Unlocking Accessibility: Captions, Transcripts, and Audio Descriptions

UNLOCKING ACCESSIBILITY: CAPTIONS, TRANSCRIPTS, AND AUDIO DESCRIPTIONS

Enhancing Digital Content for All Users

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CONTENTS

INTRODUCTION

Welcome to 'Unlocking Accessibility: Captions, Transcripts, and Audio Descriptions,' a Pressbook with an aim to enhance your digital accessibility knowledge. In today's digital age, ensuring that all users, regardless of their abilities, can fully engage with digital content is not just a legal requirement but a moral imperative. This resource is crafted for educators, content creators, and digital accessibility advocates who are committed to creating inclusive digital environments. Through this guide, you'll explore the roles that captions, transcripts, and audio descriptions play in making content accessible. We'll delve into practical strategies, regulatory frameworks, and innovative tools that can help you navigate the complexities of digital accessibility.

This project is made possible with the funding by the Government of Ontario and through eCampusOntario's support. The views expressed in the publication are the views of the author and do not necessarily reflect those of the Province of Ontario or OOLC.

1.

CHAPTER 1: UNDERSTANDING CAPTIONS, TRANSCRIPTS, AND AUDIO DESCRIPTIONS

Accessibility is not just a feature but a necessity, ensuring that everyone, regardless of their abilities or disabilities, can access, understand, and benefit from digital content. Digital accessibility encompasses a wide range of practices and technologies designed to remove barriers that can prevent individuals with disabilities from using digital platforms. This includes people with visual, auditory, motor, and cognitive impairments who require additional support to engage with web content, applications, and multimedia.

Captions, transcripts, and audio descriptions stand at the forefront of this inclusivity effort, serving as essential tools in the quest to create universally accessible content. Captions provide a textual version of the audio content in videos for those who are deaf or hard of hearing, while transcripts offer a written record of both audio and video content, beneficial for people with hearing impairments and those who prefer reading to listening. Audio descriptions fill in the visual gaps by describing significant visual details in videos, ensuring that individuals who are blind or have low vision can fully comprehend the visual content.

Together, these components do more than just comply with legal standards; they embody the spirit of inclusivity, ensuring that all users have equal access to information and educational resources. By integrating captions, transcripts, and audio descriptions into digital content, creators can significantly enhance user experience, making the digital world a more welcoming place for diverse audiences. This chapter delves into the definitions, importance, and impact of these critical accessibility tools, laying the groundwork for a deeper understanding of how to implement them effectively and why they are indispensable in creating inclusive digital environments.

Diverse Group of People Standing Near a Blackboard

What are Captions?

Captions are textual representations of the audio content in multimedia, such as videos or live broadcasts. They are designed to include dialogue, identify speakers, and describe other auditory cues that might be significant, including background noises or sound effects. Captions make multimedia content accessible to individuals who are deaf or hard of hearing by providing a visual means to understand audio information.

Types of Captions

Captions primarily come in two types: closed captions and open captions. Subtitles are a third form of captions.

Closed Captions (CC): These can be toggled on or off by the viewer. Closed captions are not visible until the viewer chooses to display them, offering flexibility for those who do not need them. They are widely supported across various media players, online platforms, and television broadcasts.

Open Captions: Unlike closed captions, open captions are permanently embedded into the video and cannot be turned off. This means that every viewer sees the captions regardless of their hearing ability, ensuring accessibility is always in place but reducing flexibility for viewers who might prefer an unobstructed view of the video.

Subtitles: These are textual representations of the dialogue in multimedia content, primarily intended for viewers who do not understand the spoken language but can hear the audio. Unlike captions, which are

designed to provide access to individuals who are deaf or hard of hearing by including non-dialogue audio information (like sound effects or speaker identification), subtitles assume the audience can hear the audio and focuses solely on translating the speech.

The difference between open captions, closed captions, and subtitles. Captions vs Subtitles. (n.d.). Captions vs Subtitles. Subly. https://www.getsubly.com/post/captions-vs-subtitles

While captions and subtitles have distinct purposes—accessibility for the deaf and hard of hearing vs. language translation—their implementation often overlaps in the digital space to serve a broader audience. Modern digital platforms and content creators are increasingly recognizing the need to provide both options, enabling all users to choose according to their preferences or needs.

Importance for the Deaf and Hard of Hearing Community

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For the deaf and hard-of-hearing community, captions are more than a convenience; they are a crucial tool for accessing information, entertainment, and educational content. Captions enable individuals with hearing impairments to engage with multimedia fully, participate in cultural and social activities online, and access vital information without barriers.

While captions are indispensable for individuals with hearing impairments, their usefulness extends to a broader audience:

Language Learners: Captions can aid in language learning by providing written dialogue alongside spoken words, helping learners to improve their listening and reading comprehension.

Educational Settings: In educational videos, captions can reinforce understanding by ensuring students catch every word, even in noisy environments or in cases where the audio quality is poor.

Noisy or Sound-Sensitive Environments: Captions enable viewing in environments where audio cannot be heard, such as in crowded places, or in settings where silence is required, such as libraries.

Cognitive and Learning Disabilities: For some individuals with cognitive and learning disabilities, captions can facilitate comprehension by offering an additional pathway for processing information.

Captions exemplify the principles of universal design—creating products and environments to be usable by all people, without the need for adaptation or specialized design. By incorporating captions into multimedia content, creators adhere to accessibility standards and enhance the viewing experience for a diverse audience.
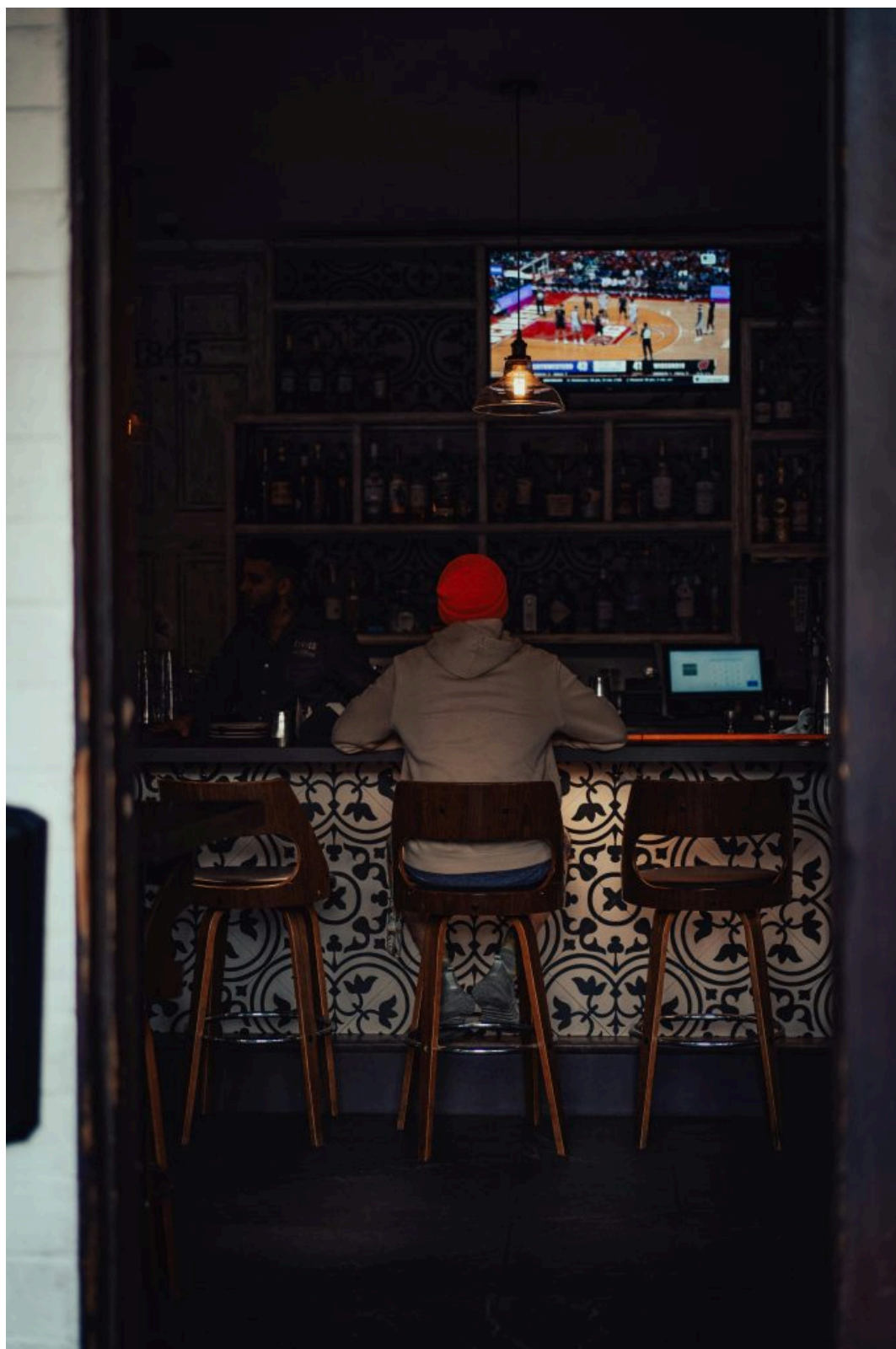
A person watching TV in a bar

Activity

This H5P activity aims to reinforce your understanding of captions in making content accessible.

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CHAPTER 2: CREATING ACCESSIBLE CONTENT WITH SUPPORTED TOOLS

Logo for Canvas, Blackboard, Brightspace, Schoology, and Moodle Learning Management Systems

In the digital age, post-secondary institutions heavily rely on a variety of tools and platforms to create, manage, and distribute educational content. These tools facilitate teaching and learning processes and play a crucial role in ensuring that digital content is accessible to all students, including those with disabilities. This section introduces some of the most common tools supported by post-secondary institutions for accessible content creation and distribution.

Learning Management Systems (LMS)

Learning Management Systems, such as Brightspace, Blackboard, Canvas, and Moodle, are central to the digital educational landscape. These platforms provide features for uploading lecture materials, assignments, and quizzes, as well as facilitating discussions and feedback. Most LMS providers have made significant strides in ensuring their platforms are compliant with Web Content Accessibility Guidelines (WCAG) and other standards. This includes keyboard navigation, screen reader compatibility, and customizable text sizes and colours to accommodate accessibility needs.

Video Hosting Platforms

Video hosting platforms like Microsoft Stream, YouTube and Vimeo offer options for educators to upload and share video content. These platforms have integrated features to enhance accessibility, such as automatic caption generation and the ability to add manual captions and transcripts. Auto-generated captions are progressively improving and can provide a foundation that can be edited and refined. Ensuring videos are captioned accurately is crucial for deaf or hard-of-hearing students and benefits learners in noisy or sound-sensitive environments.

Audio Recording Software

Audio content, including podcasts and lectures, is another medium used in educational settings. Audio recording software, such as Audacity and GarageBand, allows creators to produce high-quality audio content. To make these audio resources accessible, it's essential to provide accurate transcripts, which can be created manually or with the assistance of transcription services and software. Transcripts not only benefit students who are deaf or hard of hearing but also support learners who prefer reading to listening or those who use transcripts as study aids.

Compliance with Digital Accessibility Standards

The accessibility features integrated into these tools are designed to comply with digital accessibility standards, primarily WCAG. Compliance ensures that content is perceivable, operable, understandable, and robust for all users, regardless of their physical or cognitive abilities. Post-secondary institutions often provide training and resources to faculty and staff to promote best practices in creating accessible digital content using these tools.

A Person recording into a computer

Step-by-Step Guide to Making Pre-recorded Content Accessible

Creating accessible pre-recorded content involves more than just hitting the record button. It requires consideration of several factors to ensure that the final product is clear, understandable, and accessible to all learners. Follow these steps to create audio content that meets accessibility standards:

Recording Clear Audio Content

1. Choose the Right Microphone: Start with a good quality microphone that can clearly capture your voice without picking up too much background noise. Consider a USB microphone with noise-cancelling features for better sound clarity.

2. Optimize Your Recording Environment: Record in a quiet, enclosed space to minimize echo and background noise. Soft furnishings can help absorb sound and reduce echo. Turn off any unnecessary devices that might cause interference or background noise.

3. Speak Clearly and at a Moderate Pace: Articulate your words clearly and maintain a steady pace. Speaking too fast can make it difficult for some listeners to follow, especially for those who may be processing the information in a second language.

4. Test Your Setup: Before recording the entire content, do a short test recording to check the audio quality, ensuring your voice is clear and there's minimal background noise.

Adding Transcripts to Audio Content

Transcripts provide a textual version of the audio content, making it accessible to individuals who are deaf or hard of hearing, as well as to those who prefer reading to listening.

1. Create a Transcript: You can manually transcribe the audio or use automated transcription services or software. Manual transcription, though time-consuming, tends to be more accurate, especially for content that contains technical terminology or when audio quality is less than ideal.

2. Use Transcription Tools and Services: There are several tools and services available for transcription, including:

- Automated transcription services: Websites like Otter.ai and Rev.com offer automated options with the ability to edit and refine the transcript.
- Speech-to-text software: Most word processing software now includes speech-to-text features that can assist in creating transcripts.

3. Edit and Format the Transcript: Once you have a draft transcript, edit it for accuracy, clarity, and readability. Include speaker labels if there are multiple speakers, and describe significant non-speech audio (e.g., "[applause]" or "[sound of rain]"). Formatting the transcript with headings, bullet points, or numbered lists can improve its readability and usefulness as a learning resource.

4. Distribute the Transcript Alongside the Audio: Make the transcript easily accessible wherever you're sharing the audio content. If posting online, consider providing a downloadable PDF or a webpage that contains both the audio player and the transcript.

Activity

This H5P activity is designed to sharpen your listening and note-taking abilities, utilizing the structured and effective Cornell Notes method. This activity aids in mastering transcription techniques and in understanding the critical role of accurate transcriptions in ensuring digital accessibility.

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Rev.com. (2020). What are captions? | Rev Explains [Video]. YouTube. https://youtu.be/LcCHwtk-i2I

3.

CHAPTER 3: USING MICROSOFT STREAM FOR CAPTIONED VIDEO CONTENT

Microsoft Stream, a video service in Microsoft 365, provides educational institutions with a tool to manage, share, and utilize video content. It's specifically designed to meet the diverse needs of post-secondary education by offering a platform that simplifies the creation and distribution of video materials. Microsoft Stream supports automatic captioning and enhances learning through transcripts.


Creating accessible video content on Microsoft Stream involves a few key steps to ensure your material is inclusive for all audiences:

Adding Captions: Microsoft Stream allows for the automatic generation of captions for uploaded videos, significantly enhancing accessibility for the deaf and hard of hearing. For higher accuracy, you can manually edit these auto-generated captions or upload a pre-prepared transcript file, which Stream will then synchronize with the video.

Descriptive Audio: Incorporating descriptive audio involves adding a voiceover track that describes visual

elements on the screen, making content accessible for visually impaired users. This can be done by creating an additional audio narration that explains key visual components and actions occurring in the video.

Noise Suppression: Stream offers noise suppression features that help prioritize spoken word content over background noise. This is crucial for clear audio delivery, ensuring that speech is easily understandable without being overpowered by ambient sounds.
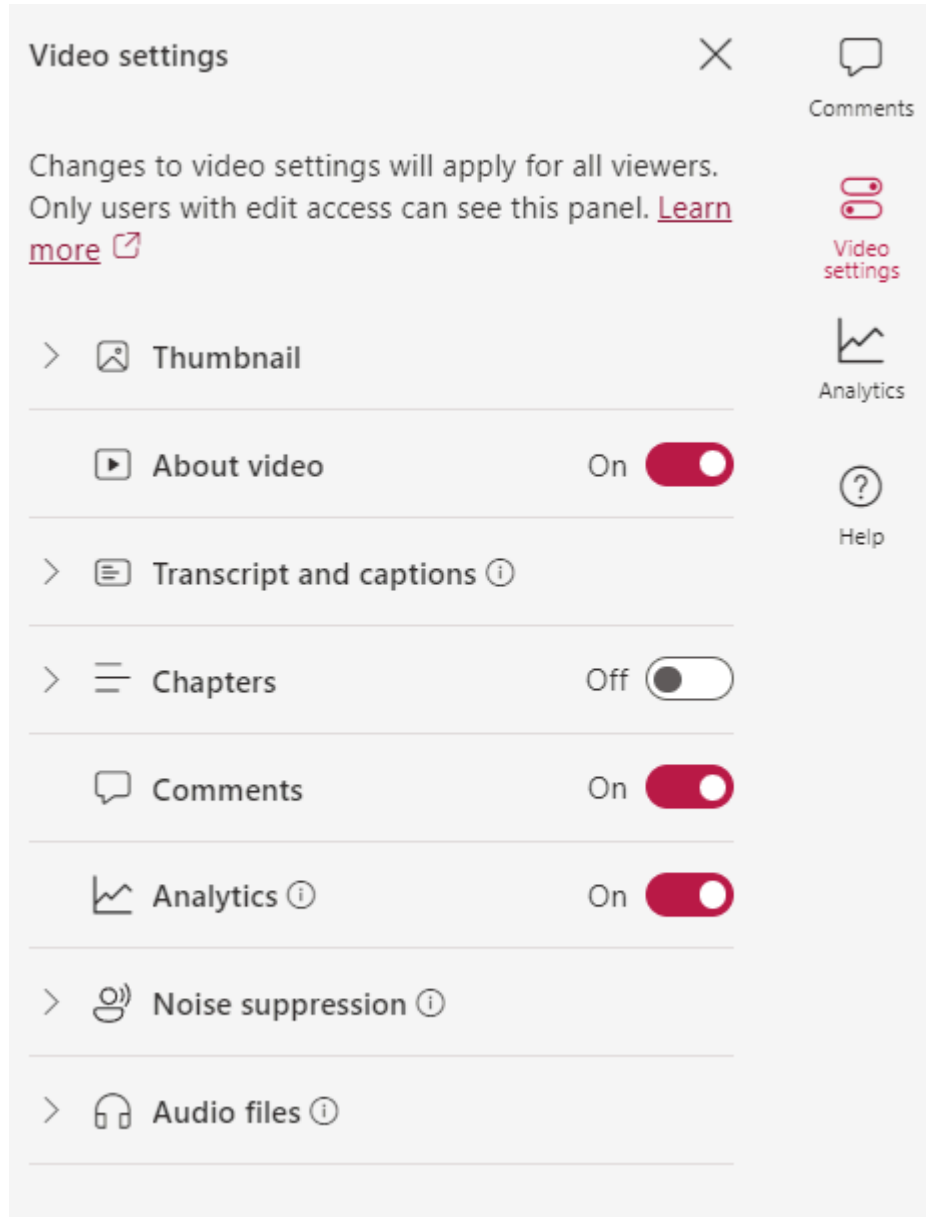
Microsoft Stream video settings displaying Transcripts and Captions that can be edited

Microsoft Stream Overview
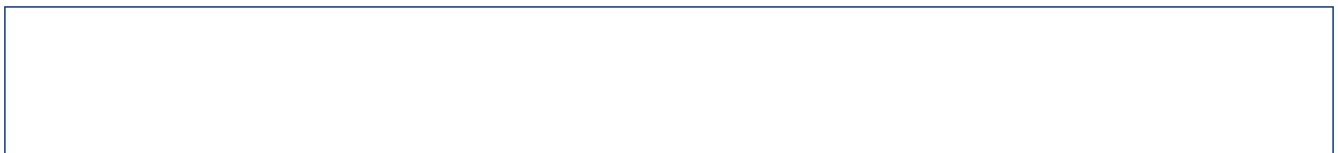
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Understanding Caption File Types

For creating accessible caption content, transcripts play a vital role by providing a text version of the audio tracks in videos or audio recordings. In the context of digital content, a transcript is a written or printed version of material. Transcripts refer to the text version of the audio or audiovisual content, making it accessible to those who are deaf or hard-of-hearing, non-native speakers, and individuals who prefer reading over listening or watching. Common transcript file types include plain text (.txt), which is universally accessible but lacks formatting; Rich Text Format (.rtf), offering more formatting options; and WebVTT (.vtt) and SubRip (.srt), which are specifically designed for online video platforms, supporting time-coded data for captions and subtitles. Each format serves different needs, balancing between compatibility, functionality, and ease of creation.

A subtitle file is a text file that contains dialogue and possibly other auditory information from a video, timed to sync with the video playback. These files enable viewers to read what is being spoken on screen. Subtitle files often come in formats like SRT, SUB, or VTT, each having a specific structure to denote the timing and duration of each subtitle on the screen. They're primarily used for translating dialogues into different languages or for providing accessible content for individuals who are deaf or hard of hearing.

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Activity

This H5P activity will explore your understanding of Subtitle files.

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CHAPTER 4: USING YOUTUBE FOR CAPTIONED VIDEO CONTENT

Like Microsoft Stream, YouTube captioning enhances video accessibility. It allows content creators to add text overlays, and display dialogue or auditory cues, making videos accessible to a wider audience, including those who are deaf or hard of hearing. YouTube offers an automatic captioning feature, utilizing speech recognition technology to generate captions for videos. These auto-generated captions need refinement for accuracy.

To manually add or edit captions, navigate to your video within the YouTube Studio, select "Subtitles" in the left menu, choose the language, and you can then add captions directly in the video timeline. For accuracy, review and adjust the auto-generated captions or upload a custom caption file in formats like SRT or VTT. This approach—leveraging YouTube's automatic feature and making manual adjustments—ensures your videos are accessible.

How (and why) to add captions to your YouTube videos

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YouTube has a blog dedicated to adding captions to YouTube videos. Access the link below to follow their step-by-step guide to add captions to your videos: https://blog.youtube/news-and-events/caption-my-youtube-videos/

Activity

Orient yourself to the subtitle settings in YouTube Studio with this H5P activity.

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CHAPTER 5: LIVE CAPTIONING TOOLS

Live captioning tools like Zoom and Teams have revolutionized accessibility in virtual communication, enabling captions in real-time for meetings, webinars, and conferences. These platforms offer built-in automatic captioning features to help participants with hearing impairments or language barriers engage more effectively. Additionally, some tools support Communication Access Realtime Translation (CART) services, allowing professional captioners to provide accurate and instant captions.

Zoom

Zoom is a popular and accessible video conferencing platform. From emoticons, to chat, and pinning presenters, Zoom offers many solutions for users to engage in meetings Zoom offers automatic captioning services and the ability for hosts to add a professional captioner for CART services. Here is a list of some of the accessibility features available in Zoom:

- Screen-reader compatibility
- Keyboard shortcuts
- Ability to export transcripts
- Downloadable recordings with synced captions
- Auditory indicators
- Spotlight ASL/LSQ interpreters
- Use of non-verbal feedback
- Auto-save chat

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https://support.zoom.com/hc/en/article?id=zm_kb&sysparm_article=KB0058810

Microsoft Teams

Microsoft Teams supports captioning accessibility features, including live captions and transcription services. It supports automatic captions in various languages, manual captioning, and CART services. Live captions can be translated, offering a wide range of languages.

> 📄 *One or more interactive elements has been excluded from this version of the text. You can view them online here: https://ecampusontario.pressbooks.pub/lwilliam/?p=72#oembed-2*

View live transcription in Microsoft Teams meetings – Microsoft Support

Microsoft PowerPoint

PowerPoint for Microsoft 365 offers a transcription feature that converts spoken words into on-screen captions or subtitles in another language during presentations. This function includes customizable options for caption and subtitle appearance, such as position, size, and colour, to meet various environmental conditions and audience preferences.

> 📄 *One or more interactive elements has been excluded from this version of the text. You can view them online here: https://ecampusontario.pressbooks.pub/lwilliam/?p=72#oembed-3*

Activity

Use this H5P activity to test your knowledge of live captioning tools.

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https://ecampusontario.pressbooks.pub/lwilliam/?p=72#h5p-5

Resources:

1. **W3C Web Accessibility Initiative (WAI)**: Guidelines and resources for web accessibility.

    ◦ [Web Content Accessibility Guidelines (WCAG)](#)

2. **Canadian National Institution for the Blind**: Tools and tips for creating accessible content for visually impaired users.

    ◦ [Creating Accessible Content](#)

3. **The Captioning Studio**: Information on CART services and remote captioning.

    ◦ [Captioning and CART Services](#)

4. [Between Sound & Silence: How Technology is Changing Deafness | Op-Docs](#)

Glossary:

CART Services (Communication Access Realtime Translation): A method of transcribing spoken words into text in real-time, typically used in live events for accessibility.

WebVTT (Web Video Text Tracks): A standard file format for displaying timed text tracks (such as subtitles or captions) with video content.

ASR (Automatic Speech Recognition): Technology that converts spoken language into text automatically.

Closed Captions: Text displayed on a video that transcribes speech and other sounds for viewers who cannot hear the audio.

Open Captions: Similar to closed captions but permanently embedded into the video and always visible.

Audio Descriptions: Narrated descriptions of visual elements in videos, providing context for individuals who are blind or visually impaired.

Transcripts: A written or typed version of the dialogue or audio in multimedia content.

Accessibility: The practice of making content usable to as many people as possible, including those with disabilities.

Subtitle: Text displayed on a video that translates the spoken dialogue into another language.

Live Captions: Real-time captions generated during a live event or broadcast.