



Australian Government

**Department of Broadband,
Communications and the Digital Economy**

**Access To Electronic Media For The Hearing And
Vision Impaired**

Discussion Paper

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Introduction

According to the Access Economics report '*Listen Hear! The economic impact and cost of hearing loss in Australia*' published in February 2006, one in six Australians is affected by hearing loss. With an ageing population, hearing loss is projected to increase to one in every four Australians by 2050.

Similarly, the 2004 Access Economics report '*Clear Insight: The Economic Impact and Cost of Vision Loss in Australia*' indicates that more than 480 000 Australians have a vision impairment in both eyes and more than 50 000 of these people are blind, with blindness projected to increase by 73 per cent over the next two decades to more than 87 000 people over 40.

Electronic media such as television, film and the internet are invaluable sources of information and entertainment for all Australians. Changes in technology and media consumption, particularly the growth of subscription television, present an opportunity to consider current arrangements for access to electronic media for people who have hearing or vision impairments.

The Department of Broadband, Communications and the Digital Economy is undertaking an investigation into access to electronic media for the hearing and vision impaired that was begun by the former Department of Communications, Information Technology and the Arts in late 2007. The investigation is to consider access across the range of platforms that provide electronic media, including television, films in cinemas and on DVDs, and the internet.

Structure of this paper

This discussion identifies existing arrangements for access by people with a hearing and or vision impairment to electronic media, such as the availability of captioning and audio description, in relation to free-to-air television, subscription television and film, and considers issues for the extension of these arrangements beyond current requirements. Developments overseas are also explored as part of this investigation.

This paper adopts terms and expressions consistent with the *Commonwealth Disability Strategy* when referring to people with varying levels of hearing or vision loss. People with a hearing impairment include people with total or partial hearing loss, those members of the Deaf community who use the Australian sign language (Auslan), and those who do not use Auslan. People with vision impairment include people who are blind and people who have limited vision.

This discussion paper is in five parts.

The first part of the paper explains what is meant by captioning and audio description and the key users of these services.

The second part of the paper sets out the regulatory framework for the provision of captioning and audio description of electronic media in Australia. This includes provisions in the *Broadcasting Services Act 1992* and the *Disability Discrimination Act 1992* as well as arrangements that have been agreed between the Human Rights and Equal Opportunity Commission (HREOC) and providers of free-to-air television, subscription television and films in cinemas.

The third part of the paper describes the current levels of captioning and audio description on Australian free-to-television, including television commercials and subscription television, in Australian cinemas, on DVDs available in Australia and on internet audio-visual content originating in Australia.

The fourth part of the paper presents an overview of captioning and audio description developments in comparable markets overseas. The markets considered are New Zealand, the United Kingdom and the United States of America.

Finally, the paper lists a number of issues on which comment and further information is sought. Submissions are invited in relation to these issues, as well as any other issues relevant to the investigation.

Part One—Captioning and audio description

What is captioning?

Captioning is the presentation of the audio component of audio-visual content as text on screen. It is generally intended to assist viewers with a hearing impairment.

Captions include descriptions of sounds, laughter and music and are usually situated on screen to minimise interference with the picture. Captions are timed to appear with speech and are usually coloured and positioned to indicate who is speaking. Where speaker identification is not relevant, captions are usually in the form of white writing on a black backdrop.

Two types of captioning are generally used: closed and open. In relation to television captioning, closed captions are encoded into the television signal as teletext data, which can be decoded and viewed with a teletext decoder or teletext capable television. Open captions are overlaid or ‘burnt’ onto the original print recording of a program and do not require a teletext decoder.

What is audio description?

Audio description is the presentation of the visual component of audio-visual content as additional verbal commentary that complements the underlying soundtrack. It is generally intended to assist people with a vision impairment. A narrator describes speakers, gestures, facial expressions, scene changes, text on screen and other visual information on a separate pre-recorded digital file that is synchronised with the file of a television program or film. The audio description is generally transmitted to the consumer via headphones.

Who uses captioning and audio description?

Captioning is used by viewers of television, DVD, film and cinema services who:

- are deaf
- have a hearing impairment
- are learning English (captions assist in the pronunciation of words)
- are developing literacy skills—including children learning to read and
- are viewing content in a noisy environment, such as in clubs and gyms.

Audio description is used by consumers of visual media who:

- are blind
- have a vision impairment
- have difficulties reading print, such as colour blindness
- have learning difficulties and
- have physical difficulties interacting with print and visual media.

Part Two—Regulatory framework

The *Broadcasting Services Act 1992* provides for the captioning of free-to-air television programs. In addition, under the *Disability Discrimination Act 1992*, disability discrimination is unlawful and the Act aims to promote equal opportunity and access for people with disabilities. There is no regulatory requirement specifically for the audio description of electronic media.

Broadcasting Services Act 1992

Clause 38 of Schedule 4 to the *Broadcasting Services Act 1992* (BSA) requires each commercial television broadcasting licensee and each national broadcaster to provide a captioning service for television programs transmitted during prime viewing hours (6pm-10.30pm) and television news or current affairs programs transmitted outside prime viewing hours. When Clause 38 of Schedule 4 to the BSA applies, it is a condition of a commercial television broadcasting licence to comply with this requirement (Subclause 7(1)(o) of Schedule 2 to the BSA).

A number of types of program are exempt from this requirement, including the following:

- television programs that are not in English or mainly not in English
- non-vocal music-only programs
- incidental or background music
- live sport coverage with unscheduled extended coverage that displaces a news program and
- programs broadcast on a standard definition television (SDTV) or high definition television (HDTV) multi-channel during the simulcast period (unless previously broadcast with captions on the broadcaster's core/simulcast channel). Currently, commercial broadcasters may provide one HDTV multi-channel. From 1 January 2009 they can also deliver one SDTV multi-channel.

The BSA also provides that there will be a review of content and captioning requirements in relation to multi-channels at least one year prior to digital switchover (clause 60C, Part 8 of Schedule 4).

Industry codes

Section 123 of the BSA provides for sections of the broadcasting industry to develop codes of practice in relation to aspects of broadcasting services. Paragraph 123(2)(i) provides that these codes of practice may relate to captioning of programs for the hearing impaired.

The Australian Communications and Media Authority (ACMA) must register a code developed by a section of the broadcasting industry if it is satisfied that the code provides appropriate community safeguards for the matters covered by the code, the code is endorsed by a majority of the providers of broadcasting services in that section of the industry and members of the public have been given an adequate opportunity to comment on the code.

The *Commercial Television Industry Code of Practice*, developed by Free TV Australia on behalf of commercial television broadcasting licensees and registered with ACMA, includes provisions that deal with closed captioning. Under this code, commercial television licensees will:

- ensure that closed-captioning is clearly indicated in station program guides, in press advertising, in program promotions and at the start of the program
- exercise due care in broadcasting closed captioning, and ensure that there are adequate procedures for monitoring closed captioning transmissions
- provide adequate advice to hearing-impaired viewers if scheduled closed captioning cannot be transmitted. If technical problems prevent this advice being provided in closed captioned form, it must be open captioned as soon as reasonably practicable and
- when broadcasting emergency, disaster or safety announcements, provide the essential information visually, whenever practicable. This should include relevant contact numbers for further information.

The Australian Subscription Television and Radio Association (ASTRA) has developed the *Subscription Broadcast Television Code*, *Subscription Narrowcast Television Code* and the *Open Narrowcast Television Code* on behalf of the respective sections of the industry. These codes have been registered with ACMA.

Each of the ASTRA codes include provisions in relation to closed captioning. Under each of these codes, where closed captioning programming is made available it will be clearly identified with program schedule information provided to the press and in program guides. Furthermore, when closed captioned programming is introduced, or the range of programs captioned is extended, the relevant broadcaster will consult with organisations representing the hearing impaired and organisations specialising in providing closed-captioning.

The ASTRA *Subscription Broadcast Television Code* also notes that ASTRA has an agreed roll-out plan with the HREOC. This agreement is discussed further below.

The Deafness Forum of Australia, in consultation with a number of organisations, has developed draft 'Captioning Quality Guidelines' which set out quality standards for captions. Industry representatives, including representatives of the cinema, free-to-air television and subscription television industry, are understood to support the guidelines in principle. The 'Captioning Quality Guidelines' have not been registered with ACMA.

ACMA complaint handling role

ACMA is able to handle complaints about alleged non-compliance with the conditions of broadcasting licences. As noted above, under clause 38 of Schedule 4 to the BSA, it is a condition of a commercial television broadcasting licence to provide captions for television programs transmitted between 6pm-10.30pm and television news or current affairs programs transmitted at other times.

In considering a licensee's compliance with the captioning provisions of the BSA, ACMA can have regard only to the matters set out in clause 38. ACMA is therefore limited to considering whether or not a licensee is providing a captioning service. Concerns about the quality of captioning are generally a matter for individual broadcasters, although ACMA may consider whether the quality of a captioning service, when viewed across an entire program, would be a comprehensible service to a deaf or hearing impaired audience.

ACMA may also consider complaints about a matter covered by a registered industry code. As noted above, captioning is a matter that is dealt with in the *Commercial Television Industry Code of Practice* and the ASTRA codes of practice mentioned above.

Under these industry codes, written complaints must first be submitted to the relevant broadcaster within 30 working days of the broadcast at issue. If the complaint is not answered within 30 working days of being received or to the complainant's satisfaction, it may then be referred to ACMA. ACMA will assess the complaint and determine whether or not there has been a breach of the relevant code. If there has been a breach of the code, ACMA may direct the relevant broadcaster to comply with the code. Failure to comply with such a direction may result in a financial penalty.

Disability Discrimination Act 1992

The *Disability Discrimination Act 1992* (DDA) makes disability discrimination unlawful and aims to promote equal opportunity and access for people with a disability. Under the DDA, individuals can lodge complaints of discrimination and harassment with HREOC.

Section 3 of the DDA states that the objects of the Act are:

- (a) to eliminate, as far as possible, discrimination against persons on the ground of disability in the areas of:
 - (i) work, accommodation, education, access to premises, clubs and sport; and
 - (ii) the provision of goods, facilities, services and land; and
 - (iii) existing laws; and
 - (iv) the administration of Commonwealth laws and programs; and
- (b) to ensure, as far as practicable, that persons with disabilities have the same rights to equality before the law as the rest of the community and
- (c) to promote recognition and acceptance within the community of the principle that persons with disabilities have the same fundamental rights as the rest of the community.

Section 24 of the DDA makes discrimination unlawful in relation to access to goods and services, except where providing non-discriminatory access would involve unjustifiable hardship. Section 29 makes discrimination unlawful in the administration of Commonwealth laws and programs.

HREOC is responsible for receiving complaints of discrimination and attempting to conciliate agreements between parties to a complaint. If conciliation is not possible, HREOC will terminate the complaint and advise the complainant of their right to take their complaint to the Federal Court for determination. It is only this court that can determine if discrimination has occurred and whether a defence of unjustifiable hardship exists.

Under section 55 of the DDA, HREOC may, on application, grant temporary exemptions for up to five years from complaints in relation to issues specified in an exemption. Temporary exemptions are generally only granted for periods during which actions are being taken to eliminate discrimination. The effect of an exemption is that actions or circumstances covered by the exemption are not unlawful under the DDA while the exemption remains in force.

HREOC exemption—captioning of free-to-air television broadcasters

On 12 May 2003, HREOC granted the ABC, SBS, Channels Seven, Nine and Ten a five year conditional exemption from complaint under the DDA. Under the temporary exemption the broadcasters were required to provide for:

- Captioning of all programs which commence in prime-time until their conclusion (other than sports programs)
- Staged increase in captioning on programming between 6am and midnight on the broadcasters' primary channels, to reach minimum goals—55 per cent by end 2005 and 70 per cent by end 2007
- Priority to be given to captioning of pre-school and children's programming—by end 2007, more than 1400 hours of pre-school, children's and school's programs will be captioned each year
- Review of further possibilities to commence in 2006 and
- Support for actions seeking the Australian Government to require caption decoders in all new television equipment and improved availability of VHS and DVD players which allow recording of close captioned television programs.

The free-to-air broadcasters are all on track to comply with the conditions of this exemption.

The temporary exemption was granted by HREOC after receiving an application by the ABC, SBS, and Channels Seven, Nine and Ten which was negotiated with and publicly supported by the Deafness Council of Western Australia, the Australian Association of the Deaf (now Deaf Australia) and the Deafness Forum of Australia. It also followed a public inquiry by HREOC on the issue.

When the temporary exemption expires in May 2008, the free-to-air television broadcasters may again be subject to complaints under the DDA. The broadcasters would also be able to apply to HREOC for a further exemption.

The handling of such complaints and applications for exemption under the DDA would be a matter for HREOC.

HREOC exemption—captioning of subscription television services

In June 2004, HREOC granted ASTRA members a five year exemption from complaint under the DDA, subject to various conditions. The key conditions of the temporary exemption require each of the subscription broadcasters covered by the ASTRA application to:

- Implement captioning rollout for a minimum of twenty channels.
- Enable a further twenty channels within 24 months of the captioning launch and apply the captioning rollout to those channels enabled.
- Ensure availability of information on program captioning.
- Report annually to HREOC on compliance, including on measures taken to ensure quality and accuracy of captioning.
- Commence a review of the implementation of the ASTRA proposal within three years of granting of the exemption.
- Present to HREOC a proposal for a further plan for captioning to commence by the time of the expiry of the exemption.

It is understood that ASTRA members report they are on track to meet these obligations.

When the exemption for ASTRA members expires in mid-2009, ASTRA members may again be subject to complaints under the DDA.

HREOC agreement—captioned films in cinemas

In 2001, HREOC negotiated an agreement with some members of the cinema industry and representatives of people with a hearing impairment for the captioning of films in cinemas.

Under the agreement, Village, Hoyts and Greater Union each identified a CBD location at which open captioned films are to be shown. Where an open captioned film is available it will screen in each location for a two week season at 10am Wednesday, 6.30pm Friday and 3pm Sunday. Slight variations to this schedule are allowed to accommodate local programming and scheduling. After the two week period, open captioned films will be made available to any other exhibitor, on request. In 2005, the agreement was extended from the eight capital cities to include Newcastle and Maroochydore.

The agreement was negotiated as part of a HREOC inquiry into a complaint from a deaf man about access to captioned films in cinemas. As part of the inquiry, HREOC convened a forum involving representatives from the then Australian Association of the Deaf, the Deafness Forum, the Deafness Council of WA, the National Working Party on Captioning, major film distributors and exhibitors, the Australian Caption Centre (now Media Access Australia) and the complainant. The industry proposal was agreed by all forum members.

This agreement is a voluntary agreement among the parties and does not offer protection against individual complaints in relation to cinema access.

The agreement also included the setting up of a Cinema Captioning Committee convened by HREOC with responsibility for overseeing the setting up of the program and looking at future ways of promoting and possibly expanding the program.

Captioning on free-to-air television—consultation

Television captioning was raised in the discussion paper on media reforms, *Meeting the Digital Challenge: Reforming Australia's media in the digital age*, released in March 2006 by the former Department of Communications, Information Technology and the Arts. In its submission to that paper, Media Access Australia (MAA) supported captioning on all multi-channels. In its submission, the Deafness Forum of Australia recommended that all television programs be captioned except where the availability of qualified captioners prevented this, that all television sets sold should have mandatory caption capability and that all matters of national importance, including emergency broadcasts, should be captioned.

The bill to enact the *Broadcasting Legislation Amendment (Digital Television) Act 2006*, which amended the captioning rules, was considered by the Senate Environment, Communications, Information Technology and the Arts Committee in October 2006.

MAA's submission was the only submission to raise captioning as an issue. Among other things, MAA's submission argued that captioning multi-channels in the first 12 months would not be expensive as costs had fallen significantly due to competition and greater market awareness, and that there are no technical impediments to providing captions from the start of the multi-channels.

The Senate Committee's report is available at www.aph.gov.au/senate/committee/ecita_ctte/cross_media/report/index.htm.

Part Three—Current levels of captioning and audio description

Free-to-air television

The current level of captioning on free-to-air television in Australia is estimated to be more than 70 per cent of programming between 6am and midnight. Some representatives of people with a hearing impairment have indicated that this should be increased to 100 per cent captioning.

Television captions are broadcast as teletext data encoded into the television signal. For digital broadcasting, the analogue television signal and the encoded teletext caption data is converted into a MPEG file. This preserves the caption data, though the position of captions on screen may differ to the analogue transmission.

Captions may be prepared in advance of broadcast, known as 'offline' captions, or provided at the time of broadcast, known as 'live' or 'online' captions.

Offline captions are manually incorporated into programs using the timecodes in the master recording of programs, which is usually in a tape or print form.

These timecodes indicate when captions should appear and disappear from screen. It is estimated to take up to eight hours to fully caption a 30 minute program.

Most overseas programs shown in Australia are provided with captions from their originating market. The timecodes of the source material may be modified to accommodate Australian conditions, such as timing for commercial breaks, though the original text is generally retained.

Online captions are generally used for live broadcasts, such as news, sport and some special event programming. Where time permits, online captions are prepared using the tapes and scripts of items that are to be included in a program and then applied manually as the program is broadcast. Where time does not permit pre-preparation, captions are provided manually at the time of broadcast. Pre-prepared captions appear as blocks of text, whereas manually applied captions appear one word at a time and are usually verbatim.

The quality of live captions depends on a number of factors, including the experience and skill of those manually applying the captions, the quality of their equipment, and the amount of time they have had to prepare for the program. There is generally a limited delay between the audio transmission and the transmission of captions which may be further affected by the quality of the audio feed and other technical matters.

In addition, a method of providing online captions using speech recognition technology is being developed. This method converts spoken dialogue into captions for automatic broadcast. Speech recognition captioning is being used for a variety of programming in Australia, including news and some sports programming.

Programs broadcast nationally, regardless of the method of captioning, are generally produced at a central point before being distributed to regional stations where local advertising is incorporated.

There is no regularly scheduled audio description on free-to-air television in Australia.

Television commercials

With regard to television commercials, there are no legislative requirements for television commercials to be captioned or audio described. However, the Australian Association of National Advertisers recommends responsible advertisers caption their commercials. Figures from MAA indicate that around a third of all television commercials are captioned.

Table 1—Percentage of free-to-air television commercials with captions in 2007

Broadcaster	Per cent of commercials with captions
Seven	38
Nine	26
Ten	48
SBS	38
Total	37

Source: Media Access Australia.

Subscription television

Approximately 40 subscription television channels provide captioned programs. Although there is no specific legislative requirement for subscription television providers, such as Foxtel and Austar, to provide captioned programming, the industry has negotiated an agreement with HREOC to provide captioning across an increasing number of channels (see further below).

There is no regularly scheduled audio description on subscription television in Australia.

Cinemas

Ten cinemas in Australia provide films with captions: one cinema in each of the eight capital cities and in Newcastle and Maroochydore. Captioning in Australian cinemas is the result of an agreement between the HREOC and the cinema industry that was negotiated in 2001 after HREOC received a complaint from a deaf person about the absence of accessible films in their local cinema. Representatives of people with a hearing impairment have stated they are seeking captioning in a further 70 cinemas across Australia which they believe would be consistent with the per capita provision in some overseas markets.

MAA reports that during August-October 2007, an average of 76 people per week attended captioned screenings at the ten cinemas offering captioned films. In the previous three months (June—August) the average was 78 people. From October 2005 to October 2007, the average was 53 people, with an average of 12 days between the captioned release of each title and the general release. From October 2005 to the end of October 2007, the average difference between the general release and the captioned release was 16 days.

Open captioned film prints are prints of films with captions overlaid or ‘burnt’ into them and were used in Australia until 2005. This form of captioning in cinemas is no longer used in Australia as it requires a special print to be made and distributed to cinemas. Today, the ten cinemas in Australia that offer films with captions use the DTS Cinema Subtitling System, which is also used in the UK, USA, Canada, New Zealand and parts of Europe.

The DTS system projects captions onto the screen rather than overlaid onto a print of a film. This enables a cinema to use a standard release print for captioned screenings. The system consists of a hard drive/processor installed in the projection room of a cinema and a data projector for displaying captions on screen. Captioning information is provided on CD-ROMs and synchronised with the timecodes on a film in the same way that digital soundtracks are linked to a film. DTS captions are open and visible to the entire audience without the need for patrons to use any special equipment or be seated in particular locations in a venue.

Dolby produces a similar access system to the DTS system. The Dolby ScreenTalk system superimposes subtitles over the projected image using a video projector or via an alternative subtitling device. Special prints are not required as captioning information is provided by the film producer as a computer file on CD-ROM which is then operated by cinema staff.

Another form of access is known as ‘Rear Window’ captioning technology, which is understood to have been developed by the Boston public broadcaster WGBH. Rear window captioning technology displays captions on the rear wall of a cinema theatre with patrons using portable reflectors at their seats to view the captions. Only those patrons wishing to view the captions through the use of the reflector can see them. Rear window captioning has been deployed in the USA and Canada.

Audio description in cinema is provided via a sound system that uses an FM or infrared transmitter to provide audio to individual headphones or personal listening devices, comparable to inducted hearing loops. Audio description files can be provided via CD-ROM for use with DTS and Dolby systems, as well as the DVS Theatrical system from WGBH. WGBH provides its rear window captioning technology and DVS Theatrical audio description technology collectively under the ‘MoPix’ brand.

Australian cinemas do not currently provide audio description on a regular basis. However, some film festivals, such as the 2007 Sydney Film Festival, have screened films with audio description. MAA estimates that of the films shown with captions since October 2006, approximately 67 per cent of them have had an audio description file provided as part of the access disc.

Australian films

The Film Finance Corporation is the Australian Government’s principal agency for funding the production of film and television in Australia. It is a wholly owned government company. All Australian film and television producers/production companies can apply to the FFC for funding. To be eligible, projects must meet the criteria set out in the FFC’s Investment Guidelines, which are the major tool for communicating FFC policies and are revised each year in consultation with the industry.

On 8 June 2007, the FFC announced that all feature films it finances will have captioning for both cinema and DVD from 1 July 2007. Under the revised FFC Investment Guidelines, producers who seek FFC funding will be required to caption all feature films for cinema and DVD release. The FFC has agreed to pay the cost of captioning each film. Captioning had previously only been available in Australia for films imported from overseas.

On 1 July 2008, the FFC will be merged into Screen Australia along with the Australian Film Commission and Film Australia Ltd. Continuation of the FFC’s policy on captioning will be a matter for the Board and CEO of Screen Australia to consider.

DVDs

Access features on DVDs, such as captions and audio description, are provided as ‘language’ options from the DVD’s main menu and can be viewed with standard DVD players.

According to figures from the Australian Film Commission report, *Get the Picture*, of the top 25 DVDs sold in the years 2003-2006, an average of 93 per cent of titles had captions and six per cent were audio described. Access to the top-selling children’s DVDs in 2006 was significantly less, with eight of the ten top sellers either captioned or subtitled, but none were audio described.

MAA estimates that 60 per cent of retail and rental new release mainstream entertainment DVDs are captioned and three per cent are audio described, and approximately 83 per cent of television series released on DVD are captioned.

Most audio described DVD titles are imported, however Red Bee Media Australia (formerly the Australian Caption Centre) provides audio description for some titles released in Australia by Roadshow Entertainment.

Table—2 Mainstream entertainment movies with audio description—2003-2007

Year	Number of titles (approx)
2002	6
2003	6
2004	17
2005	31
2006	14
2007	19

Source: Media Access Australia

HREOC Roundtable on DVD access

The provision of captioning and audio description on DVDs was the subject of a HREOC Roundtable during 2007. Representatives from the Australian Visual Software Distributors Association (ASVDA), disability community organisations and government departments met in February and September 2007, and a working group of Roundtable members met separately in April and June 2007. A range of issues were considered, including DVD labelling, the business case for access features and a draft industry access framework.

As a result of the Roundtable, AVSDA developed the DVD Accessibility Framework for its member distributors. The Framework sets out a standardised approach to DVD labelling which includes the accurate labelling of DVDs with access features where they are available. It also sets out a ‘best endeavours’ commitment to providing access features whenever available, as well as complaints handling arrangements for consumers. AVSDA members adopted standardised labelling of DVDs in October 2007.

Audio-visual content on the internet

There is no legislative requirement in relation to the captioning or audio describing of audio-visual content on the internet. This includes television programs subsequently distributed via the internet after being broadcast on television. While there may be an expectation that programs that are provided with access features when broadcast on television, would also be provided with access features when made available online, this is not currently required.

The limited availability of captioning and audio description access features for online audio-visual content is understood to be due to a range of technical considerations related to online media and text formats, differences in the software for online audio-visual players, the editing of material originally distributed with access features, and a lack of clear online caption production and delivery standards and requirements.

While each of the multi-media players that are available, which include Windows Media Player, Quicktime, RealPlayer and Flash Player are understood to be capable of supporting access features, they all require access information—i.e. captions and/or audio description—to be in different file formats.

There have been some internet-related developments overseas, which are outlined in Part IV of this paper.

What is the estimated cost of captioning and audio description?

According to figures from the Australian Caption Centre quoted in the Access Economics report *'Listen Hear! The economic impact and cost of hearing loss in Australia'*, the estimated total annual cost of providing captioning in accordance with the requirements of the *Broadcasting Services Act 1992* and the relevant HREOC arrangements in 2005 was approximately \$18 million.

While more recent estimates of the costs of providing captioning and audio description are not currently available, it is expected that costs will have increased since 2005 as the level of captioning provided has increased. The cost of providing captioning and audio description on various media is a key issue on which comments are sought.

Table 3—Annual estimated cost of captioning television and film services

Service	Cost (Millions)
Captions for free-to-air TV	\$14.0
Captions for pay TV	\$1.0
Captions for video/DVD	\$1.5
Captions for television commercials	\$1.0
Captions for cinema	\$0.5
Total	\$18.0

Source: *'Listen Hear! The economic impact and cost of hearing loss in Australia'*, Access Economics, February 2006.

Part Four—International comparisons

Television

New Zealand

Captioning requires for New Zealand television services are currently lower than in Australia. As in Australia, television captioning in New Zealand is provided via teletext. The New Zealand Broadcasting Commission, also known as New Zealand On Air, funds the provision of teletext subtitles for hearing impaired television viewers. Captions are available on TV One, TV2 and TV3 but not C4. Between 6pm and 10pm every evening there must be a captioned program playing on at least one of the three channels. More than 150 hours of programmes are captioned each week.

As in Australia, audio description of electronic media in New Zealand is essentially limited to DVDs. New Zealand is part of the Australian DVD distribution system with the majority of DVDs released there being produced in Australia. While not all the DVDs released in Australia have a New Zealand release, those that do would be expected to have the same captioning and audio description services as the Australian releases.

United Kingdom (UK)

The UK *Communications Act 2003* requires Ofcom, the UK communications regulator, to publish a code setting out the obligations of television channels licensed in the UK to provide subtitling, signing and audio description, which it refers to as television access services. Ofcom must set ten year targets for subtitling, signing and audio description and five year targets for subtitling. Ofcom may also set interim targets. The targets apply to the anniversary of specific dates for each service.

Ofcom published the Code on Television Access Services in July 2004. It requires approximately 70 channels to provide television access services for a proportion of their programs that increase each year to the ten-year targets of 80 per cent subtitling, five per cent signing and 10 per cent audio description. In broad terms, television services with an average annual audience share of UK households more than 0.05 per cent must provide television access services to the highest level they can afford within one per cent of their UK-derived turnover. This is subject to a number of exclusions.

Ofcom may exclude programs and services from these requirements having regard to a range of matters, including the extent of the benefit conferred, the technical difficulty and cost of providing the access service. Music and news programs are examples of services that may be excluded from audio description requirements. Services comprising advertising only, such as a shopping channel, electronic program guides and services licensed outside the UK are also exempt from access requirements.

The Code was amended in December 2007 to reduce the requirements for signing on channels with an audience share of between 0.05 per cent and one per cent, other than public service channels, from January 2009.

Ofcom reports that most broadcasters meet their obligations to provide one or other of the access services.

The BBC television program ‘Click Online’ was provided online with subtitles for five weeks in late 2005. Approximately 90 000 people accessed the online program during the trial. Viewers were able to select whether to watch the program with or without subtitles using Real Player or Windows Media.

In February 2008, Ofcom announced a six-week promotion of audio description services across more than 70 television channels. This followed Ofcom research that indicated low levels of awareness of audio description among the general population and the visually impaired community. Audio description is available in the UK on programs that include Coronation Street, Lost and Home and Away.

Table 4—Captions, audio description on selected UK free-to-air channels 2007

Channel	Captions annual quota (per cent)	Caption level achieved (per cent)	Audio description annual quota (per cent)	Audio description level achieved (per cent)
BBC One	96.5	97.7	8.3	12.7
BBC Two	96.5	96.9	8.3	12.0
BBC Three	87.5	91.3	8.3	24.4
BBC Four	87.5	90.1	8.3	17.9
CBBC	87.5	92.5	8.3	12.8
CBeebies	87.5	91.8	8.3	10.9
BBC News 24	87.5	88.5	exempt	Not Applicable
ITV 1	86	91.4	8	10.7
GMTV 1	86	87.5	8	9.1
Channel 4	86	89.7	8	9.5
Five	76	78.0	8	9.9
S4C	71	76.2	8	9.7

Source: Ofcom, Television Access Services: Fourth Quarter Report for 2007 (for full year).

USA

In July 1993, the US Federal Communications Commission (FCC) required all analogue television receivers of a certain size sold or made in the US to have built-in decoder technology to display closed captioning. This was extended to digital television receivers in July 2002. In 1996, Congress required video programming distributors (cable operators, broadcasters, satellite distributors, and other multi-channel video programming distributors) to close caption their television programs. In 1997, the FCC set a transition schedule requiring distributors to provide an increasing amount of captioned programming as summarised below.

As of 1 January 2006, all ‘new’ English language programming, defined as analogue programming first published or exhibited on or after 1 January 1998, and digital programming first aired on or after 1 July 2002, must be captioned, with some exceptions. Analogue programming first shown before 1 January 1998 and digital programming first shown before 1 July 2002 are deemed Pre-Rule Programming.

For Pre-Rule Programming shown during 1 January 2003–31 December 2007, 30 per cent of programming per channel per quarter must be captioned. From 1 January 2008, 75 per cent of Pre-Rule Programming per channel per quarter must be captioned.

There are two categories of exemptions from the closed captioning rules in the US: self implementing exemptions, and exemptions based on undue burden. Self implementing exemptions operate automatically and programmers do not need permission from the FCC. Examples include commercials less than 10 minutes, and programming shown between 2am and 6am. For exemptions based on undue burden, program producers must apply to the FCC demonstrating that implementing closed captioning would impose an undue burden, which is defined as a significant difficulty or expense. While a petition is pending, the programming that is the subject of the petition is exempt from the closed captioning requirements.

It is understood that nearly 100 per cent of new television programming in the US is captioned.

In addition, the US Rehabilitation Act of 1973 requires federal agencies to caption their video and internet information. Boston-based public broadcaster WGBH is a leading provider of online captioning technology and has developed its Caption Keeper software, which converts closed caption data into data that is suitable for live and archived multimedia presentations in RealPlayer, Windows Media Player and QuickTime Player formats. WGBH’s Carl and Ruth Shapiro Family National Centre for Accessible Media (NCAM) has developed the free Media Access Generator software for creating captions and audio descriptions for online multi-media.

On 4 October 2007, AOL, Google, Microsoft and Yahoo announced that they had asked WGBH and NCAM to establish and manage the Internet Captioning Forum to address the technical challenges presented by online video provided from broadcast or other previously captioned sources, as well as video created specifically for the internet.

In December 2007, a draft Twenty-First Century Communications and Video Accessibility Act of 2007 was introduced to Congress with the aim of ensuring that individuals with disabilities have access to internet-based communications and video programming services with captioning and audio description.

Cinemas

New Zealand

In New Zealand, three cinemas provide films with captions—one in Auckland, Wellington and Christchurch. These cinemas have used the DTS captioning system since late 2005.

Following a complaint to the New Zealand Human Rights Commission (HRC) in December 2001 regarding the lack of captions in cinemas, the first captioned film screening in New Zealand was of ‘Lord of the Rings: Fellowship of the Ring’ on a

trial basis in Auckland, Wellington and Christchurch in November 2002. A captioned version of the second of the Lord of the Rings films screened in early 2003.

Subsequently, the HRC facilitated a working party of six representatives from the Motion Pictures Distributors Association, Motion Pictures Exhibitors Association, the Deaf Association of New Zealand, the Hearing Association of New Zealand and Captioning Access New Zealand in June 2003 to provide further captioned movies.

United Kingdom

Approximately 220 cinemas in the UK provide captioned films.

From September 2003 to March 2005, the UK Film Council operated a pilot program, the Cinema Access Program, to provide funding for various cinema captioning purposes. The Program is funded by the National Lottery via the Arts Council of England.

In a one-off scheme in 2004, the UK Film Council allocated grants of up to £5000 to 78 successful applicants (£350 000 in total) for projects to install captioning and audio-description equipment in cinemas in England. The intention was to equip approximately 10 per cent of all cinemas in England with a wide geographical coverage and provide a critical mass of accessible cinema sites.

Also in 2004, the UK Film Council made available £60 000 to support approximately 20 feature length films for a trial period of one year for captioned and audio-described film provision.

In addition, the UK Film Council allocated £50 000 over a three year period to create, develop and maintain an internet-based information service to inform those with sensory impairments about films being screened at local cinemas in England.

USA

More than 300 movie screens are equipped with rear window display systems and more than 160 screens are equipped with DTS caption projection systems. As indicated earlier, these systems are capable of providing caption and audio description services.

Handheld devices

USA

In August 2007, the WGBH Carl and Ruth Shapiro Family National Centre received a grant of \$US 600 000 over three years from the US Department of Education National Institute on Disability and Rehabilitation Research to research and develop captioned content for handheld devices such as iPods, mobile phones and other mobile devices.

Part Five—Issues for comment and submissions

Submissions are sought in relation to the issues below, and any other issues that are considered to be relevant to the investigation.

Key issues

1. The current levels of captioning on free-to-air television including digital multi-channels, subscription television, DVDs and films in cinemas, including cinemas in regional areas, in Australia.
2. The current levels of audio description on free-to-air television including digital multi-channels, subscription television, DVDs and films in cinemas in Australia.
3. The costs of providing captioning and audio description on free-to-air television including digital multi-channels, subscription television, DVDs and films in cinemas, including cinemas in regional areas, in Australia
4. Appropriate future targets for captioning and audio description on free-to-air television including digital multi-channels, subscription television, Australian television and film productions made available on DVDs, and films in cinemas.
5. The captioning and audio description of advertising content on these media.
6. The captioning and audio description of audio-visual content that is distributed via the internet.
7. The extent to which the quality of captions and audio description can be effectively measured and standardised for different types of content, including 'live' content.
8. The appropriate roles for the Human Rights and Equal Opportunity Commission and the Australian Communications and Media Authority in relation to access requirements under the *Disability Discrimination Act 1992* and the *Broadcasting Services Act 1992*.
9. How changes to the regulatory requirements for access to electronic media should be implemented.
10. The extent to which standards for digital television transmission and domestic digital television receivers should provide for captioning and audio description.

Submissions

Submissions are invited in writing by **Friday 13 June 2008**. Submissions may be submitted online at www.dbcde.gov.au and follow the links to television captioning>television captioning discussion paper>make a submission, or addressed to:

Manager

Broadcasting Content Section

Department of Broadband, Communications and the Digital Economy

GPO Box 2154

CANBERRA ACT 2601

Submissions will be made public unless otherwise specified. If a submission is marked confidential, a version that may be publicly released should also be provided. Please note that the Department of Broadband, Communications and the Digital Economy reserves the right not to publish documents or other information that it receives from industry or the public.