

Advanced Workflows for Closed Captioning in Higher Education

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Agenda

- > Laws & Lawsuits Impacting Closed Captioning Requirements
- > Workflow Type: Integrations
- George Mason University's Workflow, Timeline, & Cost
- > Workflow Type: DIY Captioning
- > Workflow Type: Using APIs
- > API Example: Penn State





Accessibility Laws: 508, 504

Rehabilitation Act: Sections 508, 504

- Covers federal agencies and orgs with federal funding
- Assistive Technology Act









Accessibility Laws: ADA

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ADA: Titles II, III

- Covers public and commercial entities
- Lawsuits: What is a "place of public accommodation"?





Accessibility Laws: CVAA

Rehabilitation Act: Sections 508, 504

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ADA: Titles II, III

- Covers public and commercial entities
- Lawsuits: What is a "place of public accommodation"?

CVAA

- Covers Internet content that aired on TV
- Includes video clips
- Copyright owner bears responsibility





Closed Captioning Lawsuits: Netflix

- National Association of the Deaf (NAD), et al. v Netflix
 - What constitutes a place of public accommodation?
 - How did the NAD originally bring Netflix under the ADA?
 - Settlement & implications





Closed Captioning Lawsuits: Harvard/MIT

- National Association of the Deaf (NAD), et al. v Netflix
- NAD vs. Harvard & MIT
 - Current state of the case
 - Implications for higher education
 - Changing scope of the ADA





Integrations



Integrations: How Do They Work?

First, link your accounts



1. Tag your video for captioning

2. Captioning vendor will get started on your captions

Integrations: In-Depth Look

Timelines, Workflows and Costs

Lessons Learned, Achievements Made and Workflows Advanced

June 2011 -Proposal Approved (hired students and purchased technology)

<u>Aug 2009 –</u>

Purchase of DocSoft (Faculty and Staff to use on their own)

<u>Jan 2011</u> –

Submitted Captioning Proposal (ATI DIY, we do it, you send it)

<u>July – Sept 2011</u> Training and Launch of Pilot Project (Small group of Instructional Designers)

Jan and Spring 2012 – Time to update and better our process from lessons learned. Full time Accessible Media Coordinator was hired.

2013 – Started using a Hybrid method of moving from DIY to more Vendor. (See costing slide)

Spring 2014 – Kaltura implemented and a RFP (Request for Proposal) was sent out for captioning <u>Spring 2015</u> – IFB (Invitation for Bid) all money comes from overhead funds from the University due to high costs and demand.

Today – We have multiple contracts with captioning vendors to help with cost based upon turn around time costs, SME topics, etc.

Assistive Technology Initiative

Do It Yourself - Accessible Media

*Link opens in a new window.

Captions & Transcripts

Here are some resources for you to provide your own captions and transcripts based on the video server you are using. These resources are also available in our <u>Guide to Creating Accessible Electronic Materials (PDF)</u>.

- Vimeo Manually Adding Captions (PDF)
- You Tube Adding Captions or Transcripts (PDF)
- *Audio Description: Do-It-Yourself with You Describe

Accessible Video Players

AccessibilityOz has created OzPlayer, a fully accessible video player with keyboard accessibility, captions and a transcript:

• *Visit this link to download OzPlayer

The American Foundation for the Blind (AFB), also has an accessible HTML5 video player. Visit the link below for the free download.

<u>*Visit this link to download the AFB video player</u>

Cost Comparisons by FY

	FY12*	FY13	FY14	FY15	FY 16 (so far)
Total Minutes	3,453	7,309	16,419	19,261	14,766
Total Hours	57.55	121.82	278.4	321	241
Total Jobs	195	371	1034	1296	885
Hours (Outsourced)	18.63	68.97	222.55	275.95	241
Jobs (Outsourced)	24	177	901	1136	876
Avg. Cost/Min (Outsourced)	\$2.94	\$2.73	\$2.35	\$1.88	\$1.39
Hours (In-house)*	38.92	52.85	51.1	45.05	2.68
Jobs (In-house)*	171	194	133	160	70
Total Costs (In- house)*	\$13,723.45	\$0	\$0	\$0	\$0
Avg. Cost/Min (In- house)*	\$5.87	\$0	\$0	\$0	\$0
Cost Savings	(\$6,858.55)*	\$10,163.36	\$13,420.31	\$9,050.83	\$7,180.02

*In FY12, all in-house work is attributed solely to grad students. That work is now shared amongst a number of Mason staff/faculty since FY13.

What the overall numbers show...

Completed Acc Media Requests

Website and Videos

- University Web Audit
 - Provided accessibility reviews, which were included in University's web audit, number of documents were included but number of videos were impossible.
 - Reviewed Priority 1 and Priority 2 websites (over 110 websites)
 - P1: Academics, Admissions, Financial Aid, Student Health, Housing, Visitors, HR
 - P2: Individual College and School websites
 - Page scans 5 levels deep, up to 100 pages
 - Reports provided to Web Developer
 - University Web Overhaul
 - Phase 1 websites redesigned.
 - Raise in captioning requests for websites

Compliance Breakdown vs Accommodation

Video Breakdown per Academic Unit

📓 FY 14 📓 FY 15 📑 FY 16 (so far)

Who's Using the Service?

- Over 180 faculty/staff members have made requests
- Top 3 Schools/Colleges/Units making requests
 - Volgenau School of Engineering
 - SPGIA (School of Policy, Government, and International Affairs) Due to Web Overhaul
 - College of Science

Reasons for Request

- Compliance for DE Course 74.9% (up 1.7%)
- Compliance for F2F Course 0% (down 1.1%)
- Web Compliance 7.5% (up 4.2%) Due to web overhaul
 - Disability Accommodation 17.8 % (down 4.6%)

Improved Access to Library Resources

• How does this effect captioning?

Library purchases media databases as well as provide media to be loaned out. Captioning and audio description still come in as requests.

- Library established an Accessibility Coordinator/Instruction Designer position
 - Liaison between our office and library staff/resources
- This has led to:
 - Improved hand-off when captioning library resources
 - Improved coordination with Copyright Office
 - Informal process for review of library technology purchases For example, helping library Procurement to ensure responsibility of captioning isn't solely on Mason if a media database is purchased.

What the breakdowns show part 3

Next Steps

Assess Workflow

- Continue working with stakeholders (DE, Library)
- Continue tracking media, finding new areas for tracking
- All options on table!

Continue to improve campus buy-in

- MARKETING, MARKETING, MARKETING!
- Targeted marketing (Semi-annual mailings)
- Faculty/Staff Trainings (monthly)
- DE Course Reviews
- Department Champions to help spread the word
- Everything located in one place

Improve costs/timelines

- RFP for captioning to was used to reduce per minute costs
- Outsource <u>ALL</u> requests. Doing this allows more time for the Accessible Media Coordinator to work hands on with various faculty and departments to make the process easier which builds more overall business.

DIY Captioning Workflows

What Is "Good Enough" for Captioning?

- ADA, Section 508,
 Section 504, CVAA,
 and FCC all state:
 - An *equivalent*
 alternative must be
 provided video
 content
- How Accurate Is Accurate?

Video Transcription Accuracy Rates Word-to-Word 1 of x Words 8-Word Sentence **10-Word Sentence** Accuracy Incorrect Accuracy Accuracy 50% 1 of 2 0% 0% 67% 1 of 3 4% 2% 75% 1 of 4 10% 6% 85% 1 of 7 27% 20% 90% 1 of 10 43% 35% 1 of 20 95% 66% 60% 98% 1 of 50 85% 82% 99% 92% 90% 1 of 100

For Example ...

- Google says their
 accuracy rate for
 YouTube automatic
 captions is ≅80%:
 - 80% accuracy
 - 1 in 5 words is incorrect
 - − An 8-word sentence will be $\cong 17\%$ accurate
 - A 10-word sentence will
 be ≅11% accurate

Create a Transcript for Your Video

This short video shows you how to get started in the 3Play Media account system. First, log in to account.3playmedia.com. In Settings, you can specify your Transcription Settings, Favorite Formats, and other preferences which will help to personalize and simplify the captioning, subtitling, and transcription process. In particular, make sure that you specify your preference for speaker identification. You can upload video or audio files from your computer, from links, via FTP, or directly from your video platform or lecture capture system.

Click Upload to select a service, turnaround time, and file location. If you already have a transcript for your media file, you can use the automated transcript ...

Note: transcription takes 5-6x real time

Create Your Own WebVTT or SRT File

WebVTT (.vtt)

WEBVTT

00:00:00.000 --> 00:00:03.830 align:middle line:90%

00:00:03.830 --> 00:00:05.970 align:middle line:84% This short video shows you how to get started

00:00:05.970 --> 00:00:08.574 align:middle line:84% in the 3PlayMedia account system.

00:00:08.574 --> 00:00:10.240 align:middle line:84% First, log in to account.3playmedia.com.

SRT (.srt)

2

00:00:00,000 --> 00:00:03,830

00:00:03,830 --> 00:00:05,970 This short video shows you how to get started

3

00:00:05,970 --> 00:00:08,574 in the 3PlayMedia account system.

4

00:00:08,574 --> 00:00:10,240 First, log in to account.3playmedia.com.

Use YouTube for Captioning

YouTube provides a great starting point for captioning!

- Create transcript and set timings, then download SRT file for use in other video platforms
- Upload video to YouTube and download SRT file of automatic captions to edit

Edit the YouTube Automatic Captions

FCC Standards for Caption Quality

Caption accuracy

- Must match spoken words to fullest extent possible and include non-verbal information
- Allows some leniency for live captioning
- Caption synchronization
 - Must coincide with their spoken words and sounds to the greatest extent possible
- Program completeness
 - Captions must run from the beginning to the end of the program
- Onscreen caption placement
 - Captions should not block other important visual content

Best Practices for Captioning Quality

Transcription Standards

- Spelling & Grammar
- Speaker Identification
- Sound Effects
- Punctuation
 - "(SHOUTING) Hi" vs. "Hi!"
- Verbatim

Caption Frame Standards

- Minimum Duration
- Caption Placement
- Silence
- # Characters per line
- Font
- Synchronization

Caption Formats

Format Type	Use Cases
SCC	Broadcast, iOS, web media
SMPTE-TT	Web media
CAP	Broadcast
EBU.STL	PAL Broadcast
DFXP	Flash players
SRT	YouTube and web media
WebVTT	Emerging HTML5
SAMI	Windows Media
QT	QuickTime
STL	DVD encoding
CPT.XML	Captionate
RT	Real Media

2

00:00:00,220 --> 00:00:03,020 Hi I'm Arne Duncan, the Secretary of Education.

3

00:00:03,020 --> 00:00:06,380 Education has been a lifelong passion and calling for me.

00:00:06,380 --> 00:00:07,960 My mother started an inner-city tutoring

01:02:53:14 94ae 94ae 9420 9420

01:02:55:14 942c 942c

01:03:27:29 94ae 94ae 9420 9420

SRT Example

SCC Example

Using APIs

What Is an API?

- "Application Programing Interface"
- Graphical User Interface (human to computer) vs. Application Programming Interface (computer to computer)
- APIs allow two computers to interact with each other by passing data and commands

What's So Great About APIs?

- Design workflows that suit your business needs
- Automate repetitive manual tasks (esp. at scale)
- These reduce:
 - Cost
 - Labor hours
 - Organizational and workflow complexity

What Can I Do with an API?

- Manage caption/translation/alignment jobs
 - View media resource information
 - Request captioning, translation, or alignment
 - Download finished captions and transcripts
- Add interactive transcripts to your video

Captions

Subtitles

-	-
-	-
-	-
-	-
-	

Transcripts

Alignment

Interactive Transcripts

API Example

- Penn State's workflow
- Reason: scale
- Benefits: automation, cost

svtext - 'nidi - sdata;

Workflow

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Take Part in a Research Study on Closed Captioning in Higher Education

- Institutional Solutions for and Student Perceptions of Closed Caption and Transcript Use in Institutions of Higher Education
 - A collaborative research project funded by 3Play Media and the Oregon State University Ecampus Research Unit

Incentives

- Five 10-hour captioning credits valued by 3Play Media at \$1,500 will be raffled to institutional participants who elect to share their email address for the purpose of the raffle
- Institutions will also receive anonymous aggregated data for their institution
- Two reports will be created for this project: one regarding data from the student survey and one regarding data from the institutional survey
- Principal Investigator:
 - Dr. Katie Linder, kathryn.linder@oregonstate.edu, 541-737-4629

Questions

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GEORGE

