms like the Internet, and possible viewing formats such as complementary second screens as Smartphone (Oncins et al forthcoming), their effect on subtitling will be presented and discussed in the context of the demands of new audiences, such as accessibility. Secondly, the paper will deal with the user's reception needs in such events.

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<sup>2</sup> As the article ‘‘ORANGE’’ to Venice with Italo’ published in Variety in 1972, points out: ‘‘Stanley Kubrick’s, ‘A clockwork Orange’, which gets an official Venice Film Festival screening Aug. 23, will be shown at the Lido event in its original English-language version plus Italo subtitles. Though Venice regulations ‘suggest’ Italo titles on foreign pix, French-titled prints are accepted and, since these can be used in Paris playoffs anyway, are generally preferred to an Italian titling job, which gets almost no play after its Venice exposure’. Variety (1972) July 26, p 15.

Finally, it will address questions related to the digitization of films and the implications for the subtitling practices. The paper will conclude with some considerations for future research.

## 2 - Defining International Film Festivals

Film festivals are held mainly annually, usually for one or two weeks, with the purpose of celebrating, rewarding and evaluating new film productions as well as recognizing outstanding achievement in the cinematic arts. Depending on the film festival sponsorship may come from national or local government, industry, service organizations or individual linked to the film industry, experimental film groups or any organization or individual related to the film industry. Festivals provide an opportunity for filmmakers, distributors, critics, and anyone interested in the film industry to attend film screenings and discuss current and to new artistic developments in the industry. Festivals consist of several film sections that are determined by the festival organization. Each section has a director who will choose which films will feature in it, according to the indications of a committee of film experts. Additionally, films may only be submitted for consideration by the festival providing that they meet the demands of the structural framework established by the festival organization.

According to the report from the International Federation of Film Producers Association (FIAPF), in 2008 ‘the number of film festivals with the word “international” in their title has continued on its lineally, exponentially growth curve, with various estimates now putting the number at between 700 and 800 worldwide’. However, not all film festivals have the same impact on the film industry. Within this context, Venice, Cannes and Berlin are the most prestigious film festivals in Europe, and Toronto has grown to be the most influential film festival in North America. The table below provides statistics concerning participation and attendance of the major four film festivals:

	Venice (66 <sup>th</sup> ed)	Cannes (62 <sup>th</sup> ed)	Berlin (59 <sup>th</sup> ed)	Toronto (34 <sup>th</sup> ed)
Number of films presented	184	84	389	332
Number of world premieres	109	77	139	135
Number of international premieres	9	7	50	47
Number of press and correspondents covering the festival	2.276	4.245	3.983	1.104
Proportion of press from outside the country in which the festival is located	41%	55%	NC	40%
Number of sales companies and distributors or other buyers	174	NA	1.058	1.353
Proportion of sales companies and buyers from outside the host country	30%	NA	NA	95%
Number of screening facilities	8	5	52	33
Total number of seating capacities	5.201	5.300	15.823	13.203
Number of admissions	165.701	183.109	486.955	470.000

**Table 1. FIAPF (2009)**

It is clear from this data that the number of press correspondents covering the film festival can conform up to half of the audience capacity. Journalists and film writers cover the entire festival and have exclusive entrance to press screenings of the films, which are then followed by press conferences with the crew and production team of the film. One of the main aims of any international film festival is to provide a reliable platform for the promotion of films internationally. As Nornes (2007: 65) points out ‘The film Festival is a scene of power. Festivals make and break careers’. Filmmakers, distributors, producers, critics, actors and any professional related to the film industry attend these events to join in the network. The cultural and symbolic value of film festivals means that all countries aim at having their own film festival and all film productions plan at some of point to be present at an international film festival. Therefore, the success of a film premiere at any International Film Festival will depend in great part on its reception. Within this context, it could be said that translation renders film festivals possible and accessible to an international attendance, because it is necessary in most of the events organised within the festival beyond the actual screening, from press conferences to business meetings or presentations before screenings.

As the operational procedures for any film festival are similar this paper focuses on the Venice Film Festival, which is the oldest film festival in the world.

### 3. Defining the Venue

The Venice Film Festival was founded in 1932, under the dictatorship of Mussolini, as part of the Venice Biennale and was a non-competitive event. The second edition was held in 1934, this time with a competitive dimension. From 1935 onwards it became an annual event with the exception for the years during the Second World War. The Festival was held again in 1946 and ever since it takes place annually, during two weeks, in late August or early September on the island of the Lido in Venice (Italy). In 2012 the festival celebrated its 69th edition, but most important its 80th anniversary (1932-2012). This film festival is recognised as one of the most important events in the film industry. In the 69th edition, 113 films (including feature, documentaries and short films) were screened at the official sections, from which 50 were world premieres. The Festival presents two main types of events: official and independent sections. While the former is managed by the Venice organization, the latter sections are independent from the Venice Film Festival and managed by the *Sindacato Nazionale Critici Cinematografici Italiani* (National Union of Italian Film Critics in Italian), with the aim of promoting new cinematic trends. Since in both types of events the films present the same formal characteristics, this article will focus on the official sections. Furthermore, the new non-competitive section *Your Film Festival*, which runs within the Venice Film Festival, will be outline in section 5.3, with the aim of explaining the impact of digitization on both - film and the subtitling practice.

The official sections, which screen only new films, are:

- *Venezia 69* (international competition of feature films),
- *Out of Competition* (important works by directors already established in previous editions of the Festival),
- *Orizzonti* (new trends in world cinema)

While restored films are also presented in the following sections:

- Retrospective section *80!* (rare films from the Biennale's Historical Archives)
- Retrospective *Venezia Classici* (a selection of restored classic films and documentaries on cinema).

Depending on whether the film is a new production or a restored film the screening will take place in a specific venue. This fact affects the viewer experience since it is not the same to sit at the Sala Grande (see image 1) or Pale Biennale (see image 2), with 1,032 and 1,700 seats, respectively, than the Sala Passinetti or Sala Volpi (see image 3), both with 150 seats. Within this context, films competing at the official sections *Venezia 69*, *Out of Competition* and *Orizzonti* are mainly screened at the Sala Grande and Pale Biennale, while restored films from the *Retrospective 80!* and *Venezia Classici* are mainly screened at the Sala Passinetti and Sala Volpi.



Figure 1. Main screen at the Sala Grande with 1,032 seats



**Figure 2. Main screen and screen with subtitles at the Pale Biennale 1,700 seats**



**Figure 3. Sala Volpi with 150 seats**

Moreover, the Venice Film Festival has adapted to new technologies and has included a new venue and viewing format, the *Sala Web*, where the films are streamed. The user can connect to the purposely-designed Internet platform, which allows film viewing in streaming of 10 feature-length films and 13 short films from the *Orizzonti* section from a computer all over the world with access to Internet. The *Sala Web* concept has 500 virtual seats, and tickets might be purchased online, then a personal link is sent for one-off viewing in streaming on a computer within a restricted 24-hour period. Films are provided in the original version with English subtitles. From the many Festival sections and the cinema theatres it can be safely said that not only the film content, but film screening has an influence on the audience.

The events held at the Venice Film Festival present three main forms of translation: simultaneous interpretation, simultaneous translation<sup>3</sup> and subtitles. The first translation form, simultaneous interpretation, can be mainly found at press conferences and it is provided from any language into Italian, English and French. The second form, simultaneous translation, is provided in French language but only for selected premieres screened in original version at the Sala Grande (see image 1). This technique was introduced at the Berlin Film Festival in 1959, where high-frequency receivers were offered to non-German speaking audiences for simultaneous translation in English, French and Spanish.

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<sup>3</sup> This form of translation at film festivals has already been dealt in AVT studies (Agost 1999, Bartoll 2008, Chaume 2003, Diaz-Cintas 2003, Gambier 1996). However, as argued by Bartoll (2008) no agreement among the authors can be found about the use of a standard term. Some authors refer to it as 'simultaneous interpretation' and others describe it as 'simultaneous translation'. For the purpose of this paper the term used will be 'simultaneous translation' in order to differentiate it from the simultaneous interpretation provided at the press conferences.

During the 60s earphones were also used in other festivals like Karlovy Vary and Moscow<sup>4</sup>. The use of earphones has also been a polemic issue among professionals from the film industry. Some directors, producers and distributors have favoured the use of earphones since they feel that screen pollution with subtitles 'ruined the photographic look of the picture'<sup>5</sup>. The fact is that simultaneous translation has remained over the years and can still be found in most film festivals in combination with subtitles.

The third translation form, subtitles, is used at the Venice screenings, where the subtitles are provided in Italian and English. Subtitles in Italian are embedded at the bottom of the screen and subtitles in English are projected on a small screen placed outside the main screen (see image 2). As part of the audiovisual product, subtitles are imposed by both regulations and technological facilities. The former are determined by each constituent organization within the overall film festivals and are mostly determined by their historical context. The latter refers to the technological developments introduced over the years at the film festival in terms of subtitling practice. Both aspects aim to overcome the linguistic needs of the audience –linguistic accessibility--, at the expense of neglecting the issue of accessibility for sensory disabilities. In the following section a retrospective analysis of subtitling regulations and technologies introduced at the Venice Film Festival will be provided.

#### 4. Regulations

Regulations at film festivals establish the parameters by which filmmakers are allowed to present their audiovisual product to a broad and international audience. Nowadays, subtitles are part of the power play implicit in this process, but during the early years of the Venice Film Festival the decisions about any element related to the film translation were made at a political level. In fact, if we look at the early years of the festival, subtitling was not mentioned in the regulations and films had to be submitted in their original versions. Therefore, no translation in Italian –or any other language- was provided during the screening. As Durovicova (2009: 98) states:

“As a direct reaction to the threat of such linguistically threaded trade competition (and in full congruence with Mussolini’s nationalist film policies) the Venice Film Festival asserted itself from its very beginning in 1932 as a *translatio-free*<sup>6</sup> zone, refusing to accept any versions as any translated films, whether dubbed or subtitled.”

Subtitles were first mentioned in Venice Film Festival regulations in the 1950s, and only for non-Italian speaking films. Subtitles could be submitted in Italian or French but it was only a recommendation. In the event of a film not being submitted with subtitles, there was an increased possibility of poor reception on the part of the critics from the specialized film press<sup>7</sup>, thereby jeopardising any possibility of winning a prize<sup>8</sup> at the festival. However, subtitles have tended to generate polemic among all kind of audiences, from general viewers to professionals from the film and press industry. The article “Subtitles must go!”<sup>9</sup> by Crowther (1960) was a negative critique against the subtitles arguing in favour of dubbing practices. Most film distributors and producers welcomed Crowther’s article, mainly because subtitling films for a dubbing countries represents an additional cost for the film industry, especially in the case of film festivals, where subtitles remain an intermediate step before the release in other distribution platforms mainly: theatres, DVD or Blu-ray or Video-on-demand. It is important to remember that Italy has been always a dubbing country so subtitles have represented an additional cost for the film industry. A clear example is the case of Giuseppe Amato a famous Italian producer, who agreed with Crowther’s vision and added that for Fellini’s film *La Dolce Vita* he was planning to make two English language versions one for the British market, and the other for the US.

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<sup>4</sup> “Boxoffice, Art, Politics Not all that Complicates Fest O’seas; also Lingo” Variety (1968), 25 September, p.39.

<sup>5</sup> Ibid.

<sup>6</sup> The author argues that by using the term *translatio* an extended description of the translation process is provided. Including the social and political ground-rules of text transfer (Durovicova 2009: 95)

<sup>7</sup> In 1952 the screenings of the American film Metro’s “Ivanhoe” and the British films “The Importance of Being Earnest” and “Mandy” were screened and without subtitles and in an article published at Variety the reaction of the audience was that: ‘Its weak point was a lack of subtitles to explain the wordy dialog’ “Hollywood entries nab good reaction as Venice Film Fete in final week”. Variety (1952), 10 September.

<sup>8</sup> In 1968 the film “Faces” that obtained an acting prize was screened untitled and in an article from Variety it asserts that: ‘one jury member confided it did not get a bigger one due to being untitled’ “Boxoffice, Art, Politics Not all that Complicates Fest O’seas; also Lingo” Variety (1968), 26 July.

<sup>9</sup> The article “Subtitles must go!” was published in the New York Times on 7 August 1960, some weeks before the opening of the 13th Venice Film Festival and opened a polemic within the film industry.

However, for the festival the film was screened with subtitles. In his own words: ‘the film may nevertheless open first in titled form (“to get the reviews”), and then follow up with a mass release in dubbed form’<sup>10</sup>. In this sense, as Cronin (2009) remarks it could be stated that subtitling signals otherness, while dubbing delivers it masked to the audience. However, both practices have to deal with the problems posed by the technical constraints of synchronization of the original sound of the film with subtitling and dubbing.

By the late 60’s the regulations in Venice, like in most international film festivals, stipulated that all films submitted had to be in their original versions with subtitles in the language of the festival host country. In Venice as has been noted subtitles were accepted in Italian or French. But since the late 80’s film festivals started to include also subtitles in English, which had emerged as a ‘lingua franca’ (Nornes 2007: 165) in influential fields such as politics and finance. Today, the producer has to provide subtitles in Italian and the festival pays for the subtitles in English. However, in Italy it is difficult to get films printed with subtitles, once again because general distribution uses dubbing. Moreover, as we have seen if a producer presents a film with Italian subtitles embedded, the film will have no shelf-life after the festival. Therefore, as Federico Spoletti points out: ‘The festival fights a lot to get prints with subtitles in Italian. But directors are allowed to screen a film with English subtitles engraved and Italian subtitles displayed’. It can be said that the role of the technological developments introduced in subtitling practice has been crucial in rendering the films accessible to international audiences in permitting language accessibility to foreign films.

The section that follows will deal with the impact of new projection technologies, introduced in 1985 which enabled the combination of different languages for the same screening. Additionally, mention will be made to the influence that digitization is having in all steps involved in the audiovisual field, from production to distribution and final reception, which also affects the subtitling practice. Finally, mention will be made to the improvements and challenges that new projection platform - such as the Internet and second screens as Smartphone or tablets - are having on subtitling practice, particularly in the new sections that are being presented at the Venice Film Festival.

## ***5. Projection technologies***

In 1940 most films were produced in black-and-white, in America only 4 per cent of the films were in colour<sup>11</sup>. In terms of conventions it should be mentioned that from the beginning, the position of the subtitles in western countries was placed at the bottom of the screen and in white colour. Therefore, when the bottom part of the screen was white, subtitles could not be read<sup>12</sup>. Another further problem with the subtitles, which directly affected the film, was that mechanical, thermal and chemical processes provided a burned-in text in the screen, which could neither be removed nor modified. According to Nornes (2007) all these processes required technical rather than linguistic skilled professionals and subtitles with misspellings and typos became a common problem. It was not until 1988 with the introduction of laser subtitling that problems related to the subtitle colour, misspelling and elaboration times were improved. This technology is a computer-based system, which allows the user to typeset and cue the video display by means of time coding or frame counting. Therefore, subtitles are more effective in both: elaboration time and costs, but still required ‘a higher investment in equipment’ (Ivarsson 2002: 3). However, the need to burn-in the subtitle text still remains a problem in terms of distribution costs and time, especially in the specific case of film festivals which have their own regulations and film copies usually have to be submitted in original version with subtitles in the language of the festival’s country.

### **5.1 The impact of Softtiter**

In 1984 a new age for subtitling in film festivals started with the developments introduced by the company Softtiter, based in Florence (Bartoll 2008). In 1985 this company presented a revolutionary electronic subtitling technology at the Florence Film Festival. This new system was mainly conceived for film festivals.

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<sup>11</sup> According to Cook and Bernink (1999:51) ‘In 1940, only 4 per cent of American features were in colour. By 1951, this figure had risen to 51 per cent as a result of shrinking budgets and the emergence of the back-and-white television. By 1967, however, the television networks having turned to colour broadcasting, the percentage rose once more to 75 per cent, and in 1976, to 94 per cent.’

<sup>12</sup> This question also caused discomfort among audiences attending theaters that provided films in original versions with subtitles.

For the first time a subtitling system provided an alternative to the burned-in subtitles. It was a computer-based system that displayed the subtitles in a LED screen and could deliver two languages simultaneously. As Bartoll explains:

‘The program is used to subtitle 16 mm, as well as, 35 mm films. In the case of 35 mm, a barcode is usually registered in the celluloid and a reader system, placed in the projector, automatically identifies when the subtitles have to pop up in the display. In the case of 16 mm, the display of subtitles is determined by the time. Therefore, when the projection of film starts, the broadcast of the subtitles have to be manually activated’ (My translation). (Bartoll 2008: 372)

This technical development was especially important for international film festivals taking place in non-English speaking countries, where subtitles are provided in the host country’s language and English. In fact, this new technology was introduced in different film festivals around the world like: Toronto, Cannes, Bafta, Florence or Turkey and was welcomed by both audiences and festivals organizations<sup>13</sup>.

## **5.2 New projection technologies**

During the many years at Venice Film Festival subtitling practices and companies have coexisted offering the services, making the study of the subtitling practice is almost impossible given the lack of data kept regarding this issue in the Festival archives, but from 2005, the company SubTi based in London provides the subtitles. The stability provided by one single company in the last seven years offers the first real opportunity to study and understand how the service is provided along the many challenges posed by the process. SubTi started using electronic subtitles displayed on a LED screen but nowadays they use video projection screens (see image 2), which allow more flexibility for the text presentation in terms of colours, font or size than a LED screen. Furthermore, they have developed their own software, which allows them to automatize the projection of the subtitles. Once the film starts subtitles are automatically synchronized with the film, nevertheless for quality control an operator is always present to check the correct synchronization, especially at the beginning and at the end of each reel. Since the current regulations require subtitles in Italian and English for films in another third language, subtitles in both languages are displayed in two different screens: Italian subtitles for non-Italian speaking films are provided in the main screen and English subtitles are projected in a smaller screen outside the main screen (see image 2). Within this context, the technological developments introduced in the film industry with the digital technology over the years, have been crucial to increase storage capacities, reduce production times and costs and allowing new projection platforms to distribute the films worldwide.

## **5.3 New projection platforms**

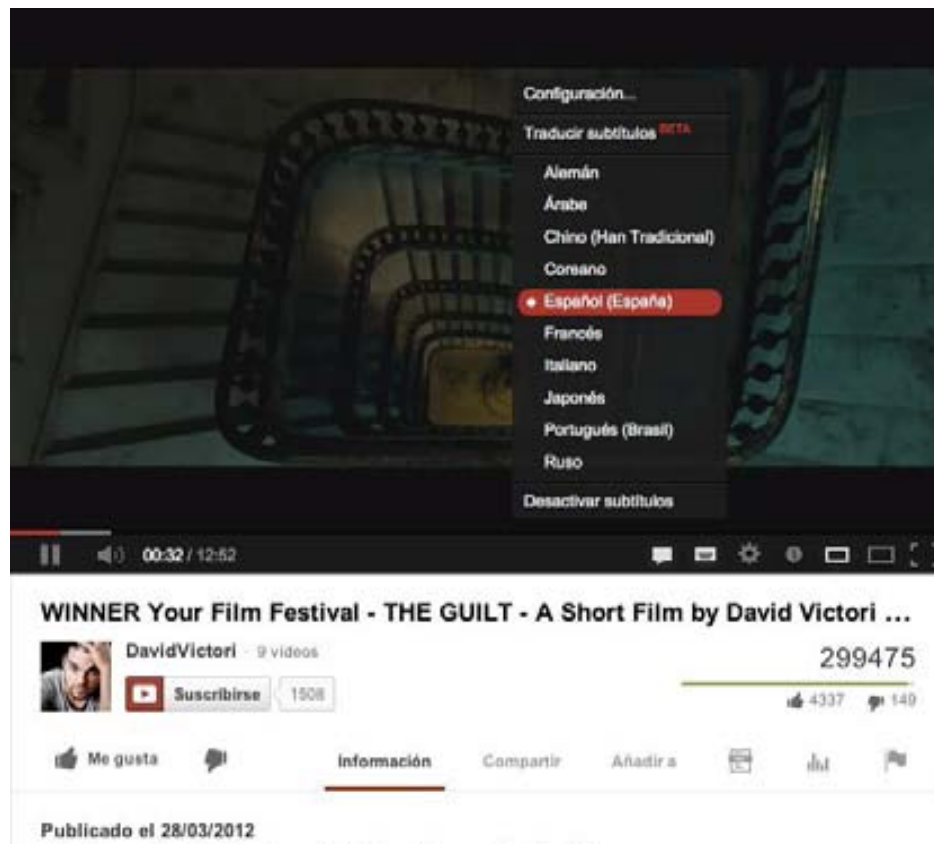
Nowadays, most films are produced with digital technology, which has been improved since its beginnings. This revolutionary technology has completely changed the film production mainly in terms of time saving, easy conversion to other formats and financial costs improvements. It allows filmmakers to visualize and edit the film on-time, deletes conversion problems from analogue technology, and minimizes the production time and costs compared to the previous process of burned in or laser subtitles in photochemical films. Additionally, digitization is also having a great impact on the distribution system with the introduction of the Digital Cinema Initiative Package (DCP), which enables audiovisual works to cross-border distribution and gain access to other countries. This fact is also affecting the subtitling industry and practices. As Federicco Spoletti mentions ‘we started in Venice in 2005 every film was in 35 mm or DigiBeta. Nowadays, probably the 10% of the film is in prints and 90% is in DCP.’ One of the main advantages of the audiovisual productions in digital format for the subtitling practice is that subtitles can be inserted easily and for a smaller cost than embedded subtitles, allowing also to convert the format to different distribution platforms easily, compared to the unfeasible conversion of the embedded subtitles. Additionally, DCP solves the distribution problem presented in the host countries of film festivals with a dubbing tradition because subtitles can be switched off once the festival is finished. However, as Durovicova asserts:

‘Digitized cinema, capable of near-infinite and near-instantaneous global circulation, is thus bound to depend on an adequate translation track even more than photo-cinema ever did’ (Durovicova 2009: 108)

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<sup>13</sup> ‘A Turkish delight despite fears of war’ *Variety* (1991), 4 August.

One of the main reasons of the increasing need on producing adequate translations, is that a rising amount of digital audiovisual materials is being constantly uploaded and circulate on the Internet, throughout emerging platforms like YouTube or Vimeo or 'video on demand' to name the most popular. In this sense, the Venice Film Festival in 2012 introduced a non-competing new section: *Your Film Festival*, which runs in parallel with the other official sections and was sponsored by YouTube and Emirates Airlines in partnership with The Venice Film Festival and Scott Free to promote the work of novel filmmakers. This section in 2012 consisted of ten short films from new filmmakers and was screened at the Sala Pasinetti (see image 3). The *Your Film Festival* received a total of 15,000 submissions and an internal first selection of 50 videos was carried out, later votes Internet users voted the ten finalists for the festival. The winner short film was 'La Culpa'<sup>14</sup> (The Guilt) from David Victori, which was available on the web in Spanish with subtitles in ten languages (see image 4)



**Image 4. Languages available for the short film 'La Culpa' on YouTube platform.**

The submission of a short film was subjected to given rules and the process required to upload the short film on the *Your Film Festival* website, which was using the YouTube platform offering auto-captioning service through Google automatic speech recognition (ASR). In addition, YouTube also offers the possibility to upload the transcript of the film. In this case, speech recognition is used to match the transcript to the video and thus generate a caption file automatically. In both cases, once the captions are created the film owner can download the file in .srt format and make the corrections. Within this context, attention should be made to the increasing number of tools for subtitling/captioning online audiovisual material on the Internet<sup>15</sup>. In terms of subtitling quality, auto-captioning and subtitles translation on YouTube videos, they present accuracy problems both in language and synchronization. One of the main reasons is that accuracy of any transcription provided throughout ASR, is highly dependent on having an acceptable quality of sound. Therefore, to have the sound quality under control is crucial. In this sense, videos containing music or superimposed dialogues present quality problems in the auto-captioning process and thus the derived translations might be further affected.

<sup>14</sup> The short film 'La Culpa' can be found on: <http://www.youtube.com/watch?v=FiiKS2xRSdE> <retrieved on 10 November 2012>

<sup>15</sup> For more information regarding specifications and features of tools for captioning on line audiovisual materials visit: <http://www.accessiq.org/content/tools-for-captioning-online-videos> <retrieved on 10 November 2012>



In addition, language accuracy hardly depends on the existing data available on the Internet, where the text information is retrieved. Since most of the data on the web is in English, accuracy for English-speaking videos is more accurate than for other minority languages like Catalan for instance. In this sense, following the explanations provided by Dom Elliot, product marketing manager of Google and YouTube in London: 'Wikipedia is actually a very effective source of languages because humans translate a lot of that data and that helps to power the search and keeps improving the database'. But, the question about the quality standards of an 'adequate translation' remains unanswered: Therefore, further research in this field especially in AVT studies is crucial. Because as Federico Spoletti asserts: 'automatic translation will take definitely control. Good translators will be involved anyway because there is a need of proofreading and to check everything, but we are definitely going to automatic translation and subtitling'. In this sense, new platforms are challenging the figure of the subtitler not only at film festivals but also in the current practice. Therefore, major attention should be made to the clear influence that the Internet is having on AVT studies and practice. Because this platform is also affecting the user's attitudes on the consumption of audiovisual works, a subject that also deserves much attention in AVT studies.

#### **5.4. New projection needs**

The main function of subtitles is to render films accessible to all audiences overcoming the linguistic barrier, regardless of their language combination. However, accessibility services for sensory impaired audiences at the Venice Film Festival were first introduced in 2008, announced outside the official program and only for some Italian films in competition. Since then accessibility at the festival has not been improved and is provided free of charge by the subtitling company SubTi, in sponsorship basis. Therefore, these audiences are still being excluded from such events<sup>16</sup> even if the technologies are available and could be adapted to the existing facilities at the festival. For instance, audio descriptions (AD) for visually impaired audiences could be provided with the same earphones or receivers addressed to the French speaking audiences. In addition, accessibility solutions could be provided with the use of new technologies that are already available in the market. As Oncins *et al.* (2013) point out: 'New mobile phone technology is ubiquitous and has also entered cinemas and theatres. The displaying of access services is beginning to be available as in-house technology'. Within this context, the Venice Film Festival has developed a Smartphone application which allows the user to check the different screenings and venues. Therefore, accessibility services could be introduced in the application improving the accessibility services available.

#### **6. User reception**

Another important factor is the mode in which the subtitles are displayed. Depending if the audience need embedded or displayed subtitles, the gaze movement of the viewer will differ. The films that include both displays formats present, what Spoletti calls, the 'Christmas tree effect', which is produced by the combination of the subtitles embedded or projected appearing at the same time during the screening of the film. In order to minimize this effect, subtitles in both languages have the same spotting but present different lengths due to the language differences and also exposition time might be slightly larger for the projected subtitles to allow readability times. Also, it might occur that audiences relaying in the projected subtitles have longer gaze fixations in the screen displaying the subtitles because it is placed outside the main screen. In this sense eye-tracking experiments could provide significant data on the reception effects generated by the use of both display modes in the screening of a film. A further reason for the use of two different displays at film festivals is that as Federico Spoletti explains 'Filmmakers do not want to have two strips of subtitles on the image because they do not want you to cover the image'. As mentioned in section 5.1., the use of secondary screens such as Smartphone could allow the inclusion of subtitles in multiple language versions and also increase and improve the existing accessibility services, which at the moment are still very limited. Also, the use of Smartphone would allow the subtitle company to include all parameters needed to render the films accessible to sensory impaired audiences in a more effective form.

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<sup>16</sup> In the film *Babel*, which won an award at the Cannes Film Festival, there is a figure playing a deaf student in Japan. According to an article from *Variety* in January 2007, nearly 500 hearing-impaired people were invited to a preview screening in Tokyo, but the Japanese-language scenes from the film were not subtitled. Therefore, they left disappointed because it was hard for them to follow the story. "Babel subtitles plea falls on deaf ear" *Variety* (2007), 7 March.

## 8. Conclusions

The Venice Film Festival can be considered a relevant subject of study in order to analyse the developments introduced in the electronic subtitling process to date. Three main factors have been reviewed in this paper: structure and regulations of the venue, technological developments, and reception. While the first is mainly conditioned by contextual political decisions, the second has resolved long and costly elaboration processes, adapting the final product to new consumer needs and trends. But the third factor, that of reception, still remains a factor that clearly requires more research in AVT Studies in order to determine the effect of the use of different displays and platforms on audience perception. Films screened at the festival may be in any language, and most recently, in any language combination. Thus, success of the screening depends on an adequate translation, which may determine the film's international success. Within this context, the introduction of the electronic subtitling system in 1985 could be considered as the first turning point in improving the subtitling process and display at film festivals. However, the recent technological developments introduced by digitization are generating a second turn in this particular AVT field.

Over recent decades digitization has emerged as a main player in the audiovisual industry, revolutionizing all steps involved in the production of the film, from the production to final screening at the venue, including also the subtitling process. Questions relating to the lengthy preparation time and high costs of the subtitling process have been mitigated with the introduction of digital products like the DCP, which allows the subtitles to be turned off after the festival screenings and the digital copy to be distributed without subtitles in other countries. Furthermore, the introduction of new platforms, like the Internet, is changing user's attitudes towards audiovisual consumption. The Internet is also starting to be used at film festivals, like in the case of the *Sala Web* launched in 2012 at the Venice Film Festival or the live broadcasting for the web in events such as press conferences and daily interviews, also available in Cannes, Berlin and Venice. This fact will inevitably have an effect on both: the subtitling practice and the traditional consumer's attitude towards the cinematic experience. Additionally, the increasing number of audiovisual distribution platforms is already challenging researchers and professionals in the subtitling field, forcing them to approach new technologies related to automatic and semi-automatic transcription and translation processes, which are being improved over the years. Moreover, increasing transnational and European projects - such as the EU-Bridge (based on technologies for transcription and translation in the field of closed captions, Universities and parliamentary reports) or EU-SUMAT (an online service for subtitling by machine translation) - are determining the future of subtitling practice. Therefore, the engagement of researchers and professionals in the subtitling field is vital in order to preserve the quality standards.

Finally, one of the limitations still in force at film festivals is the use of only two languages and the need of more effective accessibility services in a larger number of films. As argued by Oncins *et al.* (2013) Smartphone could render the display and visibility of subtitles more effective, especially in large venues like the *Pale Biennale* in Venice, which has 1,700 seats. These platforms would also allow the increase of languages available for each film and benefit the introduction of new accessibility services, addressed to sensory impaired audiences, which still remain a problem to be resolved at international film festivals.

## References

- Arnáiz-Uzquiza, Veronica. (2012) "Los parámetros que identifican el Subtitulado para Sordos. Análisis y clasificación" in *MonTI 4: Multidisciplinarity in Audiovisual Translation/ Multidisciplinarietat en traducció audiovisual*, Rosa Agost Canós, Pilar Orero, and Elena di Giovanni (eds), Alicante, Publicaciones de la Universidad de Alicante: 103-132.
- Bartoll, Eduard. (2012) *La subtitulació: Aspectes teòrics i pràctics*. Vic, Eumo Editorial.
- (2008). "Paràmetres per a una taxonomia de la subtitulació". Universitat Pompeu Fabra. PhD. Full-text version at: <<http://hdl.handle.net/10803/7572>> (accessed 10 May 2012)
- Chaume, Frederic. (2004). "Film Studies and Translation Studies: Two Disciplines at Stake in Audiovisual Translation", in *Meta* 49 (1): 12-24.
- Cook, Pam and Mieke, Bernink (1999). *The cinema book (2<sup>nd</sup> Edition)*. London, British Film Institute.
- Corrigan, Timothy and White, Patricia (2009). *The Film Experience: An introduction (2<sup>nd</sup> Edition)*. Boston, Bedford/St. Martin's.
- Cronin, Michael (2009). *Translation goes to movies*. New York and London, Routledge.
- Crowther, Bosley (1960) "Subtitles must go!", *New York Times*, 7 August.

- Dawtre, Adam (2007) "Babel subtitles plea falls on deaf ear", *Variety*, 7 March.
- Díaz-Cintas, Jorge (2004). "In Search of a Theoretical Framework for the Study of Audiovisual Translation" in *Topics in Audiovisual Translation*, Pilar Orero (ed.). Amsterdam/Philadelphia, PA: John Benjamins Publishing: 21–34.
- Díaz-Cintas, Jorge and Remael, Aline (2007). *Audiovisual Translation: Subtitling*. Manchester, St. Jerome Publishing.
- Di Giovanni, Elena (2012) "From darkness to light in subtitling", in *Between Text and Image. Updating Research in Screen Translation*, Ciara Bucaria, Delia Chiaro and Christine Heiss (eds). Amsterdam, John Benjamins: 197–210.
- Durovicova, Natasa (2009) "Vector, flow, zone: towards a history of cinematic *translatio*" in *World Cinemas, Transnational Perspectives*, Natasa Durovicova and Kathleen Newman (eds)  
<[http://www.academia.edu/1576649/Vector\\_Flow\\_Zone\\_Towards\\_a\\_History\\_of\\_Cinematic\\_Translatio](http://www.academia.edu/1576649/Vector_Flow_Zone_Towards_a_History_of_Cinematic_Translatio)> (accessed 12 November, 2012)
- Egoyan, Atom and Balfour, Ian (2004) "Introduction" in *Subtitles. On the foreignness of film*, Atom Egoyan and Ian Balfour (eds). Cambridge, Massachusetts: MIT Press and Alphabet City Media: 21–30.
- Foerster, A. (2010) "Towards a creative approach in subtitling: a case study" in *Media for All 2: New Insights into Audiovisual Translation and Media Accessibility*, Jorge Díaz Cintas, Anna Matamala and Joselia Neves (eds.). Amsterdam: Rodopi: 81–88.
- Gambier, Yves (2008) "Recent developments and challenges in audiovisual translation research" in *Between Text and Image: Updating Research in Screen Translation*, Pilar Orero (ed.), Amsterdam/Philadelphia, PA: John Benjamins Publishing: 11–33.
- Gottlieb, Henrik (2007) "Multidimensional Translation: Semantics turned Semiotics", in proceedings of the Marie Curie Euroconferences MuTra. *Challenges of Multidimensional Translation*. Saarbrücken 2– 6 May 2005. [http://www.euroconferences.info/proceedings/2005\\_Proceedings/2005\\_Gottlieb\\_Henrik.pdf](http://www.euroconferences.info/proceedings/2005_Proceedings/2005_Gottlieb_Henrik.pdf) (accessed 30 October, 2012)
- (2002) "Titles on Subtitling 1929–1999. An International Annotated Bibliography: Interlingual Subtitling for Cinema, TV, Video and DVD" in *Cinema: Paradiso delle lingue. I sottotitoli nell'apprendimento linguistico*. Rassegna Italiana di Linguistica Applicata, Anno XXXIV, 1/2–2002, Annamaria Caimi (ed.). Bulzoni Editore, Roma: 215–397.
- Ivarsson, Jan (2002) "A Short Technical History of Subtitles in Europe".  
< [www.transedit.st/history.htm](http://www.transedit.st/history.htm)> (accessed 15 November, 2012)
- McClarty, Rebecca (2012) "Towards a Multidisciplinary Approach in Creative Subtitling." in *MonTI 4: Multidisciplinarity in Audiovisual Translation/ Multidisciplinarietat en traducció audiovisual*, Rosa Agost Canós, Pilar Orero, and Elena di Giovanni (eds), Alicante, Publicaciones de la Universidad de Alicante: 133–153.
- Moskowitz, Gene (1968) "Boxoffice, Art, Politics Not all that Complicates Fest O'seas; also Lingo", *Variety*, 25 September.
- Murch, Walter (2001) *In the blink of an eye: a Perspective on Film Editing*. Los Angeles, Silman-James Press.
- Neves, Josélia (2009) "Interlingual subtitling for the Deaf and Hard-of-Hearing", in *Audiovisual Translation: Language Transfer on Screen*, Jorge Díaz-Cintas and Anderman, Gunilla (eds.) Basingstoke: Palgrave MacMillan: 151–169.
- Nornes, Abé Mark (1999) "For an abusive subtitling", in *Film Quarterly* 52:3: 17–34.
- (2007). *Cinema Babel: Translating Global Cinema*. Minneapolis: University of Minesota Press.
- O'Hagan, M. (2007), "Impact of DVD on Translation: Language Options as an Essential Add-On Feature", in *Convergence: The International Journal of Research into New Media Technologies* : 157 –168.
- Oncins, Estella et al. (2013) "Multi language and multi system mobile application to make accessible live performing arts: All Together Now", in *JosTrans (Issue 20): Image, Music, Text...? Translating Multimodalities*, Margaret Clarke, Caterina Jeffcote and Carol O'Sullivan (eds.) (manuscript provided by the author).
- Orero, Pilar (2004) "Audiovisual Translation: A New Dynamic Umbrella", in *Topics in Audiovisual Translation*, Pilar Orero (ed.). Amsterdam and Philadelphia, PA: John Benjamins Publishing: vii–xiii.
- Remael, Aline and Neves, Josélia (2007) "A tool for social integration? Audiovisual translation from different angles", in *A tool for social integration? Audiovisual translation from different angles*, Aline Remael and Josélia Neves (eds.). Amberes, Linguistica Antverpiensia: New Series: 11–22.
- Tenzel, Samantha (1991) "A Turkish delight despite fears of war", *Variety*, 4 August.
- No author (1972) "'ORANGE' to Venice with Italo", *Variety*, July 26.
- No author (1952) "Hollywood entries nab good reaction as Venice Film Fete in final week", *Variety*, 10 September.