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Departament de Traducció i d'Interpretació

Doctorat 'Traducció i Estudis Interculturals'

**SUBTITLING FOR THE DEAF
AND THE HARD-OF-HEARING:
SOME PARAMETERS AND THEIR EVALUATION**

TESIS DOCTORAL

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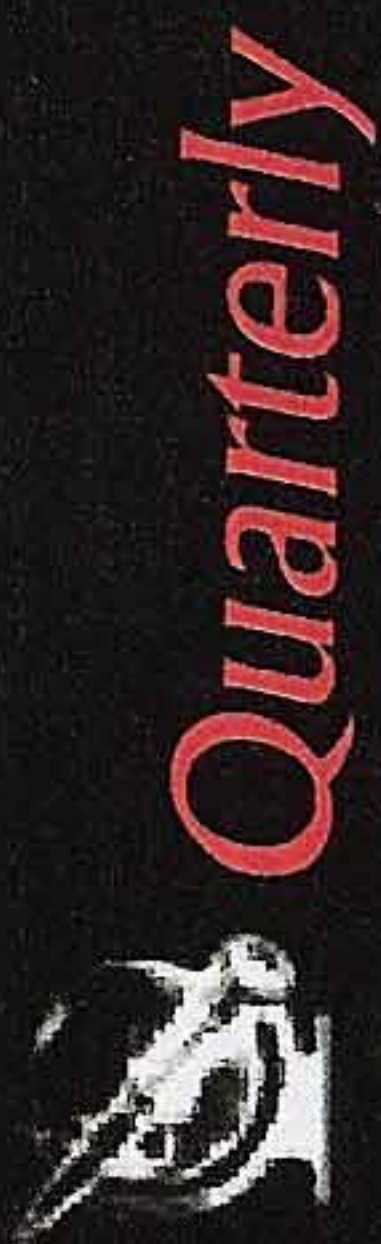
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Editorial

Media Accessibility: Issues and Standards of Audio Visual Translation in Spain and Beyond

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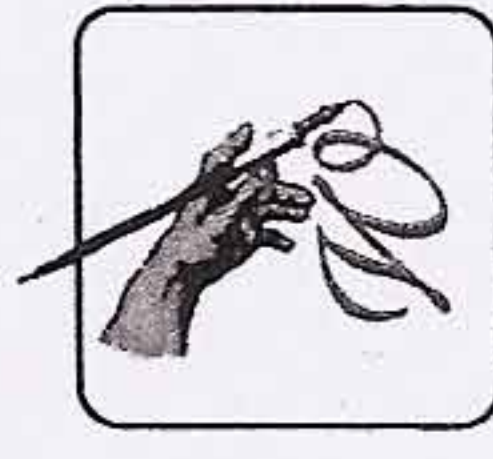
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There is no denying the vital and dynamic role played by Spanish language and culture along modern history and across the world.

The impact of Spanish Language in Southern Europe has enriched literature not just in that corner of the world but extended to the World Wide Web. To cite just one example, the area of "Spanglish" is still worthy of in depth exploration by language professionals. Spanish competes with French, German and English as a language of communication and education. Overseas demand for learning the language for cultural and applied purposes is overtaking the availability of qualified teachers, translators and interpreters. Witness in this respect the contributions being made by the Cervantes Institute both in Spain itself and abroad.

Given the rich complexity of current day Spanish with all the depth of its history, this volume takes a wise course of action by focusing mainly on vital communication areas.

The author of *Research on subtitling for the Deaf and Hard of hearing: TOP SECRET* highlights one of Spain's translational 'top secrets': Audio Visual Translation. By that she means neglect of sufficient research on this worthy subject with particular reference to "Subtitling for the Deaf and Hard of Hearing" (SDHH). This scarcity of research on, if not enlightened interest in, SDHH is indeed a reflection of, and an extension to, a social attitude that is not restricted to Spain alone. With its recent history in Spain SDHH is, however, relatively older than in many other countries. The scarcity of sources the author bemoans is indeed symptomatic of, and more acute in, other European and non-European translational conditions.

Real world considerations seem to have forced the author to drive her attention to factual information and to actual practice in the Spanish situation. The rather negative note the article ends with does not minimize the value of the useful work the author invested in. Nor should real world variables and translational constraints deter a researcher from pursuing the original aim of the study: the analysis of contextual information. While the former constraints are of value for students of the Spanish situation per se, the latter would certainly be of value for those with enlightened interest in the translational aspects of the whole issue.

Research on Subtitling for the Deaf and Hard of Hearing: TOP SECRET?

Verónica Arnáiz¹

Universidad de Valladolid, Spain

ABSTRACT

Research on Audiovisual Translation has lately enjoyed a boom in academia due to the great increase in the market of multi-media products and technological advances. In many countries such as Spain, where dubbing has traditionally been the official translation technique, subtitling, a minor and socially marked discipline, is claiming its place. The increasing social awareness for universal accessibility has given rise to a specific subtitling practice for those with hearing problems: the Subtitling for the Deaf and Hard of Hearing (SDHH). This discipline, first practised in Spain in the early 1990s, has scarcely been studied and, thus, its research is in its infancy. The practice is not easy to classify given the lack of a theoretical framework which leads us to a vastly heterogeneous output. This paper provides a brief overview of the practice in Spain and explains the difficulties encountered when tackling research. The outcome is an attempt to map the situation in Spain which ironically comes to the conclusion that a discipline purporting to promote accessibility has in fact become a 'restricted area' of study: A Top Secret.

KEYWORDS: Audiovisual Translation Studies, Subtitling for the Deaf and Hard of Hearing (SDHH), Media Accessibility.

INTRODUCTION

SDHH as a discipline has been almost unknown in Spain until recent times. It was first introduced as a broadcasting service in 1990 by the public national Catalan television channel TV3, a year before it was adopted for broadcasts by the public Spanish estate channel TVE.² Sixteen years later, part of the audiovisual industry interested in cutting costs along the production and postproduction processes still considers SDHH unnecessary, as ordinary subtitles are thought to be sufficient to meet the needs of Deaf and Hard of Hearing (DHH) users. This is one of the reasons why this form of audiovisual translation remains 'hidden', but it is our belief that its silent development is worthy of further investigation.

With this situation in mind it was thought to be necessary to map the production of SDHH Spanish industry in order to study the many distinguishing elements which differentiate subtitles for the DHH from ordinary subtitles – its contextual information. But before the study was launched, a mandatory search for some academic literature on the subject was required. At this stage, only a short list of texts and surveys conducted by different deaf associations and institutions was found³, making it necessary to move a step forward and contact the DHH community in order to have some first-hand information on the topic.

A service company developed within a local DHH community, MQD-Aransbur⁴, showed us the first glimpse of the current situation of SDHH in Spain. With their help it was possible to begin to identify the sources of production of accessible audiovisual material available to the DHH:

- 1) Television stations
- 2) DVD and VHS distributors
- 3) DHH associations

Access to the materials and any sources of information was the first stepping stone for the advance of this study. Given the small market and short tradition, such an apparently 'reduced' subject of investigation led in reality to complex and uneven practises.

Although the aim of the current study was the analysis of contextual information, the number of variables found in the process of building up the corpus, together with difficulties encountered when mapping out SDHH production in Spain, made it necessary to redirect the original project. The limited access to any information related to SDHH production, the ongoing production processes taking place in the Spanish market, and the identification of all the agents involved were the final goals of the present study.

SOURCES OF BROADCASTING SDHH IN SPAIN

Once the different formats for broadcasting SDHH were identified— Teletext, DVD and video VHS—attention was paid to the agents marketing these subtitled products.

TV Stations

TV Stations were found to be the first produce, in quantity, of accessible material. While the number of TV stations in Spain has multiplied in recent years, only a very small number of these stations, in comparison, offer subtitles SDHH. The presence of TV SDHH products within reach of the DHH Community is the largest in the market, as at least 20 percent of all television programmes broadcast are subtitled (RPD 2004: 105).

Despite recent technological advances, which have led to digital television, analogue continues to be the most extensive broadcast technology in Spain still

offering high rates of accessible material, which proves that there is still a public demand for this form of television⁵ and a certain rejection towards updating TV sets and modes of reception. Nonetheless, the main problem of TV subtitled material concerns the technological difficulties of working with analogue broadcasts since analogue Teletext cannot be recorded using standard home recording material. This is a problem for DHH audience who do not have the means of recording subtitled TV programmes, and it was also a problem for a systematic research of the accessible material on offer and the constitution of a corpus. However, the current co-existence of both analogue and digital technologies⁶ and the fact that a single Teletext signal is currently being broadcast in both systems, have simplified the task of collecting Teletext SDHH as digital recordings have been used to build up the corpus for the present study.

Let us have a look first at the first SDHH subtitles offered in Spain. They date from 1990, and were broadcast by the public national Catalan TV3. The Spanish public national station TVE did not provide the service until a year later: 1991. From the 25 hours per year broadcast in 1991, the station currently broadcasts more than 7000 hours, using both its first and second channel programmes.

A few national private televisions also offer SDHH through their Teletext services. Antena 3, the oldest national private station in Spain, created in 1988, started broadcasting SDHH materials in 2001, with some 500 hours per year. Five years later, more than 2400 hours were broadcast for the DHH. Also in 2005, a similar number of hours aimed at DHH audiences were aired by Telecinco, the other popular private TV station in our country, which has been providing this service since 1999. Apart from these stations, which have already been offering SDHH for some time, two more private companies have joined the audiovisual market in the last two years. Cuatro, a new TV station created in 2005, which did not provide complete Teletext services in its early days, is currently working to make 40 percent of programmes accessible to DHH audiences. One year later, another private TV station, La Sexta, was founded with the initial goal of making 100 percent of material broadcast, mainly pre-recorded programmes, accessible to the DHH. The company is currently working on the feasibility of broadcasting live content. Other regional, satellite and digital televisions are also providing SDHH in Spain. However, access to these materials is either localised or restricted, limiting the possibility of reaching all DHH communities.

TV Standards

Although SDHH has been carried out in the Spanish television for over 16 years now, the Spanish Association for Standardisation and Certification (AENOR) only took the first steps towards standardising its practise in 2003, issuing of the guidelines on analogue Teletext subtitled: UNE 153010. Apart from the specific constraints of Teletext technology related to formal subtitled aspects such as font size and type, the standard UNE 153010 focuses on specific aspects of SDHH, such as colour identification of characters, two-lined subtitles, 35-37

characters per line (AENOR 2003: 12), etc. One of the most problematic aspects of the said guidelines is exposure time. Estimated to be of 19 characters per second, as Pereira and Lorenzo highlight (2005: 23), the investigation and experience of professionals and researchers within the scope of subtitling have revealed that exposure times proposed by the UNE – maximum exposure times close to 4 seconds – have been demonstrated to be unrealistic whenever a perfect comprehension of subtitled programmes is aimed (Cambra 2006). Other aspects such as colour identification or contextual information analysed in the UNE 153010 are nowadays being studied scientifically for a necessary updating and upgrading of the existing guidelines when a new draft of the UNE standard has to be made for digital TV.

Practice

A first approach, evaluating the application of the UNE guidelines to Spanish TV broadcast SDHH, revealed that subtitle production is not usually done in-house. Only the public station TVE has a teletext subtitle department that produces 36 percent of its material⁷, whereas four private companies: Mundovision, Cinematext, Atelier de Soustrage⁸ and CEIAF, provide the rest of the national Teletext subtitle production.

This apparently simple organisation hides a more complicated structure, in which many companies develop different products for different TV channels at the time, as the following chart shows.

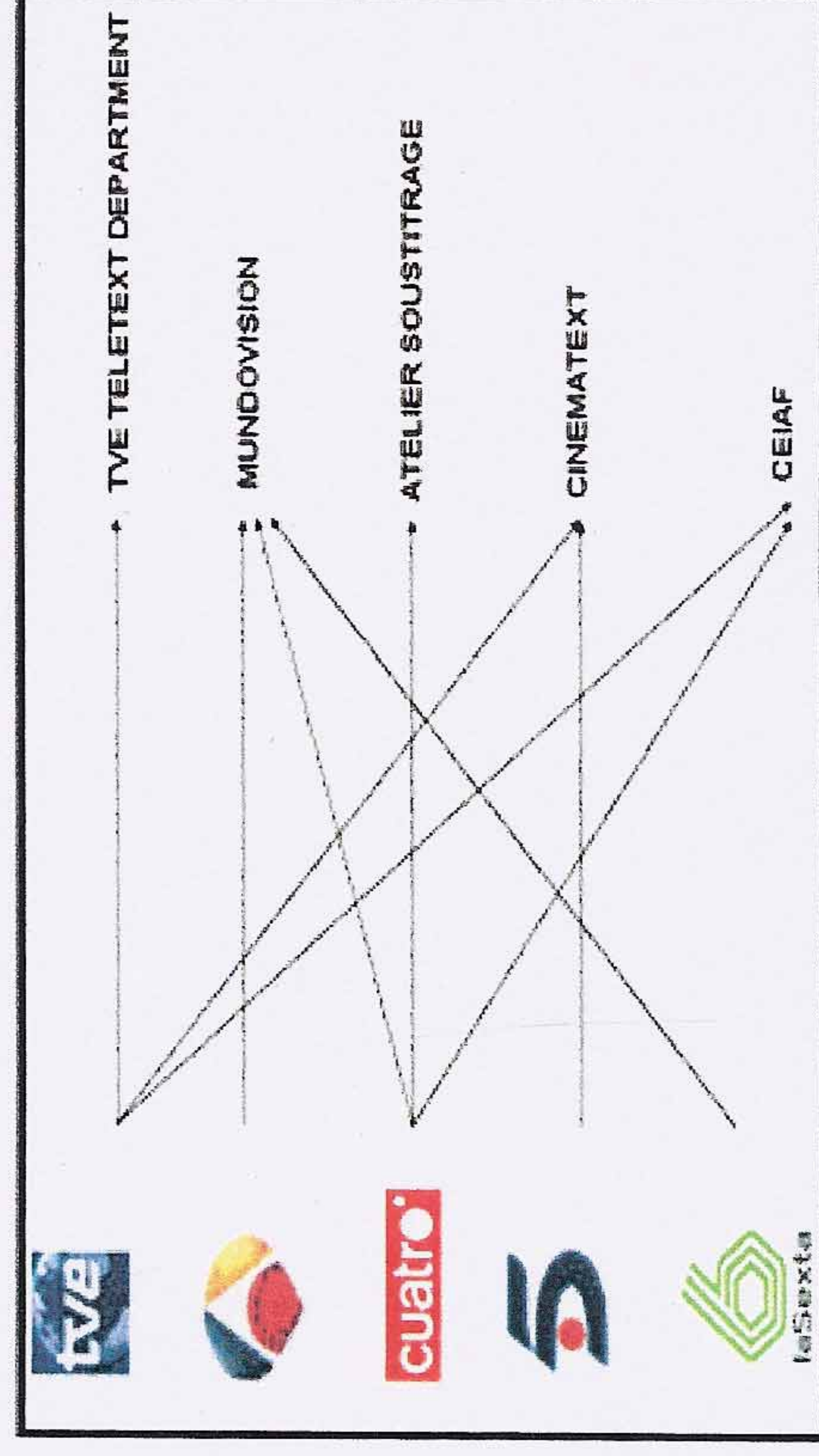


Chart 1—National production of Teletext subtitling

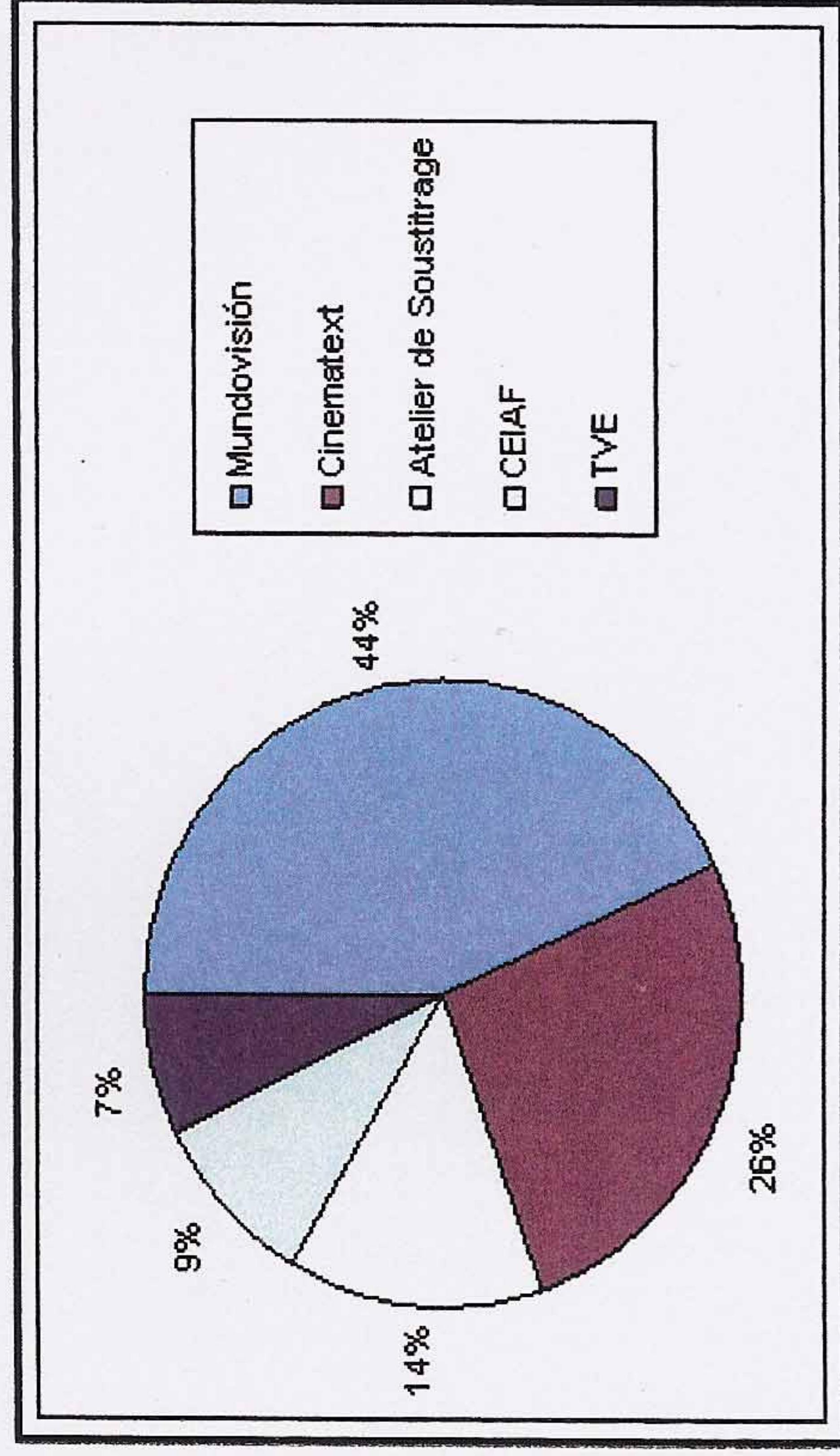


Chart 2—National distribution of Teletext subtitling

As a result of the external production of Teletext subtitles, TV stations are not usually aware of the technical features of the subtitled products they release. Companies in charge of production, asked about their subtitling styles and processes, normally refer to the UNE standard and only in some cases companies acknowledged modifications depending on specific preferences and patterns of each channel and type of program.⁹

However, not all companies spoke openly about their subtitling processes, and it is relevant to note that three out of the four¹⁰ companies providing Teletext subtitling in Spain also provide in-house and out-of-house training courses. This could therefore explain their reticence to provide information about their subtitling styles. Nevertheless, the existence of a common standard specially designed to standardise TV subtitling – UNE 153010 – evens out differences in all production processes, and, as a result, small variations were encountered.

DVD and VHS Distributors

For audiovisual material recorded in both VHS and DVD formats we found that no official Teletext, video VHS or DVD film lists of ‘accessible products’ or databases on the specific content of VHSs and DVDs, including SDHH, exist nowadays. Therefore, no official figures on recorded commercial SDHH are yet available in our country.

The National Centre for Subtitling and Audiodescription (CESyA), in collaboration with all broadcasters, distributors and subtitle producers, is currently building up a detailed database of all material subtitled aiming Deaf and Hard of Hearing audiences. SABADO¹¹, the name of CESyA’s database, is still under construction but will provide complete information of all materials available to the Spanish Deaf community (Ruíz *et al*, 2006). However, until the

database is ready and working the only way to obtain any approximate information on the real figures of VHS and DVD SDHH seemed to be the personal consultation of films including this specific subtitling information.

The identification of VHS and DVD distributors releasing SDHH products was carried out in two steps. The first was based on practice and experience of user associations: MQD together with Fiapas – The Spanish Confederation of Parents and Friends of the Deaf¹² – reported on the limited range of titles available including SDHH. According to their explanations, films are only distributed on their DVD format, limiting our search to these products.¹³ At the same time they announced the existence of a national video DVD commercial distributor and producer well known to the DHH community for the availability of subtitled DVDs for sale: SOGEPAQ.

Trying to check up on the availability and accessibility to subtitled DVDs, problems arose: the professionals involved in the commercial distribution of these materials – sales staff, video retailers, DVD rental firms – were not aware of the range of information provided with digital disks and had no access to this information through their own internal databases. Hence a time consuming manual search made it possible to identify some isolated examples including SDHH.

This first basic approach revealed the presence of four different distributors releasing titles including SDHH: 20th Century Fox, Universal Pictures, Vellavision and Filmax.

The first result that came from this search was that SOGEPAQ was not one of the distributors identified. In fact, as it lacks a commercial distribution organisation, SOGEPAQ’s titles were distributed first by Universal¹⁴, and since 2005 by 20th Century Fox. That way the search of the producers of DVD SDHH remained concealed beneath a highly complicated schematic structure comprising all professionals involved in the production and marketing process.

Stalled by the dearth of information and materials, the study came across a website that would set a new starting point for its evolution, and the second step in the identification of DVD distributors. This website – <http://www.dvdgo.com> – a Spanish on-line DVD sales company, includes a comprehensive and up to date database with over 18,302 DVDs¹⁵. Its on-site search engine was proven to be very useful, albeit not a very scientific tool. Searching the site via the category ‘Spanish subtitles for the Deaf’, 263 titles incorporating SDHH were identified. These 263 films came from 17 – nine Spanish and seven international – different DVD distributors currently working in the national market. However, the database is being continuously upgraded and new titles are added on a monthly basis.

engine was made available to carry out any search based on such specific parameters, making it necessary to check every single title individually.

To obtain some further information from the identified distributors, telephone conversations were the most successful means of collaboration.¹⁸ At this stage, majors showed us into the reality of international distribution: international distributors have standard contents designed and marketed for international distribution and all materials included on each DVD are selected taking into account the given DVD capacity – 4.7 Gb. The status and rights of specific DHH Communities in Germany and the United Kingdom is the reason for including SDHH on international titles also released in our country, whereas Spanish SDHH are partly restricted to national films.¹⁹

According to official explanations, contents – SDHH in this case – arrive at the distributors and are incorporated into the DVDs before marketing them. Not a single distributor at this stage reported any sort of restriction related to the subtitle style adopted, or the reasons of the company to adopt a specific line. The only “accurate” information provided at this stage was an updated list of all films including SDHH released by each distributor, but there was no information available on the company in charge of their subtitle production.

Trying to identify the names of the companies behind subtitle production, the first relevant examples of “private information” came out: up to four different SDHH styles could be identified on offer from some producers, making it necessary to analyse the reason for this variety. Although an “off-the-record” conversation informed about the presence of different subtitling companies and differing requirements from film producers, no official explanations were finally given as these data were considered private and could not be shared. Once again, the study suffered a drawback, and no answers were given to such procedures in the subtitling policy. Upon further investigation it became evident that products belonging to different distributors shared common patterns that led, overwhelmingly, to the same subtitling companies. However, as it had already been shown, there were serious difficulties in accessing the information. Considering the fact that Díaz Cintas (2003: 367) lists more than 20 companies providing subtitling for the Deaf and Hard of Hearing in Spain and that there are no specific standards set on DVD subtitling, SDHH variety was evident at every step. But every cloud has a silver lining and thanks to the help provided by some distributors and their work practice, it was possible to draw an approximate map of the current market on DVD distribution and contact companies in charge of the Spanish DVD subtitle production.²⁰

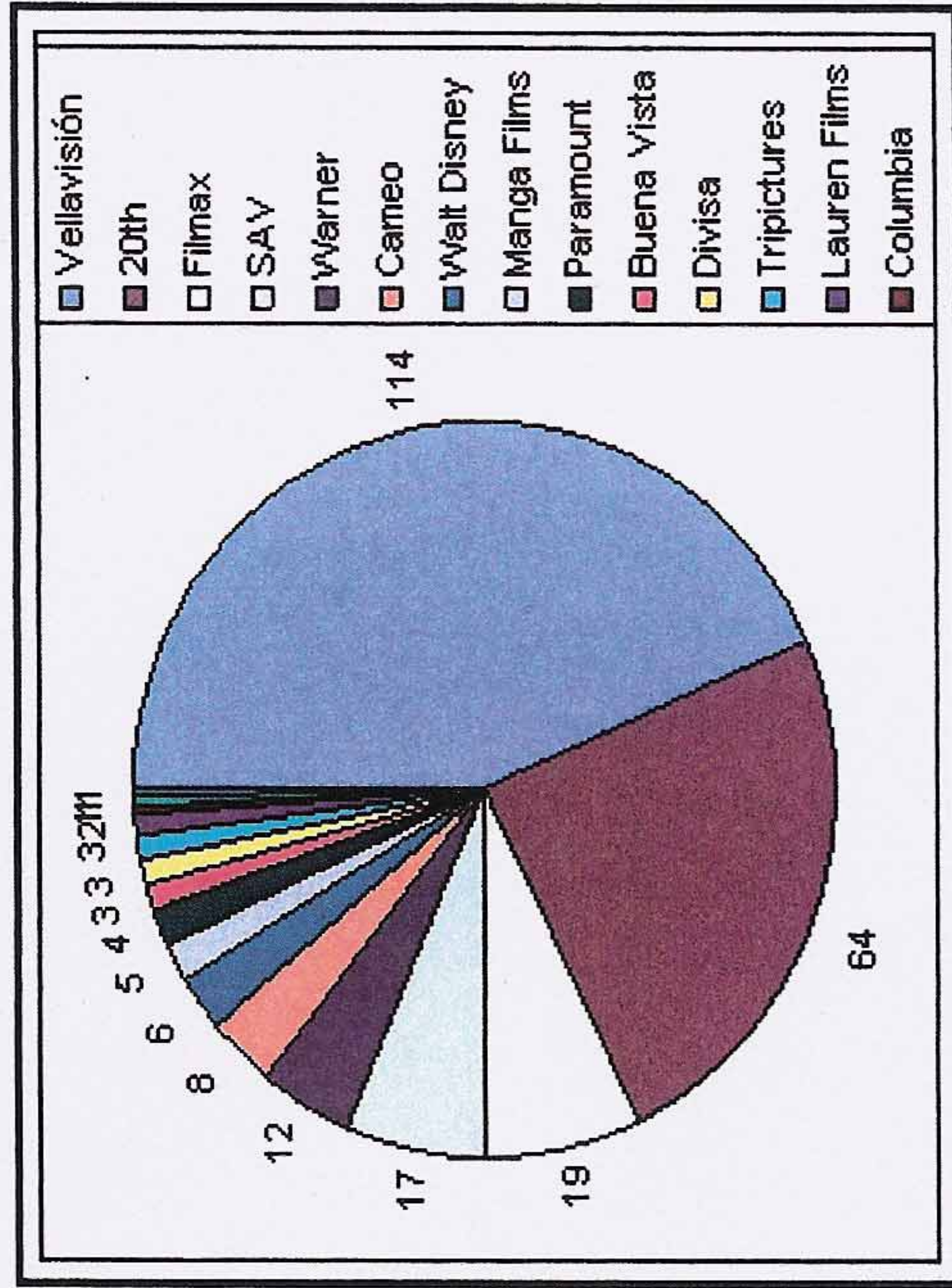


Chart 3—National DVD distribution of SDHH

So, finally, once the first DVD distributors were identified, work was thought to be easier in any search of further information about SDHH products.

Standard

The first DVD films released in Spain including SDHH came out in 2000, and the number of titles released every year is progressively building up. However, the 263 DVDs containing Spanish SDHH represent just 1.44 percent of the titles included in dvdgo.com's unofficial database and according to official data obtained from the Spanish Ministry of Culture database¹⁶, 0.64 percent of the total of 41,210 titles of audiovisual products in any format released in Spain up to day. These figures show that access for DHH Communities to DVD titles is still very limited, especially when compared to TV broadcasts. The incorporation of SDHH in DVD materials has led companies to the application of 'existing guidelines', and that implies the adaptation of UNE 153010, which was specially issued for Teletext subtitling.

The many technological differences of both systems – Teletext and DVD – alter the stylistic patterns developed in this form of subtitling, where practice is enforcing the issuing of a specific set of guidelines.

Practice

In an attempt to compare records from dvdgo.com with the titles listed in the distributors' on-line catalogues, it was necessary to search their websites, finding out that only three out of the 16 distributors in the study¹⁷ included information about the specific subtitles contained in their DVDs. But even then, no search

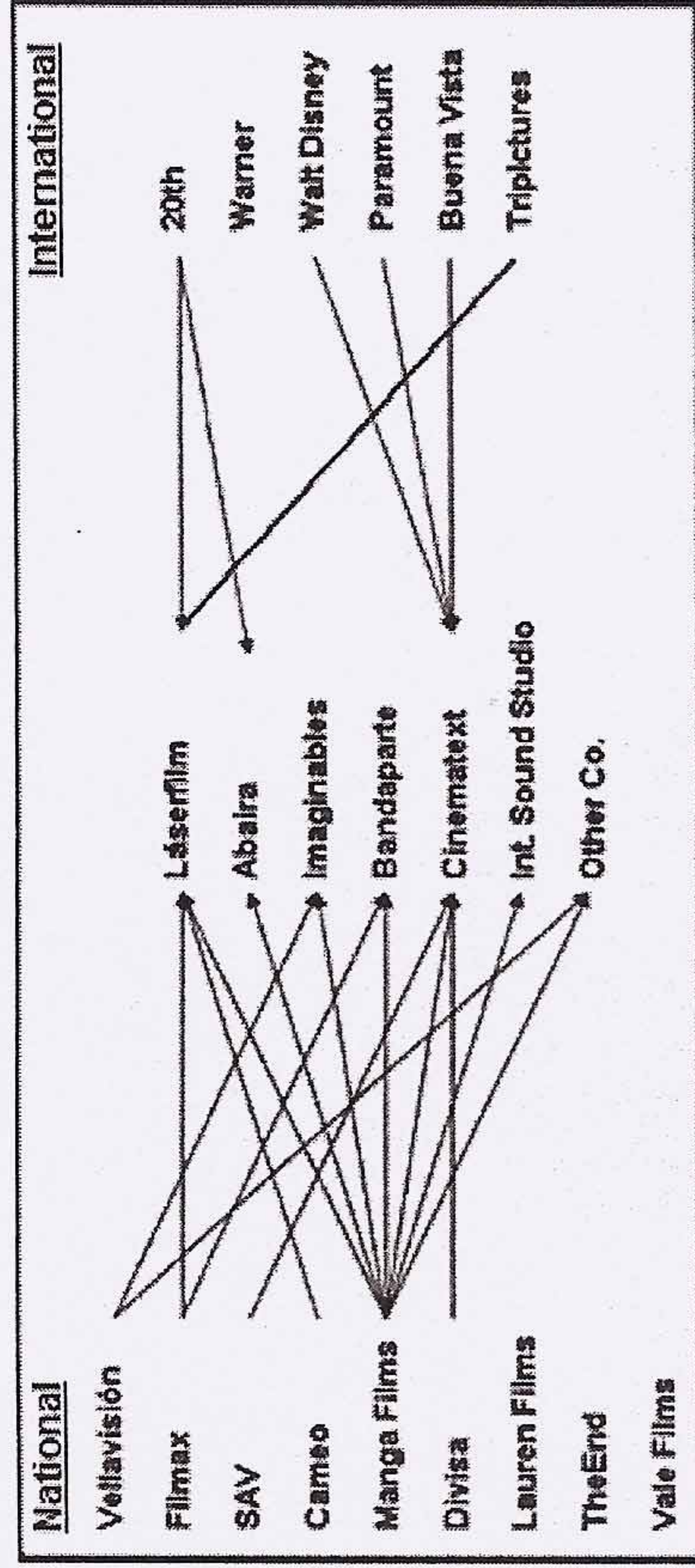


Chart 4—DVD distributors and related subtitle producers

When challenged with the subject of subtitling patterns, information became vague once again. Most companies referred to their application of the standard UNE 153010, but these guidelines were issued to regulate Teletext production and many elements cannot be applied to DVD processes.²¹ Furthermore, all DVD products subject to this study demonstrated that only basic elements of the UNE guidelines, such as colour identification, were often used. Other relevant features, such as context or suprasegmental information, were generally omitted, making it clear that guidelines were only partially being applied.

Apart from this “inconsistent” application of the UNE guidelines, information provided by both DVD distributors and subtitle producers was contradictory. Distributors identified subtitle producers as being responsible for the whole process regarding the subtitles, whereas producers blamed the financial constraints of the distributors on the “customised” subtitling approach they took to the final product. In any event the final result is often of doubtful quality and far from any acceptable standard. However, interestingly some subtitle producers, providing in-house training programmes or not, develop their own stylistic guidelines borne out of internal research projects stemming from production process improvements. These improvements in quality are often not implemented, as companies are unwilling to pay the increased price for production, making this internal research neither used nor shared.

DHH Associations

The Deaf Community was the third source of information for this study. At first glance, this community seemed cut out from broadcasters, subtitling companies or DVD distributors. The study of all materials produced within this community was also as challenging if not more difficult than the commercial market.

Some examples of audiovisual material with SDHH merging from the deaf community include a number of titles launched by AICE – Cochlear Implant Association of Spain.²² However, it was not possible to access these examples

for this study due to an ongoing reorganisation in their facilities. The contact group at this stage was Fiapas, the Deaf Association who promotes the production of a video collection specially adapted for the hearing impaired. They first launched its VHS collection in 1993, although it was not internally distributed until 1995. Due to the low status of subtitling in Spain and the little attention paid to the DHH, distributors had not previously released films adapted to the needs of the DHH community. As a result, Fiapas’s video library, including more than 235 films nowadays, was the first private source of recorded material available for the DHH in Spain. This collection currently reaches more than 100 different organisations, making it the widest example of internal distribution in Spain. The library has been progressively released with government funding and includes a wide range of titles, genres, and film distributors in order to provide as much varied material as possible: cartoons, documentaries, films, etc. It is continuously being updated and evolves adapting itself to the latest technological changes.²³

Standard and Practice

Contact with Fiapas provided detailed information and data about their processes, partner companies and subtitle producers. In this case, a single company – Viva Vídeo – was in charge of all subtitles included in the Video Library, with Fiapas outlining the subtitle parameters and style to be adopted. The subtitling company had no previous experience in this specific type of subtitling and were happy to adopt the standards marked by the Association. When questioned about their parameters and style FIAPAS pointed towards the official guidelines UNE 153010, as they were one of the members present in the working group which drafted the UNE standard.

This explanation proved helpful in understanding part of the practice, but further analysis of some of the audiovisual material revealed the use of new elements not present in the guidelines, making it necessary to do more research. A second attempt to obtain more information produced vague answers, unwilling to talk openly about their own processes. Once again, the patterns applied were the result of internal research in the field of accessibility to the media, and not the result in any research openly published and accessible for public consultation.

CONCLUSION

As can be seen, access to information about the production and postproduction of subtitling for the DHH remains a difficult issue in Spain. Although some studies about this specific subtitling have been conducted by private companies and associations, a refusal to share any results obtained, together with the reluctance to apply these results commercially due to their increasing costs – mainly for DVD distribution – make mapping the “State of the Art” a difficult task.

On the other hand, official projects attempting to identify current practices are also blocked by this same refusal of many companies to share their expertise. So

the Spanish market for SDHH continues to be an immense ocean in which companies, distributors, associations and users continue to work in isolation unaware of each other and independently, apparently unconscious of the importance and possible benefits of a joint effort. The lack of standardisation makes it impossible to unify practices.

The National Centre for Subtitles (CESyA) aims to be the only official institution in Spain unifying both research and all agents involved in subtitling. It expects to regulate production, guidelines, formation and all other processes involved in subtitling. So for the first time unification appears possible and subtitling for the DHH would be able to leave behind its "Top secret" status. But the Centre is still in its infancy, and knowledge and research have no red lights to regulate their continuous evolution. Projects are ongoing, the market continues to locate scarce and heterogeneous products and research attempts to make progress, as ever, with less help than expected. Unfortunately, as we have seen, as far as the market is concerned, knowledge has its price, and research—and with it progress—is always suspicious when it arises from academic projects.

With such a complicated situation it may not be possible to implement standardisation if no rules, laws or external imposition forcing its application exist. Until such time, research into SDHH will be considered a "Mission Impossible".

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APPENDIX

DIFFERENT SUBTITLING STYLES BROADCAST IN SPAIN

Example 1



Example 2



Example 3



Example 4

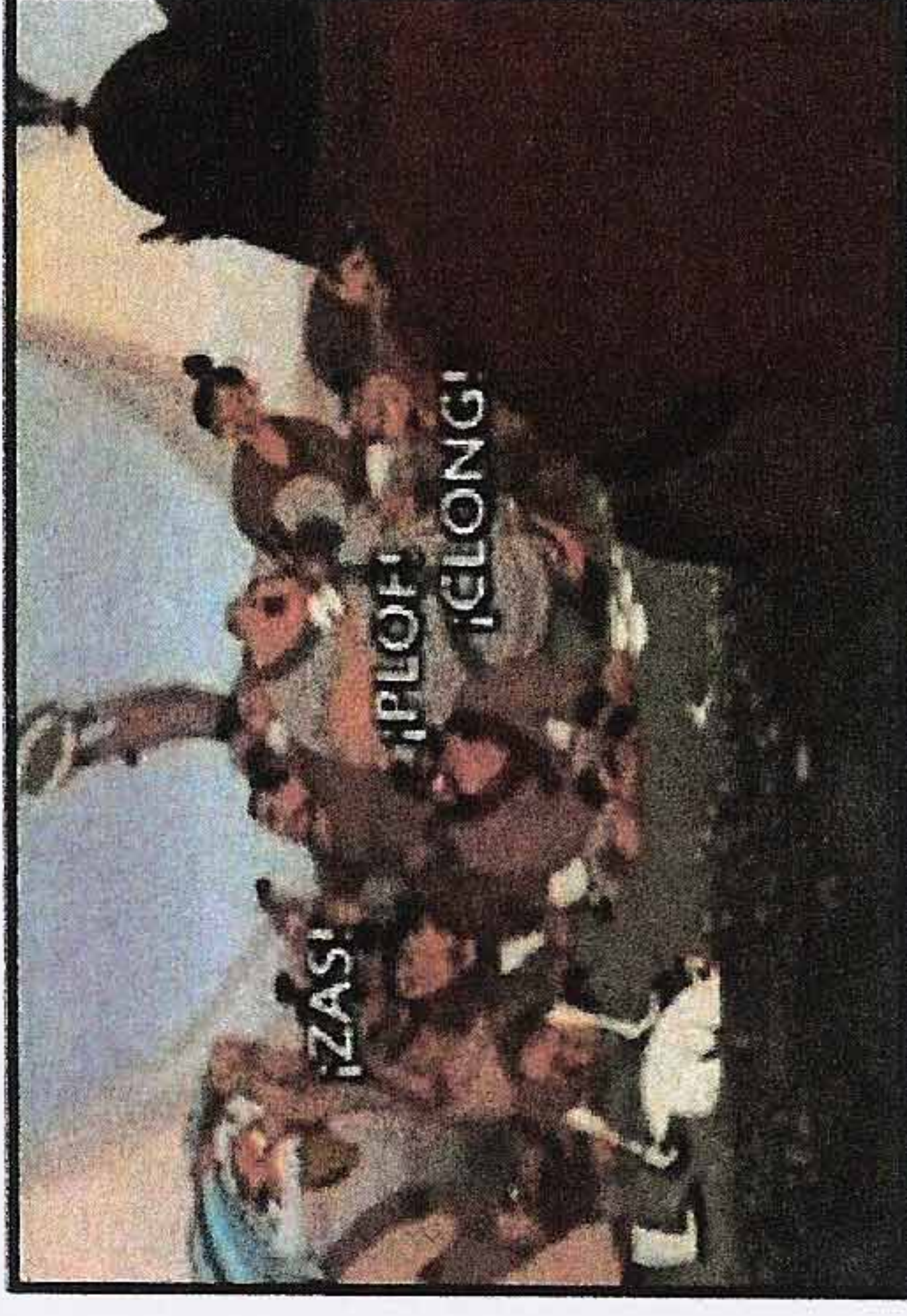


Figure 1—Context information for shouting, shouting, farting and some onomatopoeias respectively.

Example 5



Example 6



Figure 2—Character identification

NOTES

¹ This article is part of the research project "Subtitling for the Deaf and Hard of Hearing and Audio-description: First Scientific Approaches and Their Application" Ref: (HUM2006-03653FILO), funded by the Spanish *Ministerio de Educación*.

² Real Patronato sobre Discapacidad (RPD) (2004: 115).

³ *Pardina i Mundó* (2000); RPD (2004 / 2005).

⁴ "Mira lo que te digo" (MQD) - <http://www.mqd.es/> - is a service company created in 2000 specialising in the production of live subtitling.

⁵ Ninety-three percent of Spanish homes still have analogue television sets. Information published in http://www.mundoplus.tv/noticias.php?seccion=tv_digital&id=2246.

⁶ Analogue television will be "switched off" in 2010.

⁷ Francisco Javier Martín Ballesteros, responsible for TVE's Teletext Subtitling, reported that his department develops 36 percent of the SDHH broadcast, whereas *CEIAF* and *Cinematext* are responsible for the rest of the subtitled products in the public channel.

⁸ *Telecinco* is the main shareholder in *Cinematext*, controlling 60 percent of the share capital. The remaining 40 percent is controlled by *Atelier de Soustirage*.

⁹ These variations are introduced according to whether the programmes are recorded or live, have children or adult audiences, etc.

¹⁰ *Atelier de Soustirage* and *Cinematext* are considered only one company in this case due to their special situation.

¹¹ SABADO http://80.35.173.245:8080/websabado_v2/index_sabado.php.

¹² <http://www.fiapas.es/>.

¹³ No video VHS including SDHH has ever been marketed in Spain. The only existing examples of VHS titles aiming DHH users are included in the FIAPAS video library.

¹⁴ Currently, there are no titles released by *Universal* that include SDHH.

¹⁵ Figures derived from the last *personal* visit on 01.03.2007.

¹⁶ http://www.mcu.es/jsp/plantilla_wai.jsp?id=13&area=cine.

¹⁷ *Vellavisión, 20th Century Fox, Divisa*.

¹⁸ Only in one case email contact was forwarded to a subtitling company that gave some information on the internal processes relating distributors and subtitle producers. The lack of information made a second attempt essential and telephone calls were then the way selected to approach DVD distributors.

¹⁹ On the same site we have access to more than 2395 films, which include SDHH for English Speaking Audiences, together with some other 1121 films for German speaking audiences, in contrast to the 263 films including Spanish SDHH.

²⁰ Titles distributed are unknown to include SDHH. No useful information was provided by the companies. As we can see in Chart 4, *Cinematext*, is again present at this stage. It becomes relevant to the project for its outstanding position within the Spanish subtitling market, as it is currently providing 33 percent of the national Teletext subtitled material at the time it works for several different national and international DVD distributors.

²¹ Contextual information, as it is included in UNE 153010, has to be presented at the top of the screen.

²² <http://www.implantecoclear.org/>

²³ Fiapas has just launched its new (sixth) edition of its Video Library including 23 titles on DVD format.

<http://www.fundaciononce.es/WFO/Castellano/Actualidad/Noticias/Discapacidad/Ndiscap131.htm>

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10.6.5

'La objetividad en el subtitulado: Justificación de los parámetros formales mediante Eye Tracking' ('Objectivity in Subtitling: Validation of formal parameters through Eye Tracking'), in Pérez-Ugena, Álvaro and Ricardo Vizcaíno-Laorga (Coord) *ULISES y la Comunidad Sorda*, Madrid: Observatorio de las Realidad Sociales y de la Comunicación (2008). (73-82).

La igualdad es uno de los pilares de nuestro ordenamiento jurídico. La Constitución de 1978 no sólo la reconoce como valor sino como un reto al que el propio Estado se compromete a alcanzar de una forma real y efectiva: remover obstáculos y facilitar la participación de todos en cualquier ámbito es prioridad y objetivo que, no obstante, aún queda por conquistar. Las personas discapacitadas, aún ya en el siglo XXI, siguen logrando conquistas y continúan persiguiendo necesidades básicas, como las referentes al ámbito comunicativo.

Los textos aquí reunidos pretenden marcar la senda a seguir para contar con unas comunicaciones accesibles para todos, en especial para las personas con discapacidad auditiva, que ha sido objeto del trabajo de investigación realizado. Entidades (como el IMSERSO, que hace posible esta obra), centros de investigación, empresas o fundaciones (como las participantes en el proyecto "ULISES: Utilización Lógica e Integrada del Sistema Europeo de Signos/Señas", para el desarrollo de intérpretes virtuales) y universidades quedan unidas en esta obra bajo un objetivo común: mejorar las posibilidades comunicativas que tecnologías como los avatares, la aún incipiente TDT o las técnicas de subtítulos pueden ofrecer a la comunidad sorda.

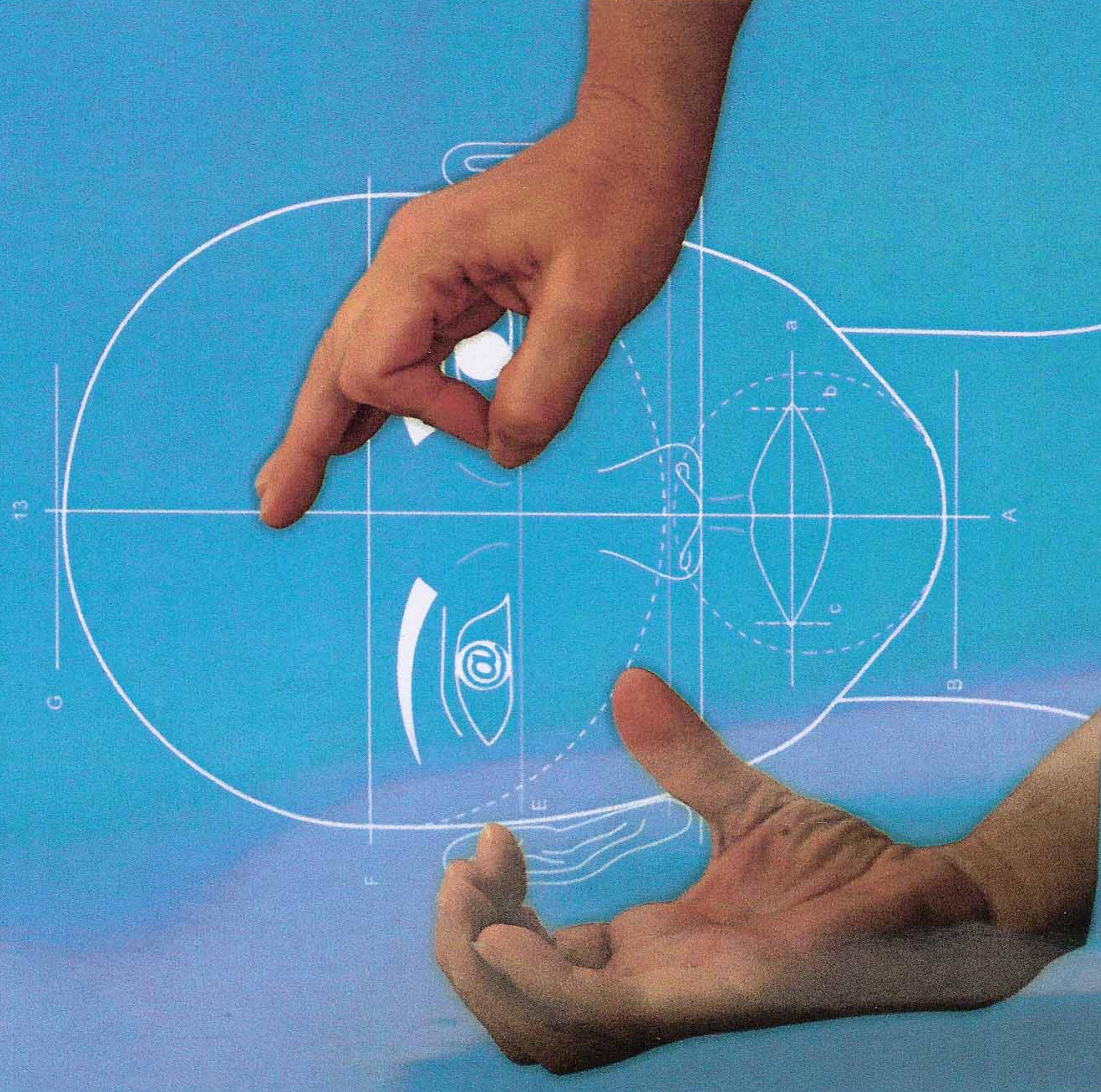
ULISES Hacia el desarrollo de tecnologías comunicativas para la igualdad de oportunidades

y la comunidad sorda

ULISES

Hacia el desarrollo de tecnologías comunicativas
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y la comunidad sorda



Alvaro Pérez-Ugena
Ricardo Vizcalino-Laorga
(Coordinadores)

Introducción: Ricardo Pérez-Amat García

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La objetividad en el subtitulado

Justificación de los parámetros formales mediante Eye Tracking

Verónica Arnalitz Uzquiza
Transmedia Catalonia¹

La irrupción del sonido en el panorama cinematográfico internacional allá por 1927 supuso un punto de inflexión dentro de la historia del cine. Más allá de la perspectiva artística, este hecho sirvió para marcar una división entre países, esta vez atendiendo a la modalidad adoptada para el trasvase de películas. A menudo dicho hecho se plantea como una simple dicotomía doblaje-subtitulado, ignorando otras muchas modalidades menos presentes por su peso histórico u económico, como son la interpretación simultánea o el voice-over entre otros; sin embargo, esta clasificación simplificada esconde una compleja variedad de productos cuyas divergencias radican en las diferentes prácticas nacionales, regionales, lingüísticas, comerciales, sociales, etcétera.

En el presente artículo nos centraremos en una de las prácticas consideradas "menores" hasta fechas recientes en aquellos países en los que el doblaje era la modalidad imperante: el subtitulado. Trataremos de analizar las enormes diferencias que se presentan en su ejercicio y las implicaciones de las mismas, así como la posibilidad de llevar a cabo una armonización haciendo uso de herramientas de carácter científico, como es el caso de la tecnología de seguimiento ocular o eyetracking.

¹ Este artículo forma parte del proyecto de investigación "La subtitulación para sordos y la audiodescripción: primeras aproximaciones científicas y su aplicación" (HUM2006-03653FILLO) financiado por el Ministerio de Educación.

Subtitulado y prácticas diferenciadas

Como ya adelantaba Díaz Cintas (2003:138) “(...)No hace falta ver muchos programas de subtítulo en cine o televisión, en España o en otros países, para darse cuenta de la falta de consenso armónico a la hora de implementar las convenciones formales que regulan la entrega de los subtítulos en pantalla. (...) Las discrepancias son visibles en distintos productos comercializados por la misma distribuidora o cadena de televisión y entre distintas compañías a nivel regional, nacional y entre distintos países.” Así pues, como bien resume el autor, son muchos los estilos desarrollados en los diferentes países y situaciones comunicativas cuyas divergencias radican principalmente en los parámetros técnicos del subtítulo: tipo y tamaño de letra, posicionamiento, justificación, ortotipografía..., y que se multiplican cuando se trata de otras modalidades más específicas, como es el caso de la subtítulos para sordos, donde entran en juego la identificación de caracteres, la subtítulos de la información contextual, o la velocidad de lectura entre otros.

Son cada vez más los autores que se han hecho eco de la pluralidad de la práctica² y que en la mayoría de las ocasiones nos remiten a los datos que se desprenden de las escasas normativas y guías de estilo que tratan de regular el ejercicio de la profesión. Al mismo tiempo contamos con iniciativas de carácter internacional, como es el caso del proyecto “Comparative Subtitling” lanzado por ESIST³ en el año 2000 y que, una vez más, dejó constancia de cómo las variaciones en la práctica profesional se plantean en todo tipo de niveles: letra (tipo, regresado, color, espaciado...), interlineado, ubicación, justificación, número de caracteres, ortotipografía⁴. Pero, ¿cuáles son las pautas que determinan la adopción de

² Ivarsson (1992), Díaz Cintas (2003), Gottlieb (2005) y Neves (2005), por citar a algunos de ellos.

³ European Association for Studies in Screen Translation: <http://www.esist.org/>

⁴ El ejemplo más próximo lo encontramos en la norma UNE-153010, que recoge, por ejemplo, la posibilidad de emplear hasta tres modalidades diferentes para la identificación de personajes.

las distintos parámetros técnicos? ¿En base a qué criterios? ¿Afecta dicha pluralidad a la recepción del subtítulo?

Refiriéndose al subtítulo general –pero su comentario sería igualmente aplicable a la elección de doblaje / subtítulo o al subtítulo para personas con deficiencia auditiva– Díaz Cintas (2003:139) también afirma que “(...) Ha habido una evolución marcada por cambios, nuevos parámetros y nuevas convenciones que, a lo largo de los años, se han convertido en acervo nacional y con las que el público está familiarizado. Es precisamente este grado de familiarización el que hace que los usuarios muestren sus reticencias ante la idea de aceptar nuevos cambios, independientemente de su naturaleza.” Pero, ¿cómo se ha llegado a estas convenciones? Entre las numerosas explicaciones que encontramos a la situación actual, las razones económicas (Gottlieb, 2005:30), técnicas (Ivarsson, 1998:49) o humanas (Díaz Cintas, 2000:64) destacan entre las motivaciones más recurrentes. Ante esta situación, con las prácticas instauradas y reforzadas por el paso del tiempo, el ejercicio se convierte en normas interiorizadas para profesionales y usuarios que, anclados en el hábito, se muestran reticentes ante cualquier tipo de modificación al respecto.

Estas diferencias, que para algunos podrían suponer cuestiones de menor relevancia en el caso del subtítulo ordinario, pasan a ser elemento fundamental dentro de la subtítulos para sordos (Bryant 2004:1) –ámbito en el que la pluralidad de estilos en el mercado resulta todavía mayor– por ser el texto escrito el único vehículo de comunicación al alcance de un importante sector de la sociedad⁵.

⁵ La naturaleza heterogénea de la población con deficiencias auditivas hace que las lengua oral, escrita y la lengua de señas sean tres herramientas comunicativas cuya coexistencia es la única garantía de accesibilidad para la totalidad de la población sorda. Esta iniciativa queda perfectamente recogida en el proyecto Ulises, que con la combinación lingüística pretende ofrecer un ejemplo real de accesibilidad integral.

Sin embargo, y pese a la aparente inmovilidad de las tendencias y conformidad por parte de los usuarios, son cada vez más las voces que reclaman la necesidad de llevar a cabo estudios que permitan evaluar la adecuación de los parámetros actuales, como es el caso de Neves (2007:30):

“(...) it is worth considering deeper research into issues such as reading speed, readability, legibility (fonts, use of colour, positioning...), character identification, conveyance of sound effects or music, or at a yet more detailed approach, of the importance of conveying paralinguistic information in subtitle form”

Ahora bien, el hecho de contar con prácticas diferenciadas en cada uno de los países, así como los estrictos parámetros a los que está sujeto el ejercicio de la subtitulación⁶, hacen que sea necesario replantearse la imprecisión de la gran mayoría de los estudios efectuados hasta la fecha, cuyos datos eran extraídos de experimentos y encuestas de opinión que confirmaban la aceptación de las pautas existentes como opciones más adecuadas.

Son de sobra conocidos los especialistas que han abordado el tema de las habilidades lectoras de la población sorda teniendo en cuenta su heterogeneidad – King & Quigley (1985), Augusto (1999) y Villalba (2005) –; e incluso desde el estudio del subtítulo, autores como De Linde y Kay (1999) o Neves (2005) también se han planteado esta problemática. Sin embargo, pocos han sido los estudios que se han llevado a cabo para determinar cómo se podrían depurar las prácticas desde un punto de vista científico, adecuar las convenciones del subtítulo a los requisitos y necesidades del espectador, y, ayudar así a mejorar o incrementar las velocidades de lectura entre la comunidad con problemas de audición.

⁶ Bartoll (2004: 58).

Validación científica mediante eyetracking

La creciente realidad de los estudios interdisciplinares ha permitido a la traducción, como a otros campos, dotarse de instrumentos que conceden un fundamento científico a sus ámbitos de especialidad⁷. Esta necesidad resulta aún más acuciante en la traducción audiovisual, y concretamente en el subtítulo para sordos, debido a la imprecisión de los estudios, demasiado focalizados en los gustos de consumo de la audiencia. Esta es la razón por la que los profesionales en la materia se han aproximado a otras disciplinas para tratar de encontrar las herramientas adecuadas para la valoración y justificación científica de los parámetros en vigor. Como resultado de esta aproximación, ya desde mediados de los '70⁸, se planteó la posibilidad de adoptar una tecnología que permitiera analizar el seguimiento ocular: el eyetracking. Con el paso del tiempo este método ha demostrado ser una de las herramientas de mayor utilidad y presencia en los ámbitos más diversos, desde la medicina hasta el marketing pasando por la psicolingüística, enfoque a través del cual los Estudios de Traducción lo han adoptado para su aplicación a la traducción audiovisual. Así, son cada vez más los proyectos que emplean esta nueva tecnología como herramienta para recopilar información sobre la percepción y recepción del material audiovisual. Autores como Bryant (2004), Chapdelaine (2007), D'Ydewalle (1987, 1991, 1992, 2003), Jensema (1998, 2000) y Peli (2005) entre otros, destacan entre los especialistas de diversas disciplinas que han aplicado estas herramientas a la evaluación de la recepción de los subtítulos.

¿En qué consiste?

Tal y como recoge Usolab (2007) en su presentación, “El eyetracking es una tecnología que permite seguir los movimientos oculares de una persona para inferir qué mira y qué ve. Esto se consigue actual-

⁷ “Nos encontramos en un campo de especialización (subtitulado intralingüístico) donde la interdisciplinariedad es no sólo imprescindible sino que es la clave del progreso (...)” Otero (2007:12).

⁸ Jensema (2000: 275).

mente mediante un eyetracker, un monitor especial que lanza rayos infrarrojos a los ojos de quien lo usa. Estos rayos rebotan en su pupila y vuelven al aparato, permitiendo así calcular con precisión dónde está mirando.”⁹

¿Para qué sirve?

En su aplicación para el estudio del subtitulado, “(...) eye tracking is used to identify the patterns of visual attention exhibited by viewers when attention is divided between visual content and caption reading. Attention overload is recorded to detect critical conditions when viewer’s attention is saturated by the information to be processed”. (Chapdelaine, 2007:197)¹⁰

Así, tal y como podemos comprobar tras la explicación de Chapdelaine, la aplicación de la tecnología de seguimiento ocular permite conocer la percepción real y el procesamiento efectivo de la información contenida, en este caso, en el producto audiovisual por parte del espectador. La aplicación de este instrumento al estudio del subtitulado, y más específicamente al subtitulado para sordos, permitiría además depurar las técnicas actuales de forma realmente científica, estandarizada y no condicionada, al margen de las deformaciones –de uso y consumo– imperantes a las que los usuarios se ven expuestos aún a día de hoy. Así, el empleo de eyetracker nos permitiría, entre otras cosas:

- conocer el tiempo y orden de reacción y procesamiento del contenido textual con respecto a la imagen;
- determinar la supeditación o relevancia de los elementos que integran el producto audiovisual;

⁹ Existen otras modalidades de eyetrackers, monoculares o binoculares no integrados en el monitor sino en soportes –casco o gafas para el usuario–, cuyo funcionamiento es similar.

¹⁰ La segunda parte de la explicación de Chapdelaine se centra en su aplicación concreta al proyecto.

- determinar el número de caracteres y, por lo tanto, la velocidad efectiva de lectura¹¹;
- evaluar los diferentes parámetros estilísticos y técnicos que configuran la práctica del subtitulado con el fin de determinar cuáles son los que servirían para rentabilizar y tratar de reducir el tiempo de lectura: tipo y tamaño de letra, posicionamiento, justificación, interlineado, empleo de 1 / 2 / 3 líneas, aplicación de colores e iconos, tiempos máximo y mínimo de exposición del subtítulo...

No obstante, si bien la aplicación del eyetracking nos permitiría dotar a la práctica de datos de origen científico, no es menos cierto que conviene ser cuidadoso a la hora de analizar los resultados obtenidos en el proceso. El análisis del movimiento ocular recoge –y en ocasiones analiza– los datos que se derivan de la percepción del producto audiovisual en este caso, pero resulta imposible inferir de los mismos los relativos a la comprensión (De Linde & Kay, 1999:38), motivo por el que es necesario aplicar –al menos– un doble método de análisis que permita combinar ambas herramientas para derivar resultados significativos del proceso.

La combinación de ambos métodos, contrastada con los estudios tradicionales sobre la recepción de subtítulos, permitiría dibujar un perfil detallado de la práctica y determinar si sería factible hablar de una estandarización internacional y una “re-educación” de los gustos de la audiencia para su adaptación a nuevas modalidades de subtitulado configuradas atendiendo a sus capacidades y limitaciones lectoras reales.

¹¹ Este, precisamente, resulta ser uno de los aspectos más controvertidos de la norma UNE-153010. Dicha norma recoge de forma general un cálculo de tiempos de exposición expresados en caracteres por segundo (12-19) y palabras por minuto (95-150). A esta referencia, excesivamente laxa e imprecisa, se une la falta de consistencia existente en la definición de la unidad de medida. Así pues, esta situación ofrece un fiel reflejo de la imprecisión existente en la estimación de uno de los parámetros fundamentales del subtitulado: las velocidades de lectura que marcan los tiempos de exposición.

Conclusiones

La estandarización y normalización imperantes en la sociedad actual tratan de abrirse camino también en el campo de la traducción audiovisual, siendo el subtitulado, por su creciente peso en el mercado internacional, la modalidad situada en el "punto de mira". Las diferencias técnicas y estilísticas, cuyo asentamiento radica, en un gran número de ocasiones, en imposiciones económicas, técnicas y humanas, han ido perfilando la cultura audiovisual de las audiencias, condicionando la perspectiva real del usuario sobre sus propias necesidades y la evolución de una práctica que, aún a día de hoy, carece de fundamento científico para la determinación de gran parte de los parámetros que la integran.

Gracias a la colaboración interdisciplinar hoy es posible contar con una herramienta que permite evaluar la percepción real de los productos audiovisuales: la tecnología de seguimiento ocular o Eyetracking. La aplicación de esta tecnología, que permite extraer datos exactos sobre la percepción real de los individuos del subtitulado, en combinación con los métodos de análisis tradicionales —análisis de comprensión y valoración— nos permitirían replantearnos la efectividad de las modalidades de subtitulado imperantes y, posiblemente, llegar a definir prácticas mejoradas realmente adaptadas a las necesidades y limitaciones de la audiencia.

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10.6.6

‘SUBSORDIG: The need of a deep analysis of data’, in Matamala, Anna and Pilar Orero (Eds) *Listening to Subtitles: Subtitles for the Deaf and Hard of Hearing*, Bern: Peter-Lang. (2010). (163-174)

This book is the first monographic study on subtitles for the deaf and hard of hearing from a multidisciplinary perspective, from engineering to philology. The book departs from studies, analyses, tests, validations, resulting data, and their application from the nation-wide research on accessibility and usability of subtitles carried out in Spain.

Tests and further analysis were carried out paying attention to users' hearing profiles, the many formal features of subtitles – size, font, colour, position, etc. –, and the syntax of the subtitle. The book also contains articles which discuss present and future research on subtitles for the deaf and hard of hearing carried out in Canada and across Europe: Belgium, Denmark, Italy, Poland, Spain, and UK. It provides an outlook for the implementation of the European Guidelines on Media Accessibility.

Anna Matamala and **Pilar Orero** lecture at UAB (Spain), where they coordinate two MA Degrees in Audiovisual Translation: <http://www.fti.uab.es/audiovisual/> and <http://www.fti.uab.es/onptav/>. They have a wide experience as professional translators for broadcasters such as TVC, TVE and BBC and are authors of many publications and coordinators of research projects regarding Media Accessibility such as the European DTV4ALL. They belong to TransMedia and lead TransMedia Catalonia.

Anna Matamala & Pilar Orero (eds)

LISTENING TO SUBTITLES

Subtitles for the Deaf and Hard of Hearing

Anna Matamala & Pilar Orero (eds)

LISTENING TO SUBTITLES: SUBTITLES FOR THE DEAF AND HARD OF HEARING

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who started it all up*

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ANNA MATAMALA, PILAR ORERO, ANA PEREIRA

Introduction

This book is one of the outcomes of the project *Research and development of the criteria regarding the creation of subtitles for the deaf and hard of hearing for digital television*.¹ The project was a research collaboration between lecturers who come from an interdisciplinary background and who are active at the following Spanish universities: Universidade de Vigo, Universitat Autònoma de Barcelona, Universidad de Deusto, Universidad Carlos III, and Universidad Rey Juan Carlos. The book also publishes some results from the R + D project,² which was financed by the Spanish Ministry of Education and which is considered to be a first step in the new international pilot project financed by the European Commission entitled *Digital Television for All*.³

The aim of all three projects is the improvement of the quality of audiovisual accessible material whose users have hearing problems of an either age-related or illness-related nature. These collaborations are a first step towards a European comprehensive scientific study, which may serve as point of departure for drafting new guidelines for subtitling for the deaf in digital television. These new guidelines, which may be or become part of local legislation, should be seen as an attempt to standardise subtitles in different platforms, a claim which Spanish deaf and hard of hearing users have been requesting for years.

- 1 The project was originally drawn up under the Spanish title *Investigación y desarrollo de criterios para la elaboración de subtítulos para sordos en la televisión digital* and was financed by the Spanish Ministry of Work and Social Affairs. [reference: SUBSORDIG 76/06]
- 2 The project was originally drawn up under the Spanish title *La subtitulación para sordos y la audiodescripción: Primeras aproximaciones científicas y su aplicación* (English translation: *Subtitles for the deaf and hard of hearing and audio description: First scientific approaches and their application*). [reference: HUM2006- 03653FILO]
- 3 Digital Television for All (DTV4All) [reference: 224994], which is part of the EC Competitiveness and Innovation Framework Programme. ICT Policy Support Programme (ICT PSP), ICT for accessibility, ICT PSP/2007/1 PILOT TYPE B.

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VERÓNICA ARNAIZ UZQUIZA

SUBSORDIG: The need for a deep analysis of data¹

SUBSORDIG analyses the subtitling parameters currently used on the Spanish audiovisual market, and, more specifically, compares these subtitling parameters to the different subtitling conventions adopted in other European countries. All the data analysed in the SUBSORDIG project were obtained from detailed interviews with different groups of users and answers provided by these groups in questionnaires, following a bottom-up methodology. Results from the project reveal tendencies that might question the validity of these data. These tendencies are the result of the possible influence of local subtitle conventions on individuals' reading habits and, consequently, on the individuals' subtitling preferences. In order to remove any subjective information from our study, it was essential that we adopt scientific tools such as eye-tracking technologies, which are currently used in other disciplines such as psychology, marketing and medicine, to enable further studies based on objective analysis, and to provide a basis for comparison and proper definition of the technical aspects involved in subtitling. This contribution describes the application of eye-tracking to the study of subtitling and will focus on the steps taken to evaluate and to update many of the technical parameters involved in the process.

1. Introduction

Since its early days, subtitling has evolved in a number of forms and styles into what is now a heterogeneous landscape worldwide. Different factors – economic (Gottlieb, 2005), human (Díaz Cintas, 2000) or technical

¹ This paper is part of the research project *La subtitulación para sordos y la audiodescripción: Primeras aproximaciones científicas y su aplicación* (Subtitling for the Deaf and Hard of Hearing and Audiodescription: First scientific approaches and their application) (reference HUM2006-03653FLO) funded by the Spanish ministry of education.