Watching TV Through Your Ears: An Overview of Catalan-language Broadcasters' Accessibility Services Offered for Viewers With Sight Loss

 Irene Tor-Carroggio✉
Universitat Autònoma de Barcelona, Spain

 Sara Rovira-Esteva ✉
Universitat Autònoma de Barcelona, Spain

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Abstract

Since 2010 the provision of audio description is legally required on TV in Spain. The objective of this study was threefold: to investigate the current state of the media accessibility services of Catalan-language broadcasters for viewers with sight loss in relation to current legislation; to assess user satisfaction with these services; and to gather feedback from users on non-professional services. According to our results broadcasters fail to comply with the law in terms of quantity, although users are fairly satisfied with the quality offered and are willing to explore new approaches for AD provision.

Key words: audiovisual translation, media accessibility, audio description, Catalan-language broadcasters, user satisfaction, non-professional services.

✉ irene.tor@uab.cat, https://orcid.org/0000-0003-2924-014X
✉ sara.rovira@uab.cat, https://orcid.org/0000-0001-7647-6417

1. Introduction

Media accessibility (MA) services facilitate a better understanding of audiovisual products and are key to granting equal access to information and entertainment. These services include, among others, subtitles for the deaf and hard of hearing (SDH), sign language interpreting (SLI), audio subtitling (AST), audio introductions (AI) and audio description (AD). The latter, which is what the present article revolves around,

> is the technique used for making theatre, movies and TV programmes accessible to blind and visually impaired people: an additional narration describes the action, body language, facial expressions, scenery and costumes. The description fits in between the dialogue and does not interfere with important sound and music effects. (Benecke, 2004, p. 78)

In other words, "AD is the art of translating images into words" (Hernández and Mendiluce-Cabrera, 2005, p. 241). Although primarily meant for persons with sight loss, this service – also known as description or video description (Romero-Fresco & Fryer, 2013) – can benefit other people such as the elderly and children. Walczak (2017) and ITU (2011) even suggest using AD when driving a car or performing a task that does not allow users to look at the device at the same time. A user satisfaction study carried out by the CESyA: Centro Español del Subtitulado y la Audiodescripción (Spanish Centre of Subtitling and Audio description) (2014) demonstrated that this access service is not exclusively used by persons with visual loss.

MA has traditionally been embraced by Translation Studies, and more specifically, by Audiovisual Translation (AVT). In the case of AD, it is widely seen as a mode of intersemiotic translation (Franco, Farias, Fortunato, & da Silva, 2011; Remael & Vercauteren, 2010), which implies a transmutation from the visual content of the audiovisual product into the verbal system. In other words, the information conveyed through images, colours, sounds, etc. is offered orally and, therefore, perceived and understood by, mainly, people with sight loss.

AD originated in Spain. As Orero, Pereira, and Utray (2007) recount, Spain was the first country to offer AD of audiovisual recorded material. The first Spanish audio describer, Gerardo Esteban, produced live AD for movies projected at the Tívoli Cinema in Barcelona for a local radio station during the years after the Spanish Civil War (1936–1939). He used to be present at the cinema, which resulted in the audience complaining about him being annoying. Audio describers were later transferred to a smaller projection room. Orero et al. (2007) also point out that a radio station in Barcelona started to provide radio broadcasts of opera stage performances in the 1950s. In these, the radio presenter would present the opera's characters and plot before its retransmission. This specific service was first limited to Barcelona, but with the emergence of FM radio broadcasting, it soon reached the rest of the country. What was special about the early years of the service before AD as we understand it today was that it was closer to a radio commentary in that it was not specifically targeted at people with sight loss, but rather at anybody who could not attend the show

but still wanted to enjoy it from home. The AD as we know it today, that is, AD mainly targeted at persons with sight loss, appeared later, in 1993, thanks to the Organización Nacional de Ciegos de España (Spanish National Organization of the Blind). As for AD on TV, Televisió de Catalunya (TVC)[1] was the first Western broadcaster to offer an audio described movie (DeMille's *The Ten Commandments*, 1956). This happened in 1989 and it was also the first time that an audiovisual product was audio described in Catalan (Matamala & Orero, 2008). The Andalusian TV station Canal Sur followed suit and started to offer AD in films in 1995. In 1999 TVC launched the first audio described sitcom, *Plats Bruts*. Unlike *The Ten Commandments*, the reception of the AD for this TV series was optional thanks to the Nicam Dual Stereo system (Matamala & Orero, 2008). This same sitcom also became the first DVD marketed with AD.

The provision of AD has been legally required on TV since 2010 in Spain, as well as that of SDH and SLI. Yet, some researchers have already denounced some broadcasters not abiding by the law. This is the case of Martínez-Lorenzo (2018), who reported that Televisión de Galicia (TVG) is not providing enough accessibility services. In fact, AD is still non-existent in TVG. What seems obvious, though, is that in spite of the scarcity of accessibility services, subtitles are the service most offered on TV in Spain, probably as a result of the Spanish law on MA requiring almost all the content broadcast to be subtitled, unlike AD and SLI (Díaz-Cintas, 2010).

Given the scarcity of empirical and user-centred studies on MA services offered by Catalan-language broadcasters, the objective of this study, was three-fold. First, to investigate the current state of MA services on TV in Catalan for viewers with sight loss (mainly AD) in relation to current legislation. Second, to see how satisfied users were with services offered by the broadcasters. And, third, to gauge the users' opinion of non-professional services. Since, as we will see, our preliminary observations revealed that TVC – the main Catalan public TV station – is the only broadcaster offering AD, it was deemed even more necessary to find out how satisfied viewers with sight loss are with the only AD available on TV. Also, as it was presumed that AD is not widely used in TV programmes in Catalan for budgetary reasons, the opinion about non-professional services of the different participants involved gained more importance in the study because these services could increase the quantity of audio described content.

Our study began with the following five research questions:

- What is the status of accessibility services in Catalan-language broadcasters in relation to the current legislation?
- Are viewers with sight loss satisfied with the AD offered by Catalan-language broadcasters in terms of quantity?

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[1] www.ccma.cat

- Are viewers with sight loss satisfied with the AD offered by Catalan-language broadcasters in terms of quality?
- Would users accept artificial voices and/or non-professional audio describers?
- Is there any statistical association in the acceptance, or non-acceptance, of non-professional audio describers and synthetic voices?

Except for the first question, which required a more descriptive approach, each of these research questions was paired with a hypothesis that was to be confirmed statistically. In the first case, we assumed viewers were not satisfied with the quantity of AD offered because our previous observations revealed that it is not available on a regular basis for all TV stations. Also, CESyA (2014) found out users were dissatisfied with the quantity of AD provided by the Spanish Digital Terrestrial Television (DTT) broadcasters nationally. Moreover, we also considered that, since viewers do not have a wide choice of audio described content that they can choose from on a daily basis, also due to other broadcasters failing to offer any AD, the general feeling would be dissatisfaction. Nonetheless, when it comes to quality, we thought users with sight loss would appreciate the efforts TVC has been putting into improving existing guidelines with their years of experience. Also, TVC has an accessibility department for checking the quality of the daily services, which will be described in section 3, and a customer care service that can also answer questions regarding accessibility. Therefore, it was hoped that these factors would have a direct impact on user satisfaction. The CESyA (2014) study also showed that users were more satisfied quality-wise than quantity-wise.

As for the fourth and fifth research questions, which were connected to the idea of finding non-professional ways of offering AD to increase its presence, our initial hypothesis was that users would accept any solution that allowed them to enjoy more accessible content. Thus, it was expected that both of our suggestions would be accepted individually and that accepting one option would also mean accepting the other. It must be said that previous studies have shown that non-professional services have been, at least, tolerated by users with sight loss. For example, regarding amateur AD, Franco et al. (2011) carried out a reception study in Brazil that compared two versions of the same film clip: one had been audio described by the film's director, who admittedly had no experience or knowledge in the field, and the other had been produced by the researchers. The research team found out that, although users preferred the academic version of AD, they gave some credit to the amateur AD and thought it could be an alternative if no other option was available. Despite the limitations of this study, conceded by the researchers themselves, we believe it can shed light on how users with sight loss feel when having to choose between inaccessible content and content with non-professional AD. Also, Oliveira Ferraz de Abreu and Almeida (2016, p. 935), after acknowledging the complexity of the production of AD, claimed that "the current technological convergence paradigm provides great opportunities to enhance this process." They described a platform they developed that allowed volunteers who did not necessarily have professional training to create AD collaboratively. They found that the volunteers as well as users were satisfied with the outcome. This particular study is relevant because the stimulus used in the test was a TV programme, not a film.

Synthetic voices have also been tagged as a temporary, and even a permanent, solution by users in some reception studies (Szarkowska, 2011; Szarkowska & Jankowska, 2012; Fernández-Torné & Matamala, 2015). Viewers have already expressed their acceptance in different languages, but it is undeniable that the advantages offered by this kind of voice could also benefit broadcasters. Synthetic voices could, for instance, save the human labour cost when reading the script and also the time to look for audio describers who need to have special vocal skills (Szarkowska, 2011).

This article is divided into five sections. The first explains the legal background of MA in Europe, Spain, the Balearic Islands and Catalonia. The second section presents the methodology followed. The third part of the article examines the current situation of AD in seven Catalan-language broadcasters. The fourth part of the article analyses the results of a survey conducted with TV viewers with sight loss to know their satisfaction with the AD in Catalan currently available on TV and on their opinion of some non-professional AD production services. Finally, the conclusions and proposals for improvement are put forward.

2. Legal Background

Access to communication is a right recognized by the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD), which was ratified by Spain in 2007 with the optional Porto Protocol, and in 2010 by the European Union. After joining the UNCRPD, the European Union – including Spain – has taken measures to grant access to the media to people with functional diversity. These measures mainly take the form of legislative texts that stress the need to raise social awareness regarding MA and set the foundations for increasing the quantity of sensory accessibility services offered by broadcasters to guarantee universal access.

2.1. European Union

The European Union has launched different initiatives with the aim of guaranteeing and enforcing the rights of persons with disabilities, such as the Audiovisual Media Services Directive of 2010, which states that:

> The right of persons with a disability and of the elderly to participate and be integrated in the social and cultural life of the Union is inextricably linked to the provision of accessible audiovisual media services. The means to achieve accessibility should include, but need not be limited to, sign language, subtitling, audio-description and easily understandable menu navigation. (Directive 2010/13/EU, p. 6)

In Article 7, this directive affirms that "Member States shall encourage media service providers under their jurisdiction to ensure that their services are gradually made accessible to persons with a visual or hearing disability" (Directive 2010/13/EU, p. 15).

The latest one is the Directive on the approximation of the laws, regulations and administrative provisions of the Member States as regards the accessibility requirements for products and services, which is also known as the European Accessibility Act (COM/2015/0615 final). This directive was passed in 2019 and aims at improving the functioning of the internal market for accessible products and services. Among the services covered by the European Accessibility Act, access to audiovisual media services such as television broadcast can be found. More specifically, it states that "[t]here is also a need for concerted action to ensure that electronic content, electronic communications services and access to audiovisual media services are fully available to persons with disabilities." Nonetheless, Member States still have until 2022 to adopt the necessary laws and regulations to comply with this new Directive. Therefore, it is expected that the laws mentioned in the following sections will be tightened up in the near future.

2.2. Spain

Similarly, there is also legislation on MA both at national and regional level. In Spain, it is embodied in the Ley 7/2010 General de la Comunicación Audiovisual (General Law 7/2010 of Audiovisual Communication), hereinafter referred to as Ley 7/2010 (General Law 7/2010), which specifies the percentage of TV programmes that must provide what they call *subtitles*,[2] as well as the number of hours of AD and SLI that must be broadcast weekly up to 2013. The minimum requirements vary depending on whether the broadcaster is public or private, as summarised in Table 1.

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[2] This Spanish law does not mention SDH, but subtitles. Yet, the said law also states that these subtitles are offered to satisfy persons with hearing loss' right to audiovisual communication.

Table 1.

Legal Requirements for Spanish Public and Private Broadcasters

Accessibility Service	2010		2011		2012		2013	
	Kind of broadcaster							
	Public	Private	Public	Private	Public	Private	Public	Private
Subtitles	25%	25%	50%	45%	75%	65%	90%	75%
Sign language interpreting	1 h	0.5 h	3 h	1 h	7 h	1.5 h	10 h	2 h
Audio description	1 h	0.5 h	3 h	1 h	7 h	1.5 h	10 h	2 h

Source: Ley 7/2010 (General Law 7/2010)

Since this law was passed, the progress made in Spain in terms of accessibility on TV in Spanish is undeniable, as the study by CeSyA (2014) evidenced. Yet, there are still many areas from which these services can improve, since CeSyA (2014, p. 123) found out that 60.7% of the users with sight loss that answered their questionnaire still did not consume AD on the TV. Also, the said study underlined that the current legislation does not suffice to meet users' expectations and needs regarding the quantity of accessible content available. In addition, this law does not mention the quality standards the accessibility services offered should aim at reaching. Paradoxically, the quality of the AD broadcast on national TV has been better rated than its quantity (CesyA, 2014, p. 145), which is what the law can hold broadcasters accountable for. Nonetheless, this does not mean that the AD broadcast on Spanish TV has not prompted criticism, with users making comments on its (lack of) neutrality, the amount of information provided and it overlapping with dialogues (CesyA, 2014, p. 142).

2.3. Catalonia

In Catalonia, accessibility issues are addressed in its Llei 13/2014 d'Accessibilitat (Law 13/2014 of Accessibility), the preamble of which declares that (all translations from Catalan have been carried out by the authors):

> The importance of promoting accessibility as a tool to enforce the principle of citizen equality first took shape in Catalonia through Decree 100/1984, of April 10, on the Suppression of Architectural Barriers. Seven years later, the Catalan Parliament passed Law 20/1991, of 25 November, on the Promotion of Accessibility and the Suppression of Architectural Barriers, and later the Catalan Government passed Decree 135/1995, of March 24, which developed

the aforementioned Law and authorized drawing up the Accessibility Code. These regulations laid the foundations for removing architectural and communication barriers, and for promoting technical aids to improve the quality of life and the autonomy of persons with disabilities or with reduced mobility. This regulation has brought about an important breakthrough for Catalonia. Despite the number of years it has been in force, there are still persons with physical, sensory, intellectual or mental disabilities, elderly persons or persons with other types of functional diversity that experience situations of inequality of opportunities, discrimination and difficulties participating socially, as well as exercising their rights, due to the existence of physical, communicative and attitudinal barriers.

Article 26 clearly states that broadcasters need to grant access to information by saying that audiovisual media has to gradually incorporate audio description, subtitling and sign language systems in order to make programs accessible and Article 33 adds that public administrations and public service providers have to ease the access to information, especially to the most relevant information, to persons with sensory impairments through systems and means that combine aural, tactile and visual communication. However, this law was subject to an implementation plan that is still pending.

The Consell de l'Audiovisual de Catalunya (Catalan Audiovisual Council), the entity authorised to set content volumes and an implementation calendar in Catalonia (Matamala & Orero, 2008), also drafted the ACORD 19/2013 (Agreement 19/2013) in 2013, which came into effect in the same year. Its aim is to ensure TV content is accessible by gradually incorporating SDH, Catalan SLI and AD. This agreement is heavily influenced by the Ley 7/2010 (General Law 7/2010) because broadcasters have the same obligations in terms of volume in both cases. The novelty of this agreement is that it specifies what kind of programmes are subject to the accessibility requirements, namely feature films, short films, documentaries, news programs, debates, sports broadcasts, TV series and other content that the current technology allows to be made accessible (Utray & Gil, 2016).

2.4. The Balearic Islands

Given that IB3 Televisió was included in the study, it is also necessary to reflect on what Balearic legislation mandates in terms of MA. The Llei 15/2010 (Law 15/2010) regulates the public broadcaster of the Balearic Islands and, among its main objectives is that it aims to guarantee that people with disabilities can effectively access the content broadcast. Article 26 also highlights that the public broadcaster of this autonomous region has to meet the demands of people with hearing disabilities, as well as the ones of persons with other types of disability, the elderly, children, young persons and also other groups that need special attention.

Also, the Ley 5/2013 audiovisual de las Illes Balears (Balearic Audiovisual Law 5/2013) acknowledges the universal access to audiovisual communication for persons with visual and hearing disabilities and specifies the volume of accessible content that these persons have the right to. This law is the

result of the Balearic amendment of the Ley 7/2010 (General Law 7/2010), since this autonomous region can develop the competences it has in this field (Blanquer, 2015). Unlike the national law, it does not distinguish between public and private broadcasters and stipulates that autonomic TV stations subtitle 75% of the programmes and offer at least three hours of SLI and AD every week. Local broadcasters are also encouraged to follow the benchmarks established.

Given that IB3 TV currently broadcasts in more than one autonomous region (in the Balearic Islands and now also in Catalonia), it must comply with the Ley 7/2010 (General Law 7/2010).

3. Methodology

A detailed analysis was made of the current offer in order to come up with a representative selection of television channels which broadcast in Catalan. From within the Autonomous Region of Catalonia the following were chosen from the public broadcasters: betevé, Radiotelevisión Española (RTVE)[3] and Televisió de Catalunya (TVC); while the private broadcasters included: Televisió de Girona (Girona TV), 8tv and El Punt Avui TV. IB3 Televisió, from the Balearic Islands and not part of the Autonomous Region of Catalonia, was also included since it also broadcasts in Catalan and because it has a special channel (IB3 Global) that can be viewed in Catalonia. À. Media, from the Autonomous Region of Valencia, was initially considered, but later discarded because it had not yet begun broadcasting. The final selection therefore included a total of seven public and private broadcasting companies which have either national, regional or local coverage. The differences among them assured the representativeness that was being sought.[4]

The analysis was based on three main sources of information:

- Reports and the content of linear and non-linear broadcasts;
- A questionnaire target at users with sight loss;
- TV stations accessibility managers.

Both qualitative and quantitative methods were taken for triangulation purposes. Triangulation was considered to be essential, especially since we were dealing with a group of viewers that are not easy to recruit and, therefore, the response rate could not be expected to be as high as desired. Moreover,

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[3] Radiotelevisión Española offers accessibility services in Spanish, but in this study we focused on their offer in Catalan. However, the content in Catalan is not available nationwide, but only in the Autonomous Region of Catalonia.

[4] It is important to take into account that Televisió de Catalunya, and more specifically channel TV3, has been the audience leader in Catalonia for eight consecutive years up until 2018 with a 13% share of viewers annually (Antich, 2018). Therefore, it is believed that including more local broadcasters with a much more limited number of viewers would not have added more representativeness to our results.

Orero et al. (2018) recommend triangulating data when carrying out research on AVT to obtain a more comprehensive snapshot of the phenomenon under investigation.

Regarding the accessibility services offered by the video-on-demand (VOD) service, the analysis was carried out in a series of programmes and broadcasts that were watched on a laptop and also through mobile apps. Seven broadcasters, eight channels, 62 different programs and 170 broadcasts were evaluated in total.

The assessment of the accessibility services in linear TV (real-time TV) consisted of watching and analysing eight channels of the five broadcasters that we knew beforehand were offering accessibility services, with 18 different programmes and 70 different broadcasts in all.

The quantification of accessible content was possible thanks to the data provided by the broadcasters, which was contrasted with the law that applies in each case, either national or regional.

A questionnaire targeted at viewers with sight loss was designed following, whenever possible, the suggestions put forward by Kaczmirek and Wolff (2007) to produce a survey adapted to our user needs. We believed questionnaires were the best tool for achieving our goal, since they are ideal for gathering extensive information about a certain population, achieving statistical representation and approaching the data obtained quantitatively (Kuznik, Hurtado-Albir, & Espinal, 2010). The goal of the questionnaire was to assess the users' degree of satisfaction with the services that are currently offered and to find out what their needs and expectations were in this regard. Before administering it, and since applying for ethical approval is becoming commonplace in the execution of AVT research (Orero et al., 2018), our questionnaire was approved by our university's Ethics Committee. The questionnaire was first piloted and then distributed with the help of cooperating associations, which kindly contacted their members and asked them to respond to the survey. We obtained responses from 19 valid blind or low-vision informants, and the results were analysed statistically using SPSS (version 22). For the user satisfaction section, chi squared goodness of fit tests were carried out. The same test plus contingency tables with a chi squared test were applied to the data concerning new alternatives to provide more accessible content.

Finally, the accessibility managers of each TV station were contacted to arrange an interview. As noted by Fàbregues, Meneses, Rodríguez-Gómez, and Paré (2016), the researcher who chooses a more qualitative approach ends up using interviews whenever the objective is to better comprehend the object of study from the interviewee's perspective. The interview was considered a key tool for the study for several reasons. Firstly, to contrast and expand the information obtained by other channels. Secondly, to get to know their experience in the world of accessibility, which included, for example, the difficulties they have to face, the feedback obtained from viewers so far, how the broadcaster is internally organized and their plans as accessibility managers for the future. Thirdly, to offer them the opportunity to explain themselves, since it was foreseen that the results would make clear all that still needs to be done in terms of accessible services. Some of these arguments

coincide with those presented by Fàbregues et al. (2016), who consider interviews to be a good option when data is to be triangulated or when the researcher considers that the participant should have more control over "the interrogation", for example. We prepared a semi-structured interview with a series of generic questions organized thematically in three sections, such as the organization of the accessibility department (if any), the offer of accessibility services and web accessibility. Those who agreed to be interviewed were:

- Rosa Vallverdú, Head of Accessibility at TVC (1 February 2018);
- Jordi Colom, Director of Technology and Innovation at betevé (1 February 2018);
- Àlex Martí, Director of Girona TV (2 February 2018);
- Joan Carles Martorell, Director of IB3 Televisió (sent via email on 24 January 2018 and received on 7 February 2018); and
- Francisco Armero, Director of Broadcasts and Accessibility at RTVE (sent via email on 10 February 2018 and received on 19 February 2018).

Two of the broadcasters (8tv and El Punt Avui TV) declined the offer to be interviewed, as they were not offering any accessibility services at that time. Once transcribed, the interviews were useful to present and contextualise the current situation more accurately.

4. The Current Situation in Catalan-language Broadcasters

After a thorough analysis of the broadcasters under study we found out that, out of seven, just one offers AD: TVC. The rest of broadcasters do not offer any AD services at all, although when the interviews with the broadcasters took place, we found out that betevé was carrying out some tests to start offering this service in the short to medium term. It was important for them to employ a system that was compatible with that of TVC so that they could share audio described content – something they already do with subtitled programmes.

Girona TV claimed to be aware of how much MA is needed and is willing to discuss accessibility issues with user associations willing to help them to offer accessible programmes. Yet, they also highlighted that, as a private broadcaster, everything they do must be profitable, which means that they cannot bear all the costs on their own but expect user associations to take on part of the costs. Girona TV's previous experience with user associations revealed that they regard accessibility differently than user associations. Girona TV argued that private broadcasters are in need of more financial help to offer accessible content because they are not competing on equal footing with public TV stations. This broadcaster also mentioned that accessible content is targeted at a very specific, smaller, audience and this has obvious consequences. According to this broadcaster's director, user associations argued that, as providers of a public service, all broadcasters should offer accessible content because access to information is a universal right.

TVC is the only broadcaster that offers not only AD, but also AST, i.e., spoken subtitles. This comes as no surprise since the broadcaster has participated in several EU-funded projects to develop and improve sensory accessibility services, such as DTV4All, HBB4All, and more recently, ImAc and EasyTV. AD is offered exclusively in recorded programmes, since TVC is not able to guarantee a reasonable level of quality in live broadcasts. The service is offered in many TV series, in films and in some children's shows, and it is announced via a weekly email sent to subscribers through a mailing list.

AD services were officially launched in TVC in 2007 and the number of hours dedicated to them has increased year by year, although TVC still fails to comply with the national law on MA. Table 2 shows the number of hours of AD broadcast from 2011 to 2016 in the different channels of the TVC corporation.

Table 2.

Annual Hours of AD Broadcast in TVC (2011–2017)

	2011	2012	2013	2014	2015	2016	2017
CHANNEL							
TV3	371	360	578	438	515	544	467
CS/33	--	174	379	354	399	363	434
CS/300/3XL	494	394	--	--	--	--	--
33	143	--	--	--	--	--	--

Source: Annual reports of the CCMA (2011–2017)

There is a clear difference between the number of hours broadcast in 2011 and 2017. Although there is an obvious growing trend, it is also alarming that the number of hours reached in 2013 has still not been achieved again in the case of TV3, which is the channel leading TV viewership in Catalonia. Also, and taking into account that the Spanish national law on MA requires public broadcasters to offer 10 hours of AD every week, it can be seen that TV3, which is by far the most accessibility-friendly channel, only broadcasts around 8.9 hours weekly. Thus, although the efforts made by this broadcaster must be acknowledged, especially in comparison with the rest, the accessible content offered is still insufficient from a legal and social perspective.

In the past years the TVC's MA services have been outsourced. The company producing the accessibility services for TVC is chosen via public tendering, in which aspects such as price, quality, Catalan skills and general knowledge are all considered. Yet the broadcaster still keeps an accessibility department to carry out quality checks of all the accessible content, although in the case of AD, there is not a fixed protocol on how to carry out said checks. It was also ascertained that academic studies such as that of Puigdomènech (2007), in which the foundations for future AD guidelines in Catalan are laid, are still overlooked by the industry. Apart from checking linguistic accuracy, the accessibility manager assesses it on the basis of the comments received. These come mainly from individuals and not user associations. Despite following the Spanish national AD standard and also consulting the guidelines used at the BBC for further details, they have also considered feedback from users, which helps them to provide a better service. TVC's accessibility manager believes it is unavoidable standards always lack information because each product is different, but she also thinks the present guidelines should be improved. Therefore, TVC does not blindly follow what the guidelines dictate

and treats each audiovisual product on its own terms. One last remark about AD is that it is offered in linear broadcasts and also in the VOD service.

When it comes to audio subtitles, the number of hours is even lower (see Table 3), but this cannot be legally evaluated because the Spanish law does not mention any accessibility services other than SDH, AD and SLI. Therefore, TVC offering audio subtitles can be seen as a goodwill gesture to move forward to a barrier-free information society.

Table 3.

Annual Hours of Audio Subtitling Broadcast in TVC (2014–2017)

YEAR CHANNEL	2014	2015	2016	2017
TV3	620	622	299	477
3/24	520	--	--	--

Source: Annual reports of the CCMA (2011–2017)

Audio subtitles are offered when, for instance, a documentary with subtitles is broadcast or when during the news someone appears speaking in a different language. In these cases, the subtitles are read by a synthetic voice via the AD channel.

5. User Satisfaction and Acceptance of Non-Professional Services

The questionnaire was aimed at examining the informants' satisfaction with the AD offered by TVC. The questionnaire also intended to find out whether users would accept non-professional services that would allow a wider availability of accessible content. Before presenting the results, it is important to highlight that using questionnaires as a research tool has both pros and cons, the latter including rigidness, decontextualized data and simplified images (Kuznik et al., 2010).

The profile of the visually impaired informants was the following. Out of the 19 respondents, 36.8% were women, whereas 63.2% were men. The average age was 43.2 years old. More than half of them had either a master's degree or had finished secondary school. The rest had a varied educational background. The two main mother tongues of the informants were Catalan (68.4%) and Spanish (42.1%). For this question informants were allowed to choose more than one answer and it is more

than probable that some of the informants were bilingual. As for their impairment, 57.9% claimed to be blind, whereas 42.1% affirmed to have low vision. In 73.7% of the cases, the impairment was congenital, while 26.3% of the informants responded their sight loss was acquired.

Orero et al. (2018) think it is essential to include a section on TV viewing habits in any questionnaire in AVT research. They consider "[v]iewing habits mould the viewers' responses and reactions to any given AVT product" (Orero et al., 2018, p. 111). In our sample, 42.1% of the informants claimed to watch TV one to three hours every day, whereas 26.3% responded they watched it less than an hour daily. The most frequently watched TV programmes were news programmes, (84.2%), cultural programmes (63.3%), documentaries or popular science shows, and fiction (57.9%). As for the most popular broadcaster, 57.8% of the informants said they watch TVC every day and 26.3% claimed they watch it at least once a week. Almost 80% of the respondents stated they never watch El Punt Avui TV (78.9%) and around 90% never tune in to IB3 TV or Girona TV. With regard to whether viewers with sight loss consume non-accessible content, everybody admitted watching it, except for one respondent. News programmes, on the one hand, and documentaries and popular science shows, on the other, are the most watched shows without AD (88.2% and 70.6%, respectively).

5.1. Satisfaction With the Quantity of AD on TVC

Regarding the satisfaction with the quantity of AD, the descriptive analysis reported the following results in our sample (see Table 4).

Table 4.

Descriptive Analysis of the Responses Regarding the Quantity of AD

	N	Minimum	Maximum	Mean	Median	Standard Deviation
TVC	14 (5 users did not respond)	1	5	3.21	3.50	1.48

It was observed that out of the 19 respondents, 36.9% claimed to be satisfied or very satisfied with the quantity of AD offered, while 21.1% were dissatisfied or very dissatisfied. Almost 16% of the respondents did not take a clear and strong stand as far as satisfaction towards AD quantity is concerned. This observation contradicted our initial hypothesis, although the number of persons who felt satisfied was not too high. Figure 1 compiles the distribution of the data regarding the satisfaction of our respondents with TVC.

Figure 1.

User Satisfaction with TVC's Quantity of AD
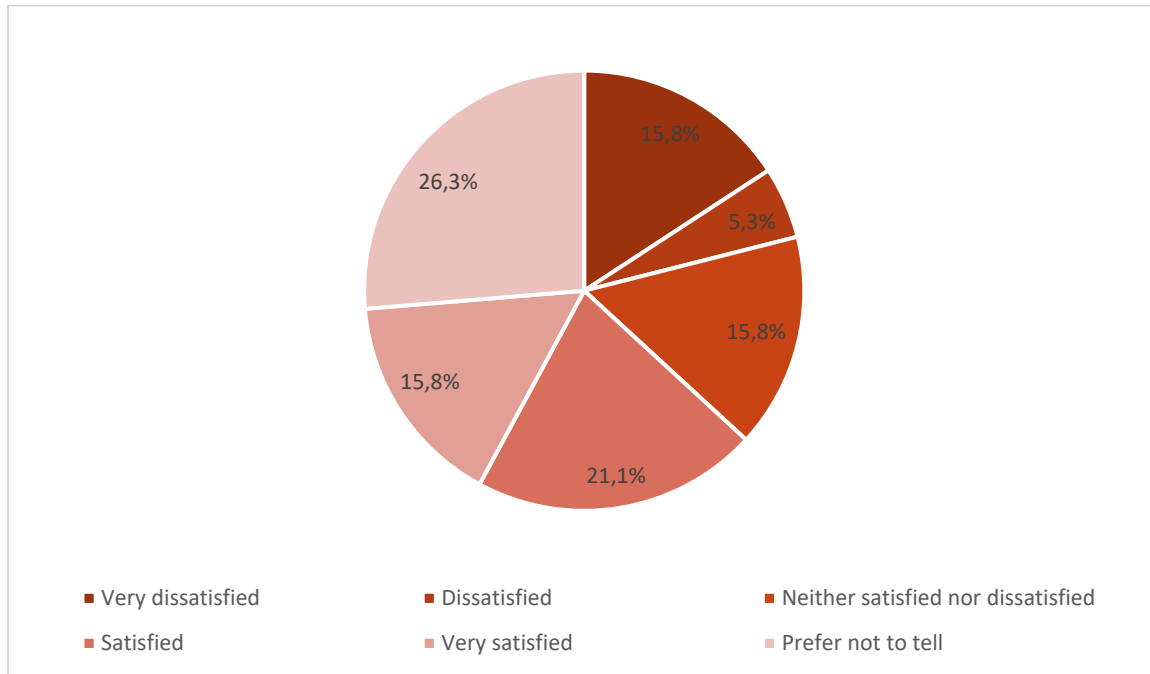
The hypothesis we departed from was that more than half the viewers were dissatisfied or very dissatisfied with the quantity of AD provided. What had to be discarded first was whether or not our observation could have been the result of chance. A chi-squared test of goodness-of-fit was performed to determine whether our sample could have been extracted from a population in which the probability of being satisfied or dissatisfied was the same. It must be stated that since the "neither satisfied nor dissatisfied" option did not fit any of the two main categories that could define user satisfaction (satisfied/dissatisfied), it was decided to omit it when running the statistical tests. The null hypothesis, that is, the distribution of satisfied and dissatisfied users being the same could not be discarded (p =0.366). Therefore, we do not have enough evidence to confirm our hypothesis.

5.2. Satisfaction With the Quality of Audio Description on TVC

Regarding satisfaction with AD quality, the descriptive analysis reported the following results of our sample (see Table 5).

Table 5.

*Descriptive Analysis Regarding the Quality of AD*

	N	Minimum	Maximum	Mean	Median	Standard Deviation
TVC	15 (4 users did not respond)	1	5	3.53	4	1.19

Unlike the first case, almost half of the respondents (47.4%) stated they were satisfied or very satisfied with the quality of the AD provided. In contrast, only 15.8% respondents claimed to be dissatisfied or very dissatisfied (Figure 2). The number of persons not having a strong opinion on this issue remained the same (15.8%).

Figure 2 compiles the distribution of the data regarding the satisfaction of our respondents with TVC.

Figure 2.

User Satisfaction with the Quality of AD on TVC

Legend: Very dissatisfied ▪ Dissatisfied ▪ Neither satisfied nor dissatisfied ▪ Satisfied ▪ Very satisfied ▪ Prefer not to tell
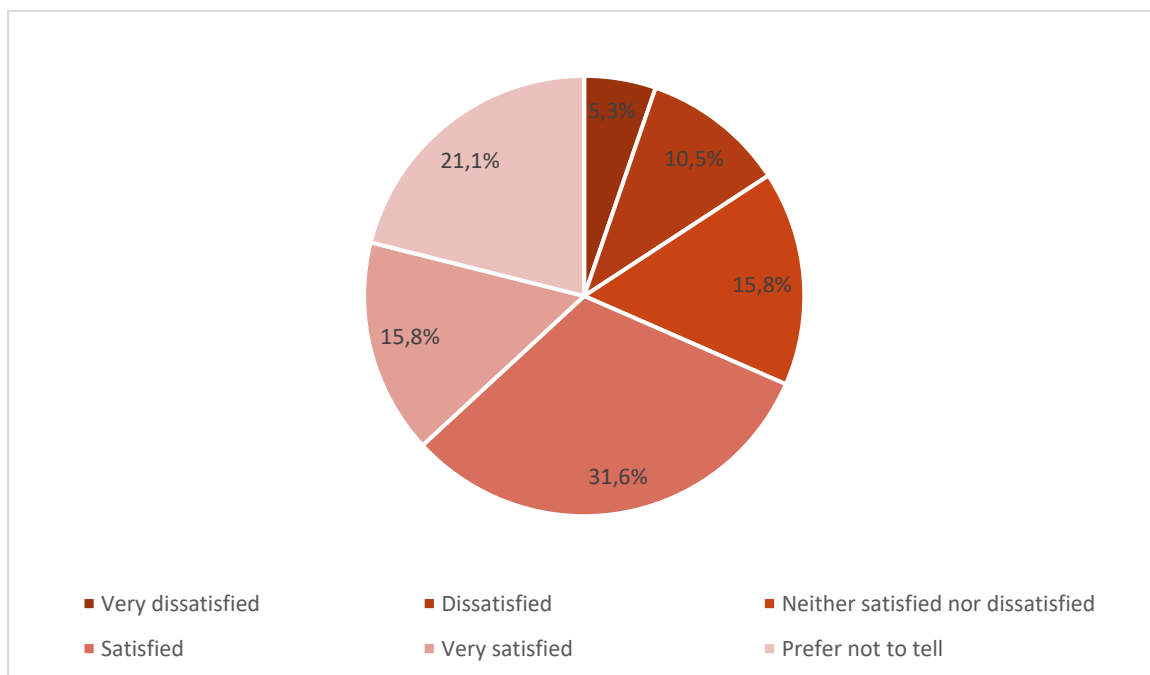
The hypothesis was that more than half the viewers were satisfied or very satisfied with the quality of AD provided. In this case, our data supported the hypothesis (it can be seen there are more satisfied users than dissatisfied ones), but it had to be proved again that this was not the result of chance. The "neither satisfied nor dissatisfied" option was overlooked again. A chi-squared test of goodness of fit was performed to determine whether our sample could have been extracted from a population in which the probability of being satisfied or dissatisfied was the same. The result proves that this cannot be discarded (p =0.083). Therefore, we do not have enough evidence to confirm our second hypothesis.

5.3. User Attitude Towards Non-Professional AD Services

This section describes the results of the statistical analysis carried out to evaluate the possibility of incorporating non-professional accessibility services. Were these to be accepted, the suggestion could be passed on to broadcasters in order to facilitate their offering more accessible content for viewers with sight loss.

5.3.1. Amateur Audio Describers and AD With Synthetic Voices

The informants were asked about two options that could increase the volume of audio described content. Out of the 19 respondents, 18 answered the two questions regarding the acceptance of amateur describers and synthetic voices.

Regarding amateur audio describers, 63.2% of the informants said they could accept them, 31.6% said the opposite and 5.3% did not respond. This could not be found statistically significant at the 0.05 level (p =0.157). With regard to synthetic voices, 68.4% of the respondents were willing to give them an opportunity, whereas 31.6% were not. Again, this could not be statistically significant at the 0.05 level (p =0.059). Therefore, and although our observation supports our hypothesis of both options being accepted by the majority of users, our initial hypothesis could not be statistically confirmed.

Also, our hypothesis was that users would accept all of the alternatives regardless of what they were, meaning that accepting one would mean accepting both because they are craving for more audio described content. Since we were looking for association between the two variables, we used a chi-squared test of goodness-of-fit with contingency tables. The results (summarised in Table 6) are the following. Half of the informants were in favour of both alternatives suggested, whereas 11% were reluctant to accept any non-professional service on TV. Slightly above 22% were willing to audio describe TV programmes with synthetic voices, but not with amateur audio describers. Conversely, 16% of the respondents would allow amateur audio describers to provide AD but would not consider synthetic voices as a solution to increase the amount of audio described content. The difference was

not statistically reliable at the 0.05 level (p =0.710). Therefore, and since no association was detected, our hypothesis could not be verified.

Table 6.

Acceptance of Non-Professional Services

		Synthetic voices		
		No	Yes	Total
Non-professional audio describers	No	2	4	6
	Yes	3	9	12
Total		5	13	18

Admittedly, the number of users recruited leaves room for improvement and does not yield enough statistical power to reach definitive conclusions. Nonetheless, it is a first step to get to know better the Catalan audience that consumes AD.

The authors acknowledge that non-professional services are a controversial issue among professional translators, but it cannot be denied that previous studies, such as that of Branje and Fels (2012), have also shown that amateur AD can be tolerated to increase the provision of this accessibility service. Branje and Fels (2012) suggested that this could be related to users with sight loss being used to families and friends audio describing through the so-called *whisper method*. Also, there are EU-funded research projects, such as the EasyTV project, currently investigating crowdsourcing with amateur volunteers as a possible way for broadcasters to offer accessibility services. Yet, resorting to amateur AD is still quite unusual and it must be admitted that broadcasters should ideally employ professional audio describers. Nonetheless, were these practices found to be widely accepted in the future, broadcasters could hire quality experts to assess the amateurs' output. This would obviously have implications in MA training but, as in other fields in Translation Studies, post-editing is a new avenue the importance of which needs to be acknowledged and further explored. In contrast, using synthetic voices is already common practice in, for instance, theatres that offer AD in Spain (Hermosa, forthcoming).

6. Conclusions and Proposals for Improvements

It is safe to affirm that Catalan-language broadcasters are not complying with the law. Although we analysed seven TV stations, their representativeness allows us to have a general picture of the current situation television accessibility services in Catalan for the viewers with sight loss. The only legally required service is AD and this is only offered by TVC, which, unlike Matamala and Orero's (2008) prediction, still fails to provide the quantity of audio described material the law requires in Catalonia. Yet, the CESyA (2014) study retrieves a comment made by a user acknowledging the work carried out by autonomic broadcasters in this regard and admitting it is much better than the services offered by the Spanish national broadcasters.

Regarding user satisfaction with the AD available for TV in Catalan, none of our initial hypotheses could be confirmed but it was interesting to see that what we observed in the case of satisfaction towards AD quantity contradicted what we had foreseen. The fact that some users are satisfied with the quantity of AD could be linked to users not watching TV very often or them appreciating broadcasters' efforts to offer AD as something preferable to nothing at all. Similarly, a considerable number of respondents would in principle be willing to accept non-professional alternatives, but not enough evidence was gathered to state that the majority of users from the population would say yes to any of the options. No association was found between the acceptance of amateur audio describers and synthetic voices. This is undeniably related to the main limitation of our study: the size of our sample, i.e., the number of informants being too low. Although our combination of methodological approaches allowed for data triangulation, which undoubtedly enriched our analysis, our sample of users is considered to be rather small. We are aware that a bigger number of respondents would be needed to yield a greater statistical significance in our results. Yet, as Orero et al. (2018) point out, recruiting respondents that are functionally diverse is not an easy task and this should be taken into consideration when carrying out research in this particular field. Also, the fact that we do not have enough evidence to support our hypotheses cannot be viewed as a failure of our study. In fact, it can help us find new angles from which to analyse the results.

Despite the limitations pointed out, it must be highlighted that this study is still worth both academic and industry attention. To begin with, it is very innovative, since it is the first of its kind in the Catalan context. Spanish audiences have been examined before, but Catalan media accessibility has never been studied on its own. Also, the triangulation method taken allows for validity and allows us to offer a completer and more contrasted overview of the current state of MA services on TV in Catalan. In this line, we think that it offers a methodological model that could be replicated in other sociolinguistic contexts to ascertain if similar results could be reached. Moreover, this study constitutes a first observation that, despite it not being statistically powerful, already sheds light on some of the Catalan users' opinions regarding AD. Last but not least, this first study can be taken as a steppingstone for Catalan broadcasters from which to continue advancing on the provision of media accessibility services, as throughout our research we identified some areas in which Catalan-

language broadcasters could work to improve. Actually, this research is part of a project which was awarded a research prize by the Catalan Audiovisual Council for its contribution to knowledge transfer and straight applicability of some of its results.

First, since the majority of broadcasters are interested in sharing and increasing the volume of accessible content, new ways to put their intentions into practice should be explored. This could be done by stepping up exchanges among professionals, sharing costs and content, either through official financial aid or by collaborating with user associations and universities that are training MA experts.

Second, although the national standards for AD have been mentioned, it stands to reason that each language should have their own. Therefore, we suggest that official guidelines should be drawn up to orientate Catalan audio describers, both amateur and professional. It would definitely be advisable to unite TVC, academia, user associations and professional audio describers to come up with a document that satisfies all the stakeholders involved. In fact, this would mean resuming an old project, since the proposal made by Puigdomènech (2007) should be considered as, at least, a very solid point of departure.

Third, as amateur audio describers are an option that a considerable number of persons can accept, a collaborative project between broadcasters and universities could be drawn up. Translation students taking AD courses could undertake internships allowing them to get real-life experience while broadcasters interested in increasing accessible content could benefit from this, too. In fact, a combination of both non-professional services could be considered, in which amateur audio describers could write the AD scripts that would be read by synthetic voices. Although these alternatives could be of help temporarily, users deserve a high-quality service in order to have access to information in the same terms as the rest of the viewers. Therefore, broadcasters should ultimately aim at setting up accessibility departments with professionals that can ensure that basic human rights such as the right to information are met.

Fourth, at the end of the questionnaires, the respondents had the option of adding any comments they would like to make. One user demanded that all content was made accessible, but also pointed out that there are other ways of making TV content accessible that do not necessarily imply audio describing content. More specifically, this person suggested TV presenters were trained to be more descriptive when they talk so that they can verbally transmit many of the images that the rest of the viewers see. In short, this user claimed that accessibility does not merely depend on technical factors and product post-edition, but also on professional expertise, personal attitudes and knowledge. This idea is very much related to that of *accessible filmmaking*, which Romero-Fresco (2018, p. 192) defines as "the consideration of accessibility during the production of audiovisual media." This new concept can be seen as the result of the shift towards more proactive approaches in which users are seen as bearers of valuable knowledge produced by accessibility in a plethora of disciplines (Greco, 2019, p. 20). We believe this could be further explored in the Catalan context to see, on the one hand,

how this can be implemented so that both viewers with and without sight loss accept it; and, on the other hand, how this could be incorporated in the Journalism or Media Studies curricula.

Although it stands to reason that the areas in which Catalan-language broadcasters can improve in terms of accessibility are very numerous, it is expected that as accessibility gains ground in the Catalan social agenda, it will soon acquire the importance it deserves. Hopefully the implementation plan of the Catalan accessibility law — now in its last stage of enactment — will be an important step towards ensuring we can all enjoy audiovisual content on equal terms.

Acknowledgements

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