

The Media Access Report

Issue 27, Winter 2013



MEDIA
ACCESS
AUSTRALIA
INCLUSION THROUGH TECHNOLOGY

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Media Access Australia – *Inclusion through technology*

'We believe that all Australians have the right to access all forms of media and information, through technology, so they can participate fully in society.'

Media Access Australia is Australia's only independent not-for-profit organisation devoted to increasing access to media for people with disabilities.

At the core of our work is the understanding that exclusion from mainstream audiovisual media has profound effects on educational outcomes, workforce participation and social inclusion.

Access to media through technology empowers people to be independent, gain knowledge, make their own choices, and be active members of our society.

Our expertise

We promote inclusion by providing expert knowledge and advice on existing and emerging mainstream technologies to government, industry, educators, consumer organisations and individuals.

We demonstrate how media accessibility can be improved in practical ways, by piloting innovative ideas and major projects.

We work as a catalyst for change in areas of access that include television, DVD, cinema, the arts, education, computing and the Internet, with a primary focus on people who are blind or vision impaired, or Deaf or hearing impaired.

We seek to improve national and international Internet accessibility standards as a member of the World Wide Web Consortium (W3C), an international online community where the general public and organisations work together to develop web standards.

We are a national organisation, based in Sydney, with a satellite office in Perth.

Our heritage

Media Access Australia was formed out of the Australian Caption Centre, a not-for-profit organisation co-founded by Adam Salzer and Alexandra Hynes in 1982.

The Centre aimed to promote and produce captioning for Deaf or hearing impaired Australians. At the Centre's inception, captions were non-existent, however, over its life the organisation grew to provide captioning services on TV, video and DVD.

In 2005, the Centre sold its commercial operations including captioning services to Red Bee Media, and became Media Access Australia. We no longer provide services to business, allowing us to focus on promoting inclusion without the conflicts of commercial operations.

As Media Access Australia, our focus broadened to include people who are blind or vision impaired and others who are disadvantaged in access to media. We recognised that, while some needs are



different between disabilities, there are important similarities in terms of solutions, technologies, industries and regulation. By focusing on these similarities we can achieve better results for all.

Disclaimer

Statistical information published in *The Media Access Report* is derived from public sources such as television listings and websites. It has been made available for general use only and is provided without warranty as to its accuracy or currency.

Submissions

We are interested in receiving submissions for publication in the Media Access Report, including accounts of media or events and news items dealing with captioning, audio description and other access services. If you have any material you would like to submit, contact Chris Mikul on (02) 9212 6242, or email chris.mikul@mediaaccess.org.au

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Media access news

The Round Table on Information Access for People with Print Disabilities 2013

Access to information through digital technologies was discussed and highlighted at the [2013 Round Table on Information Access for People with Print Disabilities](#) held in May in Sydney. The conference covered a variety of subjects including access to arts and culture, access to desktop computers and mobile devices, regulation, publishing standards and access in education.

People with a print disability include those who are blind or vision impaired, have impaired mobility such as diminished dexterity, or cognitive disabilities such as dyslexia. The purpose of the conference was to provide information and generate discussion on how people with print disabilities can access information and services through technology

Speaking at the conference were Media Access Australia's Chief Executive Alex Varley and Project Manager Dr Scott Hollier.

Highlighting the trial of audio description on ABC1 in 2012, Varley's presentation, titled '[Regulation is the way forward](#)', argued that regulation, like that which is in place for television captioning, is the only way to guarantee an across-the-board audio description service in Australia. (See full report on page below.)

Dr Scott Hollier's presentation focused on a resource developed with the Council on the Ageing Western Australia (COTA WA). *Helping seniors with disabilities get online* was designed to help seniors with disabilities use online services such as social media and video chat service Skype.



“Seniors are rapidly getting online to share photos with loved ones using social media, making and booking travel plans, and managing superannuation and banking,” said Hollier. “People aged 55 and over are the fastest growing age group on Facebook.”

Paul Paradigm, adaptive technology consultant at Vision Australia, spoke about the accessibility of different mainstream technologies and the need to celebrate out-of-the-box accessibility. This refers to the ability of the user to access the device with inbuilt accessibility features or without the need to purchase third-party assistive software such as a screen reader.

“It’s an exciting time for desktop accessibility,” said Paradigm. “It’s the first time a blind or vision impaired person can access a PC without installing anything.”

He said while Apple’s operating systems OSX (desktop) and iOS (used on mobile devices such as the iPhone and iPad) continue to provide the best accessibility for people with disabilities, Microsoft’s latest software releases and products have improved.

Android, Google’s operating system for mobile devices, has also improved its accessibility with the latest software release Jellybean 4.2. Paradigm said despite this, the accessibility of the device will vary. As Android is available on devices made by different manufacturers, the software is often customised and this may result in the removal of some accessibility features.

Paradigm said for screen reader users, true accessibility starts at Android 4.1. He notes that in most cases, it’s difficult to upgrade the software on an Android device, so he recommends purchasing a device with Android 4.2 installed for the most improved accessibility.

“Accessibility may not be perfect but [...] today you’re guaranteed some accessibility out of the box without spending thousands of dollars on JAWS [a brand of screen reader],” he said. He also said that the only way to keep accessibility a priority for developers and manufacturers of mainstream technology is to keep campaigning for it.

Accessibility improvements made on Windows 8, for example, include a much-needed upgrade to the built-in screen reader Narrator. The screen reader now has extra language support, and can be used with more applications and for touch screen devices. However, Paradigm also suggested more can be done to improve the accessibility of Microsoft products.

Senior consultant at Microsoft Kenny Johar Singh also talked about the accessibility features of Windows 8, particularly how it has been improved for touch screen devices.

In addition to improvements made to the screen reader Narrator mentioned by Paradigm, Singh said the built-in screen magnifier has also been improved in Windows 8. The magnifier’s interface has been changed so that users can enlarge the screen using a bar that appears along the edges of the screen.

Singh adds that accessibility can be set up in Windows 8 more easily than in previous operating systems. Options including setting colour contrast can be accessed on the initial set-up screen. He said Microsoft takes accessibility seriously and is working to improve it within its products.

“The only way to make a difference in accessibility is to keep lobbying for improvements because it does make a difference,” Singh said.



Ai-Media appoints new caption quality auditor

The access provider Ai-Media has appointed Robert Scott as an independent auditor to ensure the quality of the captions it produces for broadcast, government, education and corporate services in Australia and the UK.

Scott has had a long career in access. He was formerly CEO of the Australian Caption Centre (the not-for-profit organisation from which Media Access Australia grew), and has a long-standing commitment to captions being of the highest possible quality.

In a media release, Ai-Media CEO Tony Abrahams said, “Mr Scott will independently assess our captioning quality based on a robust, measurable and verifiable system consistent with international best practice. Audit reports will be made available to our clients, and will drive continuous improvement.”

Celebrities audio describe London

UK audio description specialist Vocal Eyes has completed an inspiring series titled *London Beyond Sight*, securing the voice talents of 40 famous Londoners to describe significant landmarks and buildings. The project originated from a similar idea in New York.

Executive Director of Vocal Eyes Judy Dixey explained in *The Guardian* that the celebrities were given assistance from audio description professionals, including research about the landmarks and writing the scripts.

Celebrities taking part include Andrew Sachs (best known for playing Manuel in *Fawlty Towers*) describing London Zoo and cricketer Mike Gatting describing the Tower of London. Each description on the website is accompanied by notes about the location, including transport and map directions, and the professional background of the describer.

“The more cultural destinations we can audio describe the better so that blind or partially sighted people can access them and the full range of cultural opportunities which we should all be able to enjoy,” wrote Dixey.

The forty descriptions can be downloaded via iTunes or [played directly on the Vocal Eyes website](#).

TELEVISION

ACMA releases new Television Captioning Quality Standard

The Australian Communications and Media Authority (ACMA) has released its long awaited Television Captioning Quality Standard, which for the first time imposes obligations on broadcasters to ensure that the captions on their programs are readable, comprehensible and accurate.

The ACMA was given the power to draft the new standard as part of amendments to the *Broadcasting Services Act* which were passed last year. A series of meetings were held in which ACMA consulted with community representative groups, broadcasters and caption suppliers while formulating the standard.



The standard will be used by the ACMA when it deals with complaints from the public about poor quality captions. The factors it will consider include spelling and punctuation, the synchronisation of the captions with speech, whether all speech and other important audio content has been captioned, and whether different speakers have been identified.

In a media release, the ACMA Chairman Chris Chapman said, “The Australian Communications and Media Authority recognises the fundamental value of captioning in ensuring television services are accessible to all Australians.”

Prior to the introduction of the new standard, the ACMA had only a limited ability to deal with complaints about caption quality. While the quality of pre-prepared captions on Australian television is usually very good, there has been an increase in live captioning in recent years. The quality of this can be extremely variable, causing great frustration among caption users. The release of the ACMA’s new standard comes at the same time as an initiative by the UK regulator, Ofcom, which aims to improve the quality of live captions. (See story below.)

The Television Captioning Quality Standards can be downloaded from the [Caption Quality](#) page of the ACMA’s website.

Ofcom seeks to improve live captioning

The UK communications regulator Ofcom has announced proposals aimed at improving the quality of live captioning on television, including asking broadcasters to report on the quality of their captions.

Ofcom notes that the quality of pre-prepared captions (which are called ‘subtitles’ in the UK) is generally very good, and the majority of complaints it receives are related to live captioning. As caption quotas have risen, so have the number of programs being captioned live. Most of this captioning is now undertaken using speech recognition technology, but this is imperfect and errors are common.

Following consultation with viewers and representative groups, Ofcom has concluded that the four key dimensions that affect the quality of live captions are:

Latency – the delay between speech and captions

Inaccuracy

Intermittent captions

Presentation – whether captions scroll across the screen or appear as blocks of text

Ofcom is proposing that broadcasters report every six months on the speed and accuracy of their captions, the delay between captions and dialogue, the number of programs which have been captioned live because they were completed late, and any technical failures which have occurred.

Another suggestion is that ‘live’ programs be delayed by about 20 seconds, allowing more time for captioners to prepare captions and send them as blocks of text. Ofcom has asked broadcasters to comment on the feasibility of this approach (which has been adopted by one broadcaster in the Netherlands).



As part of its consultation process, Ofcom has compiled a comprehensive report which looks at viewers' experience of live captions, research carried out into how people watch captions, the production and transmission of live captions, and measures put in place by regulators around the world to improve their quality. The report notes, "In early discussions with representative groups, broadcasters, and subtitling providers, it soon became apparent that there is no one solution – to achieve an appreciable improvement in the quality of live subtitling, small improvements would be needed in several areas."

The closing date for responses is 26 July. A [copy of the report](#) can be downloaded from Ofcom's website.

ACMA finds ABC in breach of captioning rules

The Australian Communications and Media Authority (ACMA) has found the ABC in breach of captioning rules due to poor captions on episodes of *At the Movies* (broadcast on 22 August 2012) and *Gruen Planet* (broadcast on 17 October 2012).

In its media release, the ACMA states that the ABC did not provide the service required "as the live captions that were broadcast were not adequately synchronised with pictures on the screen. There were also problems with inaccurate and missing captions." Another issue identified in the investigation reports was that colouring of the captions, which is used to indicate different speakers, was inconsistent.

Captioning on digital multichannels

The Federal Government has commenced a review of the regulations regarding captioning on digital multichannels like GO!, 7Two, Eleven and ABC2, with new rules due to take effect in 2014. With this in mind, Media Access Australia conducted a survey of the content and current levels of captioning on these channels.

Under current provisions in the *Broadcasting Services Act*, the only programs which need to be captioned on multichannels are repeats which were originally shown with captions on a network's primary channel. The survey shows that captioning on the commercial networks' multichannels remains largely confined to repeats, with some exceptions such as *Neighbours*, which screens on Eleven, and AFL matches on 7Mate. Overall, the Seven Network's multichannels, 7Two and 7Mate, had the highest levels of captioning, with over 40% of programs between 6am and midnight being captioned. Network Ten's One had the lowest level at just 5%.

Caption levels on the ABC's three multichannels, ABC News 24, ABC2 and ABC3, are by contrast very high, with 96% of programs on ABC2 captioned during the survey period.

The Nine Network's GO!, which commenced broadcasting in August 2009, was the first commercial digital multichannel. While the content on these channels was initially mainly confined to repeats, they are increasingly screening new episodes of programs which were previously on primary channels, such as the latest series of *Survivor*, currently screening on GO!, and *Futurama* and *The Office* on Eleven.

In June, the Federal Government wrote to consumer groups requesting comments on proposals for new captioning requirements on multichannels.



Making TV accessible for the blind

A new video produced by the UK's Royal National Institute of Blind People (RNIB) celebrates some recent advances which have made TV more accessible for the blind and vision impaired, including audio description and a new generation of 'talking TVs'.

Speaking on the video, [Get the Picture – making television easier for people with a sight loss](#), audio description user James Risdon says that the service "is absolutely fantastic for someone like myself who hasn't got enough sight to see what's happening on screen". Currently, 69 channels in the UK must deliver a minimum of 10% of their programs with audio description, while the BBC, ITV, Channel 4 and Sky have voluntarily committed to 20%.

The video looks at talking TVs and set-top boxes which read out menus and on-screen text, including the new range of Panasonic Viera smart TVs which were released in the UK last year and are now available in Australia. Alex Varley, CEO of Media Access Australia, also discusses the Hills and Bush talking set-top boxes which have been available in Australia since 2011.

While all these advances are to be applauded, the video makes the point that blind organisations, industry and government need to keep working together to ensure that features like audio description and text-to-speech become standard on all equipment.

Panasonic talking TVs now available in Australia

Panasonic's new range of Veira smart TVs which have just been released in Australia feature Voice Guidance, making them accessible for blind and vision impaired users. When activated, the feature reads out onscreen text including set-up and recording instructions, channel name, program information and electronic program guides.

Voice Guidance was developed by Panasonic in conjunction with the Royal National Institute of the Blind (RNIB) in the UK, and was first included in a range of models released to the UK and Irish markets in 2012.

The models in the Veira range with Voice Guidance which are on sale in Australia include the VT60, ST60, WT60, DT60 and ET60 series. Recommended retail prices range from \$1,149.99 for the 50" ST60, to \$3,599.99 for the 65" VT60. The TVs will also be able to receive audio description when a regular service becomes available.

No funding yet for audio description

Blindness organisations have expressed disappointment that the federal budget delivered in May did not include funding for an audio description service.

The ABC performed a three-month trial in 2012 in order to determine whether broadcasting audio description is possible on Australia. This trial was hailed as a great success by technical experts and the viewing public.

In the lead-up to the federal budget, blindness organisations and their members campaigned for an ongoing trial to be delivered in 2013. This would provide equitable TV access while allowing the ABC to resolve any technical issues before audio description becomes a regulatory requirement like captioning.



In responding to the budget, Disability Discrimination Commissioner Graeme Innes stated his disappointment that funding for audio description was not included in what was otherwise a landmark budget for disability reform.

“It’s our ABC too,” said Innes.

Regulation is the only way forward for audio description on television

Australia is a long way behind the rest of the world when it comes to audio description on television. Media Access Australia CEO Alex Varley looks at the different approaches to regulating audio description and what conditions lead to across-the-board services around the world.

What is the state of audio description in the world?

There are many countries that now have regulations in place for audio description, including Italy, Poland, Spain, the UK, Sweden, Germany, Canada, France, Ireland, Portugal and the USA. However, most of these are for public channels only and Portugal has not implemented its requirements. Only five of the countries listed have some audio description (AD) on commercial channels. Poland and Spain have a handful of programs, whereas the UK, Canada and USA have a form of across-the-board service.

Others provide AD via special funding systems. The largest is Canada’s AMI-tv provided by Accessible Media Inc. This is an open-described cable channel funded by a levy on all people subscribing to cable television. It has to be made available by all cable providers free-of-charge. New Zealand has a more conventional funding model whereby the audio description service is funded by NZ on Air (which also funds the captioning service) and it appears on TVNZ.

What are the issues that affect the type of service?

The first is the level of government support. This is both in terms of regulating AD as part of broadcasting license requirements and financial support to provide a service. As we will see in the four case studies of the UK, Italy, New Zealand and Australia, the scope of that support impacts in different ways.

The second is whether the country is a dubbing or subtitling country. This is especially relevant in Europe where imported programs (from English speaking countries) make up a significant portion of prime time viewing. If a country dubs those programs (revoices the soundtrack in its language), then there are less barriers to audio description as description can be provided in breaks in the dialogue. However, if the country provides on-screen subtitles and maintains the original soundtrack, the first preference for an audio service is to ‘read out’ the subtitles so that they are accessible to the blind (called ‘audio-subtitling’). This leaves far less scope for providing AD on foreign language programs.

The third issue is the strength of the public broadcasters in a country. In the UK, where the BBC is very dominant and leads the way in terms of accessibility, this has had a flow-on effect to commercial audio description. In other countries, such as Italy and France, the focus has been solely on providing AD on public channels.

Finally, the range of programming has an impact on what is described. Live description is rare and usually reserved for significant national events, such as royal funerals. Similarly, the lack of non-dialogue time in news programs means that there is less likely to be description. The effect of this is



that it skews the availability of description to drama, movies and other pre-recorded programs. With cable and subscription channels being genre-based, it means that many types of channel, such as sports and news channels, are exempted and this provides commercial arguments for why other subscription channels shouldn't have to be described.

Strong regulation in the UK

The UK has strong regulation made up of widespread quotas and proactive enforcement of those by the regulator, Ofcom. There is no regulatory differentiation between free-to-air and subscription channels – the quotas are based primarily around audience shares. In this environment there has been both an over compliance (audio describing more than the quota) and voluntary increases in the amount described (doubling or more). It is also noteworthy that the UK has equally strong captioning requirements.

Weak regulation in Italy

The Italian system reflects a more haphazard approach to regulation. The AD requirements are for public broadcasters only and the programming consists of old movies and repeats. The delivery system is very cumbersome, requiring a double-audio channel. This is where the description is delivered via the radio or online. This often results in poor audio quality and what is regarded as a generally poor overall service.

Public funding in New Zealand

New Zealand has decided that audio description is best funded via NZ on Air, a public funding system that also provides for captioning on free-to-air television. This was originally provided by TVNZ (one of the television operators) but is now being moved to an independent entity. The net effect is that it takes pressure off commercial channels and pay television as the expectation is that audio description is a public-funded service, rather than a license condition. Captioning is provided in a similar way, although some pressure was put on Sky NZ to pass through existing captions for some of its channels which originate in Australia.

A stalled service in Australia

The public broadcaster, the ABC, hosted a 13-week trial of audio description in the second half of 2012. This was funded by a one-off government grant. Whilst the trial was heralded as a success by the broadcaster and was very well received by the viewers, attempts to convince the ABC and the government to provide an ongoing service have not been successful so far. Amendments to the captioning provisions of the *Broadcasting Services Act* in 2012 set up the regulatory framework which makes adding in audio description relatively easily, but without the catalyst of a permanent service on the ABC, there is no compulsion for other channels to pick up audio description.

Regulation is an important step in ensuring that an audio description service becomes widespread and permanent. However, without strong government support, through both support of public broadcasters and a proactive regulator, the services can stall. It is disappointing to see many European countries exempting commercial services as this suggests that audio description is some kind of 'charity' service. Interestingly the same attitude does not prevail as strongly with captioning for the Deaf and hearing impaired. Perhaps this is linked to the size of the audience and the fact that captioning first started in the 1970s.



Australia has the pre-existing conditions to make for a high quality, widespread audio description service. The captioning regulations are strong, enshrined in legislation and apply across the board. Audio description could be slotted in alongside with relative ease. However, the catalyst is not yet there. A false-start in the ABC trial has not been followed up with a more permanent arrangement which is essential to ensure that the Australian broadcasting industry quickly learns how to deliver audio description. Until that happens, Australia sits at the very bottom of the league table of world audio description and blind viewers continue to be treated as non-existent media consumers.

Alex Varley presented on this topic at the Round Table on Information Access for People with Print Disabilities on 26 May 2013.

Awareness of audio description increases in the UK

New research released by Ofcom, the UK communications regulator, shows that over 60% of people are aware of the service, which gives blind and vision impaired people access to television programs.

Audio description was first broadcast on British television in 1994, and by 2009 most of the main channels were required to provide it on 10% of their programs. However, research commissioned by Ofcom in that year showed that awareness of it among the general public was low. Following a public awareness campaign initiated by Ofcom and carried out by broadcasters, awareness rose to 37%.

The [new research](#), conducted by Marketing Sciences Limited, found that 60% of adults in the UK were aware of audio description, but this rose to 67% when they were prompted by a clip of it. Even more encouraging for advocates of audio description, 15% had told others about the service (most often a relative). Awareness is higher among younger people – 73% among 23-34 year olds, compared to 42% for those over 75.

US subscription TV must make emergency warnings accessible

Subscription TV providers and video program owners in the USA have been ordered by the Federal Communications Commission (FCC) to make emergency information that appears in text accessible to people who are blind or vision impaired.

According to the new mandate, the video providers must provide an audible version of the emergency information, whether it is crawling text or graphics, so that it is accessible to the blind or vision impaired. Emergency information must also be prioritised over foreign language translation and video description. This is in line with changes brought by the *Twenty-First Century Communications and Video Accessibility Act 2010* (CVAA). The new rules are to be applied within two years.

The FCC said that television equipment must be able to provide audible emergency information. This applies to equipment manufactured after the date that the rules take effect and applies to DVD and Blu-ray players.

However, 'Linear video programming' that is made available via the internet, on services such as Netflix and Hulu, at the same time as a television broadcast is exempt from the rules.

The FCC has also published procedures for making complaints in case video providers or owners fail to comply with the new rules.



New Zealand to have independent access supplier

Captioning and audio description services for New Zealand television, which are currently provided by the government-owned national broadcaster TVNZ, will be transferred to a new, independent organisation by the end of this year.

In New Zealand, captioning and audio description on the free-to-air networks is funded by NZ On Air, an independent body established by the New Zealand government. It will continue to fund access services after the transition, and staff who currently produce captions and audio description at TVNZ will move to the new organisation.

"Work is underway on setting up the new organisation and we expect a smooth transition later in the year," said Jane Wrightson, the Chief Executive of New Zealand On Air. "We also expect to have representatives from the deaf and visually impaired community on the Board of the new entity – something that I'm sure will be welcomed."

While the transition was the result of a business decision by TVNZ, it makes sense given that TVNZ also provides captioning for other broadcasters (TV3 and FOUR).

For more information, see the [report](#) on the Voxy website.

Public service announcement promotes audio description in Canada

The Canadian Broadcasting Association, in association with Accessible Media Inc, (AMI), has developed a [public service announcement](#) to build awareness of audio description on television.

The public service announcement depicts two scenarios which would only be comprehensible to a blind or vision impaired person with audio description (called 'described video' in Canada).

AMI is a not-for-profit organisation which operates AMI-tv, the world's only television channel which is fully captioned and audio described, and AMI-audio, an online reading service. It also provides a Described Video Guide, listing all programs on Canadian television with audio description.

Ofcom releases UK access figures for 2012

Ofcom, the UK's communications regulator, has released its final report on the provision of access services on television for 2012. As in previous reports, most broadcasters were found to be exceeding quotas for captioning, which range from 70% to 100% for most channels.

The ['Television Access Services: Final report on 2012'](#) also shows that audio description levels are high. While their mandatory quotas are 10%, a number of channels, including ITV1 (in England and Wales), Channel 4, Sky (for its non-sport channels) and the BBC have committed to audio describing 20% of their programs.

Figures for the main free-to-air channels, including the BBC's two children's channels, CBBC and CBeebies, were as follows.

Table 1 Table showing levels of captions, audio description and signing on British TV channels

	Captioning quota	Captioning achieved	AD quota	AD achieved	Signing quota	Signing achieved



BBC One	100%	99.9%	10%	15.5%	5%	5.2%
BBC Two	100%	99.9%	10%	15.3%	5%	5.5%
BBC Three	100%	100%	10%	21%	5%	5.4%
BBC Four	100%	99.9%	10%	25.3%	5%	5.7%
CBBC	100%	100%	10%	23.5%	5%	5.2%
CBeebies	100%	100%	10%	17%	5%	5.8%
BBC News 24	100%	100%	Exempt		5%	5.3%
ITV1	90%	96.9%	10%	18.7%	5%	5.9%
ITV Breakfast	90%	93.5%	10%	29.4%	5%	5.6%
Channel 4	90%	100%	10%	26.1%	5%	5.3%
Channel 5	80%	90.4%	10%	11.6%	5%	9.1%

Three channels (Livingit, Challenge and Nickleodeon) which failed to meet access targets in 2011 made up for the shortfall – and exceeded their quotas – in 2012. Only one channel, ESPN, failed to meet targets for captioning and audio description. Ofcom is now in discussion with it.

Ofcom, which is very rigorous in monitoring access targets, produces a report on them every six months. The next one is due in September 2013.

The ACMA launches broadcasting codes inquiry

The Australian Communications and Media Authority (ACMA) has launched an inquiry into broadcasting codes of practice and whether they are keeping up with the rapid changes taking place in society.

In a discussion paper, ‘Contemporary community safeguards inquiry’, the ACMA notes that one of its ‘enduring concepts’ is: “Australians should enjoy reasonable and equitable access to the media and communications infrastructure, services and content necessary to promote their effective participation in society and the economy.”

The core captioning requirements for broadcasters are contained in the *Broadcasting Services Act 1992*, while various industry codes of practice also deal with aspects of captioning. One of the questions the ACMA is asking is whether the concept of ‘access’ should be “included as a guiding core principle in contemporary broadcasting codes of practice”. It also notes that it has drawn a connection between ‘access’ and ‘captioning interventions’, and asks for comments on whether this is reasonable, or whether there are other interventions or safeguards which should be included.

The various codes of practice differ in how they deal with captioning (for example, Free TV’s code, which covers the commercial free-to-air broadcasters, states that a station must “Provide adequate advice to relevant viewers if scheduled closed captioning cannot be transmitted,” but SBS’s code has no such statement). Another question being asked by the ACMA is whether caption requirements should be consistent across the codes.



The discussion paper can be downloaded in PDF and Word formats from the [‘Community safeguards inquiry’](#) page on the ACMA’s website.

Submissions close 15 July 2013.

EDUCATION

cap that! campaign promotes captions for learning

Media Access Australia’s education initiative **cap that!** launched its 2013 campaign on 13 June, asking teachers nationally to become a ‘Captions Champion’ and turn on captions on classroom videos to improve learning for all students.

By turning on captions on videos used in the classroom, teachers can boost learning, literacy and support inclusive learning for all students, regardless of their hearing ability, understanding of English or learning method.

As Captions Champions, teachers, principals or school librarians receive a free information kit with tools to help them find, use and promote captions within their schools. The [cap that! website](#) also provides practical information and resources available to educators all year round, including lesson plan examples, how-to videos, the basics on captions and a guide to websites with captioned educational videos.

Last year, almost 400 educators nationwide committed to using captions in their classrooms and championing captions in their schools.

cap that! runs up until the end of National Literacy and Numeracy Week (29 July – 4 August). It is proudly sponsored by the Australian Communication Exchange and supported by National Literacy and Numeracy Week.

CINEMA & THE ARTS

Rear Window Captioning drops licence fee

The developer of Rear Window Captioning (RWC), the National Center for Accessible Media in the US, has cancelled its license fee for the closed captioning system, making it more cost effective for cinemas to install.

RWC made its debut in 1997 as part of regular feature film presentations in American movie theatres, allowing people with hearing loss to attend movies and view captions on a personal screen. The device replicates the look of open captions by displaying captions on clear Perspex which is placed between the viewer and the screen.

Since 1997, RWC has extended its service to over 400 screens across the United States. The pioneering technology paved the way for other movie captioning services, such as Doremi’s CaptiView, Sony’s Entertainment Access Glasses and USL’s Closed Captioning System. This healthy competition in the digital cinema market gives exhibitors a choice of systems that complement their existing technologies and serve their customer base.



The dropping of RWC's licence fee (understood to have been several thousand dollars per screen) was promising on several fronts:

- It showed that increasing competition between closed caption systems is driving costs down.
- The work on standardising digital access formats (in which one of RWC's developers, Larry Goldberg, played a significant role) means that cinemas are not locked into one system only.
- It should encourage cinemas to look at tried and tested technologies that have been developed and upgraded, rather than assuming that the latest device is superior to all that came before it.

The dropping of the RWC licence fee presents a significant saving to multiplex cinemas required to install access equipment across numerous screens. Where RWC has traditionally been more costly compared to its rivals, it is now part of a more level playing field.

US senator introduces legislation for accessible entertainment

The impact of access legislation in the USA has had a ripple effect around the world. The *21st Century Communications and Video Accessibility Act*, introduced in 2010, has seen a flood of captioned video reach the web. Now two bills being put forward by an Iowa senator could see progress in cinema and in-flight entertainment.

Senator Tom Harkin, who was responsible for introducing the *Americans with Disabilities Act (ADA)* in 1989, has introduced the *Captioning and Image Narration to Enhance Movie Accessibility (CINEMA) Act* to amend Title III of the current ADA. The CINEMA Act will require cinema complexes with two or more screens to offer captioning and audio description for all movies at all sessions.

Some American cinema chains are implementing accessible cinema programs, mainly as a result of litigation or the threat of litigation, but the nation as a whole does not have a national strategy like Australia's Cinema Access Implementation Plan.

The second bill is the *Air Carrier Access Amendments Act*, requiring airlines to caption and audio describe in-flight video entertainment and provide alternative arrangements for touchscreen controls. The current act requires televisions and other audiovisual displays within airports to display captions at all times but does not stretch to in-flight services.

In-flight entertainment is one area in which access is severely lacking. Currently, Australia's Qantas is one of only a limited number of airlines worldwide that offers a captioning service on some in-flight videos.

Before becoming United States law, both bills must be passed in the Senate, then the Congress and then signed by President Obama. They are currently being reviewed by relevant Senate committees.

DIGITAL TECHNOLOGY

Winners of 2013 Access Awards announced

The winners of the 2013 Access Awards presented by the American Foundation for the Blind have been announced, honouring the work of organisations that help to improve access to media for people with vision loss.



Included in the list of winners are AT&T, Best Buy, Panasonic, Regal Entertainment Group and the Royal National Institute of the Blind (RNIB). Recognition was given to their products and services that showed innovation in order to cater to the needs of people with disabilities.

Winners of the 2013 Access Awards are:

- AT&T – U-verse Easy Remote App: The telecommunications company released the U-verse Easy Remote App, a voice control app for the iPhone and iPad. The app allows people with vision loss to use voice commands to control their TV when connected to a U-verse receiver. It also allows users to control the TV through gestures, and Deaf or hearing impaired users to access closed captions through a single button. The app also is compatible with VoiceOver, the built-in screen reader of Apple iOS devices. The service is only available in the US.
- Best Buy – Insignia Narrator HD Radio: This radio includes a feature for audio feedback which communicates information that would normally only be available in a visual form. The radio's clock and calendar information is also provided as audio in a female voice.
- Panasonic – Voice Guidance: Panasonic has collaborated with the RNIB to develop 'Voice Guidance', voice recognition technology for Panasonic Smart Viera TVs. Voice Guidance allows users to use voice commands to navigate their smart TV and search for content on the TV or on the web. Voice Guidance also 'speaks' electronic program guide information.
- Regal Entertainment Group: This company operates the largest cinema circuit in the US. In 2012, it began converting to digital cinema and equipping its theatres with closed captioning and audio description devices.
- RNIB – work in the development of accessible TV: The RNIB has been working with a number of people to develop accessible TV (including Panasonic). It has lobbied to increase the levels of audio description on TV in the UK, and worked with a number of people on the development of talking set top boxes and digital TV recorders such as TVonics, the Smart Talk Freeview digital box and the Sky Talker. This equipment provides audible feedback for information on the screen.

Google Chromebook: an accessible and affordable netbook

Google has finally launched its long-awaited netbook in Australia. This is welcome news for anyone who wants access to an affordable and light-weight computing device, but also for the blind and vision impaired as it offers some accessibility features which have already been noted by blind users around the world. The Chromebook is a light-weight, powerful netbook that has a browser-based operating system (OS). It is available in two models made by Samsung and Acer.

The Chromebook is different to other netbooks in that it runs on ChromeOS, a browser-based operating system. While Android, Google's other operating system, is for mobile devices like smartphones and tablets, ChromeOS was developed specifically for the Chromebook. Instead of installing apps on the device itself, apps are accessed through an internet connection and web browser.

For this reason, the Chromebook has very little hard drive memory and relies on storing files on the web. It comes with Google's suite of web-based apps such as Drive, Gmail and Calendar. Other apps can be downloaded through the Chrome Web Store.

While the accessibility of Google apps has been criticised in the past, Google has been working to improve this. Last year, Google introduced a series of accessibility improvements to its apps including the Administrator Guide for Accessibility. In addition, Google introduced the ChromeVox screen reader which is the default screen reader for the Chromebook.



Accessibility features

The Chromebook includes adjustable colour schemes, a screen magnifier and the ChromeVox screen reader.

The Chromebook may lack the power and inbuilt memory of other traditional laptops, however its price, portability and built-in accessibility features make it an attractive option for blind and vision impaired users.

Google petitioned on accessibility

Software giant Google has been petitioned by J.P. Shandra, a blind user, to make each of its products usable for people with disability. [The petition](#), posted on global consumer campaigning site Change.org, identifies that Google is failing to keep up with its competitors on accessibility.

While Google has made significant steps to improve the accessibility of some of its applications, including Gmail and Chrome, Shandra says that the company fails to integrate the needs of disabled users into its product development.

Shandra identifies the social network Google+ as an example of a product which has been released to the public with inaccessible buttons and form fields.

“The disabled community is tired of hearing accessibility features are coming in updates. They should be there from the beginning. Stop treating your disabled customers as second-class citizens,” said Shandra in the petition’s description. “Moreover, stop treating them like they don't exist at all. We have the right to live a productive life like everyone else.”

Conversely, Apple incorporates accessibility into the development of its devices and software, making its products the first choice of most blind and vision impaired users the world-over.

“Apple designs their products with accessibility in mind from the start. Even if execution isn't perfect, the intention was clearly there,” said Shandra.

According to the World Health Organisation, there are 285 million blind and vision impaired people worldwide. This represents a significant market which Google is failing to reach.

Samsung Galaxy S4: accessibility

Samsung’s latest smartphone, the Galaxy S4, has been launched, with Samsung claiming the device would “bury” its rival, the iPhone 5. Samsung announced a suite of new features, including some that have benefits for people with a disability such as eye-tracking, enhanced gestures and improvements to the voice-activated assistant, S Voice.

Samsung is yet to release a list of the phone’s key specifications, including which assistive technologies it includes. The Galaxy S4 runs on the Android 4.2 Jelly Bean operating system which comes with a screen magnifier, screen reader and gesture mode by default. However, as Android is open source, manufacturers such as Samsung can pick and choose which features they include. This explains the wide inconsistencies in levels of Android accessibility across smartphones and tablets.

The Galaxy S4 also includes a number of features that have caused a stir in the mainstream technology space. Smart Scroll scrolls the screen up or down depending on the movement of the



user's eyes and the tilt of the phone. Similarly, Smart Pause automatically pauses a video when the phone detects that the user is no longer looking at the screen. Both these features could be useful for those who lack dexterity in their fingers while blind and vision impaired readers will be pleased to know that they can turn the features off.

Samsung's voice assistant S Voice has been improved in the Galaxy S4. Similar to Apple's Siri, S Voice allows users to perform functions using voice commands. It also provides audio feedback and reads text messages and emails out loud.

Finally, Air Gesture allows users to control navigation through hand gestures, rather than touching the screen. Air Gesture lets users navigate different windows and even 'preview' other opened content through motions made directly in front of (but not touching) the screen. This is another feature that could be useful for people with limited mobility. At the very least, the versatility of ways users can interact with the device is promising.

Samsung is yet to release information on when the phone will be available in Australia or how much it will cost. Its predecessor, the Galaxy S3, retails for around \$650 for a 16GB model.

Women with disability disadvantaged in ICT

The digital divide experienced by people with disability is wider for women, new research finds. A report, [*Your Say. Your Rights*](#), released by Women with Disabilities Victoria and the Self Advocacy Research Unit has found that the perception of women with disabilities being less capable of operating computers perpetuates disadvantage.

Access to information communications technology (ICT) including computers, mobile devices, social media and websites is becoming increasingly vital for participation in society. The research identifies a vicious cycle of disadvantage. Women with disability are more likely to face poverty, unemployment and under-education than their male counterparts. This means they are less likely to have access to ICT which, in turn, means they are less likely to overcome socioeconomic barriers.

The Australian Bureau of Statistics (2009) found "When looking at labour force participation, women with disabilities are particularly affected, with a participation rate of 49% – well below the 60% participation rate of males with disabilities and the 77% participation rate of females without disabilities."

The report also discusses how the perception of women being generally less capable with ICT tends to make women reluctant to make a start with new technology. There is also a perception amongst women with disability that ICT is not relevant to them.

The research involved a series of workshops with women with disabilities, particularly those who were socially isolated. In these, women were given the opportunity to overcome their anxiety and try technologies for the first time. Needless to say, this had a positive result for participants.

The report states, "Women with disabilities may need encouragement to see the personal benefits to technology access, and to believe that the potential benefits are worth the frustration and effort needed to learn and engage with ICT."



ONLINE MEDIA

Blind taxpayers sue for inaccessible website

The National Federation of the Blind (NFB) in the USA and two Massachusetts residents who are legally blind have filed a lawsuit against one of the largest tax preparation firms in the country for failing to make its online tax services accessible to people who are blind and vision impaired. The lawsuit claims H&R Block violates the *Americans with Disabilities Act* and article 114 of the Massachusetts Constitution.

Mika Pyyhkala and Lindsay Yazzolino claim they could not get past the H&R Block log-in page when they attempted to file their tax returns in 2012. The complaint alleges H&R Block's website excludes blind taxpayers from accessing the same online service available to other taxpayers.

Article 114 of the Massachusetts Constitution states, "This amendment to the Massachusetts Constitution provides that no 'otherwise qualified handicapped individual' may 'solely by reason of his handicap' be discriminated against in the context of 'any program or activity within the commonwealth.'"

Blind and vision impaired users can access content and services online through assistive technologies such as screen magnifiers or screen readers. While a screen magnifier enlarges the webpage, a screen reader converts text information into audible speech. Various techniques can be applied to the development of a website to make it accessible by such technologies. However, when these techniques aren't applied or considered, it presents barriers for people who use such assistive technology.

In a statement, NFB president Dr Marc Maurer said, "As millions of Americans rush to prepare and file their taxes online using H&R Block's popular websites, blind people are unable to do so because the company has refused to make its website accessible to us.

"For most blind people, this means that they must obtain assistance filing their tax returns, rather than having the option to do so privately and independently. The laws of the United States and the state of Massachusetts require, and blind Americans demand, that H&R Block make all of its online services accessible to blind taxpayers."

Dog finds his voice

The Crikey cartoonist known as 'First Dog On The Moon' has started releasing versions of his political cartoons in audio format specifically for the enjoyment of blind and vision impaired readers.

First Dog On The Moon takes a cast of animal characters and has them play out the political stories making headlines. In this universe, Prime Minister Julia Gillard becomes Power Fox and Senator Barnaby Joyce a talking pumpkin scone. The cartoons, while visually simple, involve many frames and long exchanges of dialogue.

When First Dog On The Moon published a cartoon about the National Disability Insurance Scheme (below), ABC Ramp Up editor Stella Young pointed out that blind readers were unable to enjoy the cartoon or participate fully in the discussion it generated.



The standard way of making images accessible is to provide alternative text – a short sentence to convey the meaning of an image which people can't see but screen readers can read out. However, First Dog On The Moon knew that recording him describing the scenes and reading out dialogue would provide a much richer experience for the listener.

Rather than painstakingly describing each character and conveying the aesthetics of the cartoons, First Dog On The Moon has opted for enthusiasm, making use of the new medium to create a different type of charm.

“This has opened my eyes to the different kinds of approaches that I need to take to my work when developing it and distributing it to people,” said First Dog On The Moon. “I suppose the key thing is keeping accessibility at the forefront whenever I am thinking about audiences and the kind of work I do.”

This serves as a reminder that political news, including satire, needs to be published in a way that provides for needs of people with a disability.

The scourge of YouTube's auto-captions

Michael Lockrey is Asia-Pacific sales manager for Amara and a renowned advocate for Deaf and hearing impaired media access. Here, he dissects the effects of YouTube's auto-captioning tool, and suggests how Google and its users can play a part in resolving them.

Google's YouTube is the global giant of online video, with over 72 hours of video being uploaded to the platform every minute. But with popularity comes responsibility. While YouTube in many ways could be seen as a pioneer of Deaf access online, the premature release of its auto-captioning feature could be doing more harm than good.

The mantra “poor quality captions are as good as no captions at all” will be familiar to many of us within the Deaf and hearing loss advocacy sector. It's a common catch-cry when dealing with traditional broadcasters.

Auto-captioning works by Google's voice recognition software translating the sound of a video into a caption-style format. It's incredibly easy for video owners to request auto-captioning with the click of a button.

Auto-captions were first made available in early 2011 and spread like a rash across the web. They are now available in 10 languages, including English, Japanese, Spanish and Korean. The problem is that the voice recognition technology simply isn't up to the task. Even without background noise, auto-captions are hardly ever right. The result is a scourge on the Deaf community the world over.

Let's look at one example, a Coles supermarkets video featuring celebrity chef Curtis Stone showing you how to make a prawn stir fry. Some of the auto-captions on this are:

“doesn't like them but still forms we consulted one balkans and be informed”

“until a little bit of words for pam me start off with the !ndians”

and

“crisis within Europe”



Going by these auto-captions, instead of learning to turn out a decent prawn stir-fry, I'll be thinking about issues of ethnicity in the Balkans, racism in India and achieving world peace before the onions are so much as sautéed.

While it's ultimately up to Coles to treat their Deaf and hearing impaired customers equitably, Google has a vital role to play in facilitating this.

What can video owners do?

In December 2012, a Google intern developed a way of allowing video owners to correct auto-captions. This is so easy to use, failing to do so is inexcusable for anyone who uploads a video. Media Access Australia has published a guide to creating professional-quality YouTube captions, including through using Amara. Give it a go, and pass it along to anyone who says captioning is too hard.

What should Google do?

Improve voice recognition

For a number of projects, most notably Google Glass, Google has an interest in improving the accuracy of its voice recognition. While users will always have to check auto-captions for accuracy, online video would be opened up for the world's Deaf and hearing impaired viewers if auto-captions became as reliable as professional captions.

Engage with top content producers

With its near-monopoly over online video distribution, Google has considerable influence over the individuals and companies that use its service. Google should be helping to foster a culture of equal access to video content amongst its top 100 channels. If the biggest contributors to YouTube establish best practice, this will help combat the assumption that auto-captions are enough amongst the site's users.

Fix YouTube search

Currently, there is no way for users to distinguish between a video that has professional, quality captions and useless, machine-generated auto-captions. I have no way of telling whether Curtis is going to tell me about Balkan conflict or bulbs of garlic until the video starts playing. Adding a search filter so that auto-captioned videos are excluded from search results would play a huge part in reducing levels of frustration globally.

So I suppose, in a way, Curtis can play his part in promoting world peace.

Global Accessibility Awareness Day 2013

Thursday 9 May marked the second annual Global Accessibility Awareness Day, a day dedicated to raising the profile of web accessibility amongst web professionals. In Australia, activities were held in different cities to explore how accessibility, or lack thereof, impacts on the experience of using the web for people with disability.

[Global Accessibility Awareness Day \(GAAD\)](#) started after Los Angeles-based web developer Joe Devon suggested the idea on his blog. Canadian accessibility professional Jennison Asuncion spotted the post and offered his help to get the day off the ground.



This year, organisers invited people to get a taste of what it's like for the one in five people who have a disability. Some of the suggested activities included:

- Go mouseless for an hour and use your computer with a keyboard alone, in the same way a blind user would.
- Try a screen reader. This simple piece of software that reads out what's on screen is the primary method blind people use to access computers. Apple devices come with VoiceOver already installed and Windows users can download the free, open source Non-Visual Desktop Access.
- Directly improve the accessibility of web content by captioning a video, or demonstrating how to implement accessibility in a video or blog post.

Individuals and organisations are encouraged to host their own events, publish tips and share their experiences of implementing accessibility.

Media Access Australia at the World Wide Web Conference

Dr Scott Hollier, MAA's manager of major projects, presented a paper at the 22nd International World Wide Web conference in Brazil in May. Presented with co-lecturer Associate Professor Denise Wood, the paper looked into how the [Professional Certificate in Web Accessibility](#) addressed the shortfall in accessibility knowledge in Australia.

The annual World Wide Web Conference, which was opened by Tim Berners-Lee, brought together professionals at the forefront of the web. Web For All (W4A) was a stream within the conference which focused specifically on how web content can be made available to everyone regardless of disability. In its tenth year, W4A looked at how accessibility holds an increasingly prominent place within the future of the web.

Hollier and Wood's paper, *'Bring your own problems': The path to WCAG 2.0 conformance through industry based training* looks at how Australian governments are moving towards conformance with international accessibility standards. The paper states that there is a shortfall in accessibility knowledge amongst web development and design professionals working on government sites.

"While things are changing slowly, most developers and designers are completing their training without exposure to accessibility practice," said Dr Hollier. "Our course offers a gateway for web professionals into accessibility, equipping them for government and high-profile corporate work.

"The conference provides an opportunity to share information on how a tertiary course can be created and implemented based on web accessibility standards, and how accessibility can be incorporated into government and business practice."

A screen reader user casts his vote

In a recent state by-election, screen reader user Andrew Devenish-Meares was able to vote online. Here, he writes about the experience of being able to place a secret vote independently.

It's that time again for the people of the Northern Tablelands state election. Some people view it as a right, others say it is an obligation. Either way, the law requires we cast our ballots in a by-election.



Here in New South Wales, the NSW Electoral Commission has spent considerable time developing an online voting application for use in state elections and by-elections. It's called iVote, and was first used at the last state election in 2011 to great success.

Part of that success is that while it was addressing the issue of a secret ballot for blind and vision impaired people, or anyone else who could not independently complete a ballot, it was also used by those who could complete a ballot, but lived more than 20km from a polling place or would be absent from NSW on election day.

I first used the system in the 2011, and this by-election is my second time using it. The iVote system is WCAG 2.0 Level AA compliant, which makes it easy to access and understand. The use of ARIA landmarks makes moving around simple, and casting a vote could not be easier.

When signing up you choose a PIN, and an iVote number is assigned to you, sent via mail (which is a legal requirement) and your choice of email and/or SMS. Using both your PIN and iVote number, you can log in. After simple instructions, you arrive at a form. After my first vote, which I found a little tricky, this time I just used my screen reader NVDA's 'F' keyboard shortcut to jump to form fields.

Rather than numbering your ballot, you just press 'N' and the next number will be assigned. So, this is how it went. I pressed 'F' and landed on the first candidate, whose name and party was read by NVDA.

Pressing 'F' again took me to the next candidate. I moved through the ballot paper this way once so that I could check what was there matched what I remembered about who was on the ballot.

From there I backed up to the top and started finding my first choice. Once I'd found that person I pressed 'Space' to enter forms mode, confirmed by NVDA beeping appropriately, then pressed 'N'. A number 1 was inserted and read back. Pressing 'Esc' to exit forms mode, I found my second preference and repeated the steps. I ended up numbering all the boxes, even though this is not compulsory for a NSW state ballot, and moved to the 'Save and Continue' button.

There are also buttons available to undo your last choice, or to clear all your choices if you make a mistake or change your mind.

Once done you are presented with the preferences you chose. You can then go back and change your selection again, or submit your vote. Once you've submitted, you're issued with a receipt number which you can use to verify that your vote was printed and counted correctly once the votes have been counted.

2011 was the first time I'd been able to cast an independent, secret ballot since losing most of my vision in 1997. It was a great thing to be able to do this myself again. I'm really pleased that the NSW Electoral Commission has made the system available for our by-election.

Andrew Devenish-Meares lost most of his vision at the age of 21, some 15 years ago, while studying at university. He's worked in information technology at a number of not-for-profit organisations since then, and is currently a solutions analyst at the University of New England. He lives in Armidale with his wife and son.



Glossary

Audio description: 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. AD 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).

Captions: A transcription of the audio elements of a TV program, movie, DVD,

performance or other media, giving access for the Deaf and hearing impaired. Unlike subtitles, captions include song lyrics, descriptions of sound effects and music, and are often positioned and coloured so as to make it easier for the viewer to identify who is speaking. Captions may be divided into:

Open captions: Captions which are ‘burnt onto’ a video or digital image and will be seen by anyone who looks at it, and

Closed captions: Captions which a viewer chooses to see (e.g. by accessing teletext captions on TV, or activating the captions on a DVD).

Signing: Access to a TV program, movie, DVD, performance or other media via a

signer using one of the various Deaf sign languages, e.g. Auslan (Australian Sign Language). Some TV programs in the US and UK have a signer occupying a space on the screen.

Stenocaptioner: A highly trained captioner who captions live programs using a stenographic keyboard.

Subtitles: This generally refers to English translations of foreign language TV programs or movies, presented as text at the bottom of the screen. It can also be a straight transcription of the dialogue of an English language program (this is a common feature on DVDs). Note however that captions are often called subtitles in the UK and other parts of Europe.

Teletext: The broadcast data delivery system used in Australia to transmit captions on analog television.

Acronyms

ACCAN	Australian Communications Consumer Action Network
ACMA	Australian Communications and Media Authority
AD	Audio description
DBCDE	Department of Broadband, Communications and the Digital Economy
FCC	Federal Communications Commission (US)
GAAD	Global Accessibility Awareness Day
ICT	information communications technology



MAA	Media Access Australia
NFB	National Federation of the Blind (US)
Ofcom	Office of Communications (UK)
RWC	Rear Window Captioning
RNIB	Royal National Institute of the Blind (UK)

