

Accessibility and video production

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Accessibility for all

There is a range of literature on the topic of online design for accessibility (Coombs, 2010), and a multitude of technology services are available that can support designing learning for all needs.

All material created at UWA must comply with the [Disability Discrimination Act](#).

Universal design

Universal design, sometimes called “inclusive design”, refers to the “the design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design” (North Carolina State University, 1997). In other words, learning design that adheres to universal principles aims to be accessible to everyone without barriers or the need for special accommodation. Flexibility, multiple modes of access, and equitability should all be built into the design.

As the Australian Disability Clearinghouse on Education and Training puts it, curricula and course material is considered to be universally designed if:

- Students can interact with and respond to curricula and materials in multiple ways
- Students can find meaning in material (and thus motivate themselves) in different ways
- Web-based course material is accessible to all
- Information is presented in multiple ways.” (ADCET, n.d.)

Overall, the idea of universal design in online learning is not to ‘cater’ for every need but rather to design for flexibility and aim to remove barriers in areas like vision, mobility, and learning difficulties, which will benefit all learners and model inclusion and sustainability.

Video accessibility

From AccessibilityOz:

Video accessibility is the ability for a person with a disability to understand and use an online video. It allows people with disabilities to access information like anyone else, interact with others without being classed as “disabled”, and undertake activities which they may not otherwise be able to do.

Video accessibility is particularly relevant to people with:

- Blindness
- Colour-blindness
- Low vision
- Deafness
- Motor impairments
- Cognitive impairments.

Accessibility features also benefit viewers whose first language isn't the language of the video and anyone who cannot play the audio (e.g., computer problems, watching in a public space, etc.).

Standards

International standards for accessibility have been developed, as well as national and local legislation and guidelines from relevant organisations. The foundation of many of these is the Web Content Accessibility Guidelines (WCAG) from the international World Wide Web Consortium (W3C). [Section 1.2](#) specifically addresses video. Further detail about Australian accessibility legislation and how to comply is available from [Media Access Australia](#).

Production tips

Modified from AccessibilityOz

When creating the video content:

- Use only [high contrast colours](#)
- Do not convey information using colour alone
- Do not use patterned backgrounds
- Do not include flashing or flickering content ([test here](#)).

When converting the video for web use:

- Use a consistent, accessible, video file format (usually MP4 for HTML5 video)
- Limit video files to 2MB or less (for larger files, break them up into smaller downloads as well as offering the full file, or create a low bandwidth version of the content).

Ensure that the site where you insert the video:

- Allows the user to skip over the video using the mouse only
- Allows the user to skip over the video using the keyboard only
- Is functional and all content is available without the video
- Includes information about how to access the video player if relevant
- Does not 'auto-play' the video—it should not play until the viewer chooses to play it.

Video accessibility checklist

Modified from AccessibilityOz

Overview

- Make sure the video player is accessible
- Provide captions
- Provide a transcript
- Ideally, provide audio description

Terminology

Closed Captions provide a text equivalent of the audio and can be turned on or off. They are displayed synchronously on the screen with the video.

Transcripts provide the full text of the audio spoken in the video. They can be provided as a separate document (such as a Word document or text file) or included in a YouTube video.

Audio descriptions are additional descriptions of the visual content of a video. These descriptions are narrated in between the main audio content. Audio descriptions are best done while creating the video as an alternative to the original video. Here is an [example of a film](#) with audio descriptions.

The video player should:

- Allow users to control the video (e.g. pause, rewind, etc.) via the keyboard only
- Allow users to control the video (e.g. pause, rewind, etc.) via the mouse only
- Allow users to control the volume with mouse only and keyboard
- Allow users to control the volume with the keyboard only
- Ideally never start automatically or if it does then a mechanism to pause the video is provided at the start of the page
- Allow users to turn on captions or audio descriptions with the mouse only
- Allow users to turn on captions or audio descriptions with the keyboard only.

Note: YouTube meets these requirements ([according to Vision Australia](#)). YouTube's help files have [more information about accessibility controls](#).

Video captions should:

- Appear at the same time as the sound they are captioning
- Ensure all important audio information has been captured
- Appear on the screen for enough time for them to be read
- Ensure the contrast between background and caption text colour is sufficient
- Appear throughout the video
- Attribute speech to a particular speaker.

Video transcripts should:

- Identify the name of the speaker(s)
- Ensure that all speech content is included
- Include relevant information about the speech
- Include relevant non-speech audio
- Include any textual or graphical information shown in the video
- Be provided in an accessible format, such as a webpage, text file, Word document, or [accessible PDF](#)
- Indicate the end of the transcript if on the same page as the video
- Provide a mechanism to return to the video if on another page.

Video audio descriptions should:

- Adequately describe the visual information;
- Not impinge on other speech or important sounds
- Be concise but sufficiently explanatory
- Be sufficiently distinguishable from other speech.

How to: Captions, transcripts, and audio descriptions

To provide captions, transcripts, and audio descriptions, there are a few options:

1. Create your own
2. Edit automated captions and transcripts (in the case of videos uploaded to YouTube)
3. Use an outside service

1. Create your own

To create your own transcript, it is recommended that you write a speaking script initially, and then update it with additional description and necessary modifications when the video is completed. This can then be posted in your LMS unit as a separate document, or [upload it in YouTube](#). The speaking script can also be used to generate captions in YouTube.

If a script isn't created in advance, you can transcribe the video afterward. YouTube has a feature that allows you to play the video, which pauses while you're typing the transcription. A professional transcript takes roughly four times the length of the video (e.g. 1 hour for a 15 minute video); someone with less experience would take longer.

If you are using video editing software, you may also be able to add captions during the video editing stage.

2. Automated captions and transcripts

YouTube automatically generates captions and transcripts according to the language you set when uploading. It is recommended that you *always* [edit the captions](#) automatically generated by YouTube as they will have errors. The captions will then be added as a transcript to the video. UWA's [Digital and Creative Services](#) estimates that it takes three times the length of the recording to edit the captions (e.g. 9 minutes for a 3 minute video).

3. Use an outside service

There are services available on the web or within YouTube that create transcripts, usually for a fee.

For all three options, this [guide from Queen's University](#) (Canada) has advice and instructions for creating captions, transcripts, and audio descriptions with YouTube and other services.

The following guides also have advice and instructions:

- [University of Washington](#)
- [Pennsylvania State University](#)

More information

UniAccess at UWA provides further resources and guidance for staff:

<http://www.student.uwa.edu.au/life/health/uniaccess/staff>

Australian Disability Clearinghouse on Education and Training provides resources around the area of disability: <http://www.adcet.edu.au/inclusive-teaching/teaching-assessment/>

Further detail about Australian accessibility legislation and how to comply from Media Access Australia: <https://mediaaccess.org.au/practical-web-accessibility/standards-and-policy/australian-governments-and-web-accessibility>

Accessibility toolkit from Vision Australia: <http://www.visionaustralia.org/business-and-professionals/digital-access-consulting/accessibility-toolkit>

References

Coombs, N. (2010). *Making online teaching accessible: Inclusive course design for students with disabilities*. Hoboken, NJ: Wiley.

North Carolina State University, The Center for Universal Design. (1997). Universal design principles. Retrieved from: https://www.ncsu.edu/ncsu/design/cud/about_ud/udprinciplestext.htm

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