



Considerations in Multimedia Accessibility

Session presented by:

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Description



A high-level look at tools and tips to help make audio and video more accessible. Includes some discussion about captioning techniques, such as re-voicing.

Session Presenter: Carolyn Phillips



Carolyn Phillips
Assistive Technology Director

Carolyn P. Phillips is nationally recognized in the field of assistive technology and disabilities. Carolyn serves as Director and Principal Investigator of Tools for Life, Georgia's Assistive Technology (AT) Act Program at Georgia Tech | AMAC.

Session Presenter: John Rempel



John Rempel
Quality Control & Training Specialist

John has 17 years of experience working with people with disabilities. As a Quality Control and Training Specialist with AMAC, John assesses individuals' needs, develops training materials and web audits for its members, and provides quality control for AMAC training materials and e-text production.

Session Presenter: Patrick Fraser



Patrick Fraser
Grants & Operations Manager

Patrick has worked in a variety of capacities at AMAC over the last seven years. In addition to leading all of AMAC's grant writing and research administration, Patrick is also a trained C-Print captionist and a seasoned audio describer. Patrick previously coordinated services for AMAC's Captioning and Described Media Unit.

AMAC Accessibility Solutions



- AMAC Accessibility is a social change organization on a mission to create affordable services for governmental, private and non-profits organization working with individuals with disabilities. Services include e-text, braille, captioning, assistive technology, office management software and consulting.



Accessibility Made Smart



AMAC creates practical solutions that work, with a focus on utility, ease of use, and high quality.

- **Accessibility Consulting** focuses on organizational accessibility needs with evaluation, technical assistance, customer support, and website accessibility solutions.
- **Braille Services** produces customized projects from both print materials and electronic text including partial books and chapters, or graphics only, using cutting-edge technology.
- **Captioning Services** makes classrooms, meetings, labs, and other audio environments fully accessible for the deaf or hard-of-hearing.
- For more information, please visit our website at www.amacusg.org

Accessibility Made Smart



AMAC creates practical solutions that work, with a focus on utility, ease of use, and high quality.

- **Audio Description Services** makes visual information present in multimedia accessible to persons who are blind or low vision.
- **Professional E-Text Producers** provide high-quality e-text in many formats such as PDF, DOC, DAISY, and HTML.
- **AMAC's Certified Assistive Technology team** provides on-site and remote assessments, demonstrations, training, and technical assistance for education, work, and daily living environments.
- For more information, please visit our website at www.amacusg.org

Tools for Life Mission



We're here to help Georgians with disabilities gain access to and acquisition of assistive technology devices and assistive technology services so they can live, learn, work, and play independently in the communities of their choice.



Accessibility Checklists



You can find helpful '508 Checklists' for various file types on the U.S. Department of Health and Human Services website:

[508 accessible files checklists](#)



Checklist: PDF File



Checklist: Word Document



Checklist: Excel Document



Checklist: PowerPoint Document



Checklist: HTML File



Checklist: Multimedia File

HHS.gov

U.S. Department of Health & Human Services

Considerations



Check Master Requirements

[508 accessible files checklists](#)

ID	1.0.Master Requirements for all Documents	Yes (Pass)	No (Fail)	N/A
1.1	Does the document file name not contain spaces and/or special characters?			
1.2	Is the document file name concise, generally limited to 20-30 characters, and makes the contents of the file clear in the context in which it is presented?			
1.3	Does the document utilize recommended fonts (i.e., Times New Roman, Verdana, Arial, Tahoma, Helvetica, or Calibri)?			
1.4	Does the document refrain from using flashing/flickering text and/or animated text?			
1.5	Do all URLs contain the correct hyperlink and display the fully qualified URL (i.e., http://www.samhsa.gov and not www.samhsa.gov)?			
1.6	Are all URLs linked to correct Web destinations?			
1.7	Are e-mail links accessible?			
1.8	Has a separate accessible version of the multimedia file been provided when there is no other way to make the content accessible?			

HHS.gov

U.S. Department of Health & Human Services

Secondary Sensory Channel



Check Secondary Sensory Channel Requirements

[508 accessible files checklists](#)

ID	2.0.Secondary Sensory-Channel Requirements	Yes (Pass)	No (Fail)	N/A
2.1	If a video—Does the video or animation contain synchronized captioning?			
2.2	If an animation—Does the animation have a text equivalent?			
2.3	If a sound file—Does the sound file have a matching transcript file?			

Functional Control



Check Functional Control Requirements

[508 accessible files checklists](#)

ID	3.0. Functional Control Requirements	Yes (Pass)	No (Fail)	N/A
3.1	Does the file have the minimum required media controls of video resizing, volume control, play/stop buttons, and the ability to turn captions on and off?			
3.2	Are all media controls keyboard accessible?			
3.3	Is the media embedded in a way that allows the user to use keyboard controls to move in and out of the video in relation to surrounding content?			

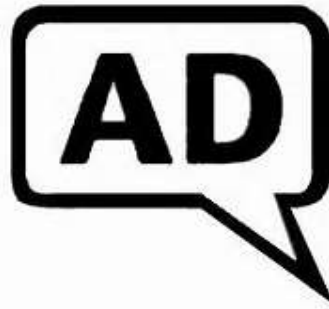
What is Audio Description?



Audio description, also known as **video description** or **visual description**, is an additional narration track intended primarily for consumers of visual media (including television and film, dance, opera, and visual art).

It consists of a narrator talking through the presentation, describing what is happening on the screen or stage during the natural pauses.

Examples: Audio Description Icons



What is Closed Captioning?



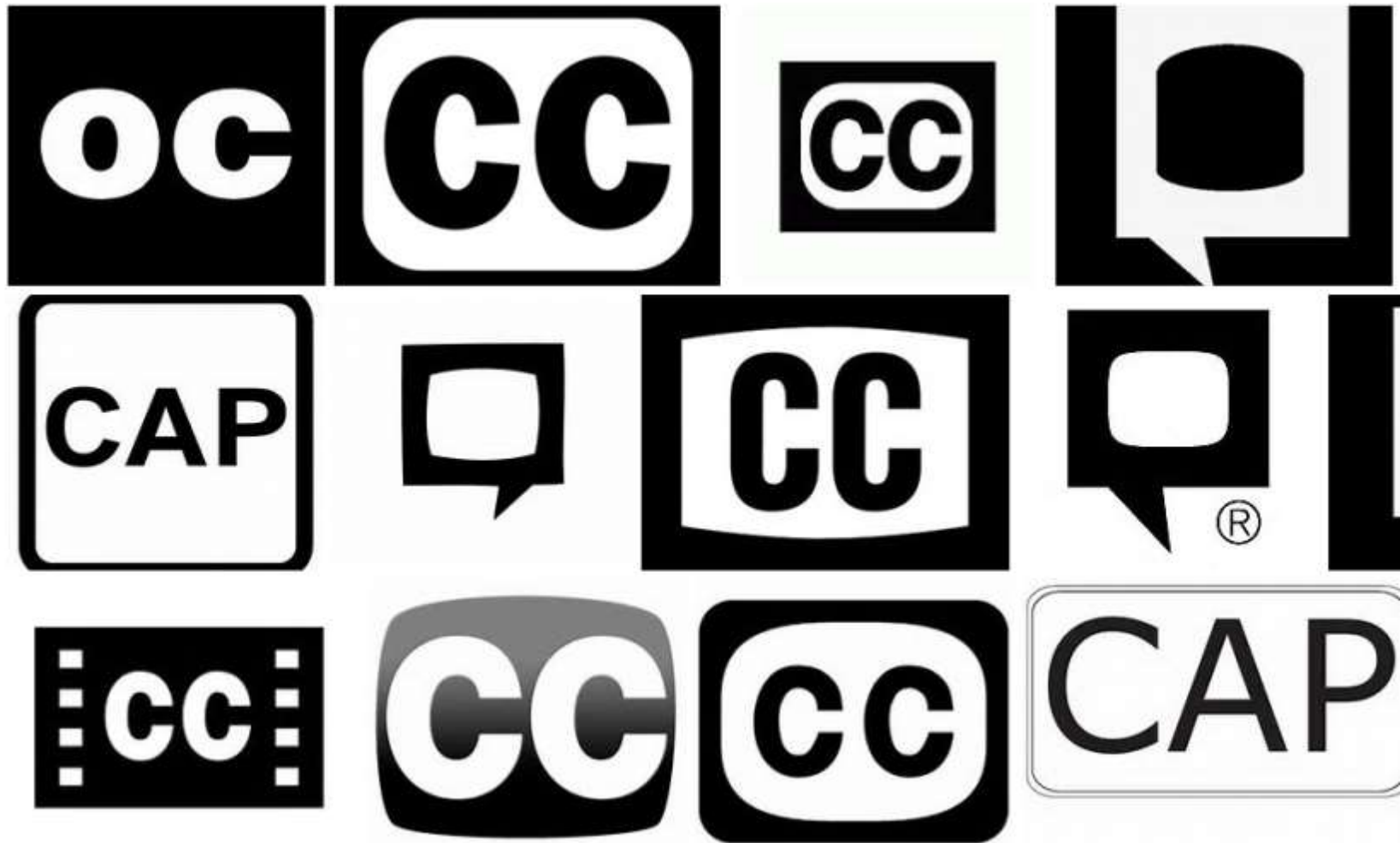
- **Closed captioning (CC)** is a process of displaying text on a television, video screen, or other visual display to provide additional or interpretive information.
- **Closed captioning** is typically used as a transcription of the audio portion of a program as it occurs (either verbatim or in edited form), sometimes including descriptions of non-speech elements.

What is Open Captioning?



- "Open", "burned-in", "baked on", or "hard-coded" captions are visible to all viewers.
- The term "closed" versus "open" indicates that the captions are not visible until activated by the viewer, usually via the [remote control](#) or menu option.

Examples: Captioning Icons



Technology and the Law



- Ubiquity of the Internet
- Proliferation of Tablets and Smartphones
- Essential Services Available Online
- Greater Awareness of People with Disabilities

The ADA, Then and Now



- 25 Year Anniversary
- Became Law Prior to Birth of the Internet
- Designed to protect individuals against discrimination on the basis of disability
- The Significance of Title III of the ADA:
 - What does “Places of Public Accommodation” mean?

Lawsuit Filed Against Harvard and MIT



- National Association of the Deaf Files Class Action Lawsuit Against Harvard and MIT
 - February, 2015
- Denying People who are deaf and hard of hearing access to thousands of videos and audio recordings
 - MOOC Offerings

DOJ: Slow Bureaucrats or Accessibility Champions?



- High Profile Settlements
- Accessibility Requirements
 - WCAG 2.0 (Level AA) Applied
 - Web Accessibility, which includes captioning
 - Mobile Accessibility
 - Appoint Web Accessibility Coordinator
 - Adopt Web Accessibility Policy

DOJ Settlement with edX



- edX, Provider of Massive Open Online Courses
- Settlement Reached April 2nd, 2015
- Four Year Agreement Requires:
 - Website, Mobile Apps, LMS Accessible within 18 months
 - Provide Guidance to Course Creators to make courses accessible
 - Appoint Web Accessibility Coordinator
 - Adopt Web Accessibility Policy
 - Web Accessibility Training Provided to Employees
 - Retain Consultant to Evaluate Conformance

Section 508 Requirements



- 1998 Amendment to the United States Workforce Rehabilitation Act of 1973, a federal law mandating that all electronic and information technology developed, procured, maintained, or used by the federal government be accessible to people with disabilities.
- Specific Requirements for Video Equivalents Under Section 508
 - Video or Multimedia Products (1194.24)

Section 255



- Requires telecommunications products and services to be accessible for people with disabilities
- Required if it is “readily achievable,” meaning easily accomplishable, without much difficulty or expense
- If not “readily achievable,” they must design products to be compatible with adaptive equipment used by people with disabilities

CVAA



- Twenty-First Century Communications and Video Accessibility Act – signed into Law Oct. 8, 2010
- Updates federal communications law to increase the access of persons with disabilities to modern communications
- Title I: addresses communications access to make products and services using Broadband fully accessible to people with disabilities
- Title II: Makes it easier for people with disabilities to view video programming on television and the Internet

WCAG 2.0



- Part of a series of web accessibility guidelines published in 2008 by the Web Accessibility Initiative (WAI) of the World Wide Web Consortium (W3C), the main international standards organization for the internet.
- Level A, AA, and AAA
- Captions:
 - SC 1.2.2
- Audio Description or Media Alternative for Synchronized Multimedia:
 - SC 1.2.3

Section 508 Refresh (ICT Refresh)



- United States Access Board Updating ICT Covered by Section 508 and Section 255
- Harmonization of Standards with WCAG 2.0
- Proposed Rule released Feb. 18, 2015 that includes:
 - Computer Hardware/Software
 - Websites
 - Multimedia

Captioning 101



Why bother with captioning?

- FCC Requirements
- Americans with Disabilities Act (ADA)
- Individuals with Disabilities Education Act (IDEA)
- It benefits those with different learning styles (visual learners).
- It's helpful in learning a second language.

Hello World

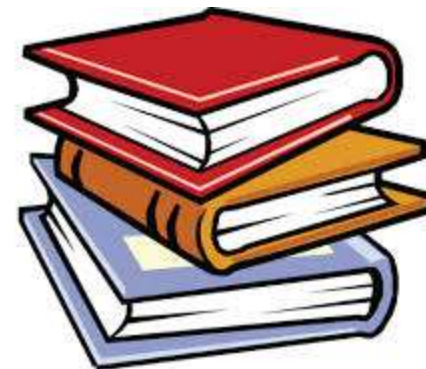
周公吐哺

Captioning 101



Why bother with captioning?

- Increase your reach! Captions ensure your videos are indexed by search engines more effectively.
- Increase usability for everyone.
- Enable access to audio information in loud settings.
- Promote literacy!
- We have an aging population.



Captioning 101



- Real-Time Captioning versus Captioned Media
- Open versus closed captions: What should I create, and why?
- Verbatim (Communication Access Real-time Translation) versus Meaning for Meaning Real-Time Captioning
- Captions versus Subtitles 😊



Closed Captioning



- CC is embedded either in the metadata on high definition (HD) or on line 21 of standard definition (SD). It is then decoded by the viewers' television or set top box to be visible as necessary.
- The standard is known as 'CEA' or 'EIA-608'.
- A decoder to read and an encoder to write.

Closed Captioning



Automated?

- A caption file is read from the media. They are not added as the program is broadcast. The caption file may be embedded or require third party or in-house production of the caption file prior to broadcast. The caption file can be uploaded to the web as well. (YouTube)

Re-voicing/Voice recognition/Re-speaking

- Typically only used in live captioning.

Closed Captioning Tools: Quality Matters



Automated Captions

- YouTube automated captions versus edited captions:

<https://support.google.com/youtube/answer/2734796?hl=en>

- The process can take time, but it is worth the effort.

Closed Captioning: Quality Matters



Automated Captions: Human Eyes Need to Review

3. “That’s your special friend butterfly who came to say ‘hello’ to you”

What YouTube heard:

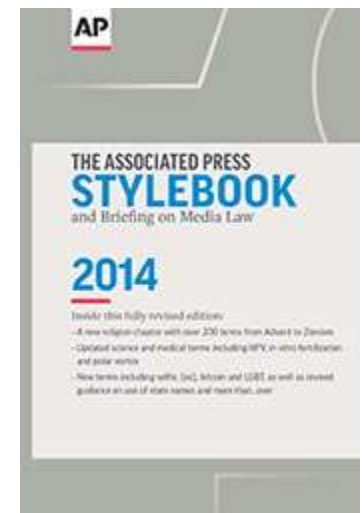


Closed Captioning Tips: Quality Matters



Creating Transcripts: Transcribe the audio.

- Manually: Express Scribe software, foot pedals
- Using Voice Recognition Software:
 - Dragon Naturally Speaking: Train the software!
 - Windows and Mac voice recognition technology
- Proofread and edit (new eyes!)
- The Associated Press (AP) Stylebook



Captioning Tips: Use Plain Language



- Nearly 50% of US adults read at the 7th grade reading level.
- Create accessible, inclusive content from the start.
- For more information - [Plain Language Tips:](http://www.plainlanguage.gov/usingPL/)
<http://www.plainlanguage.gov/usingPL/>

Captioning Tips: A Word about Language



- Use common words. If you must use unfamiliar words, define them for the reader.
- Avoid confusing words and phrases.
- Avoid or explain acronyms, jargon, and idioms.

Captioning Tips: Words in Plain Language



Common Words /Phrases

- > It is often the case that
- > As a consequence of
- > During the time that
- > In close proximity

Plain Language

- > Often
- > Because
- > While
- > Near

Captioning Guidelines



- See the DCMP's Captioning Key for detailed info.
- Spelling, punctuation, synchronization, placement, two lines, proper line breaks, etc.
- Speaker identification, use of italics, proper use of slang, important sound effects, contrast
- Captioned Media versus Transcripts (Context matters!)
- Plan ahead!



Captioned Media: Resources and Training



- Training, hands-on practice, and then more training...
- www.DCMP.org (DCMP “approved” captions)
- MAPGpie (Media Access Generator) (Windows only right now) (Free software)
 - National Center for Accessible Media
 - Works with audio description, too!
 - Additional software available

Availability on TV



1. Regulatory Requirements
 - Highly variable with issues of quality control
 - CC standards, AD Best Practices
2. Cost
 - CC low, AD high
3. Technology
 - Broadcasting technical support system
 - User interface accessibility (Set-top box/remote)

Availability over the Web



1. Regulatory Requirements

- None

2. Cost

- CC low, AD high

3. Technology

- CC straightforward, AD very technically difficult
- User interface accessibility (Accessible Media Player)

Audio Description Basics



- Audio Description: Live or on media/videos
- Audio Description is a narrated description of visual content (costumes, scene changes, settings, and/or other important visual content like body language)
- Sounds come through the SAP channel (the secondary audio track) (Turn on or off)
- High quality recordings and audio mixing abilities needed.
- Simple versus complex: Audio Description often requires extensive research.

Audio Description Basics

- *The Visual Made Verbal*, Dr. Joel Snyder
- Skills of good audio describers:
 - Concentration, eye for detail, vocabulary, objectivity, sense of timing.
 - AND technology skills
- An emerging science and art
- Inclusion and UDL



Audio Description: Resources and Training



- AMAC's audio description demo (Show video): *National Geographic, Jules and Jim* clips
- Audio description in the news: *Daredevil* series on Netflix with audio description.
- Audio description as a science and an art
- Use vivid, succinct language at natural pauses.
- Draft a script, and have it proofed (new eyes!)
- Again, do your research!
- Pre-show notes (braille options)

Audio Description: Resources and Training



- Training, hands-on practice, and then more training...
- American Council of the Blind's Audio Description Project: <http://www.acb.org/adp/>
- The Audio Description Coalition: <http://www.audiodescriptioncoalition.org/index.html>
- The Kennedy Center's Leadership Exchange in Arts and Disability (LEAD): <http://www.kennedy-center.org/accessibility/education/lead/>

Tips: Creating Accessible Content



- When is Audio Description Needed/Can I find an alternative?
- Utilize inclusive presentation planning best practices.
- Have the presenter describe what is going on in the video.
- Use descriptive language to describe visual information.
- Leave out the “As you can see here,” etc.
- Use precise language.

Available Resources



- Media Access Group (WGBH)
 - <http://main.wgbh.org/wgbh/pages/mag/captioning.html>
 - <http://main.wgbh.org/wgbh/pages/mag/description.html>
- Caption it/Describe it Yourself!
 - <http://www.dcmp.org/ciy/>
 - <http://www.dcmp.org/captioningkey/>
 - <http://www.dcmp.org/descriptionkey/>
- AMAC Captioning and Described Media Unit
 - <http://amacusg.org/captioning.php>

The TFL Team



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Disclaimer

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