What’s in the CVAA?

- The CVAA addresses multiple topics.
  - Previously-broadcast video must provide captions
  - 13” device size requirement removed – all devices that support internet-based video must support captions
  - Audio description and user interface regulations for video and players
  - Web conferencing
  - Real time text
  - More...
- Not solely focused on any group of users with disabilities
- This talk focuses primarily on captioning
Captioning Regulations

- In January 2012 the FCC released the Report & Order for closed captioning.
- Compliance dates for broadcast video content delivered via the internet:
  - Prerecorded and unedited content – September 30, 2012
  - Live content – March 30, 2013
  - Edited content – September 30, 2013
- All full-length video programming previously shown with captions on TV must have captions when streamed online via IP.
- Captions of IP-delivered video programming must be at least the same quality as the captions shown on TV.
Related Regulations

Section 508 (June 2001)

- Law requires that government agencies providing video must provide captioning.

ADA

- Recent ruling (June 2012) by District Court judge in Massachusetts - ruled against Netflix's motion that it didn't need to provide captions since the ADA didn't apply to online businesses.

Globally

- Captioning and subtitling regulations exist in many countries and are emerging in more all the time.
Captioning standards and policy – ancient history (pre-2005)

- Every vendor creates their own format
  - QTtext, RealText, SAMI
  - Many other minor formats
- Broadcast captioning: CEA-608
W3C Timed Text Markup Language (TTML 1.0) developed (originally called DFXP)

Flash CS3 captioning (and caption vendor support)

<video> element and captioning

Development of SMPTE-TT format

CEA-708 phase-in
Captioning standards and policy – recent history (post-2010)

- SMPTE-TT plugin for OSMF
- Introduction of WebVTT by WHATWG
- TTML 1.0 Simple Delivery Protocol ([http://www.w3.org/TR/ttml10-sdp-us/](http://www.w3.org/TR/ttml10-sdp-us/))
- Pending “recommended practice” documents from SMPTE-TT
  - 608 to SMPTE-TT conversion
  - 708 to SMPTE-TT conversion
- CVAA / FCC regulations come into force
Next app is reminders. This is another thing you'll get.
تجربة تدفق عمل متكامل بين الصوت والفيديو

Show: Learn Premiere Pro CS5 & CS5.5

Translations available in 7 languages.

- Off 7 Languages
- Arabic
- English
- French
- German

Translate this episode in your language.
Captioning is simple?
How does Adobe support captioning for the CVAA?

**Standards:** Adobe participates TTML, SMPTE-TT, WCAG working groups, and participated on the FCC Video Programming Accessibility Advisory Committee (VPAAC).

**Tooling:** Adobe provides several tools which enable authors to create and offer accessible content.

- **Adobe Premiere** – Professional video editor
- **Adobe Primetime / Adobe Media Encoder** – Professional video delivery
- **Open Source Media Framework (OSMF)** – Video/media player toolkit
- **Adobe Captivate** – Interactive educational content authoring tool
- **Adobe Connect** - Live online meetings
- **Adobe TV** – Product support videos
Adobe Premiere Pro

- Adobe Premiere Pro 6 offers video editors the ability to import closed captioning data and review results for accurate integration into video.

- Premiere Pro supports speech analysis and script alignment to help video production teams more easily support closed captioning in their workflows.
  - Import CEA-608 and CEA-708 caption data
  - Premiere Pro supports caption data export for traditional or HD video, via 3rd party plugins.
- Play back and display 608 and 708 closed captions, sync’ed to your video sequence and viewable in the Program Monitor.
Adobe Premiere Pro

- Importing caption data is a simple menu item.

- Enabling display of captions for the Program Monitor can be enabled and disabled.
- Supports streaming of video with embedded Closed Captions (in 608 & 708 format) for live, linear and video on demand streaming
- Support for in-band captions today, originating from 608/708 caption data (caption data within the H264 SEI NALU as specified in ANSI/SCTE 128 2010 Section 8)
- Customers streaming video to Apple IOS devices using the HLS format will have the caption data streamed to the device
- Working with encoding partners
WHERE ARE MY DRAGONS?!
WHERE ARE MY DRAGONS?!
Open Source Media Framework

- OSMF supports captioning via TTML, SMPTE-TT, and embedded caption metadata.
- OSMF supports audio description via “late binding audio”: http://tinyurl.com/latebinding
OSMF caption display capabilities

- Support for pending rules regarding user control of:
  - Character color
  - Character opacity
  - Character size
  - Fonts
  - Caption background color and opacity
  - Character edge attributes
  - Caption window color
  - Language
- Accessible player controls.
- Demo
Overview of caption delivery process

Type I - CC in ATSC Picture User Data

Content Provider

H264 SEI NALU

CC (608/708)

ATSC Picture User Data

HLS/HDS/RTMP

Native Players
Overview of caption delivery process

Type II - Extracting CC in Timed Text Track

Mp4/MOV Subtitles

Timed Text Track - clcp

CC

AMS converter utility

H264 SEI NALU

ATSC Picture User Data

CC (608/708)

Content Provider

HLS/HDS/RTMP

Native Players
Remember Paladin, the mind and the heart
Adobe Captivate supports closed captioning for eLearning presentations and demonstrations. Authors utilize the built-in closed captioning tool in Adobe Captivate to author captions.
Adobe Captivate authors are provided with options to control the display appearance of the captioning.

End users are provided with a caption toggle, but are not currently able to modify the caption appearance.
Adobe Connect

- Adobe® Connect™ is an enterprise web conferencing solution for online meetings, eLearning, and webinars.
- Current version is 9
Adobe Connect

- Adobe Connect offers support for real-time closed captioning.
- Vendors that support captioning in Connect include:
  - Caption Colorado (http://www.captioncolorado.com)
  - WGBH Media Access Group (http://access.wgbh.org)
  - Caption First (http://www.captionfirst.com)
  - Streamtext (http://www.streamtext.net)
Captions from recorded sessions are also recorded.
The Connect 9 caption pod can record a transcript of captions, offers exports in HTML and text.
Captions can be turned off by any user.
Adobe Connect

- Users have control over display – multiple font sizes and five color and contrast display options
- Users also have playback controls to enable review of missed content
Adobe TV

- Adobe TV offers videos to support use of Adobe tools.
- Adobe TV supports TTML captions in the media player.
- Videos with closed captions are clearly indicated.
Resources

Adobe Links

- adobe.com/accessibility | blogs.adobe.com/accessibility

SMPTE-TT

- smpte.org/standards/st2052-1-2010.pdf

TTML / DFXP / WebVTT

- W3C TTML 1.0 (w3.org/TR/ttfa1-dfxfp/)
- TTML 1.0 Simple Delivery Profile (w3.org/TR/ttml10-sdp-us/)
- WebVTT (dev.w3.org/html5/webvtt/)