AUDIO DESCRIPTION BACKGROUND PAPER

September 2010

Prepared by
Chris Mikul
Project Manager
Media Access Australia
Suite 408, 22-36 Mountain St
Ultimo NSW 2007
chris.mikul@mediaaccess.org.au
www.mediaaccess.org.au

1. ABOUT MEDIA ACCESS AUSTRALIA

Media Access Australia (MAA) is Australia's only independent not-for-profit media access organisation.

MAA, which was formerly known as the Australian Caption Centre, works to improve access to audio-visual media, such as TV, cinema, DVDs and new media, by providing information about technological solutions that make audio-visual media accessible to people with disabilities. These solutions include audio description, captioning and mainstream new media technologies.

Chris Mikul, the author of this paper, has had over twenty years experience with captioning, and was formerly National Production Manager at the Australian Caption Centre. He is a trained audio describer who oversaw the production of the first DVDs to be audio described in Australia in 2005.

2. WHAT IS AUDIO DESCRIPTION?

Audio description (AD) was developed in the US during the early 1980s. It is the descriptive narration of all the visual elements of a TV program, movie, DVD, performance or other media, giving access for the blind or vision impaired. It may be pre-recorded and delivered as an option for television programs or DVDs, or it may be performed live (e.g. for a theatrical performance).

AD for television is generally created using a software program such as the Swift ADept, produced by Softel in the UK. The describer watches the program and creates a timecoded AD script, much like a captioner creates a timecoded caption file. This takes into account gaps in dialogue where descriptions can be inserted, and the number of words that can be comfortably spoken in that time.

The same software is used to record the descriptions, with the describer watching the program and speaking into a microphone. Whenever a point in the program is approaching where some description is needed, the software gives a visual cue (typically a moving bar at the bottom of the screen, which tells the describer when a section of description must begin and end). The software records each section of AD as a separate audio file, and while some sections may need to be done more than once, there is usually no need for rehearsal. During recording, the software automatically lowers the soundtrack whenever there is a section of description, however, once the AD is complete, it may be necessary for a sound engineer to 'tweak' individual sections of AD for optimum audibility. This is usually done when producing AD for cinema and DVDs.

3. HOW IS AUDIO DESCRIPTION DELIVERED?

There are two methods of delivering audio description (AD) on digital terrestrial television: broadcast-mixed and receiver-mixed. Both involve a broadcaster transmitting two audio streams, but there are significant advantages with the receiver-mixed method for both broadcasters and AD users.

With broadcast-mixed AD, the normal audio stream for the program is broadcast at approx. 192 kbits/sec, with the second audio stream consisting of this audio plus the AD narration mixed in. This second stream is also broadcast at approx. 192 kbits/sec

(so a total of 384 kbits/sec). At the receiver end, the user must choose between the original audio or the audio with AD, and only one can be heard at a time.

With receiver-mixed AD, the normal audio stream for the program is broadcast, while the second audio streams consists of the AD narration only, along with some information which tells the receiver, either a digital TV or set-top box, when to lower the sound level on the primary audio stream so that the descriptions can be heard. In this method, then, the AD is mixed inside the box. The second audio stream is broadcast at approx. 64 kbits/sec (so a total of 256 kbits/sec).

- For broadcasters, receiver-mixed AD is preferable because the lower data transmission rate means a significant saving on bandwidth.

- For AD users, it is preferable because the AD can be manipulated at the receiver's end. The volume of the AD can be raised above the surrounding audio, or it can be fed to a headphone, so the user can hear the AD track of the program while others in the room hear the standard audio track.[1]

In the UK, AD is receiver-mixed for digital terrestrial transmissions, and broadcast-mixed for cable and satellite services. A large number of digital TVs and set-top boxes on sale in the UK can now access AD.[2] The software used in this equipment can be included in equipment for the Australian market, while some equipment already available here, including Sony (and possibly Samsung and LG) televisions, have the capability to access receiver-mixed AD.

4. AUDIO DESCRIPTION COSTS AND TURNAROUND TIMES

Audio description is in general more expensive than captioning. One Australian AD supplier's quoted rate is $30 per minute, compared to $20 for captioning, although this is for one-off jobs (and allows for the extra sound mixing described in section 2 which may not be necessary for TV). A TV network contracting for a steady volume of audio described programming would no doubt be charged a significantly lower rate than this, particularly if it was part of a contract and had reasonably large volumes.

In MAA's experience, it takes about the same amount of time – 20 hours – to script and voice a one-hour TV program as it does to caption it, and we have confirmed this with a UK AD supplier. However, one difference between the production process for captions and audio description is that, while a program that requires captioning quickly can be split into sections and worked on by several captioners simultaneously, it is generally not feasible to have an audio description script created in this manner. An audio describer needs to have a thorough knowledge of a program in its entirety to ensure that the AD script accurately conveys all the important action in it. In general, then, it should be expected that audio-describing an hour of program will take at least the full labour time of 20 hours.

Many programs shown on Australian TV will have been audio-described in either the UK or US, and it will be possible to obtain files for them, although the conversion process will not be as straightforward as obtaining and converting an overseas caption file for use here. As audio description is still relatively new around the world,

---

[1] For a detailed description of the user benefits of receiver-mixed AD, see the BBC R&D White Paper 'Audio Description: what it is and how it works': http://www.bbc.co.uk/rd/pubs/whp/whp051.shtml
[2] For a full list of equipment available in the UK that can receive AD, see RNIB's website: http://www.rnib.org.uk/livingwithsightloss/tvradiofilm/television/adtv/Pages/audio_description_tv.aspx)

there has been little trade in AD files as yet, although one UK supplier already has experience converting files for different uses (e.g. converting the AD file created for cinema screenings for use on TV).

The Royal National Institute of Blind People (RNIB) in the UK is currently investigating issues surrounding the sale and conversion of AD files.

5. AUDIO DESCRIPTION IN AUSTRALIA

Audio description in Australia is currently restricted to some theatrical performances (which are described by volunteers coordinated by Vision Australia), DVDs and cinema.

DVDs

Most of the audio description on DVDs released in Australia has been produced overseas. Roadshow is the only Australian distributor to regularly release local titles with AD, which is produced by Red Bee Media and The SubStation. (In 2005 Red Bee Media, then the Australian Caption Centre, was awarded a one-off grant by the Department of Family and Community Services and Indigenous Affairs (FaCSIA) to investigate audio description, acquire the necessary software and equipment to do it, and produce 10 audio described DVDs.)

As of July 2010, 26% of DVD titles on new release shelves had audio description. No special equipment is needed to access the AD on DVDs.

Cinema

In June 2008, the Federal Government announced a one-off grant, administered by MAA, which paid for the DTS system to be installed in 12 independent cinemas around Australia. The DTS system allows for the delivery of AD via disk, and is heard by patrons through headphones.

Earlier this year, Australia's four major cinema groups, Hoyts, Village, Greater Union Birch Carroll & Coyle, and Reading, agreed with the Federal government to jointly fast-track new audio description and captioning technology as part of a plan to improve cinema access. Audio description will be available in 132 locations, on a minimum of 242 screens, by the end of 2014. In addition, all new cinemas constructed by the four groups will contain accessible technology.

The AD files for these cinema screenings are sourced from overseas.

Currently, Screen Australia's funding requirements for movies include a provision in their budgets for the production of caption files for cinema screenings and DVD release. There is as yet no requirement to provide AD.

6. AUDIO DESCRIPTION ON TELEVISION IN OTHER COUNTRIES

United Kingdom

Audio Description in the UK is governed by the *Communications Act 2003* (the Act). The Act outlines a broad framework of how access should be regulated and establishes minimum requirements. It also legislates that Ofcom can create a code

for promoting access to television for blind and vision impaired people and the means by which this will occur. This code, 'The Code on Television Access Services'[3], is the primary means of regulating AD in the UK. Section 304 of the Act ensures that blind people are involved in the consultation process over changes to the regulations.

In 2006, Ofcom noted that, while there was a significant amount of audio description on digital channels, independent research found that only 43% of the potential audience knew about the service. To rectify this, Ofcom worked with the Royal National Institute of the Blind (RNIB) and broadcasters to determine the best ways to publicise the service. This resulted in an Audio Description Awareness Campaign, which ran for six weeks and ended on 14 March 2008. This saw AD promoted on more than 70 stations across the UK. It also introduced an Audio Description logo devised by RNIB which is now used in program promotions, and by set-top box manufacturers to identify digital TVs and set-top boxes that are able to access AD. Research after the campaign ended found that awareness among the blind and vision impaired rose from 43% to 72%, and from 37% to 60% among the overall population. Almost all users of audio description found that it improved their understanding and enjoyment of television.

Section 8 of The Code outlines the relevant targets for audio description. These are fixed against a relevant date which is primarily defined in relation to the commencement of broadcasting. The targets are 2% in the first year, increasing by increments of 2% so that after the 5th year, 10% of programs need to be audio described.

The Code specifies some exemptions. Section 11 excludes services with an audience share of less than 0.05%. Section 18 excludes programs where there are technical difficulties. Two of these are in relation to languages other than English. The other relates to programs where, because of the high content of contextual sound (speech or lyrical music), audio description would be problematic.

A broadcaster only needs to provide access services up to a total cost of 1% of their annual turnover. Furthermore, if it cannot afford 1/3 of its target (based on a 1% cost analysis) it will be exempt from the provisions altogether.

The Code specifies that it would be *expected* that audio description would be on programs in prime viewing time, but that programming decisions would need to be made in consultation with deaf and blind groups. The code is positive in that it *urges* broadcasters not to fulfil their quotas through constant repeats of programs.

In 2010, after conducting a review of access provisions, Ofcom announced that it would not be increasing the maximum amount of AD expected of stations from 10%. (Some organisations including the RNIB had been lobbying for an increase to 20%.) However, some channels are doing more than 10%, including BBC channels and Channel 4 and its affiliates (which recently committed to 20%). A wide variety of programs are audio described, including *Neighbours* and *Home & Away*.[4]

---

[3] http://stakeholders.ofcom.org.uk/broadcasting/broadcast-codes/code-tv-access-services/
[4] Full listings of programs with AD on Freeview, Sky, Virgin Media and Freesat are available on the TV Help website: http://www.tvhelp.org.uk/

United States

Audio description for TV is known as 'video description' in the US. In July 2000, the Federal Communications Commission (FCC) ordered the four big TV networks and the five biggest cable networks to show 50 hours of audio described programs per quarter by April 2002. The FCC's power to do this was challenged by the Motion Picture Association, and the challenge was eventually upheld. By then, the networks were meeting the quota, and some continue to do so (although Fox is the only one to officially commit to that).

In January 2008, Congressman Ed Markey of Massachusetts released a draft bill, the *Twenty-first Century Communications and Video Accessibility Act*, which aims to greatly increase the levels of access, and in particular access on Internet-based services, in the United States. One of its provisions is that the FCC's rules regarding minimum amounts of audio description will be reinstated, and the amounts will be increased. In addition to this, all digital TV technologies and equipment will have to accommodate audio description. Onscreen emergency warnings and similar televised information will require non-visual access.

On 5 August the US Senate passed the latest version of the bill, the *Twenty-first Century Communications and Video Accessibility Act of 2010,* by unanimous consent.

The bill will return to the House of Representatives for final approval, and American access groups are confident that it will soon be passed.

AD was delivered on analog television via a secondary audio channel (called the Second Audio Program or SAP), and many analog TVs and VCRs were able to receive it. Since analog switch-off took place across America in June 2009, AD has been in a state of limbo. No legislation was introduced to ensure that digital broadcasters transmit AD as a secondary channel, and no standard for receiver manufacturers was developed. Although there is anecdotal evidence that some digital receivers (including some subscription TV converter boxes) are capable of receiving AD, the situation remains far from clear.

AD in the US is broadcast-mixed.[5]

Canada

Since 2001, the CRTC (Canadian Radio-Television and Telecommunications Commission) has required an AD commitment before it renews broadcasting licenses (usually two hours per week in Year 1, three hours in Years 2 to 4, four hours to Year 7).

Canada also has The Accessible Channel, which was launched in December 2008, and is the first and only fully audio described TV channel in the world. The channel, which is available on all cable and satellite services, broadcasts a mix of programs, including movies, drama, news programs and children's programs, which are sourced from the main television networks. The AD is 'open' (i.e. anyone who switches to the channel will hear it).

---

[5] For more information on AD in the US, see The Audio Description Project website: http://www.acb.org/adp/tv.html.

New Zealand

In August 2010, NZ On Air, the government agency that funds captioning services in New Zealand, announced a NZ$500,000 audio description trial on digital television that will commence in 2011.

This trial will provide a closed, broadcast-mixed audio description service, and new Freeview integrated sets and Freeview digital set-top boxes will incorporate the ability to decode and play the audio description (which will be on a second audio channel). Some older Freeview sets may be able to be upgraded.

According to NZ On Air, the initial service is expected to be on TV One and consist of imported description. Description of local programming has been identified as a future priority.

Other

Audio description was first broadcast in Germany in 1996. In addition to this, Spain, Austria, Poland, Finland, Ireland, Slovakia, France, Greece and Switzerland have all had a limited amount of AD broadcast on TV.

7. IMPEDIMENTS TO THE INTRODUCTION OF A CLOSED AD SYSTEM IN AUSTRALIA

The introduction of audio description on Australian television has been hampered by the fact that no provision was made for it when the standards for digital receivers were being set in the lead-up to digital broadcasting. All digital TVs and set-top boxes meeting Australian standard AS 4933 must receive and display captions, but there was no stipulation that they receive a second audio stream.

Television programs in Australia and many countries overseas (including the UK) are currently broadcast in the MPEG-2 format. It is expected within the industry that, following the completion of the digital switchover (i.e. when analog transmissions cease in 2014), there will be a move to a new format (probably MPEG-4) which will enable the transmission of extra information within the same bandwidth. This transition will require the development of new digital standards and receivers, and will provide an opportunity to introduce an optional audio description service across all channels.

The current Australian system for allocating broadcast spectrum is another impediment to the introduction of closed AD. Networks are each assigned 7Mhz of bandwidth for their digital transmissions, allowing them to transmit data at approximately 23MBits/sec. This allocation is called a 'multiplex', and within it each network broadcasts its suite of channels. Most networks are already at or close to utilising their full bandwidth allocation. Digital receivers in Australia are also configured to receive a 7Mhz multiplex from each network.

This means it is not possible to simply assign a little more spectrum to each network to accommodate a closed AD service. However, it would be possible to use the currently available spare 7Mhz of spectrum, known as 'Channel B', to trial closed AD. (Nine was assigned Channel B to conduct 3D TV trials in 2010, temporarily increasing its bandwidth to 14 MHz).

8. PROPOSED AUDIO DESCRIPTION TRIAL ON THE ABC

In the meantime, until a closed AD service can be implemented, Media Access Australia and other groups have proposed a trial of audio description on the ABC. The aim of the trial would be to investigate various issues concerning the production and delivery of AD, which need to be resolved before the commencement of a full service. These include:

- Costs and turnaround times for AD.
- Who will provide the AD?
- AD standards.
- What programs should be audio described?
- Converting overseas AD files for use on Australian television.
- Technical issues in the broadcast and reception of AD.
- Raising public awareness of AD.
- Obtaining feedback from blind users of AD.

When the ABC trial was first conceived, it was not considered possible to test a 'closed' AD service which would be optional for the viewer. It was therefore suggested that the trial be an 'open' one, with several hours of programs broadcast each week (possibly on ABC2).

Recently, it has been learned that there are digital televisions on the Australian market which are already set up for receiver-mixed AD (see Section 2). This means that it may be feasible to include receiver-mixed broadcasts in the Australian trial. Receiver-mixed AD files could be imported from the UK (and while AD is broadcast-mixed in the US, the major AD provider WGBH also has receiver-mixed versions of all the AD files it produces).

In order to trial closed, receiver-mixed AD, the ABC would need to be allocated the spare spectrum – Channel B – that is currently being used for the 3D TV trial. In its discussion paper 'Temporary trials of 3D TV and other emerging technologies', ACMA lists the testing of AD as another possible use for this spare spectrum.[6] It should be noted that Channel B will be not be available after 2013, and that there will probably be other emerging technologies which will need to be tested on it while it still exists.

Australian equipment manufacturers have also started to investigate incorporating receiver-mixed AD functionality in digital set-top boxes. This has been largely driven by the Digital Switchover Taskforce, which now lists AD functionality as a desirable feature in its tenders for set-top boxes for use in the Home Assistance Scheme.

Part of any AD trial should include the broadcasting of a 'test' signal that would allow manufacturers to check that their equipment receives the AD correctly. This test signal should be ongoing, regardless of the parameters of the trial.

Even if there is a receiver-mixed AD component in the ABC trial, it should still be predominately an open trial, and an ongoing one, so that developments in AD both in Australia and overseas can be tracked over time. One of the main reasons for having the trial is to raise viewer awareness of AD, which was found to be a significant issue

---

[6] The paper is available at: http://www.acma.gov.au/WEB/STANDARD/pc=PC_312252

in the UK (see section 6). An open trial would be available to anyone with a digital receiver. It is also probable that few blind people in Australia will own the digital TV sets which can access receiver-mixed AD.

9. AUDIO DESCRIPTION ON SUBSCRIPTION TV

While there is as yet no AD on Australian subscription TV, MAA notes that it is already possible to introduce a closed AD service, which would be activated by the red button on FOXTEL and AUSTAR remotes.

10. AUDIO DESCRIPTION STANDARDS

Overseas standards

In the UK, Ofcom specifies standards for audio description, giving detailed guidelines on how scripts should be written and recorded. These are available at http://www.ofcom.org.uk/static/archive/itc/itc_publications/codes_guidance/audio_description/Index.asp.html

In the US, the Federal Communications Commission does not set audio description standards. The Described and Captioned Media Program (DCMP), which funds the captioning and audio description of educational videos and DVDs, has developed a set of standards, called the Description Key, which are available here: http://www.descriptionkey.org/

Options for Australian standards

MAA believes that there is a need for a definition of audio description which could be in the form of an industry code or standard or an amendment to the *Broadcasting Services Act*. At a minimum, it should cover the following points:

- Audio descriptions should be timed to avoid dialogue and other important audio elements.
- A program will only be deemed to be audio described if it is audio described in its entirety, although the level of description within individual scenes will be determined by the existing soundtrack.
- Descriptions should be in the present tense, and in clear, simple language.
- Descriptions should be neutral, avoiding interpretation, value judgments and aesthetic opinions.

Following its experience in producing audio-described DVDs, MAA developed a more detailed set of guidelines, and these are attached as an appendix.

11. AUDIO DESCRIPTION SUPPLIERS

The following companies currently provide commercial audio description services in Australia.

Captioning and Subtitling International (CSI): http://www.captioningandsubtitling.com/

Red Bee Media Australia: http://www.redbeemedia.com.au/

The SubStation: http://www.thesubstation.com.au/

APPENDIX: MAA'S DRAFT AUDIO DESCRIPTION GUIDELINES

Audio Description provides access to films, television programs, live performances and other audio-visual material for people who are blind or have a visual impairment, allowing them to understand and appreciate these as fully as a sighted person.

Presentation guidelines

1. Audio descriptions should be timed to avoid dialogue and other important audio elements like music and sound effects. Only describe over dialogue when absolutely necessary (e.g. if someone has been shot.)

2. The level of description possible will be determined by the soundtrack. Within time constraints, describe all information which is important to the plot or characterisation – locations, settings, characters, clothing, facial expressions and mannerisms, lighting, etc.

3. Keep descriptions neutral. Avoid interpretive descriptions, value judgments and aesthetic opinions, e.g. "She looks into the distance, thinking of home", or "They enter an ugly grey building."

4. Describe the source of unidentified sounds and speech. Identify new speakers.

5. Describe in the present tense.

6. Use clear, simple language. Avoid technical terms.

7. Use whole sentences where possible when describing action. It is acceptable though to identify characters by just giving their name, or to describe objects or settings in incomplete sentences (e.g. "A lake with a small island in it."

8. Ensure that descriptions do not give any more information than the sighted viewer would have.

9. Avoid the term "we see".

10. Do not use racist or offensive terms, but note ethnicity when it is essential to plot or character.

11. Remember that some visual elements may need describing more than once, especially in a long film (e.g. a character's physical peculiarities).

12. Indicate the passage of time between scenes.

13. Visual elements which are imagined, remembered or surreal should be differentiated from 'real' events.

14. Match the style of the program you are describing. It is acceptable to be more colloquial in children's programs, for example.

15. Avoid descriptions which a draw attention to themselves, The describer should blend in seamlessly with the rest of the audio.

16. Do not feel the need to fill every gap in dialogue with description. Let the music and ambient sound tell the story too.

17. If a description must fall on either side of a sound, it is better for it to be before the sound than after.

18. For subtitled films, note the appearance of subtitles in the first instance, then prefix with "subtitle" or "he says", "she says", etc.

19. Read the credits at the beginning of a program, and describe the production company logo at the beginning of a movie. At the end of the movie, read out the major credits. If songs have been important, include song titles and performers. Read out any copyright warnings.

Operational guidelines for live performances

1. Always prepare thoroughly and practise your descriptions before performance.

2. Ensure that all equipment is functioning before the performance begins.

3. Observe proper microphone technique. During breaks in a performance, turn microphones off.