Australian Human Rights Commission

Guidelines on equal access to digital goods and services

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The Australian Human Rights Commission acknowledges the Traditional Custodians of Country throughout Australia, and recognises their continuing connection to land, waters and culture. We pay our respects to their Elders – past, present and future.

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Further information

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About this document

This is an update of the Australian Human Rights Commission's (the Commission) World Wide Web Access: Disability Discrimination Act Advisory Note ver 4.1 (2014). This update builds upon the previous versions of the Commission's Advisory Note to reflect changes in technology, its role within society, as well as national and international standards and policies that define how technology provides equal access for people with disability.

These Guidelines are being issued under section 67(1)(k) of the *Disability Discrimination Act 1992* (Cth) (the Disability Discrimination Act) and section 11(1)(n) of the *Australian Human Rights Commission Act 1986* (Cth). The Guidelines are not legally binding and should be read in conjunction with the Disability Discrimination Act.

They have been prepared in consultation with advisory groups made up of technical subject matter experts, users, and disability representative organisations.

Contents

Acknowledgements

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Foreword by Rosemary Kayess, Disability Discrimination Commissioner

We are part of the Digital Age, a time of rapid technological advancement and change. This has the ability and potential to be a catalyst for the social and economic inclusion of people with disability. Technology now plays a major role in everyday life in facilitating communication and transactions. If that technology is accessible, then people with disability can be participants in all aspects of community life: civic and political, economic, social and cultural.

The central role that technology has in everyday life highlights the importance of this update of the Commission's Guidelines on digital accessibility. The Guidelines reflect developments in contemporary digital environments and practices and encompass digital accessibility across a wide range of platforms beyond websites and web-based content.

People with disability use a diverse range of smart and alternative communication devices. We rely on accessible websites and screen readers, on voice recognition technology, and on automated captioning, screen-in-screen technology to provide sign language interpretation. For many people with disability these are vital technologies enabling communication with others, learning and getting up-to-date information. In turn, the use of this technology is instrumental in enabling people with disability to participate in political and public life.

We all need access to technology; it has become an essential element of how we live, work and interact. It has become central to our communication, economy, education, healthcare, and social dynamics and, as such, facilitates our enjoyment of fundamental human rights. However, we don't all enjoy access to technology on an equal basis with others.

Significant barriers arise from the lack of application of universal design principles and lack of focus on the diversity of end users. These barriers include inaccessible technologies that prevent children with disability from learning alongside their classmates, failure to provide accessible ICT at polling booths and essential services information portals that prevent people exercising their civil and political rights and accessing support in times of crisis. For many, their employment opportunities are compromised when the technologies required for work are inaccessible, or the online application processes are rendered inaccessible through use of security tools such as CAPTCHA. Our access to entertainment and cultural life is

hindered by television programs, films, theatre not being captioned or audio described. And the often-prohibitive cost of assistive technology or its lack of availability for people who live in rural and remote areas hold us back.

The Disability Discrimination Act prohibits and seeks to eliminate discrimination on the ground of disability in areas of public life. This includes those areas of public life that have a digital component, such as online learning, hybrid working arrangements, and essential services such as banking or grocery shopping. To achieve the promise of the Disability Discrimination Act, all technology needs to be accessible to people with disability. It's not just about assistive technology or technology to enhance the lives of people with disability - it requires all technology to be designed with people with disability in mind and to be inclusive and responsive to the needs of people with disability so that everyone can enjoy the benefits of technology.

The Guidelines on equal access to digital goods and services assists organisations to meet their obligations under the Disability Discrimination Act. I encourage providers of digital goods and services to understand the reasons for, and the benefits of universal accessibility.

I would like to thank Intopia for contributing expertise and passion to the development of these Guidelines.

Rosemary Kayess,
Disability Discrimination Commissioner
Australian Human Rights Commission

Foreword by Sarah Pulis, Director and Co-Founder of Intopia

In an increasingly digital world, access to digital products and services is not a luxury but a fundamental right. Technology has the power to break down barriers and create opportunities for all. However, without the right approach and guidance, it can also reinforce inequities.

Intopia was honoured to partner with the Australian Human Rights Commission to produce these Guidelines. The Guidelines provide clear and actionable advice that supports organisations to create digital experiences that are truly inclusive.

We recognise that accessibility is an ongoing journey, one that evolves alongside technology and user needs. We want to acknowledge the advisors who generously gave their time and input into the guidelines – people with disabilities, those who will use the guidelines, and technical experts in the field of accessibility.

The guidance in this document doesn't just support legal requirements—they represent a commitment to fairness, usability, and dignity. By embedding accessibility into the way organisations operate, they can foster innovation, enhance user engagement, and contribute to a more equitable society.

We hope that these guidelines serve as a renewed catalyst for meaningful change, ensuring that no one is excluded from the digital world because of barriers that can and should be removed. Together, we can build an inclusive digital world - one that upholds the rights of individuals and strengthens our communities.

Sarah Pulis,
Director and Co-Founder
Intopia

Executive Summary

The *Disability Discrimination Act 1992* (Cth) (Disability Discrimination Act) is a federal law that makes discrimination on the ground of disability unlawful in areas of public life. It aims to eliminate discrimination, as far as possible, against people with disability and to recognise that people with disability have the same fundamental rights as others.[1]

These Guidelines will assist organisations to meet their obligations under the Disability Discrimination Act when providing digital goods and services.

While the subject matter is by nature technical, effort has been made to lay out the requirements expected of organisations in simple terms. Links to detailed technical references are included.

Meeting the standards and guidelines discussed in this document will help organisations to meet their obligations under the Disability Discrimination Act. They are the minimum organisations should aim for. Best practice means that organisations should strive to avoid discrimination by ensuring they provide equal access to digital goods and services to everyone.

The Guidelines are organised into 3 Chapters:

1. **overview of the Disability Discrimination Act and how it applies to digital goods and services**
2. **recommendations for organisations and business on how to provide equal access to digital goods and services**
3. **standards and guidelines that apply in Australia.**

Glossary and definitions

Ableism

Ableism is the basis of how society understands what it means to be human. Disability is viewed as a deficit of the individual who does not meet the bodily, cognitive and mental attributes of 'normal' human beings. People with disability are devalued and seen as inherently vulnerable and in need of 'fixing' or 'curing'. Ableism is deeply embedded in legal, policy and practice frameworks and in everyday individual and community attitudes. It results in inequality and discrimination and is the basis for special and segregated settings for the care, treatment and protection of people with disability. The belief that people with disability are incapable of being part of the community becomes self-evident, and the segregation and exclusion of people with disability from community life is unquestioned.

Assistive Technology

Equipment or devices that increase or maintain the functional capabilities of people with disability. In the context of digital access, it is hardware, software, and peripheral hardware that assist people with disability in accessing computers or other information technologies. Some examples include screen readers and refreshable Braille devices, alternative keyboards and mice, screen magnification, and voice recognition.

Convention on the Rights of Persons with Disabilities (CRPD)

An international instrument that codifies the human rights of people with disability. Countries like Australia that have ratified the CRPD should protect these rights in domestic legislation. Australia ratified the CRPD in 2008.

Digital products

Websites, apps, software, digital documents and any product with a digital interface.

Disability Discrimination Act 1992 (Cth)

A federal law which makes it unlawful to discriminate on the grounds of a person's disability in defined areas of public life.

ICT (Information and Communications Technology)

The diverse set of technological tools and resources used to transmit, store, create, share or exchange information. ICT covers all technical means used to handle information and aid communication. This includes both computer and network hardware, as well as their software.

Internet

The network that connects computers and devices all over the world. It can run over wires and over radio waves. The Web is one system that uses the internet along with email and mobile apps.

Platform as a Service (PaaS)

A type of cloud-based service where a third-party provider delivers an operating system and coding environments to users over the internet. An example of a PaaS is Google Cloud.

Software as a Service (SaaS)

Cloud-based services delivered over the internet providing productivity suites, recruitment and people management, invoicing and financial management, ecommerce, online or remote meetings, digital libraries, streaming services, video, and music authoring as well as simple engagement with social media platforms.

Universal design

An approach to designing environments in a way that they can be accessed, understood and used to the greatest extent possible by all people, see Universal Design (page 28).

Web Content Accessibility Guidelines (WCAG)

The applicable international standard for web accessibility. WCAG are also applicable to non-web documents, apps, software and digital interfaces. WCAG are updated from time-to-time and it is important to meet the requirements of the latest published version.

About the Guidelines

The Australian Human Rights Commission (the Commission) has prepared the Guidelines in the exercise of its function under section 67(1)(k) of the Disability Discrimination Act.

The Guidelines are not legally binding and should be read in conjunction with the whole of the Disability Discrimination Act, and state and territory anti-discrimination laws. An organisation or individual may not be protected from a finding of unlawful discrimination if they claim that they conformed with, or relied on, the Guidelines. Organisations or individuals should seek their own independent legal advice if they have concerns regarding their compliance with the Disability Discrimination Act or with relevant state or territory anti-discrimination legislation.

However, in the view of the Commission, the Guidelines will help organisations act consistently with the Disability Discrimination Act.

The need for Guidelines

The use of digital technology is required to participate in almost every aspect of individual and community life. Technology now informs how we connect with family and friends, get an education, work, enjoy movies and music, cook a meal, seek medical services, access public services, manage personal finances, pay bills and shop.

The opportunity to take part in all aspects of everyday life on an equal basis with others can often depend on being able to access and use technology.

Most people will use a combination of digital and non-digital means to get things done. They might buy a product from an online shop and visit the same business in person. They might order groceries online but interact with a person when receiving the delivery or following up on a problem with the product.

Everyone has a right to be able to access goods and services. They have a legal right not to be discriminated against when they try to do so. This means that a person with disability should be able to complete the full task or enjoy the use of any good using technology that is readily available to them.

Examples

- **A person with disability should be able to utilise all the online services offered by their financial institution**, at all times when it is available to other customers. This includes multi-factor identification requirements, error messages and any particular requirements for transactions such as needing to speak to a call centre to release a term deposit.
- **A person with disability should be able to complete an online purchase** including understanding available products and options, delivery requirements, purchasing and receiving confirmation of purchase and updates on delivery progress.

Many people with disability face barriers when using digital technologies due to a lack of universal design. For example, many websites do not contain alternative text information for images or have poorly titled links that are required for navigation. This can make the website inaccessible for people who use screen readers. These barriers are often the result of ableist assumptions that influence decisions made when designing, developing and/or procuring digital goods and services. The impact of those decisions can exclude and discriminate against people with disability. This can mean a loss of independence and reduced participation in society, which in turn can lead to less choice and opportunity to fulfil other ambitions in life.

The availability of goods and services via the internet and other digital networks has the potential to provide equal access for people with disability, and to provide access more broadly, more economically and more quickly than is possible using other delivery methods. Equality of access to digital goods and services can enable autonomy and lifestyle choices. It also leads to greater equality of access to services such as health, education, employment and recreation. However, digital options do not always guarantee accessibility, nor does every new technology provide equal access by default.

Technology has evolved since the Disability Discrimination Act was introduced. The ways in which goods and services are accessed and developed has continued to change and we now predominantly operate in a digital environment. Accessibility standards have evolved as well. Irrespective of changes in technology, the fundamental questions under the Disability Discrimination Act are:

- Does the way in which the good or service is provided discriminate against people because of disability?
- What actions have been taken to eliminate discrimination?

These Guidelines will help to answer the above questions in the context of the provision of digital goods and services. They will assist by clarifying the requirements of the Disability Discrimination Act in this area and explain how compliance can be best achieved.

Who should read these guidelines?

This document is written for a broad audience. The key audience is people in organisations who have obligations under the Disability Discrimination Act to not discriminate against people because of disability when providing digital goods and services.

This includes:

- C-suite executives who are accountable for the quality of digital goods and services
- organisation leaders such as managers, principals, Boards / Directors
- creators of digital goods and services such as designers, developers, publishers and educators
- operators of user content hosts such as social media platforms
- suppliers or companies who build or sell digital goods and services
- procurers of digital goods and services such as procurement professionals
- employers who deploy digital technologies for use by staff
- digital accessibility practitioners
- ICT professionals and leaders
- compliance professionals - generalists and specialists such as those working in Data Privacy, Corporate Affairs, Information Security and Human Resources
- legal professionals working in or advising organisations.

The audience for these Guidelines also includes people with disability and their representative organisations, disability peak bodies, and advocates. The Guidelines will assist them with understanding and exercising their right to non-discrimination in the digital world.

Chapter 1 | Legal and human rights obligations

What is the Disability Discrimination Act?

Anti-discrimination laws in all Australian federal, state and territory jurisdictions prohibit discrimination on the basis of disability across many areas of public life.

The Disability Discrimination Act is the federal law that makes discrimination on the ground of disability unlawful in defined areas of public life. It aims to eliminate discrimination, as far as possible, against people with disability.

Under the Disability Discrimination Act, there are two types of unlawful discrimination.

- 'Direct' discrimination happens if a person is treated less favourably because of disability.[2]
  - For example, a social media platform that refuses membership to any person with disability.
- 'Indirect' discrimination happens when a person with disability is required to comply with a requirement or condition which they cannot comply with because of their disability and the requirement or condition is not reasonable.[3]
  - For example, a lift selection panel in a multi-storey building only provides visual directions to indicate which lift should be used.

Who is covered under the Disability Discrimination Act?

The Disability Discrimination Act applies to any disability that a person currently has, once had, may have in future, or is assumed to have.[4] It also covers people with disability who use disability aids or assistance animals or have the support of a carer. The law also extends to associates, such as friends, family, work colleagues, and support people of a person with disability.[5]

What is covered by the Disability Discrimination Act?

Under the Disability Discrimination Act, it is against the law to discriminate against a person because of disability in the areas of:

- employment
- education

- access to premises used by the public
- provision of goods, services and facilities
- accommodation
- buying land
- activities of clubs and associations
- sport
- administration of Commonwealth Government laws and programs.

What digital products are covered by the Disability Discrimination Act?

Section 24 of the Disability Discrimination Act specifically relates to the provision of goods, services, and the availability of facilities, whether paid for or free.

It also covers the terms and conditions and the way in which goods and services are provided.

'Services' is defined in the Disability Discrimination Act as including:

- banking, insurance, superannuation and the provision of grants, loans, credit or finance
- entertainment, recreation or refreshment
- transport or travel
- telecommunications
- services of the kind provided by the members of any profession or trade
- government services, including those provided by a local government body.[6]

Any digital good or service created for people to consume, engage with and/or control, should be designed to provide equal access of use by all to reduce the risk of discrimination. These include:

- internet-based technologies, non-internet technologies and systems that use both
- digital content, applications, systems, and services, including self-service kiosks and systems required to complete a task at work
- digital interfaces including physical devices embedded with sensors, software, and other technologies for the purpose of connecting and exchanging data with other devices and systems over the internet.

Digital goods and services include but are not limited to the following types of technology:

- web sites, including intranets, ecommerce and any service with a browser interface
- digital documents, books, and learning materials
- emails and attachments to emails
- Software as a Service (SaaS) and Platform as a Service (PaaS) as cloud-based services
- software, including mobile applications and games
- artificial intelligence (AI) generated services, including the AI platform itself
- methods including CAPTCHAs and two-factor authentication used to gain access to online services
- facial recognition and other biometric technologies used to gain access to services
- Extended Reality (XR) including Virtual and Augmented Reality (VR & AR)
- digital wallets, payment systems and terminals
- automated teller machines (ATM), ticket machines and digital kiosks
- QR codes and other systems used to scan information, load webpages or provide product help
- digital wayfinding, including mapping applications
- digital interfaces to physical objects including home and office printers, fixed and mobile telephone equipment, routers and modems, musical equipment, household appliances such as washing machines and dryers, dish-washers, ovens, TVs and set-top boxes, home medical appliances, environment controls, lift controls and wearables
- digital interfaces to the Internet of Things (IoT) including physical objects embedded with sensors, software, and other technologies for the purpose of connecting and exchanging data with other devices and systems over the internet
- Chatbots and other automated response systems including the use of AI in recruitment and eCommerce.

Maguire v Sydney Organising Committee for the Olympic Games (No 2) [2000] HREOCA 31 (24 August 2000) (Maguire)

Maguire is a decision made by the Commission when it was known as the Human Rights and Equal Opportunity Commission (HREOC).

Mr Maguire, who is blind, complained that he was unlawfully discriminated against by the Sydney Organising Committee for the Olympic Games (SOCOG) because its website was not accessible him. SOCOG argued that to make its website compatible with the World Wide Web Content Accessibility Guidelines (W3C Guidelines) would impose an unjustifiable hardship.

The Commission decided that the provision of information on the website is a 'service' within the meaning of the Disability Discrimination Act, and that SOCOG had directly discriminated against Mr Maguire. This was due to the manner in which SOCOG "used its computer technology" to provide the service, such that the information was made available to sighted persons but unavailable, or only party available, to a blind person because of their disability.

The Commission also considered unjustifiable hardship and found that the provision of an accessible website for Mr Maguire and other vision impaired persons would constitute a very considerable benefit and that the consequently detriment to SOCOG would be modest. Therefore, SOCOG could not avoid liability for its unlawful discrimination by its claim of unjustifiable hardship.

Reasonable adjustments

It is a requirement under the Disability Discrimination Act to make changes to reduce barriers for people with disability. These are known as 'reasonable adjustments'. Reasonable adjustments are changes to a process, product or environment that remove barriers for people with disability. This allows people with disability to access goods and services on an equal basis with others.

The Disability Discrimination Act says that a failure to provide 'reasonable adjustments' to a person with disability may amount to direct or indirect unlawful discrimination. Reasonable adjustments must be provided so that a person with disability can access goods and services, unless it would impose an unjustifiable hardship on the individual or organisation concerned. Adjustments have to be made both for consumers of goods and services, and for any employees of an organisation that provides goods and services.

The purpose of imposing a duty to make reasonable adjustments is to eliminate discrimination, to the extent possible, by making goods and services safe and accessible for people with disability. The law

allows a person with disability to request a reasonable adjustment, as a recognition that not all general accessibility measures will be appropriate for all individuals.

Employers and educational authorities also have an obligation to ensure that they make reasonable adjustments to any digital goods and services they require their staff or students to use. It can create health and safety risks if people with disability are required to use technology that is inaccessible to them. The Australian Government can provide financial assistance for workplace adjustments for people with disability through the Job Access Program.[7]

What is unjustifiable hardship?

In some circumstances, it may be unreasonable for adjustments to be made if it will place an 'unjustifiable hardship' on a person or organisation. For example, an adjustment may cause unjustifiable hardship if it would be far too expensive, difficult, time consuming or cause other hardship to the person or organisation. Unjustifiable hardship is based on an assessment of what is fair and reasonable in the circumstances.

Section 11 of the Disability Discrimination Act provides that all relevant circumstances of a particular case must be taken into account in determining whether a hardship that would be imposed on a person or organisation is unjustifiable. These circumstances include:

- the benefit or detriment of the adjustment for the person with disability, for others with the same disability, for the organisation making the adjustment and/or for the community generally
- the effect of the disability of any person concerned
- an estimate of the cost of making the adjustment bearing in mind the person or organisation's financial circumstances
- the availability of financial and other assistance to the person or organisation making the adjustment.

Examples of other circumstances that can be considered by a person or organisation when deciding whether an adjustment would cause unjustifiable hardship include:

- a thorough consideration of how an adjustment might be made
- the impact of the disability on a person with that disability if no adjustment is made
- direct discussion with the person requesting an adjustment
- consultation of relevant sources of advice.

It is up to the person or organisation alleging unjustifiable hardship to demonstrate how making the adjustment would result in unjustifiable hardship.

The defence of unjustifiable hardship in the provision of digital goods and services could include factors as:

- the array of national and international standards on digital accessibility that have been in place and updated since 1999
- widespread availability of practical advice from industry experts on creating and or procuring accessible digital goods and services
- growth of mainstream tools that have the capacity to assist in the creation of accessible goods and services
- growth of mainstream devices that include accessibility features as part of the operating system.

The best way to avoid discrimination remains being inclusive by design and accessible by default. These Guidelines are intended to assist in achieving that objective.

The Convention on the Rights of Persons with Disabilities

The United Nations *Convention on the Rights of Persons with Disabilities* (CRPD) is an international human rights treaty that explicitly addresses the rights of persons with disability. The purpose of the CRPD is to promote, protect and ensure the full and equal enjoyment of all human rights and fundamental freedoms by all persons with disabilities, and to promote respect for their inherent dignity.

Australia ratified the CRPD in 2008, which means that it accepts the obligation to protect and promote the rights of people with disability set out in the CRPD in Australia's domestic laws and policies. Once a country has ratified the CPRD, they become what is known as a "State Party."

One of the general principles of the CRPD is non-discrimination. The rights articulated in the CRPD affirm the right of people with disability to be treated on an equal basis with others. In particular, the CRPD places an obligation on governments to ensure people with disability can access digital products and services on an equal basis with others.

All levels of Governments are responsible for meeting Australia's obligations under the CRPD. However, the whole of society has an active role to play in upholding the rights established by the CRPD and the Government is required to 'urge' and 'encourage' other sectors.

Article 3 of the CRPD sets out general principles, including non-discrimination and equality of opportunity, and **Article 4** sets out general obligations to 'ensure and promote the full realisation of all human rights and fundamental freedoms without discrimination on the basis of disability'.[8] The following sub-sections of Article 4 relate to the obligations placed on State Parties to promote the full realisation of rights, in the area of digital accessibility:

- To undertake or promote research and development of universally designed goods, services, equipment and facilities, with the minimum possible adaptation and the least costs;
- To promote universal design in the development of standards and guidelines;
- To promote the development, availability, and use of new technologies, including information and communications technologies, mobility aids, devices and assistive technologies, giving priority to technologies at an affordable cost;
- To provide accessible information about mobility aids, devices and assistive technologies, including new technologies, as well as other forms of assistance, support services and facilities.

Article 5 requires that State Parties 'recognise that all persons are equal before and under the law' and 'shall prohibit all discrimination on the basis of disability'.[9]

Article 9 outlines obligations to ensure people with disability have equal access to places, facilities and services provided to the public. It outlines that State Parties that have ratified the CPRD must take appropriate measures to identify and eliminate barriers to people with disability accessing technology, including by implementing minimum accessibility standards, and promoting the design and development of accessible technology.[10]

Article 21 requires States Parties to take all appropriate measures to ensure that people with disability can exercise the right to freedom of expression and opinion, including the freedom to seek, receive and impart information and ideas on an equal basis with others and through all forms of communication of their choice.[11] This includes:

- Providing information intended for the general public to persons with disabilities in accessible formats and technologies appropriate to different kinds of disabilities in a timely manner and without additional cost
- Urging private entities that provide services to the general public, including through the Internet, to provide information and services in accessible and usable formats for persons with disabilities;

- Encouraging the mass media, including providers of information through the Internet, to make their services accessible to persons with disability

Digital accessibility is an enabler of the realisation of all rights outlined in the CRPD, and critical to the enjoyment of civil, political, economic, social, and cultural rights.

What is good practice?

Adopting the principles of Universal Design will help you meet your obligations under the Disability Discrimination Act and the CRPD. Chapter 3 outlines the key technical standards and guidelines which detail the minimum criteria which should be met to avoid the risk of discriminating against people with disability. The following section provides non-technical and general guidance.

Advice on meeting the requirements of the law and delivering equal access

Enabling equal access to digital goods and services looks like:

1. Recognising people with disability as part of the audience and users for all digital products or services
2. When procuring a digital product or service, including design and development services, include accessibility in the tender documentation
3. When developing a digital product or service, include accessibility considerations throughout the project and especially during design (consider co-design with people with disability), development and testing
4. Applying the relevant Australian Standards such as the Web Content Accessibility Guidelines or other standards listed in Chapter 3
5. Testing the digital product or service with a range of people with disability, including people who rely on assistive technologies
6. Providing an accessibility statement that explains how standards have been met
7. Providing accessible means for people with disability to get in touch with your organisation if they encounter difficulties accessing your digital product or service
8. Ensuring that accessibility is maintained over time within any changes or enhancements to your digital product or service
9. Developing a Diversity and Inclusion Plan for your organisation and ensuring digital accessibility is part of that plan.

Chapter 2 on equitable access provides detailed information and adds considerations such as the business case for addressing digital accessibility and the need to include accessibility at all stages to avoid discrimination.

Read the W3C Web Accessibility Initiative's 'Stories of Web Users' to learn about how people with disability can be provided with equal access to the web.[12]

Universal design

Universal Design is about designing products so that they can be accessed, understood, and used to the greatest extent possible by all people. There are seven principles underpinning universal design to guide the design of environments, products and communications. They are:

1. **Equitable Use**
   the design is useful and marketable to people with diverse abilities

2. **Flexibility in Use**
   the design accommodates a wide range of individual preferences and abilities

3. **Simple and Intuitive Use**
   use of the design is easy to understand, regardless of the user's experience, knowledge, language skills, or current concentration level

4. **Perceptible Information**
   the design communicates necessary information effectively to the user, regardless of ambient conditions or the user's sensory abilities

5. **Tolerance for Error**
   the design minimises hazards and the adverse consequences of accidental or unintended actions

6. **Low Physical Effort**
   the design can be used efficiently and comfortably and with a minimum of fatigue

7. **Size and Space for Approach and Use**
   appropriate size and space is provided for approach, reach, manipulation, and use regardless of user's body size, posture, or mobility.[13]

These principles overlap with the Web Content Accessibility Guidelines principles, those around use of everyday or plain language, and the Australian Standard for Accessibility Requirements for ICT Products and Services (AS EN 301 549) requirements discussed in Chapter 3.

Keeping up with fast-changing technology

Mattiazzo/Innes vs CBA settlement

Mr Graeme Innes and Ms Nadia Mattiazzo, who are vision impaired, made complaints under the Disability Discrimination Act to the Commission about the accessibility of the Commonwealth Bank of Australia's (CBA) touch-screen 'Albert' EFTPOS machine. While the complaints did not settle at the Commission, the matter reached a settlement in the Federal Court.

CBA agreed to upgrade Albert's software to enhance accessibility, provide CBA merchant customers additional training and support about the accessibility feature and its function, and make the training available to card holders who are blind or vision impaired. CBA also endorsed the Accessibility Principles for Banking Services which had recently been launched by the Australian Banking Association.

Technology is developing at a fast pace, with changes happening more rapidly than legislation can keep up with. Fortunately, many mainstream improvements are also beneficial for people with disability. For example:

- Improvements built-in such as
  - Text to speech on mobile devices and computers
  - Speech recognition mobile devices and computers
  - Haptic and audio feedback on mobile devices
- Dark mode on mobile devices
- Settings to 'reduce motion'
- More home automation devices and smart speakers that can be controlled through smart phones

On the other hand, the increased use of display screens, touch-screens and soft controls on devices and household appliances can introduce challenges to many people with disability if no alternative means of access is provided.

The Australian Human Rights Commission's 2021 report on Human Rights and Technology identified two issues in particular which are becoming significant; artificial intelligence (AI) and biometric data.

Artificial intelligence (AI)

At the time of publication of these Guidelines, AI is a topic of public debate which includes discussions on how AI is impacting people with disability and digital accessibility. AI is widely used, from generating image descriptions for people who cannot see the images to web page plug-in overlays that allegedly improve the accessibility for people with disability. However, in 2025 AI applications are not sophisticated enough to be reliable in most situations. It is likely that this will continue to be so in the immediate future, though it is expected that there will be improvements over time.

There is a growing recognition that, as in many areas of life, algorithms that underpin technology and AI re-enforce biases and ableist assumptions. This could result in discrimination, for example, when selecting suitable candidates for employment, making equipment purchasing decisions, recommending services, courses of study or participants in any number of community activities.

Algorithms and AI should not be relied upon to enable equal access or to prevent discrimination. It is critical that the data underpinning these systems incorporate data on disability.

Biometrics

Biometric information is increasingly being used to control access to digital products and services. Examples of biometric methods include the use of fingerprints, eye retinal patterns, and voice and face ID. These methods can have a disproportionate impact on some people with disability, who may not be able to provide such information easily or in some cases at all.

Providers of digital goods and services should ensure that products that use biometric methods also have alternative methods of identification and control available for people with disability who cannot use biometric methods.

Robotics

Robotics is another emerging technology which is becoming part of more people's lives. On the positive side, robot devices are being used in home appliances such as vacuum cleaners and lawn mowers and robotics are being built into medical equipment some of which assist people with disability in everyday life. There is also an emergence of robots as companion 'toys' and it is likely that they will soon be a serious option as a guidance and mobility aid.

On the other hand, robots are increasingly replacing humans throughout employment and service provision areas. Many people, including people with disability, are at risk of having their livelihoods impacted as a result.

Chapter 2 | How to provide equal access to digital goods and services

Introduction

This Chapter provides further information and adds consideration such as the business case for addressing digital accessibility and the need to include accessibility in a risk register like an organisation does with privacy and security.

Business Benefits

There is a considerable body of international evidence which highlights the economic, social, and personal benefits of providing equal access. The W3C's Business Case for Digital Accessibility outlines the key benefits, as well as the risks of not addressing accessibility adequately.[14] The key points are supported by industry case studies.

This is reinforced by the Centre for Inclusive Design's (CID) 2019 report 'The Benefit of Designing for Everyone,'[15] which states;

> Inclusively designed products and services that have edge users in mind, can reach and benefit up to four times the size of the intended audience and enable organisations to increase their revenue by growing the size of their target markets.[16]

As noted by then Chief Economist at PwC Australia at the launch of the CID report.

> Inclusive design is a no-regrets process that creates significant benefits which are currently being left on the table. It is an overlooked step in maximising the potential of business and ensuring a more productive nation. Designers, companies, and government all have a role to play, by designing, investing, and legislating with difference in mind, so that a design process that is inclusive becomes standard practice.[17]

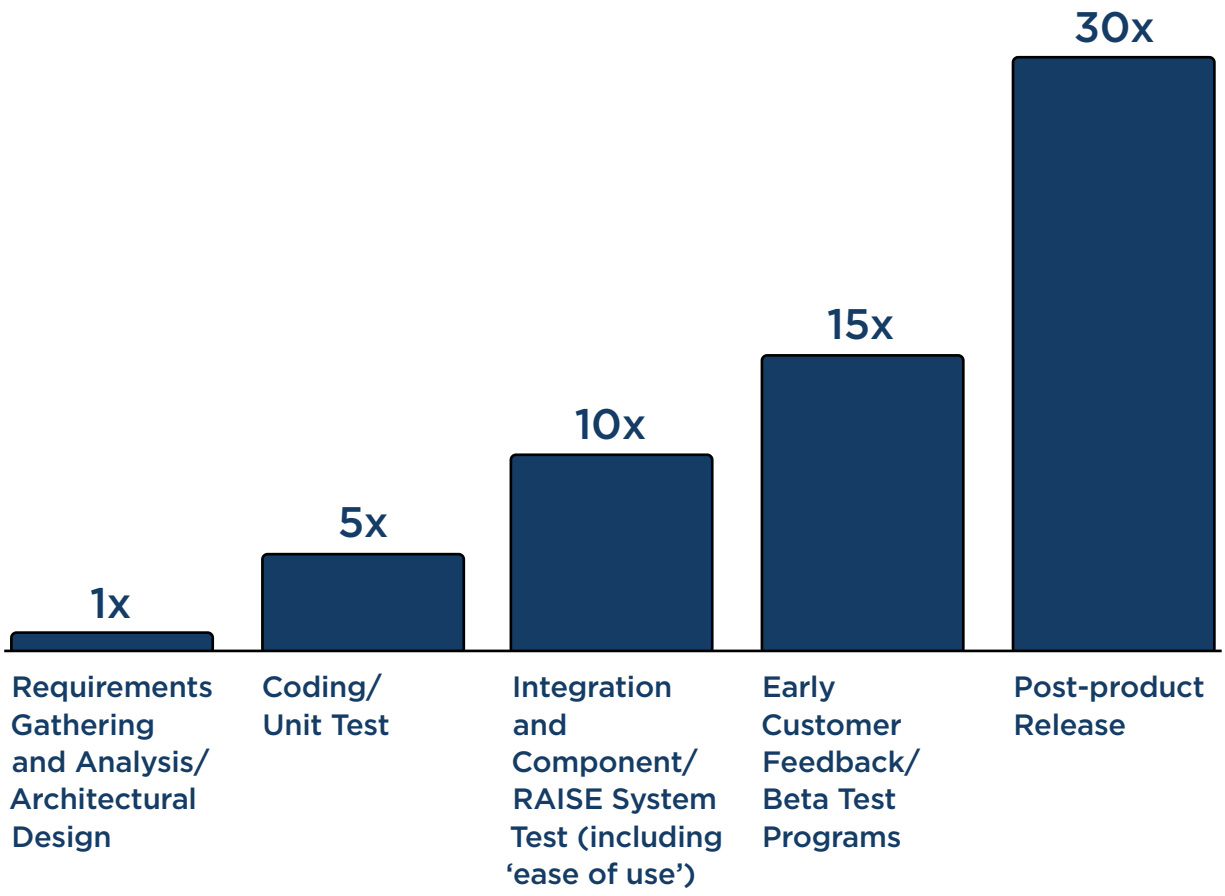
Advice from the W3C highlights that there are significant benefits in involving people with disability early and throughout different phases of research, designing, building, procuring or implementing digital goods and services.[18]

Early involvement of people with disability in the discovery, design, or procurement of a new or upgraded digital good or service:

- provides invaluable insights into people's needs and current barriers they face
- informs thinking about including features that are essential for equal access and useful for all
- enables organisations to reach a wider audience from the beginning.

The National Institute of Standards and Technology (NIST) confirms that it is more costly to repair any defect later in the development life cycle.[19]

Figure 1 | Relative Cost to Repair Defects When Found at Different Stages of Software Development (Example Only)



(**X** is a normalized unit of cost and can be expressed terms of person-hours, dollars, etc.)

Implementing a strategic approach to providing equal access

It is critical for accessibility to be considered at all stages of the development cycle and/or procurement process if the delivery of digital goods and services are to provide equal access of use.

Organisations and businesses should examine how their systems intentionally support or unwittingly hinder accessibility. Organisation policies, key business processes, organisational culture, and management structures need to work in a consistent, coherent, repeatable, and measurable fashion for accessibility to become sustainable and seen as business as usual.

To intentionally embed equal access, it is recommended that organisations begin by adopting an accessibility maturity model such as the W3C's Accessibility Maturity Model.[20] The use of maturity models provides a consistent framework that organisations of any size can utilise to evaluate, benchmark, and improve their business processes to produce or procure digital goods and services that are accessible to people with a disability be they staff, visitors or customers.

Maturity models align with and are supported by the implementation of several Australian and international standards that either relate to accessibility or to organisational governance. These are discussed in full in Chapter 3 and include:

- Web Content Accessibility Guidelines (WCAG[21])
- AS ISO/IEC 30071.1 (Information technology — Development of user interface accessibility, Part 1: Code of practice for creating accessible ICT products and services)[22]
- AS EN 301 549 (Accessibility requirements for ICT products and services)[23]
- AS ISO 31000 (Risk management - Guidelines)[24]
- AS ISO 37301 (Compliance Management Systems - Requirements with guidance for use)[25]

The implementation of the W3C Accessibility Maturity Model and Australian Standards could be included as part of an organisation's Disability Action Plan. See the Commission's guidance on developing Disability Action Plans. Most importantly, the adoption of these standards supports Disability Action Plans progressing from intentional to deliverables.

Importance of seeking expert advice

As individuals and organisations seek to improve accessibility of the digital goods and services they provide, it is encouraged to seek expert advice and up to date information when:

- embedding accessibility within the development cycle.
- including accessibility within the procurement process.
- developing and implementing a strategic approach to providing equal access.

Such advice can improve agility of adoption and implementation of mindsets and methods that consistently deliver digital goods and services that are inclusive by design and accessible by default. As part of developing policies, goods, services, and review mechanisms, it is recommended to always co-design with the people who are most affected by the work being done: people with disability. The goal is for organisations to have processes and practices that are designed to deliver a consistently accessible and inclusive experience for employees, customers, and stakeholders.

Expertise is available from many consulting firms that can be found through an online search, but also see:

- OZeWAI consultant directory
- IAAP organisational directory

Accessibility in the development cycle

Design, technical and usability advice on delivering digital goods and services that provide equal access will continue to change due to ongoing technical innovations as well as the evolution of standards such as the WCAG and AS EN 301 549.

As stressed earlier, taking account of accessibility throughout the process, rather than just at the end, is more efficient and cheaper. Consider accessibility and the needs of people with disability during:

- ideation and specification
- user research
- design
- content authoring
- technical development
- quality assurance
- usability testing
- maintenance

AS ISO/IEC 30071.1[26] provides some guidance around this. If there is no in-house expertise to address accessibility during some of these stages, consider bringing expertise in on a casual, short-term, or longer-term basis.

Skills development

Free resources provided by W3C can help individuals, organisations and businesses enhance their skills in this area:

- accessibility fundamentals and in particular how people with disability use the web.
- guidance for writing, designing, and developing for accessibility.
- digital accessibility foundations online course which builds the foundations needed to make your digital technology accessible.
- resources to help evaluate accessibility conformance to determine how well content, applications or services meet accessibility standards.

The W3C's guidance can and should be extended upon through establishing personal and organisational accessibility learning pathways that might incorporate:

- joining local digital accessibility community groups
- attending web and digital accessibility conferences and other events
- following accessibility discussions on social media

- leveraging the free advice many major technology companies provide on how to provide equal access of use utilising their products
- participating in public or in-house role-specific accessibility training – W3C maintains an accessibility course list.

Accessibility in the procurement process

Procurement can be a key enabler of equal access. Whether the digital good or service is created in-house, purchased 'off the shelf', or a hybrid combination, it must deliver equal access of use.

Governments around the world recognise this and are striving to achieve their social and economic objectives by ensuring the goods and services purchased are accessible by design, where possible, so that people with disability can use them without adaptation. Many private sector organisations are also recognising the importance of a diversified workplace – accessible ICT supports this.

The Australian Government's *Commonwealth Procurement Rules* require considerations of any applicable Australian Standard. As a result, AS EN 301 549, Accessibility requirements for ICT products and services, should be required for any ICT procurement. Examples of action taken by other governments include U.S. Federal Government's Section 508[27] and in Europe the European Accessibility Directive[28] and European Accessibility Act.

Comparison of these regulations highlights consistency of global expectations for:

- vendors to deliver accessibility in their goods and services by default
- organisations procuring digital goods and services, to embed accessibility requirements in the procurement process.

Benefits of accessible procurement

There are significant benefits of embedding accessibility in the procurement process, including:

- attracting the best possible talent from the widest possible field
- retaining existing staff as their circumstances change with age, illness, or accident
- minimising and removing barriers to engaging with the customers they wish to reach and serve
- managing risks through achieving compliance with obligations under relevant standards and legislation.

Steps in accessible procurement

Organisations are encouraged to include an accessibility requirement as an integral element in all procurements of digital goods or services or when negotiating a renewal of an existing contract. This particularly applies to the procurement of any digital goods and services that have a user interface or control mechanism, as well as digital content. Accessibility requirements should be viewed and addressed at the same level and manner as privacy and security requirements in the procurement process.

1. Successful procurement processes for digital goods and services exhibit similar features such as:

    - including accessibility requirements in Requests for Quote/Purchase (RFQ/P) that reflect the function performance statements in AS EN 301 549. These statements are outlined in how equal access is defined
    - collecting and comparing verifiable evidence about how the digital good or service meets requirements
    - removing digital goods or services from the selection process that fail to meet core accessibility requirements. (Similar to removing goods or services that fail to deliver core cybersecurity requirements)
    - allocating a weighting or level of importance to accessibility as part of the overall procurement process
    - including end users in the procurement decision making process.
    - ensuring buyers are aware of their rights under Australian Consumer law and more broadly, the *Competition and Consumer Act 2010* (Cth) related to goods and services that are either not of acceptable quality, fail to match the provided description, or unfit for purpose.

2. In some situations, the procurement process may identify that none of the digital goods or services being assessed meet all function performance statements from AS EN 301 549. In these situations, a remediation procurement process could be implemented. This involves:

    - holding discussions with preferred vendors about their roadmap to address the accessibility gaps in the digital good or service.
    - identifying a vendor who agrees to resolve the accessibility gaps in their product within agreed timeframes.
    - implementing a phased payment schedule where payments are linked to delivery of the missing agreed accessibility features. This approach is like progress payments in the construction industry.

Major professional bodies and not-for-profits around the world including Australia provide advice on accessible procurement. Some examples include:

- CAUDIT's accessible ICT procurement implementation guide. Whilst the guide was originally designed for use in higher education, the guide is highly relevant and applicable to any organisation undertaking ICT procurement
- University of Melbourne's Project management – Procurement resource
- Australian Disability Network's Procurement resource
- NSW Government's Buying accessible digital products and services everyone can use
- G3ict's Buy ICT 4 All Portal
- Disability:IN's Accessible Procurement Toolkit.

Some digital accessibility consultancies can provide accessible procurement support and advice.

Accessibility and risk management

Inaccessible ICT is a systemic problem which can be approached by applying the principles of risk management.

AS ISO 31000:2018 'Risk management – guidelines' outlines an organisational approach to dealing with risk. It breaks down risk assessment into a series of steps such as risk identification, analysis, evaluation and treatment. The language and principles of risk management can usually be understood by everyone across an organisation, regardless of whether they have subject matter expertise in accessibility.

Essential governance questions for leaders

An essential element of risk management is leaders knowing that they have systems and processes in place to deliver on obligations such as accessibility and knowing that they are actually working. Implementing a consistent governance framework is critical. The essence of good governance can be distilled to three fundamental questions.

1. What does 'good' (success) look like?
2. What systems and processes are in place to consistently deliver 'good'?
3. How do you know those systems and processes are working? (What metrics do you have?)

Context

A good first step in the risk management process is to consider what are the organisation's key activities and audiences. For an airline, that would be getting passengers safely from A to B. For a bank, that might be allowing customers to deposit, withdraw and transfer funds. For a university it might be teaching, learning and research.

Risk Assessment

Risk assessment involves identifying, analysing and evaluating risk.

1. Risk Identification

- Risk identification involves finding and describing risks that might prevent an organisation achieving its objectives. In the case of ICT, one basic objective is that everyone can access the products and services on offer.
- Accessibility risks can be identified during procurement by including questions regarding the accessibility of the product, the vendors accessibility capacity and future plans in the request for proposal or quote (RFP or/ RFQ). You can seek to obtain a copy of any accessibility audits which have been conducted, often in the form of an Accessibility Conformance Report (ACR).
- In addition, questions can be asked regarding the vendors processes for testing, logging and remediating accessibility defects, together with their timeline for compliance.

2. Risk analysis

- Having obtained information from vendors, responses should be reviewed to establish what level of confidence the organisation or business can have in their ability to deliver an accessible product or fix outstanding defects.
- An accessibility audit could be conducted, using a standard version of the system or undertake some usability testing with people with disability.

3. Risk evaluation

- The information provided by the vendor and in the analysis should inform decision making and recommendations for next steps.

Table 1 | Risk Assessment Stages

Establish Context	▪ Project Budget ▪ Number of users ▪ Frequency of use ▪ Market Scan
Risk Identification	▪ RFP Questions ▪ Accessibility Conformance Report (based on a VPAT) ▪ Automated Testing
Risk Analysis	▪ Review RFP Responses ▪ Review Conformance Report ▪ Accessibility Audit ▪ User Testing
Risk Evaluation	▪ Report and Recommend ▪ Project Steering Committee
Risk Treatment	▪ Avoid Risk ▪ Share Risk ▪ Remove Risk Source ▪ Change Consequences ▪ Retain Risk

Risk Treatment

It is common for software products to have accessibility defects, and there are a range of approaches to treating risks.

1. Avoid risk

An organisation can simply refuse to accept any products or services with accessibility defects, but it should be recognised that very few products have no defects.

2. Share risk

Organisations could include accessibility clauses to the contract with product vendors. Some vendors will be reluctant to make guarantees in relation to accessibility. That should serve as a warning, especially if it contradicts the RFP response regarding accessibility.

3. Remove risk source

Organisations may choose to fix the defects in the application, for example by customisation, or they might mitigate the defects, for example by creating guidelines for web publishers that minimise defects.

4. Change consequences

Access can be provided to individuals via alternate access, or a 'Plan B'. This might involve producing an Alternate Access Plan which details what will happen when someone is unable to access the system. Adapting to meet the needs of individuals is a reasonable adjustment.

5. Retain risk

Retaining risk involves deciding that accessibility defects can't be fixed or waiting for future fixes. Vendor claims that they are working towards accessibility compliance should be accompanied by a remediation roadmap with specific dates. Where risk has been retained, it can be recorded in an accessibility risk register.

Table 2 | Risk Assessment Options

Avoid Risk	Don't buy
Share Risk	Add accessibility clauses to contract
Remove Risk Source	▪ Fix defects ▪ Customisation ▪ Mitigate defects
Change Consequences	Provide reasonable accommodation via alternate access
Retain Risk	▪ Can't fix. ▪ Remediation roadmap ▪ Accessibility Risk Register

Monitoring and Review

An accessibility risk register can assist with monitoring, planning, gathering information, recording and communicating accessibility risks. Ideally, accessibility risks should form part of an organisations overall risk treatment and audit activities.

Accessibility and contracts

This right to equal access exists regardless of whether the digital good or service has been procured from a third party as discussed in the Guideline. In short, organisations can contract out the provision of digital goods or services but they cannot contract out their equal access responsibilities. Accordingly, it is key that warranties regarding accessibility are included in the contract of service.

Alternate access

Despite best efforts during the procurement process, there will often be times when ICT is purchased that falls short of required accessibility standards. In these cases, as part of managing risk, it is important that the purpose and limitations of the ICT are clearly articulated, along with alternative means of access for affected users.

An Alternate Access Plan is a document that describes how information and services will be made available to individuals with disability until they can be made accessible. The plan does not require the person to have an identical experience but should offer an experience that can provide a similar service as that gained by people who do not have disability.

Chapter 3 | Standards and Guidelines on digital accessibility

Introduction

This Chapter includes brief summaries of technical standards and guidance mentioned in the Guidelines. As explained in the Guidelines, the Disability Discrimination Act requires that providers of goods and services do not discriminate against persons with disability. The technical standards and guidance described in this document will assist those developing digital products to meet this requirement.

The versions of the listed standards and guidelines are current as of February 2025; newer versions can be released at any time and should be used when available.

W3C Standards

The W3C Guidelines and Technical Reports are the international standards for the web and mobile apps.

Web Content Accessibility Guidelines (WCAG)

The latest version is WCAG 2.2 (released in October 2023).

Organisations should conform with WCAG 2.2 at a minimum Level AA and consider appropriate Level AAA success criteria such as video transcripts, audio contrast, clear links and section headings.

The Web Content Accessibility Guidelines (WCAG) are an internationally recognised set of recommendations for improving web accessibility. They explain how to make digital services, websites and apps accessible to everyone.

Australia has followed the Worldwide Web Consortium (W3C) Web Content Accessibility Guidelines (WCAG)[29] since the first version was released in 1999. The applicability of WCAG under the Disability Discrimination Act was upheld in the Commission's decision *Maguire v Sydney Organising Committee for the Olympic Games (No 2)* [2000] HREOCA 31 (24 August 2000).

WCAG is the accepted international standard for web accessibility; it also applies to non-web documents, apps, software and digital interfaces.

WCAG has been updated several times since 1999 and is required by government and non-government sectors alike.

WCAG 2.2 has four principles – web services need to be:

1. Perceivable

Information and user interface components must be presentable to users in ways they can perceive.

- This means that users must be able to perceive the information being presented (it cannot be invisible to all of their senses)

2. Operable

User interface components and navigation must be operable.

- This means that users must be able to operate the interface (the interface cannot require interaction that a user cannot perform).

3. Understandable

Information and the operation of user interface must be understandable.

- This means that users must be able to understand the information as well as the operation of the user interface (the content or operation cannot be beyond their understanding)

4. Robust

Content must be robust enough that it can be interpreted reliably by a wide variety of user agents, including assistive technologies.

- This means that users must be able to access the content as technologies advance and (as technologies and user agents evolve, the content should remain accessible)

Conformance with WCAG 2.2 requires that 'all Web pages in the process conform at the specified level or better' and that 'only accessibility-supported ways of using technologies are relied upon to satisfy the success criteria'.

WCAG has several supporting documents to help understand the criteria and apply potential techniques.

Authoring Tool Accessibility Guidelines (ATAG)

The latest version is ATAG 2.0 (released in September 2015).

Organisations creating tools that allow for user contributions should conform with ATAG 2.0 applying WCAG 2.2 instead of WCAG 2.0 as appropriate.

Authoring tools are software and services that "authors" (web developers, designers, writers, etc.) use to produce web content (static web pages, dynamic web applications, social media posts, etc.). Authoring Tool Accessibility Guidelines (ATAG) explains how to:

- make the authoring tools themselves accessible, so that people with disability can create web content, and
- help authors create more accessible web content, specifically enable, support, and promote the production of content that conforms to WCAG.

Accessible Rich Internet Applications (WAI-ARIA)

The latest version is WAI ARIA 1.2 (released in June 2023).

Organisations should use WAI ARIA appropriately for complex web applications.

WAI-ARIA, the Accessible Rich Internet Applications Suite, defines a way to make web content applications more accessible to people with disability. It especially helps with dynamic content and advanced user interface controls developed with HTML, JavaScript, and related technologies. Without WAI-ARIA, certain functionality used in Web sites is not available to some users with disability, especially people who rely on screen readers and people who cannot use a mouse. WAI-ARIA addresses this inaccessibility, for example, by defining ways for functionality to be provided to assistive technology. With WAI-ARIA, developers can make advanced Web applications accessible and usable to people with disability.

To support WAI ARIA, the W3C have also published the ARIA Authoring Practices Guide (APG) which recommends approaches to help web application developers make widgets, navigation, and behaviours accessible using WAI-ARIA roles, states, and properties. This guide describes considerations that might not be evident to most authors from the WAI-ARIA specification, which is oriented primarily at user agent implementers.

Furthermore, there are some rules about using WAI ARIA:

1. If possible, a native HTML element or attribute with the required semantics and behaviour built in should be used.
2. Native semantics should not be changed, unless necessary.
3. All interactive ARIA controls must be usable with the keyboard.
4. The following should not be used on a focusable element: role=”presentation” or aria-hidden=”true”.
5. All interactive elements must have an accessible name.

EPUB Standard for Accessible Digital Documents (EPUB)

The latest version is EPUB 3.3 (released in May 2023).

Organisations should consider using EPUB for publishing accessible digital documents; other formats may also be provided.

EPUB defines a distribution and interchange format for digital publications and documents. The EPUB format provides a means of representing, packaging, and encoding structured and semantically enhanced web content — including HTML, CSS, SVG, and other resources — for distribution in a single-file container.

Accessibility of EPUB publications was an essential consideration in the development of EPUB 3.3. As a result, the EPUB Accessibility specification has been updated and is now an integral part of the EPUB Standard.

There is also a comprehensive test suite that systematically tests all normative features of the specification. In conjunction with the release of EPUB 3.3, EPUBCheck has been updated to be fully compatible with EPUB 3.3.

Additional W3C guidance

Organisations should consider the following additional W3C guidance in the development of digital products and services and in the preparation and publishing of digital information.

Applying WCAG to Non-Web ICT

The W3C have written 'Guidance on Applying WCAG to Non-Web Information and Communications Technologies' (WCAG2ICT) to assist organisations to apply WCAG to other ICT products, particularly non-web documents and software.

Collaboration Tools Accessibility User Requirements

This W3C Note about accessibility requirements in collaboration tools outlines various accessibility-related user needs and requirements for both synchronous and asynchronous web-based collaboration tools based on various collaborative engagement scenarios. The Note is particularly relevant to software developers contributing to the development of collaborative experiences. It addresses various aspects of collaborative tool accessibility including managing complexity, delineation between content creation and collaboration management, and social considerations.

Cognitive Accessibility Guidance

Cognitive impairment can impact how people process information.

Whilst some of the WCAG Success Criteria do increase accessibility for people with cognitive impairment, this is often more by chance than design. Further guidance is therefore available to assist in the creation of content which will be more accessible to people with cognitive impairment.

See Cognitive Accessibility at W3C for an overview and also their informative guidance:

- Cognitive Accessibility Guidance — short design patterns (explained briefly in About Supplemental Guidance)
- Making Content Usable for People with Cognitive and Learning Disabilities — a longer document that covers many different aspects for many different design, development and content creation roles, including a discussion of the importance of Easy to Understand language or Easy Read

W3C Accessibility Maturity Model

The Accessibility Maturity Model is designed to work for any size organisation. From small consultancies and large enterprises to nonprofit/NGOs and government agencies, it provides actionable guides for establishing or improving policies, employee-communication, training, and tools. It also includes a way to measure and document organisational, cultural and technical capabilities.

Australian Standards

The following standards have all been published by Standards Australia as direct adoptions of International or European standards.

Accessibility Requirements for ICT Products and Services (AS EN 301 549:2024)

Supersedes AS EN 301 549:2020 and AS EN 301 549:2016

Requirements of AS EN 301 549 should be met for all digital products including hardware. However, as AS EN 301 549 references WCAG 2.1, WCAG 2.2 should be used where appropriate instead.

This Australian Standard directly adopts EN 301 549:2020 (V3.1.1) from Europe. It specifies the functional accessibility requirements applicable to ICT products and services, together with a description of the test procedures and evaluation methodology for each accessibility requirement. It incorporates WCAG 2.1 but is applicable more broadly than websites. AS EN 301 549 covers:

- Web
- Non-web documents
- Software
- ICT with two-way voice or with video capabilities
- Hardware
- Documentation and support services
- ICT providing relay or emergency service access

AS EN 301 549 also has two overarching functional performance statements to be met.

- The digital product, similarly to the WCAG principles, enables users to locate, identify, understand and operate functions in digital technologies.
- Any accessibility features within the good or service maintains the privacy of people using those features at the same level as other users.

In practical terms, AS EN 301 549 requires that digital goods and services must be able to be used equally and independently by people:

- with no or limited vision
- with no or limited perception of colour
- with no or limited hearing
- with no or limited vocal capability
- with limited manipulation or strength
- with limited reach
- with photosensitivity seizure triggers
- with limited cognition, language, or learning.

An HTML version of EN 301 549 is available from Accessibility Standards Canada as CAN/ASC - EN 301 549:2024.

Document management applications — Electronic document file format enhancement for accessibility, Part 1: Use of ISO 32000-1 (PDF/UA-1)' (AS ISO 14289.1:2017)

PDF files cannot be made fully accessible, especially on mobile devices. Utilising EPUB can ensure a fully accessible document is provided. Where PDFs are provided, they should meet the requirements of AS ISO 14289.1.

This Australian standard adopts ISO 14289-1:2014, which specifies the use of ISO 32000-1:2008 to produce accessible electronic documents through the inclusion of a variety of semantic information and defining requirements for conforming readers and conforming assistive technology.

This standard is developed and maintained by the PDF/UA Foundation. The Foundation also provides a PDF accessibility checker (PAC).

Copies of ISO 32000-2 (PDF 2.0) and ISO 14289 (PDF/UA) standards are available from the PDF Association for free.

Information Technology – Development of user interface technology, Part 1: Code of practice for creating accessible ICT products and service (AS ISO/IEC 30071.1:2022)

AS ISO/IEC 30071.1:2022 takes a holistic approach to the accessibility of information and communications technology (ICT) by combining guidance on implementing the accessibility of ICT systems (ICT accessibility) at

the organizational and system development levels. This standard is about strategy and policy for accessibility and applies to the adoption of any technical standard.

Risk management – Guidelines (AS ISO 31000:2018)

Accessibility is often treated as a nice-to-have. However, taking a risk-based perspective prioritises areas where problems are most likely to occur so they don't happen.

AS ISO 31000:2018 specifies guidelines on managing risk faced by organisations with the application of these guidelines able to be customised to any organisation. As one of the risk management standards, this standard provides a common approach to managing any type of risk and is not industry or sector specific.

Compliance Management Systems – Requirements with guidance for use (AS ISO 37301:2023)

AS ISO 37301:2023 specifies requirements and provides guidelines for establishing, developing, implementing, evaluating, maintaining and improving an effective compliance management system within an organisation. This document is applicable to all types of organisations regardless of the type, size and nature of the activity, as well as whether the organisation is from the public, private or non-profit sector.

Plain language, Part 1: Governing principles and guidelines (AS ISO 24495.1:2024)

AS ISO 24495.1:2024 establishes governing principles and guidelines for developing plain language documents. The guidelines detail how the principles are interpreted and applied. This document is for anybody who creates or helps create documents. The widest use of plain language is for documents that are intended for the general public. However, it is also applicable, for example, to technical writing, legislative drafting or using controlled languages.

Plain language helps people find what they need, understand it, and use it. Thus, plain language focuses on how successfully readers can use a document, rather than on mechanical measures such as readability formulas.

Australian Government standards

Digital Sourcing Consider First Policy

The Digital Sourcing Consider First Policy aims to guide agencies through early consideration of important factors that help investments meet their intended outcomes.

Principle 5 requires alignment with relevant whole-of-government requirements early to ensure that digital investments deliver their outcomes with lower cost and reduced effort. Digital investments must be designed for all users, including people with disability, older people, and those who find technology difficult.

The Commonwealth Procurement Rules contain mandatory requirements for applying Australian Standards, this is relevant to most investments subject to this policy. The Australian Standard for ICT Accessibility (AS EN 301 549:2024) discussed earlier is applicable to most ICT goods or services being procured by government.

Digital Experience Policy

The Australian Government released its Digital Experience Policy (DX Policy) in July 2024. This policy requires Australian Government agencies to be more inclusive in their digital offerings. In conjunction it released 3 new standards to complement the existing Digital Service Standard:

- Digital Inclusion Standard – aims to ensure services are designed to be inclusive, leaving no one behind
- Digital Access Standard – aims to improve service discoverability and ease of access points for all users
- Digital Performance Standard – sets criteria for monitoring and reporting on the performance of digital services

Collectively, the DX Policy and associated standards are designed to improve the experience for people and business interacting digitally with government information and services.

Digital Service Standard

The Digital Service Standard (DSS) is mandatory for digital websites, mobile apps and other digital platforms and services created by Federal Government departments and agencies.

People and businesses need to be at the centre of government digital service delivery. The Digital Service Standard sets the requirement for government to create and maintain services that meet the needs of people and business.

The DSS Version 2.0 was released in December 2023 and covers informational, transactional and staff-facing services. It requires the application of the latest version of WCAG along with requirements to "know your user" and to "leave no one behind".

Most Australian States have similar requirements – see below.

Digital Experience Standard

The Digital Inclusion Standard (DIS) sets the requirements for inclusive and accessible digital government experiences. It comes into effect from January 2025 for new services and June 2025 for existing services. Agencies will be required to report on their progress.

Picking up on the DSS criteria to "leave no one behind", the DIS has requirements to "embrace diversity" and to "make it accessible".

Digital Access Standard

The Digital Access Standard requires agencies to consider how people already access services and the context in which they might access it. This should maximise discoverability of a service. Existing services should be built on in preference to building something new.

Digital Performance Standard

The Digital Performance Standard requires agencies to establish key performance indicators and to implement a performance monitoring approach that focuses on the end-user experience. Agencies also need to assess the user's journey across different channels, aiming to make the whole service smoother.

Australian Government Architecture

The Australian Government Architecture (AGA) was developed to help government to assess new and existing digital solutions by seeing how they "fit in" with existing systems, whether a new solution helps "fill a gap," or whether existing system is no longer "fit for purpose" and needs to be retired.

The AGA Content Management Policy requires government to meet the Web Content Accessibility Guidelines.

The AGA Complaints and Issue Resolution section requires "managing the collection of and effective resolution for complaints from individuals about government services and operations". This should include specific avenues for handling accessibility related complaints.

Data and Digital Government Strategy

The Australian Government's Data and Digital Government Strategy was developed to help government to use data and digital technologies to improve our service delivery and decision-making, with a goal of better outcomes for all people and business.

The Strategy commits the Australian Government to use data and digital technologies to deliver connected, accessible services which are centred around the needs of people and business. As part of this, agencies are expected to embed co-design and inclusion and accessibility in its data collection, use and governance activities. Specifically, government is committed to:

> "ensure all people can access and benefit from its services, the Australian Government commits to:
>
> - providing omni-channel service delivery to ensure digitally delivered services are accessible over the phone or face to face
> - ensuring all websites and services meet the latest Web Content Accessibility Guidelines
> - implementing the Digital Service Standard to embed best-practice service design and accessibility across the Australian Public Service
> - embracing new technologies and leveraging data and insights to increase empathetic service design (e.g., natural language processing to enhance services for non-English speakers)."

The Implementation plan has a roadmap which also specifically mentions the Digital Service Standard Version 2.0.

State Government requirements

All the Australian State and Territory Governments have made accessibility commitments – most have supporting resources.

Australian Capital Territory

- Aims to meet the Digital Service Standard

New South Wales

- Design Standards
- Accessibility resources
- Accessibility and Inclusivity Toolkit

Northern Territory

- Endorsed Web Content Accessibility Guidelines 2.0

Queensland

- Digital service standard
- Make digital services accessible
- Consistent User Experience Standard

South Australia

- Digital Service Standard Policy
- Online Accessibility Toolkit

Tasmania

- Accessibility commitment
- Accessible and inclusive communications

Victoria

- Digital guides
- Make content accessible

Western Australia

- Digital Services Policy Framework
- Accessibility and Inclusivity Standard

Industry requirements

Banking Inclusivity and Accessibility

The Accessibility and Inclusion Principles for Banking Services promote equitable access, usability, and inclusivity for customers with disability and their carers to banking services. The Australian banking industry is committed to ensuring the inclusivity and accessibility of all banking products and services for all people, including those with disability and their carers. The inclusive and accessible banking services extend beyond just physical branches to digital and telephonic offerings, including websites, mobile apps, phone lines and artificial intelligence (AI) chatbots.

Guidelines for Accessibility in PIN Entry on Touchscreen Terminals

The Guidelines for Accessibility in PIN Entry are designed to address access to point-of-sale (POS) touchscreen technology (PIN on glass) and are a key step in efforts to ensure innovations in payments technology are accessible to the widest population.

Telecommunications Consumer Protection Code

The Telecommunications Consumer Protections (TCP) Code C628:2019 applies to all Carriers and Carriage Service Providers that provide carriage services to consumers including xDSL services, wifi and dial-up services, mobile services, fixed line services and VoIP services.

A telecommunications supplier must ensure that its web content complies with the most recent version of WCAG Level A success criteria. **However, the Commission recommends WCAG 2.2 Level AA or higher to minimise discrimination.**

Additional Guidance

Game Accessibility Guidelines

The Game Accessibility Guidelines are a collaborative effort between a group of studios, specialists and academics, to produce a straightforward developer friendly reference for ways to avoid unnecessarily excluding players, and ensure that games are just as fun for as wide a range of people as possible. These guidelines do not have a version number as they are continually updated as required.

Accessible eText

Guidelines for Producing Accessible eText (2024)

eText is structured electronic text which is accessible to people with a print disability. The Guidelines for Producing Accessible eText provide document creators with best practice accessibility methods across a variety of electronic formats in common use.

Produced by the Round Table on Information Access for People with Print Disabilities Inc., these updated Guidelines replace the Round Table's 2018 Guidelines.

Plain Language considerations

Plain language makes it easier for anyone to read, understand, and use government and corporate communications. In addition to AS ISO 24495.1 – Plain language, Part 1 – listed earlier, this section contains additional Australian and international plain language resources.

Australian Government Style Manual

The Australian Government Style Manual (Style Manual) is the definitive resource for Australian Government content. It is also widely applicable to any other sector looking for a consistent approach to writing for their audience.

How to write in plain English

The How to write in plain English guide from the Plain English Campaign, in addition to general guidance and lists of alternative words, contains specific guidance for content such as forms, reports and websites.

Dyslexia friendly style guide

The Dyslexia friendly style guide from the British Dyslexia Association provides principles that can help ensure that written material considers the difficulties experienced by some dyslexic people.

Multimedia (Audio & Visual Media) Guidance

With the increasing volume of multimedia, including video and podcasts, on platforms such as YouTube, TikTok and similar as well as provided via streaming services, the accessibility of these forms of communications is imperative.

W3C Making Audio and Video Media Accessible Guide

Making Audio and Video Media Accessible explains how to make media accessible, whether it is developed in house or outsourced. It helps identify which accessibility aspects is needed for specific audio or video, provides project management guidance, and includes requirements from the Web Content Accessibility Guidelines (WCAG) standard.

Further reading

These additional resources can assist organisations understand digital accessibility and design, develop, test and deliver more accessibility digital products. New resources are published all the time; the ones provided below were current in February 2025.

Understanding digital accessibility

- Accessibility Fundamentals Overview (W3C)
- How People with Disabilities Use the Web (W3C)
- The Business Case for Digital Accessibility (W3C)
- Accessibility matters (Digital NSW)
- Inclusive design (Microsoft)

Intopia's videos

- Accessibility Fundamentals: What is digital accessibility?
- Use with ... different disabilities videos (6 short videos)

Tetralogical's 'Browsing with... assistive technologies' series

- Browsing with speech recognition
- Browsing with screen magnification
- Browsing with a keyboard
- Browsing with a mobile screen reader
- Browsing with a desktop screen reader

Posters about accessibility

- Accessibility Tips for teams V2 (PDF) (ABC)
- Dos and don’ts on designing for accessibility (UK Govt)
- Designing for people who struggle with numbers (UK Govt)
- WCAG 2.2 Map (Intopia)
- Accessibility Responsibilities by Project Role (Uni Melbourne)

Inclusive communication and language

- Inclusive Communication (ADCET)
- Style Manual (Aust Government)
- Language Guide (PWDA)
- How to write in plain English (Plain English Campaign)
- Canada.ca Content Style Guide - Plain Language (Government of Canada)
- plainlanguage.gov (US Govt)

User research

- User research for accessibility (SA Govt)
- Running research sessions with disabled people (UK Govt)
- The Inclusive Design Guide (inclusivedesign.ca)
- Community-Led Co-design Kit (inclusivedesign.ca)

Content

- Writing for Web Accessibility Tips (W3C)
- Readability Guidelines (Content Design London)
- Cognitive Accessibility Guidance (W3C)
- Accessibility for content designers (Accessibility for Teams, US Govt)
- Microsoft Word (WebAIM)
- Make your Word documents accessible (Microsoft)

Multimedia – Audio and Video

- Making Audio and Video Media Accessible (W3C)
- Captions, Transcripts, and Audio Descriptions (WebAIM)

Design

- Designing for Web Accessibility Tips (W3C)
- Human Interface Guidelines – Accessibility (Apple)
- Key inclusive design principles (Digital NSW)
- UX Design and Visual Design (Accessibility for Teams, US Govt)

Development

- Developing for Web Accessibility Tips (W3C)
- Mobile Accessibility Guidelines (BBC)
- Applying WCAG 2 to Non-Web ICT (WCAG2ICT) (W3C)
- Accessibility for front-end developers (Accessibility for Teams, US Govt)
- Accessibility foundations (Tetralogical)
- Building accessible apps (Apple)
- Accessibility fundamentals (Apple Developer Documentation)
- Resources for Developers and Publishers (Google Accessibility)

Testing

- Easy Checks – A First Review of Web Accessibility (W3C)
- Involving Users in Evaluating Web Accessibility (W3C)
- Selecting Web Accessibility Evaluation Tools (W3C)
- Accessibility testing (Digital NSW)

Inclusive publishing

- EPUB 3.3 (W3C)
- EPUB Accessibility 1.1 (W3C)
- Accessible Books Consortium (ABC)
- Inclusive Publishing (The DAISY Consortium)
- Ace by DAISY, Accessibility Checker for EPUB (Inclusive Publishing)
- Inclusive Publishing in Australia (Australian Inclusive Publishing Initiative)
- Making Content Accessible (Australian Inclusive Publishing Initiative)
- Accessible Audiobook Workflow Guide: Producing Born Accessible Audiobooks (Accessible Publishing Learning Network)

Social media

- Federal Social Media Accessibility Toolkit Hackpad (Digital.gov)
- Social Media (University of Minnesota)
- Social Media Accessibility (University of California, Davis)
- Accessible Social (accessiblesocial.com)

Internet of Things

- Build With Matter | Smart Home Device Solution (CSA-IOT)
- Discover How Accessible ICT Benefits Smart Cities (smartcities4all.org)

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2 *Disability Discrimination Act 1992 (Cth)* s5.

3 *Disability Discrimination Act 1992 (Cth)* s6.

4 *Disability Discrimination Act 1992 (Cth)* s4, see 'disability'.

5 *Disability Discrimination Act 1992* (Cth) ss7-8.

6 Disability Discrimination Act 1992 (Cth) s4, see 'services'.

7 See Australian Government Job Access website https://www.jobaccess.gov.au

8 *United Nations Convention on the Rights of Persons with Disabilities*, opened for signature 30 March 2007, 2515 UNTS 3 (entered into force 3 May 2008) art 3 and 4 ('CRPD').

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https://store.standards.org.au/reader/as-iso-iec-30071-1-2022?preview=1

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https://store.standards.org.au/product/as-en-301-549-2020

24 AS ISO 31000:2018 (Standards Australia) https://www.intertekinform.com/en-au/Standards/AS-ISO-31000-2018-1134720_SAIG_AS_AS_2680492/

25 AS ISO 37301:2023 (Standards Australia)
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https://store.standards.org.au/product/as-iso-iec-30071-1-2022

27 US Access Board (March 2025) *IT Accessibility Laws and Policies* (website)
https://www.section508.gov/manage/laws-and-policies

28 European Commission *Web accessibility* (website)
https://digital-strategy.ec.europa.eu/en/policies/web-accessibility

29 Web Accessibility Initiative, WCAG Overview
See: https://www.w3.org/WAI/standards-guidelines/wcag

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