Captioning involves converting the audio content of a live event or a recording into text that is displayed and synchronized with visual content, either at the bottom of the screen (closed captions) or in a separate window or display. Captioning enables hearing-impaired viewers to fully experience audiovisual content, can assist all viewers with comprehension, and enables viewing with volume off and in noisy environments.

**Important:** We ask that hosts enable captions in online meetings so that everyone has equal access.

**Looking for platform specific instructions?**
- Panopto: Captions
- Zoom: Captioning
- Frequently Asked Questions in Video Captioning

**Caption recordings**

Captions for pre-recorded audio or video can be produced by automatic speech recognition (ASR) software or by human listeners. Although ASR-generated captions can help with comprehension and enable viewers to watch with sound muted or in noisy environments, they typically do not meet the 98% accuracy level required for ADA compliance without human editing.

Recordings must have ADA-compliant captions if:
- Captioning is needed as a disability accommodation
- They will be used in a course
- They will be published on a College website

You can use the college’s lecture capture and video-streaming service, Panopto, to produce ADA captions by:
- Correcting the ASR captions that Panopto creates until they are at least 98% accurate. See Panopto: Captions for details.
- Contracting with a third-party captioning service, such as Rev, to produce and upload ADA-compliant captions for you.

**Important:** All payment for third-party captioning is the responsibility of the department ordering
Caption live events

College policy requires event organizers to state that disability accommodations will be made upon request when advertising any college event, whether in-person or online. Captioning is one type of accommodation that could be requested.

- If someone requests or you know that a participant needs captioning as a disability accommodation, arrange CART (Human-Generated) captioning.
- If no one requests or needs captioning as a disability accommodation you do not need to arrange CART captioning. If your event is online, consider using Live ASR (Computer-Generation) captioning to assist with comprehension, enable viewing with sound muted and in noisy environments, or produce a transcript.

CART (human-generated) captioning

Communication Access Real-time Translation (CART) captions are produced by trained professionals who attend the event and type captions in real-time using special hardware and/or software platforms.

- CART is the standard for disability accommodation and aims for 98% accuracy and above. The captioner must be able to hear speakers clearly to attain this level of accuracy.
- CART is available for in-person and online events.
- Services must be scheduled in advance; vendors may need up to 3 weeks' lead time due to increased demand.
- Zoom works well for online events, as it can show CART as subtitles in the meeting window. See Captioning in Zoom.
- Access Services will schedule CART captioning for course meetings when needed for students with documented disabilities.
- Other event organizers should schedule CART services themselves and ask providers to invoice them directly (not Access Services).

Two CART vendors are currently active in eMarket and have been used by campus event organizers:

Ai Media

- **Service:** Remote captioning
  - **Fees:** $150 per hour; 1 hour minimum, then billed in 15-minute increments
  - **Scheduling lead time:** 2-3 weeks before event
  - **Cancellation policy:** Cancel more than 24 business hours (one business day) in advance to avoid being billed for the total scheduled time.
How to schedule: Email the following information to schedule@acscaptions.com
- Event title (class title)
  - Date (days of the week)
  - Start and end time
  - Emergency contact
  - Materials (slides, scripts, handouts, participant names, etc.) that help the captioner prepare
  - Billing point of contact (Important: Please direct bills to your department and not Access Services.)

Karasch & Associates

- **Service:** Remote audience CART (e.g., for Zoom event, etc.)
  - **Fees:** $125 per hour; 1 hour minimum, then billed in 30-minute increments
  - **Scheduling lead time:** Minimum 24 hours in advance; but contact as soon as possible, especially for complex events or those requiring specialized knowledge
  - **Cancellation policy:** Cancel more than 48 hours (two business day) in advance to avoid being billed for the total scheduled time. (For recurring classes, 24 hours in advance of a meeting.)
  - **How to schedule:** Email ksullivan@karasch.com.
  - **Billing point of contact:** Please direct your bills to your department and **NOT** to Access Services.

- **Service:** On-site CART
  - **Fees:** $175 per hour; 2 hour minimum, then billed in 30-minute increments
  - **Scheduling lead time:** Minimum 24 hours in advance; but contact as soon as possible, especially for complex events or those requiring specialized knowledge
  - **Cancellation policy:** Cancel more than 48 hours (two business day) in advance to avoid being billed for the total scheduled time. (For recurring classes, 24 hours in advance of a meeting.)
  - **How to schedule:** Email Joe Alberici (jalberici@karasch.com) or call 800-621-5689 opt 5 for any needs.
  - **Billing point of contact:** Please direct your bills to your department and **NOT** to Access Services.

Live ASR (computer-generated) captions

Automatic Speech Recognition (ASR) software uses algorithms to analyze audio and generate caption text. ASR captions can be produced quickly and inexpensively and — if audio quality is decent — can produce text that is accurate enough to greatly assist listeners with comprehension, compensate for background noise, and enable viewing with volume muted. See Zoom: Captioning and Captioning in Microsoft Teams for instructions on how to turn on ASR captions.

**Important:** ASR captions are not accurate or simultaneous enough for disability accommodation; use CART captioning instead. However, ASR captions are better than nothing and permissible for disability accommodation if CART services are unavailable.
Improve live caption accuracy

Some simple best practices can improve the accuracy of both ASR- and human-generated captioning:

- **Use a good microphone, especially if there is background noise.**
  - Use a headset or unidirectional USB desktop microphone instead of a laptop's built-in microphone.
  - In an event space, make sure that the microphone provides sound to the captioner (and any recording software) as well as the room speakers.
- **Face the microphone and stay in range while speaking.**
  - If you need to move around, a wired or wireless USB lavalier microphone may help.
  - However, you should still turn to face your audience when speaking so they can read your lips and facial cues.
- **Practice good public speaking skills.**
  - Speak clearly and deliberately. (For most people this means slow down!)
  - Pause between phrases and sentences to allow the captioner and your listeners to catch up.
  - Practice speaking with Live Transcript turned on in Zoom to get a feel for proper pacing. Since ASR technology mirrors the contextualization process that human listeners use to understand speech, improvements in ASR accuracy should translate into improved listener comprehension as well.
- **Provide contextual information for listeners in advance and/or during the presentation:**
  - Provide a CART service with an abstract of your presentation abstract (or the script if using) and a list of proper names, specialized vocabulary, or other tricky words in advance.
  - Include proper names, specialized vocabulary, and important points on slides so that listeners can hear AND read them simultaneously. Share slides or an abstract with the audience in advance whenever possible.
- **Repeat or summarize audience questions and comments before responding.**
  - Repetition by a speaker ensures the captioner and audience members can both hear AND see your lips and facial cues, which may be necessary for full comprehension. (Audience microphones can help with audibility, but facial cues are typically lost.)
  - Speaker repetitions and summaries can be included in recordings even if privacy concerns or the logistics of securing consent prevent recording audience members directly.
  - Repetition/summarizing can help questioners or commenters feel heard and give them an opportunity to correct any misunderstandings.

**Learn more:** See the article Celia Child ‘22 wrote for the American Geophysical Union for additional tips.

Questions?

If you have any additional questions or problems, don't hesitate to reach out to the Help Desk!

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**Location:** Canaday Library 1st floor