

## **Accessibility Toolkit:**

A great deal of the teaching content will be online both in its delivery and as an online resource. Therefore, it is vital that we consider best practise in accessibility. Best practise is often considered as achieving Priority level 2 of the revised web accessibility guidelines W3C WAI

(<https://www.w3.org/WAI/fundamentals/accessibility-intro/>). These guidelines state that all digital content must include the following basic requirements:

- Closed captioning for all pre-recorded and live content
- Audio description for video-only content
- All images and non-text content should have an alternative text form.
- All content is programmed in the correct reading sequence (e.g. tables do not use white spaces between columns but tab markers to keep the correct formatting).
- Do not rely on sensorial information to understand or operate content (e.g. instead of instructing 'click the round button', textual information is also provided, 'click the round button labelled go').
- It must be possible to view content in different display orientations (i.e. portrait and landscape).
- Colour is not used to convey information in text or images. When colour is used, information is also provided in alternative format (e.g. different symbols in graphs or text). For all colour use, the contrast ratio is a minimum of 4.5:1 between the foreground text and the background colour.
- All text should use true type sans serif fonts, such as Arial, and have a minimum font size of size 12. All text should also be left aligned. It should also be possible to resize all text (except for captions) without assistive technology up to 200%

without losing information, content or functionality. Text spacing must also be set to the following:

- Line height (line spacing) at least 1.5 times the font size;
  - Spacing following paragraphs at least 2 times the font size;
  - Letter spacing (tracking) at least 0.12 times the font size;
  - Word spacing at least 0.16 times the font size
- Headings are used to describe content in different sections and paragraphs.
  - Images of text are not used unless they can be customised to a user's requirement (e.g. enlarged to a particular font size and contrast ratio) or where it is essential to the information being presented.
  - Photographs/visual images that are produced digitally must be of high-quality resolution and able in their formatting to be enlarged by a viewer.
  - All images, graphical objects and user interfaces must have a contrast ratio of 3:1 for all colours.
  - Inserts in digital texts that include animated diagrams should be avoided because these are not easily compatible with screen-readers that people with a visual impairment might use.
  - All content is accessible using a keyboard (e.g. keyboard shortcuts, tabs) without a time limit.
  - All content (e.g. videos) has the capability to pause, stop, rewind, forward and does not enforce timing to interact with it (e.g. time limit on clicking button or answering a poll).
  - To ensure content is not harmful for those who are photosensitive, all videos should not have more than three flashes in one second or the flash should be kept below red flash thresholds (see below).

For further information, you can find the quick reference guide to the W3C WAI standards here: <https://www.w3.org/WAI/WCAG21/quickref/>

### **Closed captioning for pre-recorded content:**

Please see below the helpful resources to enable you to add the closed captioning.

Guidelines for closed captioning: Website detailing best practice for captioning, including font size, position, speed and speaker identification, and providing links to tools for closed captioning. <https://dcmp.org/learn/captioningkey>

NCDAE Guide to Captioning YouTube videos: Instructions for adding subtitles to YouTube videos, using either the auto-captioning function in YouTube or via uploading a transcript <http://ncdae.org/resources/cheatsheets/youtube.php> This facility is free to access and use.

Captioning via Google in YouTube: Google provides an auto-captioning service for videos uploaded to YouTube. This service using algorithms to convert speech to text and enter timing cues for generated subtitles. Users can check these auto-generated subtitles using the content created in YouTube or alternatively upload a transcript, using auto-generated timing cues or upload a SRT file directly with the video.

<https://support.google.com/youtube/answer/2734796?hl=en> You can also download the auto-generated SBV subtitle file created in YouTube and convert to an SRT file to be used on other platforms using this link: <https://dcmp.org/learn/532> These facilities are free to use.

Subtitle Horse: A browser-based tool for captioning videos online that includes realtime validation, an interactive timeline, and shortcuts. Subtitle files can be saved in a range of formats, including SRT, TimedText (used by AdobeFlash), WebTTV, and can also be created for content from different sources (e.g. URL, YouTube,

Desktop). <https://subtitle-horse.com/> The browser-based version is free to use, but the Desktop software download unfortunately is not.

Jubler: Free, open-source, desktop-based software compatible with Linux, Windows and Mac to create and edit subtitles. It includes a media player to allow preview of the subtitles in realtime or design time and also a spell checking and translation mode. <https://www.jubler.org/>

SubtitleWorkshop: Free software compatible with Windows and Mac that includes an advanced video preview feature <http://www.uruworks.net/download.html>

Powerpoint: Powerpoint 2016, 2019 and Office 365 allow users to create captions for videos included in powerpoint. To use this feature, you need to ensure you download the Subtitling Text Add-In for Microsoft Powerpoint (STAMP). Instructions can be found here: <https://support.microsoft.com/en-us/office/add-closed-captions-or-subtitles-to-media-in-powerpoint-df091537-fb22-4507-898f-2358ddc0df18> The Office 365 version also allows live subtitling while presenting:

<https://support.microsoft.com/en-us/office/present-with-real-time-automatic-captions-or-subtitles-in-powerpoint-68d20e49-aec3-456a-939d-34a79e8ddd5f>

Live Captioning: For live events, it is recommended to use palantypist or remote-captioning services rather than Artificial Intelligence services such as those listed above.

### **Audio Description:**

Guidelines from American Council for the Blind: best practice guidelines for creating audio description content <https://acb.org/adp/guidelines.html>

RNIB have a list of audio description TV channels and films that show examples of audio description <https://www.rnib.org.uk/information-everyday-living-home-and-leisure-television-radio-and-film/audio-description>

Adding audio description in YouTube using YouDescribe: free website and iOS app that allows viewers to watch YouTube videos with audio descriptions. To create your own audio description and request videos, you need to connect to a Google account. The recording software is built into the YouDescribe website, so the only requirement is for creators to use their own microphone and headphone set.

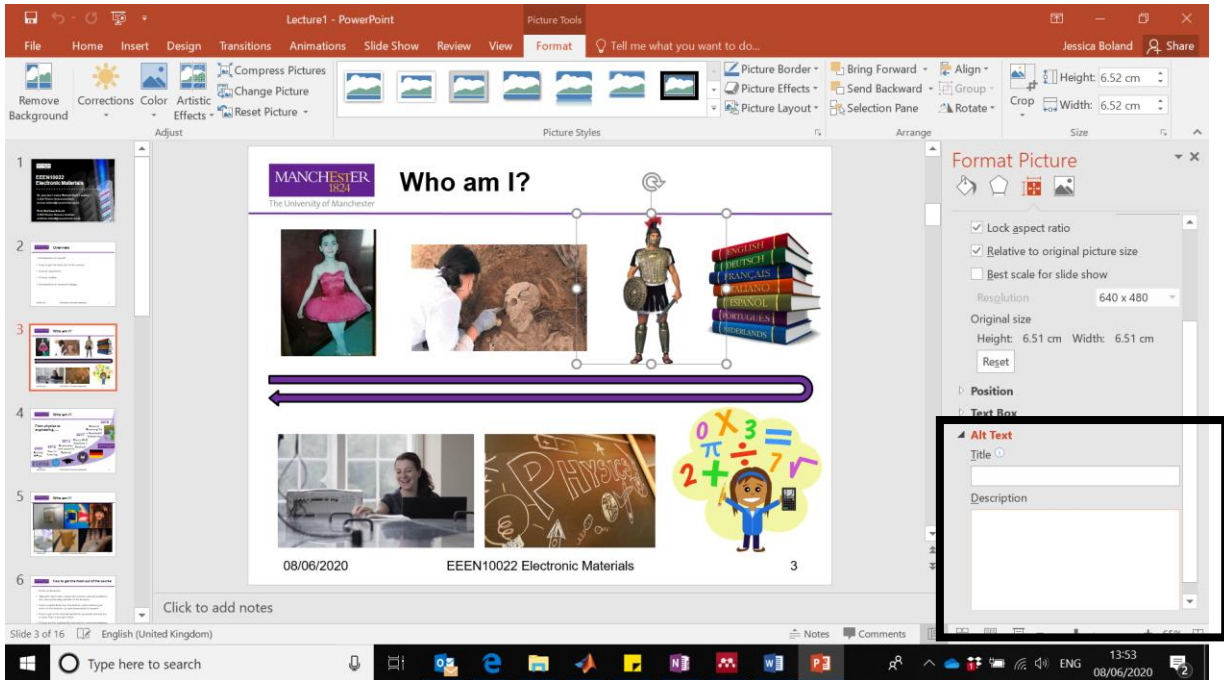
<https://youdescribe.org/> There is a very useful blog on how to use YouDescribe and tips for audio description videos here: <https://veroniiiica.com/2019/01/08/create-audio-description-youtube-youdescribe/>

3play plugin: This is a free software tool for adding audio description and interactive transcript to videos. It is compatible with most media players, including HTML5, YouTube, Vimeo Brightcove, Kaltura and Wistia.

<https://www.3playmedia.com/solutions/features/plugins/3play-plugin/> It is also accompanied by a blog piece with tips on how to create an audio description file, using either text-based formats (e.g. WebTVT) or media-based formats (e.g. MP4). <https://www.3playmedia.com/resources/popular-topics/audio-description/#howto>

### **Alternative text for images:**

Alternative Text in Microsoft Office: You can add alternative text to an image in Microsoft Word or Powerpoint by adding a description to the image. To add a description, open the Format Picture/Graphics toolbar and select the Layout and Properties tab to find the 'Alt Text' property. The alternative text can be added into this section (see example below). This is a free and easy way to do this.



Alternative text in HTML code: For those used to coding, alternative text can also be added to an image in a HTML page by including an 'alt' attribute when importing an image. For example, this attribute is highlighted in the code below.

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**Checking colour contrast:**

Web-safe colour: List of 26 web-safe colours that comply with contrast ratios set by WCAG2.1 guidelines, including examples of what certain colours look like to individuals with colour blindness. <https://www.w3.org/WAI/WCAG21/working-examples/link-contrast/>

Contrast analyser: Software download for Windows/Mac that allows you to set colours according to WCAG2.1 guidelines and simulate colour-blindness to check chosen colours. <https://developer.paciellogroup.com/resources/contrastanalyser/>

Contrast ratio calculator: Calculates luminosity ratio for a given background colour and foreground colour. <http://juicystudio.com/services/luminositycontrastratio.php>

ColorZilla: Firefox and Chrome extension that allows users to pick colours from set palettes, select colours from websites with compliant colour schemes and copy into their own content. <https://www.colorzilla.com/firefox/features.html>

**Text:**

List of true sans serif fonts: Guide to accessible fonts

[https://reciteme.com/uploads/articles/accessible\\_fonts\\_guide.pdf](https://reciteme.com/uploads/articles/accessible_fonts_guide.pdf)

Tips: Adobe Reader and Internet Explorer both allow users to magnify content uniformly. It is worth checking that all pdfs and text content are compatible with these two programmes. You can also test that you text is compatible with basic screenreaders using the tools below.

**Screenreaders:**

Windows 10: Windows 10 has a built-in screenreader called 'Narrator'. You can start the Narrator by pressing the following keys at the same time: Windows Logo Key + Ctrl+ Enter. The Narrator can also be switched off by pressing the same keys. When you open the Narrator for the first time, it will open a guide with instructions on how to use the Narrator and keyboard shortcuts. You can also find a guide to use here:

<https://support.microsoft.com/en-us/help/22798/windows-10-complete-guide-to-narrator>

Office 365: The new Office 365 software includes a 'Read Aloud' function in Word and Powerpoint. You can find this function under the 'Review' pane or when you enter reading mode. Instructions can be found here:

<https://support.microsoft.com/en-us/office/listen-to-your-word-documents-with-read-aloud-967a1533-4ba3-4e84-8ddc-132b1564434f?ui=en-US&rs=en-US&ad=US>

Mac: Mac systems have a built-in screenreader called 'VoiceOver'. This can be switched on by pressing the following keys at the same time: Command +F5. These keys will also switch VoiceOver off, if it is already switched on. A full guide to using VoiceOver can be found here: <https://help.apple.com/voiceover/mac/10.15/#/voic010>

**Photosensitive Epilepsy Analysis Tool:**

PEAT: Software download for Windows for developers to identify seizure risks in video/web content <https://ds.gpii.net/content/photosensitive-epilepsy-analysis-tool>