Audio Description Online

Report for the FRES project

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# Background

Audio description (AD) is quite a new field of expertise in Norway, reflected in how little AD there is in Norway, considerably less than in other countries with which we would normally compare ourselves. AD in Norway until recently was only available in the DVD market. MediaLT has audio described close to thirty DVD films to date.

MediaLT initiated the FRES-project (The Future for Audio Description) [1] with the aim of improving AD services in Norway, in co-operation with the Norwegian Federation for the Blind and with support from Extrastiftelsen. This project would promote AD in new arenas such as cinema, TV and Internet, and increase the number of audio described Norwegian films.

The situation with regard to AD of videos is just as bad in other countries as in Norway. AD is not yet readily available on the Internet and this being the case, future work will most likely focus on AD online. We describe here the status of online AD nationally and internationally. We also look at how the framework for online AD differs from that for AD in other arenas and how best to utilize the “extra” possibilities Internet presents. In conclusion, we set out recommendations for future work with AD online.

# Status of AD online

The general situation on Internet is that virtually no videos are audio described. The extensive use of video, without AD, is therefore becoming a considerable accessibility barrier. Fortunately, the problem is now receiving more attention. We look at the most important international initiatives we have been able to identify. There are also commercial companies offering AD of videos on Internet, but we choose not to focus on the commercial sector here, looking more at initiatives directed specifically towards Internet.

## YouDescribe

The idea behind YouDescribe is to offer an AD service based on voluntary help free of charge. Anyone can help to audio describe YouTube videos. On the YouDescribe project web site [2] we read that YouDescribe is:

«An experimental platform for adding extended audio description to YouTube videos.»

logo YouDescribe

YouDescribe builds on the technology «Descriptive Video Exchange» (DVX) [3] developed by the Smith-Kettlewell Video Description Research and Development Center [4] in USA. They are behind the project Youdescribe. The descriptions, time codes and other information (production date, producer etc.) are stored and maintained on a web-based server, but not the videos themselves. DVX keeps track of which descriptions belong to which video and the time codes for the descriptions.

The solution does not necessitate changes in the videos themselves and so avoids copyright issues. It also facilitates AD of finished older products that are no longer under production.

The disadvantage of the solution is that the video must be paused to listen to the AD. The AD is not an integral part of the video sound as in cinema films. The overall impression is not therefore the same as with integrated AD, diminishing the overall experience. We approached the developers about this (Smith-Kettlewell Video Description Research and Development Center) who say they would like to develop the technology to include integrated AD, but that they need more funding to research this possibility.

In addition, ensuring good quality AD is a challenge. YouDescribe has tried to safeguard the quality of the AD by publishing advice and recommendations (both in written and video format) and by offering courses and training. There is otherwise the possibility of using measures employed by other voluntary net projects (for example Wikipedia) that allow users to edit and rate AD, and that professional suppliers of AD could also employ methods that allow editing and rating by users. This leads to the question of demarcation between professional and/or voluntary audio description. Suggested criteria for such a demarcation are:

* The length of time the video is on Internet (temporary or permanent).
* The nature of the author/organization that has produced the video.
* The nature of the content.
* The target group for the video.
* Etc.

A natural demarcation might be whether the content is user generated or not, user generated videos could for example be audio described by volunteers. There is after all a very large quantity of video on the Internet now, which should allow plenty for both the professionals and the volunteers.

## Streaming services

Streaming services such as Netflix are offering an increasing number of films, drama series and documentaries. While several countries (for example England, USA and Sweden) require that TV companies audio describe a certain percentage of their TV programmes, this regulation does not apply to streaming services, which are regarded as Internet services rather than TV services.

The similarity in services now offered on the Internet and by television makes it difficult to precisely define what streaming services are; here we use streaming services as a collective term for video streaming services (for example video on demand (VOD) and Internet TV). Various forms for IPTV are not included in this report. For IPTV see the FRES interim report: Audio Described TV [5] (in Norwegian).

The WBU User Requirements for Television Receiving Equipment [6] give a useful overview of AD, and more specifically audio described TV. We have not been able to identify a service for downloading audio described productions, we discuss only streaming services here.

### TV providers

Looking generally at web sites directed towards the public, TV web sites are among those that offer the best AD services. The British TV companies stand out in this respect, particularly the BBC, reflecting the amount of audio described TV generally in Britain, greater than in any other country. The BBC iPlayer [7] demonstrates that it is possible to achieve a good solution in this field.

### Accessible Netflix project

There are two ways of providing AD of streaming services:

* Offer AD via the regular services such as Netflix.
* Establish specially adapted services.

We describe several examples of specially adapted services below. However, if we are to uphold the principle of Universal Design, we should follow an alternative strategy, that existing regular streaming services offer AD. The accessible Netflix project [8], established by two visually impaired users, is an example of an attempt to provide an accessible regular service. Using blogging and other social activities, they focused on making Netflix accessible for all. The project formulated the following main goals for its activity:

* That Netflix should be user friendly for all types of screen reader, both on PC and mobile devices.
* That the user interface should be easy to use with assistive devices used by mobility disabled users.
* That visually impaired users should have easy access to audio described content, both streaming services and DVD.

### Talking flix

Crossway Media Solutions is working to develop a streaming service specifically for the visually impaired (Talking flix) [9]. On their web site, they describe the service as:

«TalkingFlix is a worldwide entertainment platform, where you can listen to audio described movies and television series. You can purchase or rent individual titles, or get access to a growing library through a competitively priced monthly subscription. The service will be available in 2014, with hundreds of titles from the largest studios and broadcasters.»

### Zagga Entertainment

Zagga Entertainment [10] is a competitor to Talking flix, and in addition, they emphasize accessible and modern solutions for playing AD (for example via an accessible app). We read on their web site:

«Welcome to Zagga Entertainment. We are creating a fully accessible video on demand (VOD) subscription service with first-rate movies and TV shows featuring high quality described video, uncut and commercial free. Whether you love a gripping thriller with an action-packed car chase, a laugh-out-loud rom com or enlightening documentary, Zagga Entertainment will provide a wide selection of classic movies and TV, as well as newer titles all with described video. Our worldwide service will be available through an accessible, secure website and mobile app designed to work with screen readers and other assistive technology. We are bringing you closer to your friends and family through great and accessible visual storytelling. »

### Blindy.tv

Blindy.tv [11] is a voluntary initiative by visually impaired to provide audio described film and TV. In the same way as Talking flix and Zagga this is a specialized service for visually impaired.

Blindy.tv broadcasts English language programmes around the clock on several channels:

• Comedy

• Drama

• Science

• Etc.

Programmes have only sound content, not video, and can be played in the browser or in another program of choice (Windows Media Player etc.).

### Information about audio described streaming services

The accessible Netflix project [8] has an information web site about streaming services that offer AD [12], allowing users to keep up to date with the latest AD services on offer.

## Status in Norway

There are hardly any examples of audio described videos in Norway. MediaLT has produced most what there is, for example AD of an information video for the Norwegian Audio and Braille library [13].



Neither did AD in Norway receive the hoped for stimulus through regulation by the Norwegian Discrimination and Accessibility Act [14].

AD is one of the success criteria in the Web Content Accessibility Guidelines (WCAG 2.0) [15]. To achieve WCAG 2.0 level AA, videos must be audio described, while at level A, text description is enough. The Discrimination and Accessibility Act requires that all web sites directed towards the public should meet WCAG 2.0 level AA. AD is however exempt from this regulation on the grounds of high cost, as is the case in other countries, for example in Australia [16].

At the same time, the increasing use of video and other multimedia online is referred to in the Discrimination and Accessibility Act and in other places. The exemption therefore applies in a situation where the need for AD is already great and is increasing. Critics of the exemption (among others organisations for the visually impaired) say that exempting all video online is sending out completely the wrong signal. An alternative solution is to uphold the requirement for AD, but with certain exemptions: that the requirement applies only to new content and that major players, such as TV companies, have a degree of exemption, audio describing a certain percentage of their productions.

### A new service

Regulation or no, it is important to promote measures that stimulate AD on the Internet. YouDescribe [2] is such an initiative. In parallel with voluntary projects, provision by professional AD suppliers should also form a part of the solution. As part of the FRES project MediaLT developed the web site Film for all [17], as a means of providing easy access to AD services for producers wanting to include AD in their videos.



The web site facilitates easy access by:

* Making it simple to upload the video.
* Defining fixed prices (start-up price and price per minute), so that customers know the cost.
* Payment over Internet.
* Predefined delivery time dependent on the length of the video, so customers know when the AD version will be delivered.
* Easy to download the completed AD version.

We are not able to evaluate the effect of this service before the FRES project ends. The service will continue after the project has finished, the aim being to make it a sustainable service when we will measure and evaluate its effect.

# AD online – possibilities

The Internet permits a greater degree of flexibility, not possible for other pre-recorded AD, because some limitations that apply to film and TV can be relaxed for AD online, permitting:

* Alteration to the length of the video.
* Alteration to the sound picture.
* Flexible deadlines.

## Alteration to the length of the video

The length of a TV programme or film is fixed and the AD must therefore be adapted to fit within this strict limitation, which in turn means tough prioritization of which AD to include. AD of internet videos must also keep within certain limits (so as not to spoil the artistic portrayal), but there is often more freedom online, the main advantage being that the duration of online videos can be extended to allow enough room for extra AD. There are two possibilities:

* Place the extra AD at the start of the video.
* Pause the video during playback to make enough room for the extra AD.

We combine both methods in the information film for Uloba BPA [18].



If we follow one of the important guidelines for AD, then there should be least possible intervention in the original sound picture. We should also guard against loading the video with every possible description, avoiding this pitfall by following the general guidelines for AD. The better alternative is therefore to place the extra AD at the start of the video, so reducing intervention in the sound picture. This works well in for example an interview video.

As a basic principle, videos with more speech content require less AD. Good verbal explanation may make AD almost superfluous and more speech will allow less room for AD. A longer video time to include more AD is most necessary when speech or other sound does not explain well the visual picture or actions; other factors that play a part are tempo and how varied the content is. We suggest specific guidelines for including extra AD in Chapter 5 Recommendations.

## Alteration to the sound picture

Based on Universal Design principles, the objective should be to reduce the need for AD as much as possible. Good planning and increased awareness of Universal Design during the production process may reduce the need for AD. For example, a programme leader in a TV broadcast may describe more than they might otherwise, as in Paralympics in London 2012, though here this approach was not chosen with Universal Design in mind, but rather because of scepticism towards live AD of TV broadcasts.

In an earlier project on audio subtitling [19] we tested live AD at the cinema and found that the quality of live AD was nearly as good as pre-recorded AD, and users were well satisfied with the result. We believe that live AD, as a preferred alternative based on professional, economic or other grounds, is a possible alternative. See section 6.4 in the report Audio Description for TV [5] (in Norwegian) for a more detailed explanation.

Accessible Digital Media in Canada took this a step further when they launched the concept of Embedded Described Video (EDV) [20], and adapted AMI Canada’s Four Senses culinary series using this technique.



In our project Film between the ears [21] we investigated whether the need for AD could be reduced by adapting the sound picture to address Universal Design principles right from the start of development of a film. The conclusion was that this did not much reduce the need for AD, but it did enhance the film experience for visually impaired viewers. In other words, the project concluded that it was neither desirable nor realistic not to have AD at all, although experiences in Canada show that this can work with TV programmes particularly suited to EDV.

Adaptation to the sound picture may be done in either of two different ways:

* As part of the production or sound process, requiring that producers and sound technicians have knowledge and awareness of Universal Design.
* After the production process together with AD.

A training course for producers, as yet not available, to teach the principles of Universal Design and how to adapt verbal content to reduce the need for AD, would be positive in promoting Universal Design online.

Most online videos, in combination with extending their length, also allow for alteration to the sound picture after production, but the high cost of this often prevents it from being a realistic alternative and will be the exception rather than the rule.

## Deadlines

There are usually tight deadlines for AD of film and TV broadcasts, which must be complete before the film showing or TV broadcast. This is not often true for Internet videos and although it is better to audio describe at the time of publication, AD can be added afterwards, avoiding the pressure of deadlines and allowing older content to be audio described.

# Online Video Players

There is little to gain from the audio description of videos if playback of the AD is not accessible.   
Videos with AD may be published in the form of either:

* One common version

or

* Two versions: a standard version and a version with AD.

A common version with only the AD track, i.e. the standard version is not distributed, is unlikely in most situations. A possible exception might be video of an interview or a person giving a speech, with a short AD at the start giving information about context, location, speakers and other relevant information.

On the other hand, one common version with two different tracks requires video players that can tackle this and these are not often user friendly for visually impaired users. We have tested several video players but none was found to have satisfactory accessibility. It is also time consuming to achieve synchronized playback. Video players were evaluated by Snøball film in the Film for all project [22].

Our general recommendation is therefore that two video versions are published: a standard version and an AD version (i.e. two links). A good example of how this is done is found in BBC iPlayer [7].



To ensure that the player has good accessibility we recommend the use of HTML 5. In many players the controls (start, stop, increase or decrease volume etc.) are not accessible with the keyboard and because of this, and other reasons, the player is not accessible with a screen reader. However, with HTML 5, the controls work well with a screen reader.

# Recommendations for AD online

We base our recommendations for online AD on guidelines for AD in general, though these differ somewhat between different countries, there being no international standard for AD. Media Access Australia has published a summary of the most important common guidelines for best practice [23] and we recommend the RNIB study comparing AD guidelines in different countries for a more detailed summary [24].

## Guidelines for AD online

1. Follow general guidelines for AD.
2. If possible, include the AD in the normal video time, i.e. without extending the length of the video.
3. If not all the AD can be included within the normal time, then place the necessary extra information at the start of the video.
4. If placing all the AD at the start makes the video too long, then the video must be paused to allow room for extra AD. Ensure continuity in picture and sound in the pauses.
5. Pausing the video to allow for extra AD may also be applicable when the sound picture throughout gives little explanation of events.
6. In an interview or speech video, AD at the start of the video is adequate.
7. Although there are possibilities to make more room for AD in an online video, avoid overloading the video with description.
8. Publish an AD version of the video, i.e. two versions (two links): a standard version and an AD version.
9. In an interview or speech video, it may be enough in most situations to offer only the AD version.
10. Video players should use HTML 5.

## Prioritization – which videos should have AD

High priority should be given to:

1. Videos with little speech content.
2. Videos in which the sound picture gives little information about what is happening.
3. Videos with content of special interest to the disabled and particularly to the visually impaired.
4. The most popular videos.
5. Videos of general public interest.
6. Videos that are on the Internet over a long time period.

# Summary and recommendations

Only a very small proportion of video content on Internet today is audio described and because video and multimedia content is steadily increasing, this presents a serious accessibility problem.

The Norwegian Discrimination and Accessibility Act requires that Norwegian web sites fulfil WCAG 2.0 criteria level AA, but audio description (AD) is exempt from this regulation. The WCAG requirement for audio described video is not met in other countries either. We are of the opinion that exempting all Internet video from the requirement for AD is sending out entirely the wrong signal. An alternative approach is to uphold the requirement for AD, with certain exceptions: for example, that the requirement applies only to new content, and that major players, such as TV companies, need only audio describe a certain percentage of their programmes.   
We recommend that Norway remove the exemption for AD, with the above exceptions. Norway would then take the lead in a field in which we have otherwise fallen far behind countries we would normally compare ourselves with. In line with this strategy, we recommend support for integrated AD in regular Internet services, for example Netflix, and that specially adapted services play only a supplementary role.

In addition to regulation, it is important to research and develop solutions that promote AD online. The voluntary project YouDescribe is a good example. We should also look at the contribution of professional suppliers of AD. MediaLT launched the web site Film for All which offers a quick and easy solution for the provision of AD of online videos. This service was first established towards the end of the project and its effect will be measured after the project finishes.

Internet allows additional possibilities for AD relating to alteration to the length of the video, changes in the sound picture and deadlines. We recommend utilization of these additional possibilities wherever appropriate. There is however, a lack of AD guidelines specifically directed towards Internet videos, both nationally and internationally. We have therefore put forward a proposal for guidelines for AD online, and in view of the large amount of video material on the Internet, we also suggest guidelines for prioritization.

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