

Thinking accessibility

Building unit of study sites that are accessible for the widest possible range of students and staff

The move to Canvas as the single institution-wide learning management system (LMS) represents a unique opportunity to refresh the design of our unit websites and the resources they contain. It is a chance to adopt best practice by changing our approaches rather than attempting to retro-fit. Alongside having a legal responsibility to make our content accessible to people with disabilities, sites that are designed to be accessible also have the features that make them effective for all users. The University's 2013-2018 Disability Action Plan¹ sets out our responsibilities to conform to current standards and our goal to be a leader in this field.

The types of disabilities that can affect ease of access to online content include visual, hearing, motor or cognitive impairments. Around one-fifth of the Australian population has some kind of disability. Alongside those students who register with the Disability Services Unit, it is likely that there are many students and staff who have conditions that can affect on their ease of access.

User generated content, such as handouts, slides and videos, delivered through the LMS has been identified as having significant accessibility issues. Adopting approaches to their generation that consider the accessibility of the final resource could significantly improve the experience of all students without affecting workloads.

Pages in Canvas

'Pages' are the primary way to deliver content in Canvas. They are just web pages and Canvas includes tools including an editor to add words and images which do not require knowledge of HTML. Tips to follow to ensure accessibility of Canvas² web pages include¹:

- For **images**, Use 'alt' text to succinctly convey the content and function of images but leave it empty for decorative images. Avoid images containing text.
- In **tables**, use headers <th>.
- Break up pages using **headings** which are marked up as heading elements: (<h1>, <h2>, <h3>) using the text editor and avoid skipping heading types.
- Test the **colour contrast** of pages using a browser plugin such as WAVE for Chrome³.
- Try to ensure that the page can be navigated without a mouse.
- As URLs may not make sense to screen readers, use meaningful descriptive text (rather than "click here") for links instead. For example, use "Read more about [writing for web accessibility](#)" rather than "For information on writing for web accessibility, [click here](#)" or "<http://bit.ly/2oZHk8T>"

3rd party tools

Any external tools should support accessibility. Our web and digital content should comply¹ with WCAG 2.0 AA.

Video

With increasing use of video, it is vital to consider the needs of people with hearing and vision impairments⁴. Although it can be initially appear to be time consuming, scripting the video before beginning to film will save time and money in production and editing. Ideally, captions and transcripts should be provided for videos with audio. The transcript of the audio audio should contain a description of important visual content.

Making slides, handouts and PDFs

When making teaching resources with tools such as Word⁵, Powerpoint⁶, Google Docs⁷ and LaTeX⁸, it is relatively easy to ensure that they will be accessible. By making use of features in these software packages **before** converting to PDF⁹, resources can become either immediately accessible or are optimised to work properly with screen readers. Many of the tips echo those for making accessible web pages:

- Structure the document using headings and use Word styles for these rather using bold or a larger font size.
- Add 'alt' text to images and avoid images containing text.
- As URLs may not make sense to screen readers, use meaningful descriptive text (rather than “click here”) for links instead. If the document may get printed, add the URL to the descriptive text for the link.
- When including graphs, consider using a texture or pattern as well as colours to distinguish data series.
- Consider using the University templates¹⁰ for PowerPoint and Word documents as well as the tips above. These have recently been updated with enhanced bar graphs for people with colour vision deficiencies.
- Avoid the temptation to reduce font and image sizes.
- In the 2010 (and newer) versions of Word and PowerPoint, use the inbuilt accessibility checker to identify and repair any remaining issues.
- Acrobat Professional can be used to check and repair PDF accessibility.

Switching teaching resources to these new templates is one step in making sure that they will be accessible to the widest range of staff and students.

Accessibility testing

- Check resources and pages with a screen reader emulator or browser add-on^{11,12}.
- Check if there is content that is only accessible with a mouse. Test if the page can be navigated and links followed using keystrokes, such as tab, shift-tab and enter.
- Check that the page is readable when zoomed up to 200%.
- Use a tool to check accessibility issues on a website like WAVE¹³ or Funnelback¹⁴
- Request an accessibility review by ICT¹.

Resources

¹ **Web and digital accessibility: <http://bit.ly/2pEUaqb>**

² **Accessibility in Canvas: <http://bit.ly/25in94I>**

³ **WAVE evaluation tool: <http://bit.ly/1TOMRSd>**

⁴ **Accessible video: <http://bit.ly/2qrL1Ee>**

⁵ **Accessible Word documents: <http://bit.ly/2pXyl8h>**

⁶ **Accessible Powerpoint: <http://bit.ly/2qxDUHu>**

⁷ **Google docs accessibility: <http://bit.ly/2pHakRY>**

⁸ **LaTeX, MathML and TeX4ht: tools for creating accessible documents: <http://bit.ly/2qEmecN>**

⁹ **Accessible PDF: <http://bit.ly/2p53txS>**

¹⁰ **Basic design templates: <http://bit.ly/2pvZhLO>**

¹¹ **Vox: screen reader extension (Chrome): <http://bit.ly/2mxmoF3>**

¹² **Fangs screen reader emulator (Firefox): <https://mzl.la/1Mxpgy1>**

¹³ **WAVE: web accessibility evaluation tool: <http://bit.ly/2g8lo2W>**

¹⁴ **Funnelback Accessibility Auditor: <http://bit.ly/2p58S7U>**