Best Practices for Captioning

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AMAC ACCESSIBILITY

AMAC Accessibility

AMAC Accessibility provides practical solutions for challenges faced daily by individuals with disabilities.

We focus on solutions that offer utility, usability, and durability.

AMAC offers services including disability compliance consultation, braille, captioning, accessible digital content, and assistive technology.
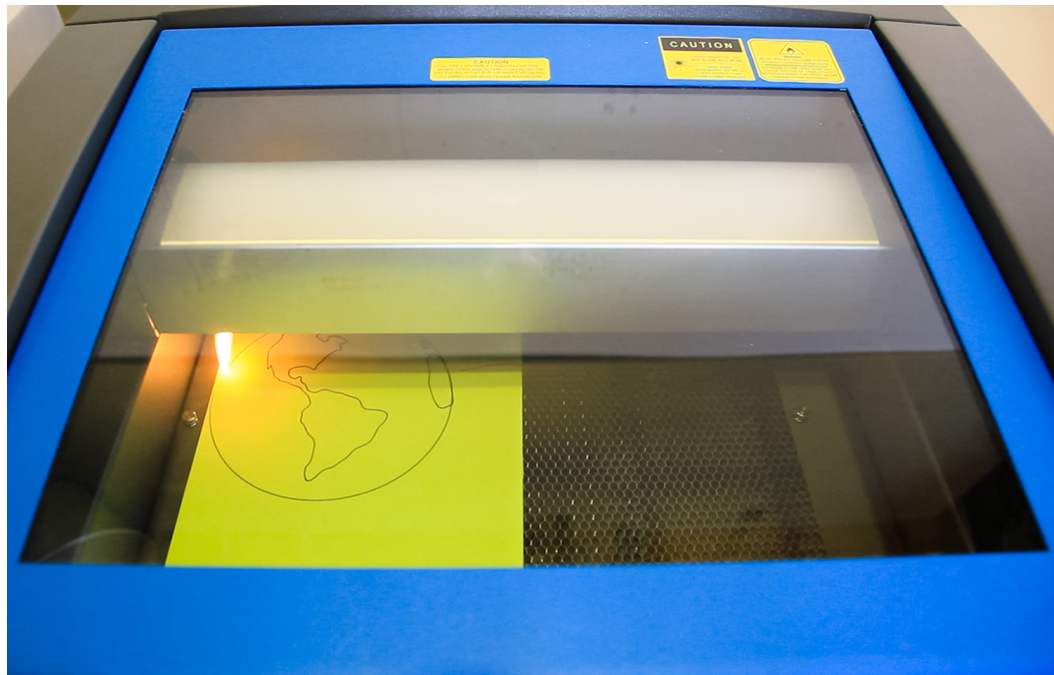
AMAC Services

[Accessibility Compliance Consultations](#) offer training, technical assistance, customer support, and evaluation of overall website accessibility.
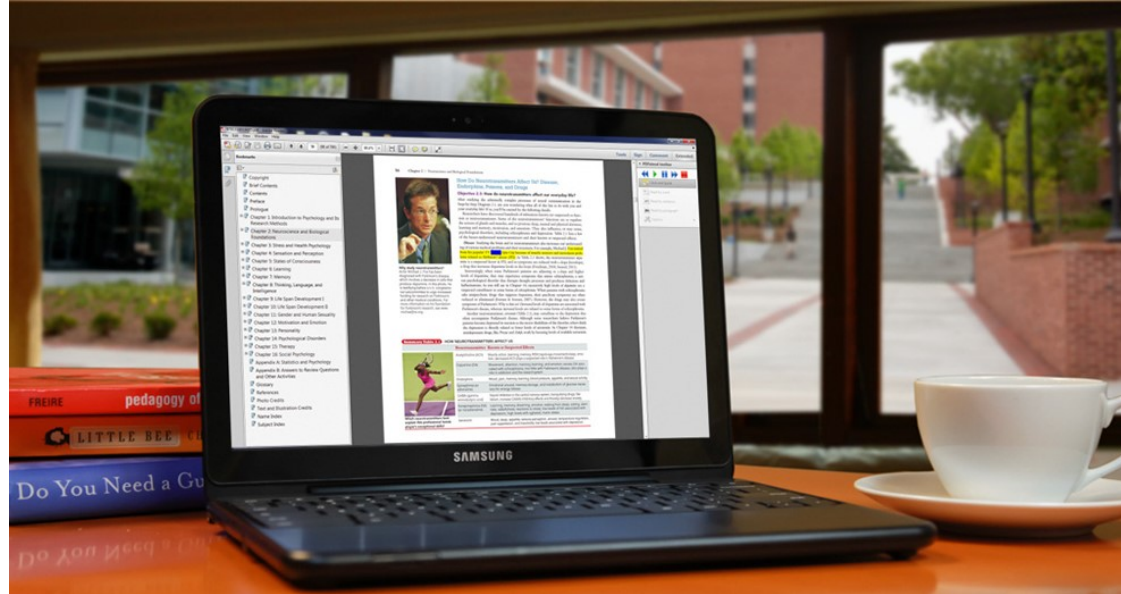
Print and Text Services

Braille Services produce high-quality electronic and embossed braille, as well as custom tactile graphics.

E-text Services

[E-text Services](#) produce and [provide](#) high-quality e-text in formats such as PDF, DOC, PPT, DAISY, EPUB, and HTML.

Captioning Services

Captioning Services provide **real-time remote live-captioning** for college lectures, seminars, and labs, as well as special events such as conferences, graduations, and workshops.

We also provide professionally edited **post-production transcription and closed captioning** for pre-recorded content.
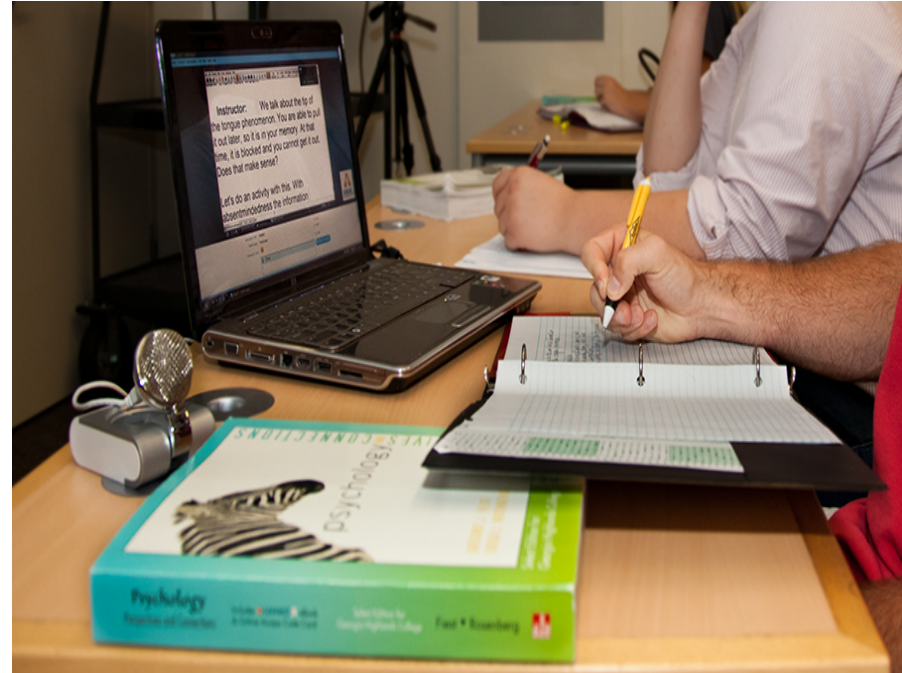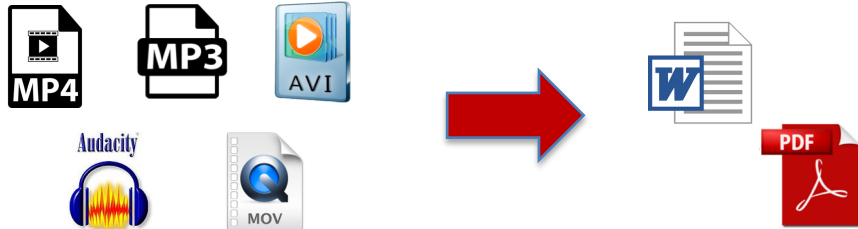
Audio Description Services

AMAC Accessibility's [Audio Description Services](#) narrate and [describe](#) the visual components in multimedia to accommodate persons who are blind or low-vision.

TOOLS for LIFE
Georgia's Assistive Technology Act Program

The [Certified Assistive Technology Team](#) conducts on-site or remote assessments and offers demonstrations, training, and assistive technology for learning, work, and daily living.

The AT team hosts Georgia's [Assistive Technology Act](#) program, [Tools for Life](#).

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Accessibility Research

Our [research](#) primarily focuses on students with disabilities, who are traditionally underrepresented in higher education.

[Disability](#) spans across all age, gender, ethnic, racial, cultural, and socio-economic boundaries.

AMAC Accessibility also studies how corporate, government, and non-profit organizations support customers and employees with disabilities.

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Web Accessibility Group for Higher Education (WAG)

The Web Accessibility Group (WAG) is housed at AMAC Accessibility at Georgia Tech.

We help bring together individuals in higher ed to collaboratively navigate the complex requirements of state and federal accessibility standards and guidelines.

WAG

WAG is funded and supported by the State of Georgia [ADA Coordinator's Office](#), as part of the broader AccessGA Initiative, a statewide partnership of government [agencies](#), [technical colleges](#), and [universities](#).

What is AccessGA?

AccessGA
Georgia's Accessible ICT Initiative

[AccessGA](#) is a joint initiative of the State of Georgia ADA Coordinator's Office, AMAC Accessibility, and the [Georgia Technology Authority](#) (GTA).

The objective is to support Georgia state agencies that strive to provide equitable and timely access to their employees, students, and clients with a wide range of disabilities.

Benefits and services include…

- access to live monthly webinars and archived [webinars](#),

- technical assistance and hands-on training,

- web accessibility evaluations and resources,

- periodic [newsletters](#),

- up-to-date [wiki](#) of ICT accessibility resources and information,

- and special events.

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Your Presenter

Jesús Pulido

As a valued member of Captioned and Described Media Services at AMAC Accessibility, Jesús Pulido coordinates captioned and described media projects and assessments.

He oversees the transcription, editing, and delivery of instructional media projects in all subject areas.

The Carrot or the Stick?

You've heard the "carrot or the stick" theory…

"I sometimes talk about the business case for web accessibility as '3 carrots and a stick' —

and I encourage managers, designers, developers, and everyone to embrace the carrots."

—Shawn Henry, UI Access, W3C

Why Captioning Is Best Practice

- Closed captioning used online can improve SEO for your organization.

- Transcripts and caption files can be converted into other file types.

- Increasingly, the Americans with Disabilities Act is being applied to online settings.

Who Uses Captioned Media?

When designing content, consider…

- people who have color blindness or low vision,
- people with learning disabilities such as dyslexia or ADHD,
- people with head injuries, trauma, or cognitive disabilities,
- auditory learners,
- and the aging population.

Not every disability is visible.

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Curb Cuts

"For people with disabilities, technology makes things **possible**. For everyone else, it makes things **easier**."
        -- Dr. Carolyn Philips

Designed originally to assist disabled veterans and wheelchair users in Kalamazoo, curb cuts also benefit people with…

- strollers,
- shopping carts,
- luggage,
- or skateboards.

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FCC Guidelines

The 21st Century [Communications and Video Accessibility Act](#) of 2010 (CVAA) updates federal communications law.

The [CVAA](#) makes sure that accessibility laws enacted in the 1980s and 1990s are brought up to date with 21st-century technologies, including new **digital, broadband, and mobile** innovations.

Title I – Communications Access
Title II – Video Programming
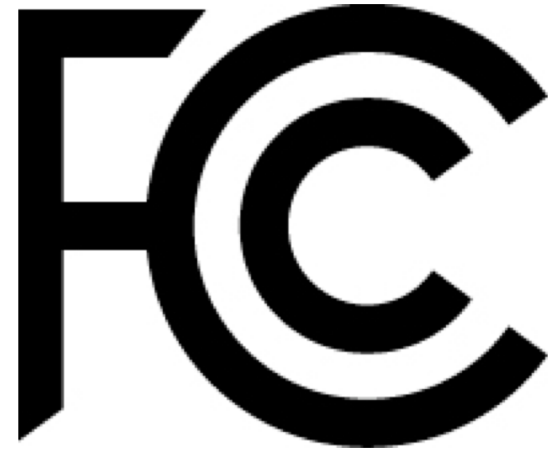
Title I – Communications Access

- Requires advanced communications services and products to be accessible. This includes…

  - voice over internet protocol (VoIP),
  - video conferencing,
  - text messaging,
  - email,
  - and instant messaging.

- Requires **access to web browsers** on mobile devices by people who are blind or visually impaired (a "ramp" to the internet on mobile devices).

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Title II – Video Programming

- Requires video that is closed captioned on TV to be closed captioned the internet.

- Expands the requirement for displaying **closed captions** to devices with **screens smaller than 13 inches**.

- Requires video programming distributors to convey **emergency information** in a manner **that is accessible**.
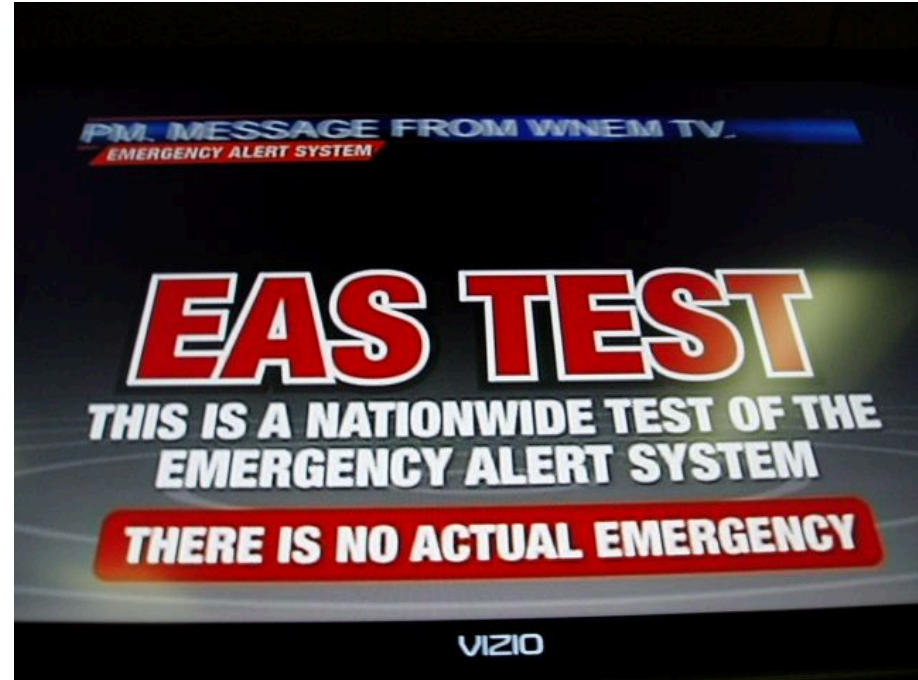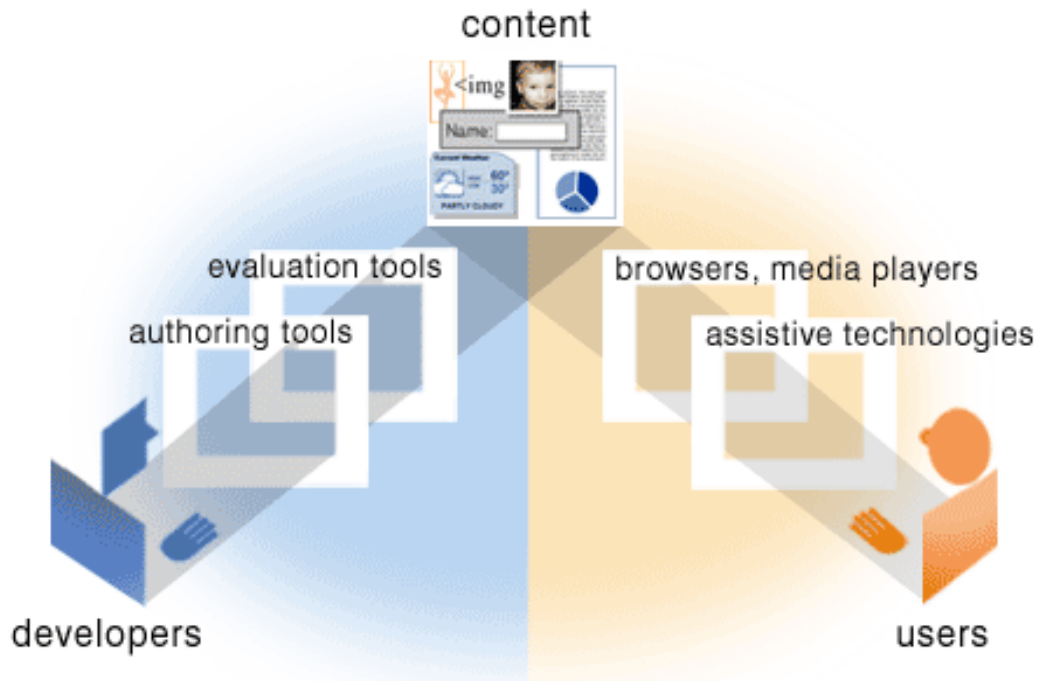
WCAG 2.1

The [Web Content Accessibility Guidelines](#) (WCAG 2.1) are intended to help make **web content more accessible** to a wider range of people with disabilities.

Anyone who wants to use the web must have content that is…

1. Perceivable
    1. Text Alternatives
    2. [Time-based Media](#)
2. Operable
3. Understandable
4. Robust

WebVTT: Web Video Text Tracks Format

WebVTT is the [W3C standard](#) for displaying timed text in connection with the [HTML5 <track>](#) element.

The WebVTT specification is still in draft stage, but the basic features are already supported by all major browsers.

```
WEBVTT

00:11.000 --> 00:13.000
<v Roger Bingham>We are in New York City

00:13.000 --> 00:16.000
<v Roger Bingham>We're actually at the Lucern Hotel, just down the street

00:16.000 --> 00:18.000
<v Roger Bingham>from the American Museum of Natural History

00:18.000 --> 00:20.000
<v Roger Bingham>And with me is Neil deGrasse Tyson

00:20.000 --> 00:22.000
<v Roger Bingham>Astrophysicist, Director of the Hayden Planetarium

00:22.000 --> 00:24.000
<v Roger Bingham>at the AMNH.

00:24.000 --> 00:26.000
<v Roger Bingham>Thank you for walking down here.
```
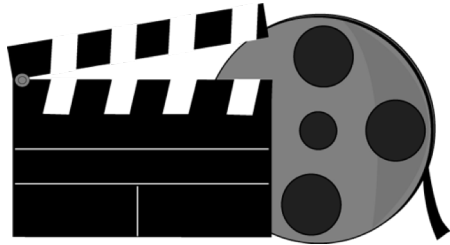
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Getting Started

How do I caption my own videos?

"Do-it-Yourself" (DIY) Transcription

The key to accurate captions starts with an accurate transcript.

Dictation

- Windows dictation
- macOS dictation
- Dragon NaturallySpeaking
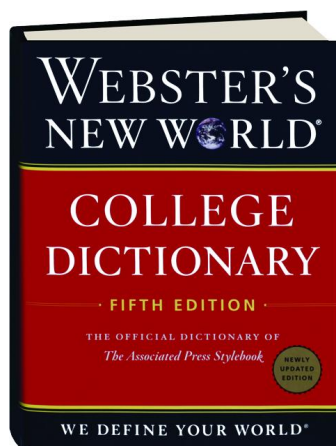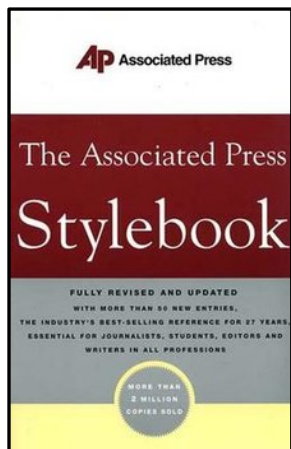
Transcription

- ExpressScribe
- Foot pedal

DIY Transcription Standards

- The DCMP [Captioning Key](#)

- The Associated Press [Stylebook](#)
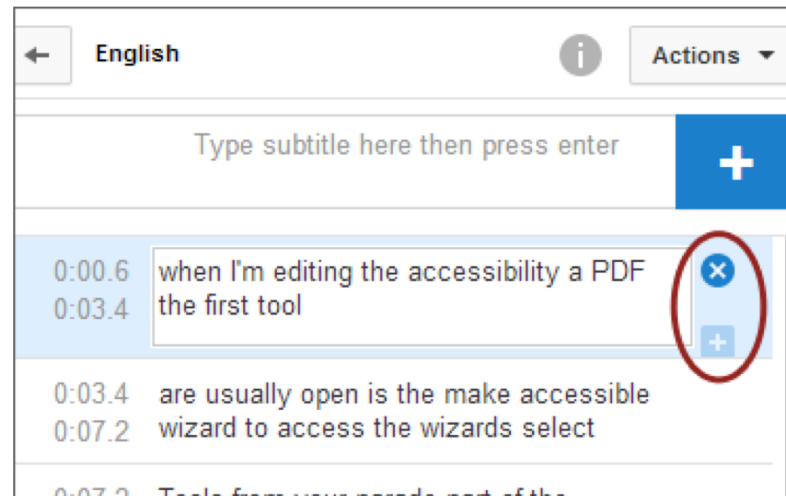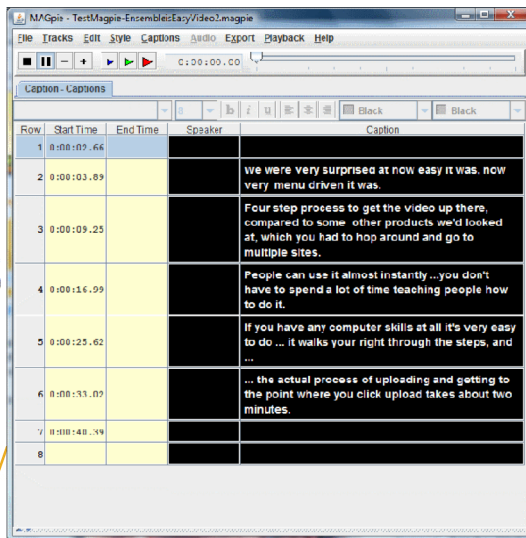
- Webster's New World [College Dictionary](#)

Above all, consistency is key.

DIY Captioning Editors

- [Amara](#)
- [Camtasia](#) Studio
- YouTube [Studio](#) (beta)
- Movie Captioner
- [CADET](#) (Caption and Description Editing Tool) from the National Center for Accessible Media (NCAM) at WGBH

Captioning for Non-Linear Editors (NLE) 💰

- CaptionMaker
- [MacCaption](#)

telestream

Import your script (any document or text file) → ATS automatically synchronizes the video and transcript → Import your video file

Import & Export Standard Caption Files (.scc, .sami, .stl, .ult, .srt, .cap) ↔ MacCaption & CaptionMaker ↔ Import & Export media with captions (MPEG, .mxf, .mcc — Manzanita, HARRIS, OMNEON, SeaChange)

Integrate with your NLE

Output captioned video to tape, file, web, disc, or video server

MacCaption

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Accessible Video Players

- [AblePlayer](#), which is free and open source
- [JW Player](#), which is free for non-commercial use

- [Video.js](#)
- [MediaElement.js](#)

Firefox 41%
IE11 23.3%
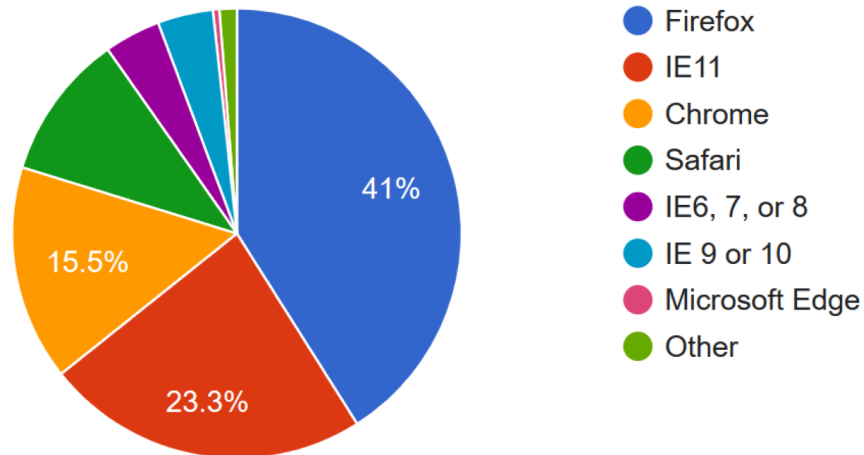**Chrome** 15.5%
Safari
IE6, 7, or 8
IE 9 or 10
Microsoft Edge
Other

When using your primary screen reader, which browser do you use most often?

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Embedded versus "Sidecar"

Embedded caption files include…

- user data captions,

- line 21 VBI, however, this is used for **standard definition video only,**

- and QuickTime files, however, QuickTime for Windows is **no longer supported** by Apple.

Sidecar caption files include…

- web format caption files, such as SRT and **WebVTT**,

- **MCC files**, an improvement on SCC files and contain **native CEA-708** digital captions,

- SCC, but they contain **608 (analog)** captions only,

- and Avid AAF caption track files.

What is a Sidecar?

[America's Sidecar Dogs](#)

"Open" Captions

Open captions are always visible because they're treated like a normal video layer and become "burned in" to the video upon export.
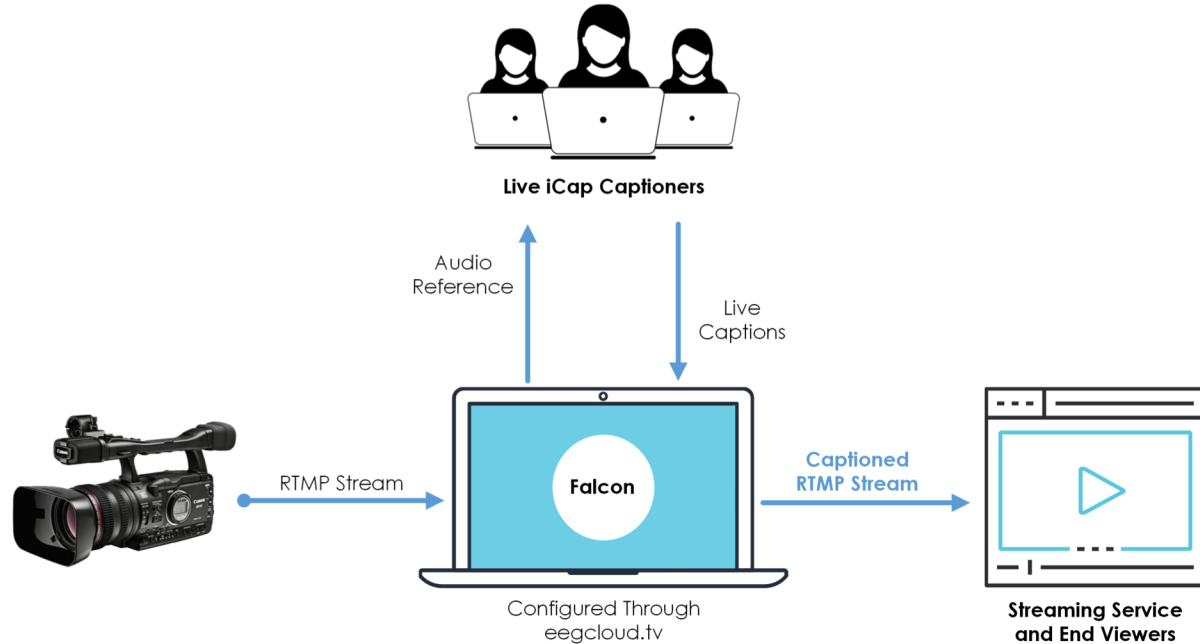
Use cases may include…

- conference presentations,
- social media or platforms with **muted auto-play**,
- or any platform with limited or no closed captioning support.

that NASA is committed to the Webb Space Telescope.

Live "Cloud" Captioning

- [StreamText](#)
- [1CapApp](#)

- EEG [iCAP](#) connects your network to an iCap [stenographer](#) or captionist.

- EEG [Falcon](#) routes caption data from iCAP to YouTube, Wowza, Uvault, etc.

  - SDI delivery
  - Video over IP (VOIP)
  - Live web streams

Live iCap Captioners

Audio Reference

Live Captions

RTMP Stream

Falcon

Configured Through eegcloud.tv

Captioned RTMP Stream

Streaming Service and End Viewers

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Live "Cloud" Streaming

- [YouTube Live](#) is a platform that integrates livestreaming and closed captioning functionality.

- However, YouTube's [Content ID](#) may misidentify copyright-protected content and potentially shut down a live stream.

- Automatically generated captions on their own are not accurate enough for educational or "mission-critical" content.

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Fair Use?

In 1996, Congress passed the so-called Chafee Amendment (now Section 121 of the Copyright Act), which provides in part that…

"it is **not an infringement of copyright** for an authorized entity to reproduce or to distribute copies or phonorecords of a previously published, nondramatic **literary work** if such copies or phonorecords are reproduced or distributed in specialized formats exclusively for **use by blind or other persons with disabilities**."

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Questions? Comments?

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Additional Resources

- The GSA's [Technology Transformation Service](#) publishes the [U.S. Web Design System](#), which offers templates and UI components to improve universal access.

- The [U.S. Digital Service](#) publishes the [Digital Service Playbook](#).

- This [Berkeley page](#) contains tips for how to caption videos hosted on YouTube. You will need to be the "Video Manager" in order to work on the captions.

- The Department of Justice Civil Rights Division publishes the [ADA Design Standards](#) and [Technical Assistance Materials](#) for ICT accessibility.

- The [General Services Administration](#) publishes the [Revised Section 508](#) Standards, as well as tools and training.

- On January 18, 2017, the Access Board published a [final rule](#) ("ICT Refresh") that jointly updates requirements for information and communication technology covered by Section 508 of the Rehabilitation Act and Section 255 of the Communication Act.

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