

# An introduction to ICT Accessibility and Inclusive Design

## Unit 6 - Accessible Digital Content

### Section 5: Accessibility considerations for different multimedia format



---

This course entitled “An Introduction to ICT Accessibility and Inclusive Design” was prepared and designed by Mada Center, Qatar.

This work is licensed under a Creative Commons Attribution-Share Alike 4.0 International License.

<http://creativecommons.org/licenses/by-sa/4.0/>



---

# Competencies

## Mada ICT-AID Competency Framework

- D4.1, D4.2, D4.3, D4.4
- D4.5.1, D4.5.2, D4.5.3, D4.5.4, D4.5.5

---

# 5. Accessibility considerations for different multimedia formats



# Accessibility Considerations for Different Multimedia Formats

---

## Learning Outcomes (1)

- By the end of this section, you should be able to:
  - Recognize key accessibility considerations for different multimedia formats.

## Key Accessibility Considerations for Different Multimedia Formats (1/22)

### 1. Audio (1/5):

#### ▪ **Providing Transcripts and Captions:**

- Ensure that audio content, such as podcasts or recorded lectures, is accompanied by accurate and comprehensive transcripts. This benefits individuals who are deaf or hard of hearing, as well as those who may prefer reading or have difficulty understanding spoken language.
- Include captions for any videos or multimedia content that contain audio to assist individuals with hearing impairments or those who prefer to read along.

### Key Accessibility Considerations for Different Multimedia Formats (2/22)

#### 1. Audio (2/5):

##### ▪ Audio Quality and Clarity:

- Ensure that the audio is recorded and mastered with good quality and clarity. Precise and intelligible audio is crucial for individuals with hearing impairments or those who rely on assistive listening devices.
- Minimize background noise, echoes, and distortion to make the content more accessible.

### Key Accessibility Considerations for Different Multimedia Formats (3/22)

#### 1. Audio (3/5):

##### ▪ Audio Description:

- For visual content, such as videos, include audio descriptions that provide a clear and concise narration of visual elements for individuals who are blind or have low vision.
- Audio descriptions should convey essential visual information, action, context, and any necessary visual cues that are crucial to understanding the content.



### Key Accessibility Considerations for Different Multimedia Formats (4/22)

#### 1. Audio (4/5):

##### ▪ **Volume Control and Transcripts for Multimedia:**

- Ensure that multimedia content, such as audio, have volume controls that are easily adjustable, allowing users to increase or decrease the sound.
- Provide an option to turn on or off auto-play for multimedia content.
- Include transcripts alongside multimedia to provide an alternative means of accessing the content for individuals who may have difficulty hearing or understanding the audio.

## Key Accessibility Considerations for Different Multimedia Formats (5/22)

### 1. Audio (5/5):

#### ▪ Language and Pronunciation:

- Be mindful of the language used in audio content, avoiding jargon, colloquialisms, and complex terminology that may be challenging for non-native speakers or individuals with cognitive disabilities.
- Use clear and consistent pronunciation, enunciation, and pacing to ensure that the audio is universally understandable.

### Key Accessibility Considerations for Different Multimedia Formats (6/22)

#### 2. Video (1/5):

- **Contrast and Visibility:**

- Optimize video content for visibility by using sufficient color contrast, appropriate font sizes, and clear visuals.
- Avoid using text or visuals that may be difficult to see, such as small fonts or low-resolution images.
- Allow users to adjust the video player's brightness and contrast settings to accommodate their viewing needs.

### Key Accessibility Considerations for Different Multimedia Formats (7/22)

#### 2. Video (2/5):

- **Playback Speed and Closed Captions:**

- Allow users to adjust the playback speed of videos to accommodate different learning styles or preferences.
- Ensure that closed captions remain synchronized even when the video is played at a faster or slower speed.

### Key Accessibility Considerations for Different Multimedia Formats (8/22)

#### 2. Video (3/5):

##### ▪ Captions and Transcripts:

- Provide accurate and synchronized captions for all video content. Captions are essential for individuals who are deaf or hard of hearing to access and understand the audio.
- Ensure that captions are properly timed, clearly visible, and include important auditory information.
- Offer transcripts alongside videos to cater to individuals who prefer reading or have difficulty understanding spoken language.

### Key Accessibility Considerations for Different Multimedia Formats (9/22)

#### 2. Video (4/5):

- **Player Controls and Navigation:**

- Ensure that video players are accessible and usable for individuals with motor disabilities.
- Offer keyboard shortcuts and provide clear instructions for navigating and controlling the video player.
- Ensure that all player controls are clearly visible, distinguishable, and operable using only a keyboard.

### Key Accessibility Considerations for Different Multimedia Formats (10/22)

#### 2. Video (5/5):

- **Alternative Formats and Transcripts:**

- Provide alternative formats of the video content, such as text transcripts, to cater to individuals who may prefer reading or have difficulty accessing the video due to technical limitations or slow internet connections.

### Key Accessibility Considerations for Different Multimedia Formats (11/22)

#### 3. Images (1/5):

##### ▪ **Alternative Text (Alt Text):**

- Provide alternative text descriptions, also known as alt text, for all images. Alt text should be concise, descriptive, and provide the essential information about the image.
- Alt text helps individuals who are blind or have low vision understand the content and context of the image through assistive technologies like screen readers or braille devices.
- Avoid using generic phrases like "image" or "photo." Instead, provide specific details about the image's content, purpose, and any important visual details.



### Key Accessibility Considerations for Different Multimedia Formats (12/22)

#### 3. Images (2/5):

##### ▪ **Visual Design and Color:**

- Use high-contrast color combinations for text overlays or elements within the image. This is crucial for users with visual impairments or color blindness.
- Choose color palettes that are accessible to people with different types of color blindness. Tools and resources are available to test and verify contrast ratios.
- Avoid complex or cluttered images that may be difficult to understand for users with cognitive impairments. Keep visuals simple and focused.

### Key Accessibility Considerations for Different Multimedia Formats (13/22)

#### 3. Images (3/5):

- **Scalability and Contrast:**

- Ensure that images are scalable and maintain their visual integrity when resized.

- **Text in Images:**

- Whenever possible, avoid conveying essential information through text within images.
- If text in images is necessary, ensure the same information is presented elsewhere on the page.

### Key Accessibility Considerations for Different Multimedia Formats (14/22)

#### 3. Images (4/5):

- **Image Formatting and Placement:**

- Optimize image formatting and placement to ensure a smooth user experience.
- Use appropriate file formats (JPEG, PNG, GIF, etc.) based on the image type and content.
- Consider image size, resolution, and compression to balance accessibility and web performance.

### Key Accessibility Considerations for Different Multimedia Formats (15/22)

#### 3. Images (5/5):

- **Image Links:**

- If an image is a link, ensure the link text is descriptive and conveys the link's purpose.
- Use the alt attribute to provide descriptive text for the link.

- **Image Maps:**

- If using image maps, provide alternative text for each clickable area.
- Use the alt attribute on the area elements in the image map.

### Key Accessibility Considerations for Different Multimedia Formats (16/22)

#### 4. Texts (1/4):

- **Font Size:**

- Use a legible font size that can be easily read by users with varying levels of vision.
- Avoid using text that is too small or too large.
- Allow users to adjust the text size using their browser settings without causing layout or functionality issues.

### Key Accessibility Considerations for Different Multimedia Formats (17/22)

#### 4. Texts (2/4):

- **Font Style and Contrast:**

- Choose fonts that are easy to read, typically sans-serif fonts like Arial, Verdana, or Open Sans.
- Ensure sufficient color contrast between the text and background to make it legible for users with low vision or color blindness.
- Test the color contrast using contrast checking tools to meet the minimum contrast ratios, such as the WebAIM Contrast Checker

### Key Accessibility Considerations for Different Multimedia Formats (18/22)

#### 4. Texts (3/4):

- **Text Formatting:**

- Use proper headings (h1, h2, h3, etc.) to create hierarchical content structure.
- Avoid excessive use of bold, italics, or underlining.
- Ensure ample white space between lines and paragraphs to improve readability.

### Key Accessibility Considerations for Different Multimedia Formats (19/22)

#### 4. Texts (4/4):

- **Readability and Plain Language:**

- Write content in a clear and concise manner, using plain language that is easy to understand.
- Consider the reading level and literacy of your target audience when choosing vocabulary and sentence structure.
- Break down complex information into smaller, more digestible chunks, using bulleted or numbered lists where appropriate.



### Key Accessibility Considerations for Different Multimedia Formats (20/22)

#### 5. Animation (1/3):

- **Avoid Flashing or Strobing Effects:**

- Minimize the use of flashing, strobing, or rapidly changing visuals in animations.
- These effects can trigger seizures in users with photosensitive epilepsy.
- If flashing or strobing effects are necessary, ensure they comply with accessibility guidelines, such as those defined in the WCAG 2.1.

### Key Accessibility Considerations for Different Multimedia Formats (21/22)

#### 5. Animation (2/3):

##### ▪ **Control and Pause Options:**

- Provide control options that allow users to start, stop, pause, and replay the animation.
- Users with cognitive disabilities or those who need additional time to process information may benefit from the ability to control the animation's pace.
- Offer clear and intuitive controls that are easy to locate and operate.

### Key Accessibility Considerations for Different Multimedia Formats (22/22)

#### 5. Animation (3/3):

- **Provide Alternatives:**
  - Provide alternative content or text-based descriptions for non-essential animations.
  - Users with cognitive disabilities, visual impairments, or who prefer to minimize motion may benefit from having the option to access the information without relying solely on animations.

## Quizzes

- How do you provide alternative text descriptions for images to make them accessible?
- How do you ensure animations are accessible?

---

## References (1)

- Yesilada, Y., & In Harper, S. (2019). Web accessibility: A foundation for research.
- Meyer, A., H Rose, D., & T Gordon, D. (2014). Universal design for learning: Theory and Practice.
- Cook, A., Polgar ,J., & Encarnação,P. (2019). Assistive Technologies: Principles and Practice
- Yesilada, Y., & In Harper, S. (2019). Web accessibility: A foundation for research.
- Gould, M., Leblois, A., Cesa Bianchi, F., Montenegro, V., & Studer, E. (2014). Convention on the Rights of Persons with Disabilities 2012 ICT Accessibility Progress Report. Survey Conducted in Collaboration with DPI—Disabled Peoples’ International.
- Cook, A., Polgar ,J., & Encarnação,P. (2019). Assistive Technologies: Principles and Practice

---

## References (2)

- G3ict, The Global Initiative for Inclusive ICTs – Homepage. (<https://g3ict.org/>)
- World Wide Web Consortium - Curricula on Web Accessibility.  
(<https://www.w3.org/WAI/curricula/>)
- IAAP Educational Training Database – Homepage. (<https://a11ytd.org/>)
- International Association of Accessibility Professionals - Homepage.  
(<https://www.accessibilityassociation.org/>)
- Coursera - An Introduction to Accessibility and Inclusive Design.  
(<https://www.coursera.org/learn/accessibility>)
- edX-W3Cx: Introduction to Web Accessibility. (<https://www.edx.org/learn/web-accessibility/the-world-wide-web-consortium-w3c-introduction-to-web-accessibility>)

---

## References (3)

- WebAIM - Contrast Checker (<https://webaim.org/resources/contrastchecker/>)
- Web Content Accessibility Guidelines (WCAG) (<https://www.w3.org/TR/WCAG21/>)

# Thank you

# شكراً لكم

