Creating Accessible Videos: A Brief Guide

An accessible video contains content that everyone can consume, including people with disabilities who may be unable to hear the audio or see the images on screen. This means that, among other things, the auditory experience of the video must convey all essential information to those who cannot see, just as the visual experience must do the same for those who cannot hear.

This can primarily be achieved by including the following components in—or along with—your video:

- Captions
- Audio description
- A transcript
- Playback through an accessible media player

This guide will briefly cover each component, explaining why it's essential, how it can be created, best practices in utilizing it, and where to find additional information. It also includes information on how to make videos that are by nature, accessible—encouraging video producers to plan for and integrate accessible features into their basic workflow both to save time and money, and to ensure that their entire audience is being considered from start to finish.

Five compelling reasons to make videos accessible:

1. Ensure that a critical target audience, such as people who are blind, as well as people who are Deaf and hard of hearing, can fully experience your work (and add their numbers to your view count!).
2. Accessibility isn't just a nice feature to have; it is **often required by law**. Video accessibility is mandated for any video used by a federal agency, for broadcast media, and for "places of public accommodation," like museums, libraries, and universities.
3. Accessible videos create a **better overall user experience.** The inclusion of accessibility features provides all users with multiple ways to absorb content, as well as the ability to search for keywords and topics.
4. **Viewers can enjoy your videos without sound** and without necessarily needing to be in front of a screen.
5. **Video transcripts and captions boost your search engine optimization (SEO)** while also providing a vocabulary and spelling resource for non-native speakers and students.

1: Captions

For people who are Deaf or hard of hearing, captions provide a real-time, on-screen text version of everything that is spoken in a video as well as any relevant sounds or inflections (such as off-screen cheers, sirens in the background, or sarcasm in tone of voice.) If these audio-based elements cannot be conveyed visually and are important to understanding the story or situation, they should be included in the captions. (The inclusion of this additional auditory information is what distinguishes captions from subtitles.) In addition, captions can help people with sensory processing disorders and/or cognitive disabilities to follow along with the content.

When it comes to best practices, captions should:

- Appear at the same time as the sound or speech they are captioning.
- Capture important audio information (speaker identification, sound effects, expressions like laughter or crying and music description).
- Appear on the screen long enough to be easily read.
- Avoid blocking the lower third of the screen or other important visual information.
- Be created with sufficient color contrast between the text and the background to be easily read; visit Web-AIM's color-contrast checker to confirm accessibility.
- Attribute speech to a particular speaker if there are multiple people in the frame.
- Format sounds differently from speech using punctuation such as brackets, parentheses, and italics.
- Be provided in multiple languages, depending on your target audience.

For a great resource on captioning, visit Captioning Key.

To create captions, you can either hire an outside service to transcribe and caption your media, or you can do it yourself.

Do-it-yourself captions (and transcripts) resources:

- YouTube captions and transcripts – a quick, one-page guide on how to do this can be found at NCDAE.org or in video format on YouTube itself; you can also write a script and upload it to YouTube with your video, and YouTube will then automatically place the captions at the relevant time in the video.
- AMARA or Subtitle Horse – upload a video and edit the captioning (free)
- Dragon NaturallySpeaking – dictation software (software purchase required)
- VLC media player – open-source multimedia player with good editing controls, allowing you to produce a transcription for your video (free).

- Express Scribe Transcription – editing software that allows you to produce transcripts for your video (a free version and a professional version are available).

Outsourced captions (and transcripts) resources:

There are many companies that offer captioning and transcription services. The price of the service most often reflects the accuracy with which the video is transcribed. If you do use an outside service, it's always good to double check your captions for accuracy.

- Automatic Sync
- 3Play Media
- Rev
- Dotsub

Ultimately, whether you do it yourself or hire someone else to create captions for you, your captions will exist as a time-stamped, text-based file that can come in a wide variety of formats. (Common formats include .srt, .vtt, and .sbv.)

The next step is pairing your completed caption file with your video. How you do this will depend partly on whether your captions will be "closed captions" or "open captions."

Closed captions:

Video example: Like the Mic

Closed captions can be turned on and off, usually through a web-based video player. Most online platforms that host videos have instructions on how to upload caption files in a way that allows them to be turned on and off or "closed." A short list of platforms supporting closed captions and their upload procedures is included at the bottom of this section. It is important to note that if your online video player or hosting platform does not support closed captions, it is *not* considered an accessible player. We will review accessible players in Section 4.

Closed captions are also excellent in terms of SEO protocol since they make the content of your video entirely searchable by search engines.

Open captions:

Video example: Disability Justice & Philanthropy: Director's Cut

Open captions are captions that are "burned" onto the video. These captions cannot be turned off and are embedded within the video itself. Software like Handbrake and Adobe Premiere Pro have options for creating open captions. Alternatively, open-captioned videos

can be requested as deliverables from most hired captioning services. While not as dynamic as closed captions, if a video player or playback system does not support “closed captions,” or if you are unsure if your audience will be able to access them, an open-captioned version of your video is a great way to ensure that captions will be available.

Resources for adding closed captions to videos hosted on:

YouTube: support.google.com/youtube/answer/2734796?hl=en
Facebook: facebook.com/help/261764017354370
Twitter and Instagram: These platforms do not currently support video captions, so open captions are a great alternative!

2: Audio description (AD)

Video example: Alice Sheppard: Disability as an Art

Audio description is a narrative audio track that describes all essential visual information that is necessary to understanding the story and purpose of the video. To simplify, audio description makes it so that if you were to remove the visual component of your video entirely, your story would still make sense as solely an auditory experience. This is achieved by the addition of a narrator, called the “audio describer,” who describes the important visual elements as they occur. This makes your content accessible to people who are blind or have low vision and are unable to see the video clearly. Audio described videos can also be helpful for people with certain sensory disabilities who are easily overstimulated and would prefer to just listen.

When considering and writing audio description, it is important to remember that individuals who are blind can understand much of a video’s content by listening to its audio. Important visuals that are easily understood just by listening do not need to be audio-described.

For instance, if there is dog on screen who begins barking, there is no need to describe that the barking is coming from the dog. However, if the barking is instead coming from a cat who has learned to bark quite like a dog, it would be important to describe that it is a cat that is barking since sighted folks were only able to recover that information through the visual of the cat opening its mouth as the barking occurred. To take this silly example one step further, had someone in the video exclaimed, ”Oh my, that small cat under the porch is barking! That's not a dog at all!” there would be no need to include additional description of the barking cat since that information was included naturally in the video.

So, to reiterate, if a video includes content that is both important to the story *and* only presented visually, this visual information must be described in order to be accessible to people who are unable to see it. In addition to specific actions and behaviors, on-screen text such as titles or lower thirds that are not spoken aloud by a narrator are common important features that need to be described for a video to be accessible.

Some best practices for audio description include:

- Never be subjective; audio describers should describe what they see, not what they feel.
- Don't impinge on other speech or important sounds.
- Be concise but sufficiently explanatory.
- Be sufficiently distinguishable from other speech in the video.

Refer to this great resource from American Council for the Blind and the Audio Description Project for more information: acb.org/adp/guidelines.html.

Because it is rare for audio descriptions to be written during the production or even the editing stage of a video, the audio description most often has to fit within the natural silences of the pauses of a finished video. As you might imagine, this is a massive constraint and is often very limiting for describers. If, for instance, there is dialogue being exchanged very quickly over a relatively long duration, there may simply be not enough space to include adequate description to convey what's going on visually.

In cases like this, you can choose to add "extended" audio descriptions, in which case the video itself pauses while the audio description plays. For an example of extended audio descriptions go to the Pictures of You site and turn on the audio descriptions before playing the video. This is less than ideal since it breaks up the flow and often requires dropping the original audio track completely. This is a primary reason why it is important for creators to consider thinking about accessibility from the beginning. By creating the necessary audio descriptions alongside the edit, and not needing to pause the video, we help to ensure that the experience will be engaging for everyone. As with captions, there are two general approaches to producing audio description for video: outsource or do it yourself.

Do-it-yourself audio descriptions:

Audio description is often written by professionals who have experience and familiarity with the blind and low-vision community. It can be a tricky crafting good audio description and it is important to know exactly why and how people will be using it. We encourage all video makers to become proficient at creating their own audio description, but it's important to make sure you are in communication with blind and low-vision folks as you learn and begin to implement. Ask actual consumers to give you feedback, and if at all possible include blind and low-vision folks in the process.

You will also need to consider the audio-description "voicer." Audio-description voicers must be able to enunciate clearly and have voices that support the content without being distracting. It's also helpful to have a voice that contrasts with other voices in the film. For example, if most of your interview subjects have higher-pitched voices, use a voicer with a lower-pitched voice. If your cast speaks with American accents, consider a voicer with an English accent.

An alternative and lesser-used method for delivering audio descriptions is a timed-text file, similar to a closed-caption file. This is called the video's visual description and includes the important visual information in text format. Visual description files are ultimately intended to be read aloud by screen readers or media players, rather than voiced by a human narrator. In order to provide a video's visual description to your audience, your player must be able to

support it. Some players will be able to speak the visual description aloud, while others will combine the visual description with the caption file to create a real-time transcript that can be read aloud by a screen reader, such as OzPlayer. Generally speaking, real voice actors are preferable to synthesized speech. Many audio description services have begun to offer synthesized speech because of the lower cost, but would you rather a person or robot help tell your story?

Outsourced audio/visual descriptions:

If you decide to outsource your descriptions, the American Council of the Blind has compiled a comprehensive list of commercial services for producing audio description.

In addition, the following organizations provide description services for a fee:

- 3Play Media (output uses synthesized speech)
- Automatic Sync (output uses synthesized speech)
- Access-USA
- Audio Eyes
- Captionmax
- Mind's Eye Audio Productions
- Valerie H Productions
- WGBH Media Access Group

- The typical deliverables provided by professional audio description services are either an audio file with soundtrack and description mixed together or an audio-described version of the video, with the described audio replacing the original program audio.

3: Transcript

Video example:

A transcript is a text version of the media content. A transcript should capture all the spoken audio, plus on-screen text and descriptions of key visual information that wouldn't otherwise be accessible without seeing the video. Transcripts make video content accessible to everyone, including people who are unable to view the video due to accessibility problems or the technical limitations of your player or event. They can be read in entirety by a screen reader or turned into a Braille document. They are also helpful for people who want to quickly scan or search a video's content and do not have the time to watch the entire video.

Video transcripts should:

- Identify each speaker by name.
- Include all speech content in the video.
- 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. This means that the text needs to be “machine readable” or able to be read by software used by blind and low-vision viewers to convert text to speech or digital Braille. Many pdfs, for instance, are inaccessible since many of them have “flattened” the text into the document. Text formats like .doc and .txt are most commonly used for transcripts since the text is still recoverable by screen readers.
- Indicate the end of the transcript.
- Provide a mechanism to return to the video if the transcript is on a different page.

Transcripts can be made available to your audience by including a link on your website or within the share text of your video-hosting platform, or as a hard copy at your live event.

4: Accessible video player

Example of a fully accessible video player: OzPlayer.

It is important to remember that even when you’ve provided audio description, captions, and a transcript, your video will not be accessible unless your video player is accessible too. People who have limited mobility may not be able to use a mouse or may be unable to use a keyboard. Therefore, an accessible video player is key and should:

- Allow users to control the video (e.g., pause, rewind, etc.) by using only the keyboard or only using the mouse.
- Allow users to control the volume with the mouse only and with the keyboard only.
- Ideally, videos should never start automatically or, if they do, then a mechanism to pause the video should be provided at the top of the page. Autoplay is especially problematic for people who use a screen reader, as they often cannot hear their screen reader over the video when it autoplays.
- Support captions and audio descriptions.
- Allow users to turn on captions or audio descriptions with the mouse only and with the keyboard only.

5: Other features

The following are some other features to consider when making a video accessible for all, depending on who your main audience is.

- **Contrast:** Many people who have low-vision can benefit greatly from higher contrasts in text and graphic-based video components. Whenever possible, use high contrasts that differentiate text and graphics from their background.
- **Avoid quickly flashing lights and strobes:** Strobe-like effects can induce epileptic seizures in some people. To check for flashing content, run your video through the Photosensitive Epilepsy Analysis Tool (PEAT).
- **Consider ASL:** If you know that folks in your live audience are Deaf, if you are targeting that population, or if you want to be fully inclusive, consider adding ASL interpretation to your video. ASL is different from signed English and can provide video content in a way that is clearest for native ASL speakers.
- **Events:** If you are not showing your video online and are instead exhibiting at a live event, make sure the event itself is accessible. This quick guide to accessible meetings can help with these efforts, as can "How to Make Your Social Justice Events Accessible to the Disability Community: A Checklist" put together by Rooted in Rights.

6: Build accessibility in from the start

The easiest way to make sure processes like captioning, audio description, and transcription go smoothly and never detract from your content is to build accessibility in from the start.

Here are some tips:

- During scripting, plan on having a narrator speak all on-screen titles and text aloud so they don't have to be described separately.
- Have interview subjects introduce themselves so the video doesn't have to rely on lower thirds to convey that information.
- Think through framing to ensure captions can be added without cluttering or cutting out important visual information in the frame.
- Consider aesthetic choices: Are colors high-contrast enough? Is the background confusing or disorienting?
- Do not include any flashing, flickering, or strobing content, as this can trigger epileptic seizures and migraines in some viewers.
- If you're displaying text on screen or creating graphics, make sure that they're reasonably large, use high-contrast colors, and remain on screen for long enough to be read; use WebAIM to check accessibility in terms of contrast and size.
- If you will be using graphics and captions, ensure that the framing of the graphics allows space at the bottom of the screen so that the captions are visible and don't overlap with the graphics.
- Build time into your post-production schedule for captioning, audio descriptions, etc.
- During the edit, consider music levels. People who are hard of hearing will struggle to hear or understand dialogue over music levels that are too high. The case may be

similar for people with autism, those with learning disabilities, and those with cognitive disabilities who might be easily overstimulated.

7. Don’t get overwhelmed!

The good news is that you don’t have to start out doing everything all at once! Progressive improvement is okay, as long as you are working toward full accessibility. The more you involve yourself in the process of creating captions, audio descriptions, and transcripts, and working with accessible media players, the easier and more natural it becomes.

Good luck!

8. Other resources

- Accessibility checklist for website managers and video producers
- Captioning your own video for free (Washington University)
- Consultants
  - AbilityNet
  - Rooted in Rights