



Making your Zoom sessions more inclusive and accessible

Korey Singleton, ATI Manager
George Mason University

*AHEAD 2021 Spring Colloquium
March 20, 2021*

Today's Speaker

Korey Singleton, Ph.D. ATP RET
Assistive Technology Initiative Mgr.
George Mason University

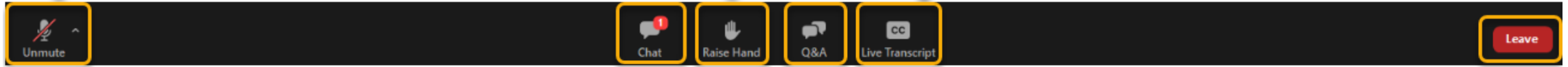


Attendee Tools

Mute/Unmute: If the host gives you permission, you can unmute your microphone to speak.

Raise Hand: Raise your hand to indicate you need something from the host.

Live Transcript: When live transcript is enabled, use this button to access the live captions.



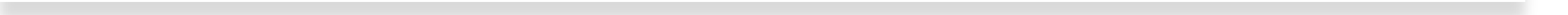
Chat: Access the chat window to chat with the participants/host(s).

Question & Answer: Open the Q&A window to ask questions to the host and panelists.

Leave: Leave the meeting while it continues for the other participants. Only the host can end the meeting.

Today's Agenda



- Introductions
 - Basic Overview of Zoom platform
 - Built-In accessibility features
 - Sharing considerations during Zoom sessions (whiteboard, documents, hyperlinks, screen-sharing, etc.)
 - Live Captioning Options
 - Post-Production Options
 - Q& A
- 



Zoom: Basic Overview

Platform overview (Host/Co-host)

Talking:



Meeting Information

Meeting Topic: Korey Singleton's Personal Meeting Room
Host: Korey Singleton

Korey Singleton's Personal Meeting Room

Meeting ID: [blurred]

Host: Korey Singleton (You)

Invite Link: [blurred]
[Copy Link](#)

Participant ID: [blurred]

You are connected to Zoom Global Network via data centers in the United States

Join Audio

Share Screen



Invite Others

Computer Audio Connected



Talking:

Exit Full Screen

Select a Microphone

- ✓ Microphone Array (Realtek Audio)
Same as System

Select a Speaker

- ✓ Speakers / Headphones (Realtek Audio)
Same as System

- Test Speaker & Microphone...
- Switch to Phone Audio...
- Leave Computer Audio
- Audio Settings...

Meeting Topic:

Korey Singleton's Personal Meeting Room

Host:

Korey Singleton

Invite Link:

[Copy Link](#)

Participant ID:

Microphone and Video Controls

Select a Camera

- ✓ Integrated Webcam
- Choose Virtual Background
- Video Settings...



Share Screen



Invite Others

Unmute Start Video

Security

Participants 1

Polls

Chat

Share Screen

Record

Live Transcript

Breakout Rooms

End



Talking:

Exit Full Screen

Meeting Topic: Korey Singleton's Personal Meeting Room

Host: Korey Singleton

Invite Link: [Redacted]

Participant

- Lock Meeting
- ✓ Enable Waiting Room
- Allow participants to:**
- Share Screen
- ✓ Chat
- ✓ Rename Themselves
- ✓ Unmute Themselves

Security Controls



Share Screen



Invite Others

Security

Unmute Start Video Participants Polls Chat **Share Screen** Record Live Transcript Breakout Rooms End



Talking:

Exit Full Screen



Meeting Topic:

Host:

Invite Link:

Participant ID:

Participants (1)

Korey Singleton (Host, me)  

yes no go slower go faster more clear all

Invite Mute All ...

Participants



Share Screen



- Ask All to Unmute
- Mute Participants upon Entry
- Allow Participants to Unmute Themselves
- Allow Participants to Rename Themselves
- Play sound when someone joins or leaves
- Enable Waiting Room
- Lock Meeting

Computer Audio Connected

Unmute

Start Video

Security

Participants 1

Polls

Chat

Share Screen

Record

Live Transcript

Breakout Rooms

End



Talking:

Exit Full Screen

Meeting Topic:

Host:

Invite Link:

Participant ID:

The screenshot shows a window titled 'Polls' with a sub-header 'Poll 1' and an 'Edit' link. The main content area is empty except for a blue button labeled 'Add a Question'.

A red callout box with the word 'Polls' in white text and a small laptop icon above it. A red arrow points from this box to the 'Polls' icon in the bottom toolbar.



Invite Others



Unmute



Start Video



Security



Participants



Polls



Chat



Share Screen



Record



Live Transcript



Breakout Rooms

End



Talking:

Meeting Topic:

Host:

Invite Link:

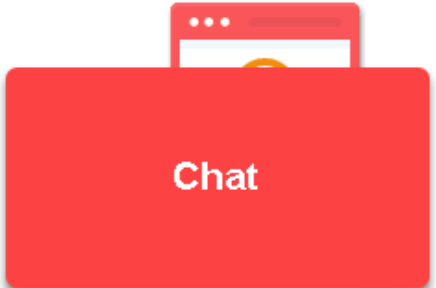
Participant ID:

Chat

To: Everyone

Type message here...

File



Save Chat

Participant Can Chat With:

- No One
- Host Only
- Everyone Publicly

Merge to Meeting Window



Talking:

Exit Full Screen

Select a window or an application that you want to share

Basic Advanced

Screen Whiteboard iPhone/iPad

Making your Zoom sessions mor... Snagit Editor - [Feb 27, 2021] Snagit Capture

Inbox - ksinglet@gmu.edu - Outl... Presentation2 - PowerPoint WebAccessibility@Mason_02262...

Show all windows...

Share computer sound Optimize Screen Sharing for Video Clip

Show

Share computer sound

Share Screen



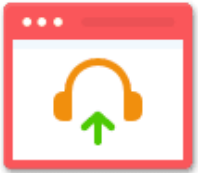
Talking:

Meeting Topic: Korey Singleton's Personal Meeting Room

Host: Korey Singleton

Invite Link: [blurred]
[Copy Link](#)

Participant ID: [blurred]



Join Audio

Computer Audio Connect

Live Transcript

Assign someone to type

Assign a participant to type I will type

Use a 3rd party CC service

Copy the API token

Copy this token and paste it to a third party Closed Captioning tool

Live Transcript

Enable Auto-Transcription

CC

Live Transcript



Basic Overview Questions?

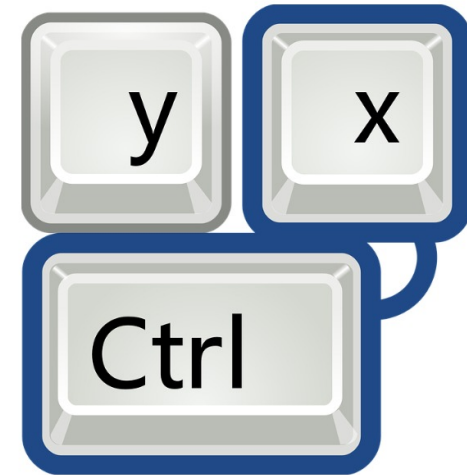


Built-In Accessibility Features

Keyboard Navigation, Chat, Etc.

Keyboard Navigation Support

- Keyboard shortcuts perform a series of preprogrammed actions (e.g., close an application, print a document, etc.)
- Zoom generally **accessible to** all users, including screen reader and/or keyboard-only users
- A full list of keyboard shortcut keys can be found at: [Hot keys](#)



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Keyboard Navigation Support cont.

Basic list of keyboard shortcuts

Some Keyboard Shortcuts for Windows

F6, Navigate among Zoom popup windows.

Alt, Hide/unhide meeting controls

Ctrl + Alt + Shift, Move focus to Zoom's meeting controls

Alt + U, Display/hide Participants panel

Alt + Y, Raise/lower hand

Alt + A, Mute/unmute audio

Alt + V, Start/Stop Video

Alt + H, Display/hide In-Meeting Chat panel

Alt + F, Enter or exit full screen

How do we use this information?

Consider hosting this information...

- Where faculty teaching resources are hosted (e.g., CTFE)
- In **LMS** with synchronous sessions via Zoom (hybrid, online, and/or F2F)
- **Public meetings/events** held via Zoom

Screen Reader Alerts

- Benefits screen reader users
- Customizable alerts provide feedback for screen reader users when events happen within Zoom platform (e.g., chat received, document uploaded, etc.)
- Host-only alerts for screen reader users as well (e.g., hand raised/lowered, participant joins/leaves meeting)

Screen Reader Alerts

[Restore Defaults](#)

Description	Enable
IM Chat Received	<input checked="" type="checkbox"/>
Participant Has Joined/Left Meeting (Host Only)	<input checked="" type="checkbox"/>
Participant Has Joined/Left Waiting Room (Host Only)	<input checked="" type="checkbox"/>
Audio Muted by Host	<input checked="" type="checkbox"/>

Adjusting the Chat Window

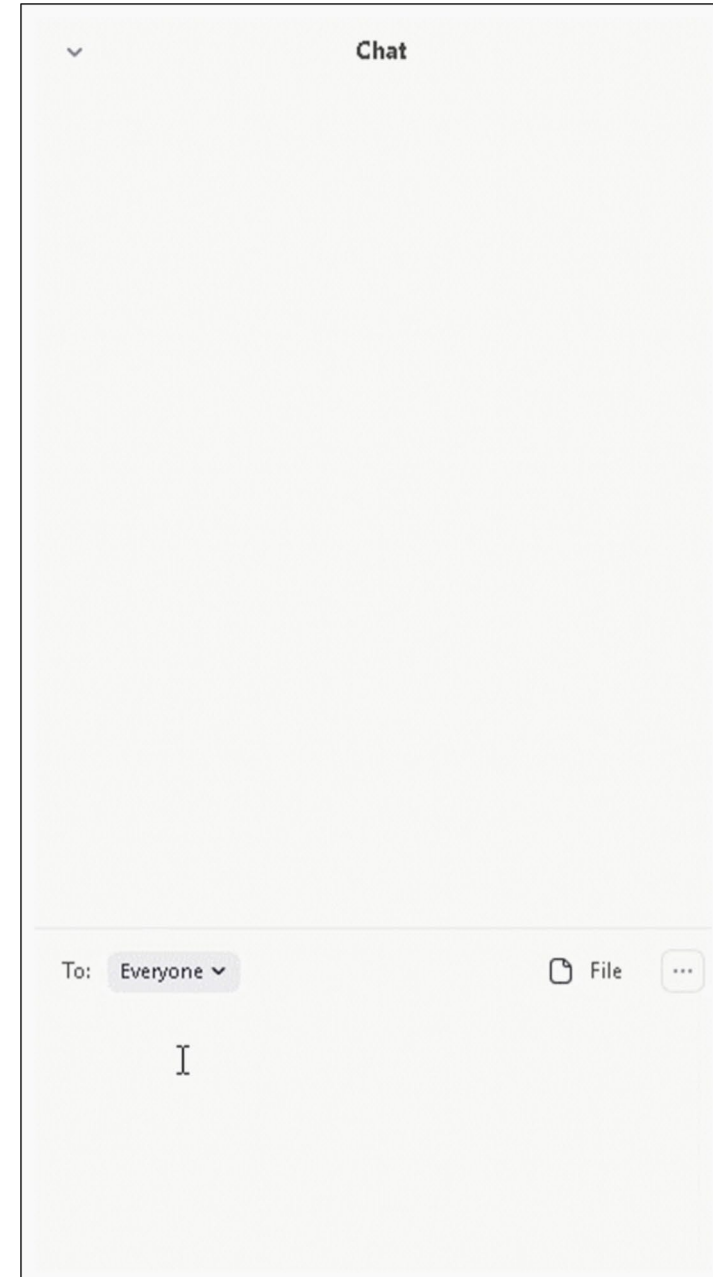
Chat Display Size (up to 200%)

Benefit to users who struggle with low vision

Keyboard Shortcut:

Ctrl/Cmd +, Increases font size

Ctrl/Cmd -, Decreases font size



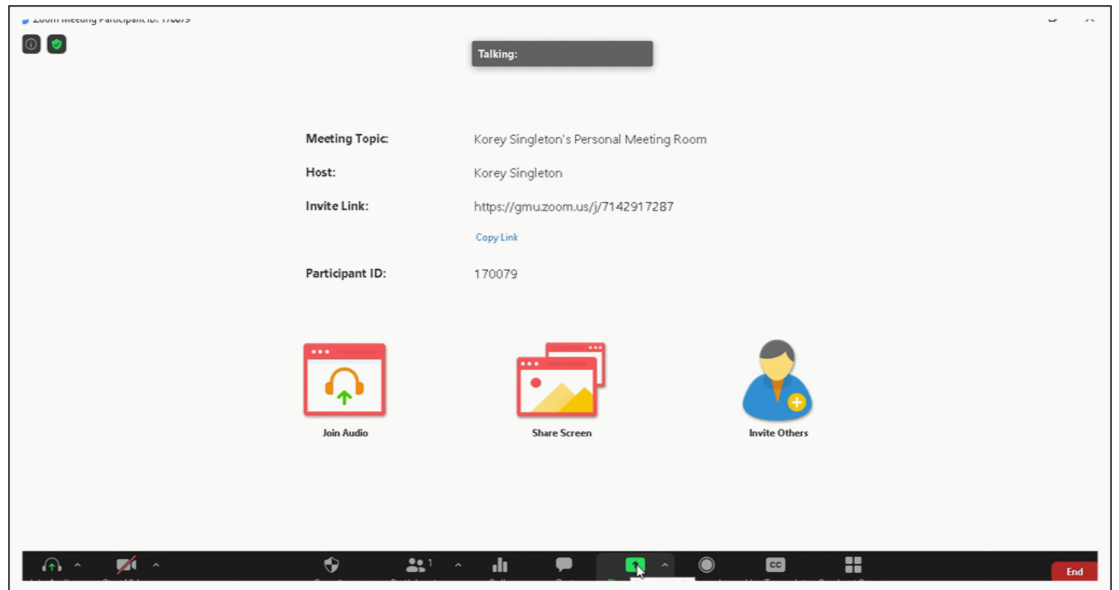


“*Sharing*” considerations during Zoom Sessions

Whiteboard, screen-sharing, polling

Limit use of Whiteboards

- Host and attendees (if allowed) can annotate on a shared space.
- **Challenges:**
 - Content shared on the whiteboard is inaccessible to screen-reader users.
 - Screen-reader users, keyboard-only users, and those calling in (i.e., ability to annotate) can not participate
 - Output only as an image.
- **Workarounds:**
 - Accurately describe what you are doing
 - Whenever possible, provide content in alternative formats (e.g., step-by-step instructions)
 - Record activity and share



Other Screen-Sharing Considerations

- We all know the benefits of screen-sharing!
- Challenges:
 - Inaccessible to screen-reader users and those calling in
 - Can be difficult to follow for those with learning/cognitive challenges (e.g., step-by-step instructions, math, etc.)
- Workarounds:
 - Accurately describe what you are doing
 - Whenever possible, provide content in alternative formats (e.g., step-by-step instructions)
 - Record activity and share
 - **IMPORTANT:** When streaming video, be sure to share computer sound



Image taken from
<https://tinyurl.com/yryj649n>

Using Polls

- Use polls to increase engagement/interactivity during your sessions
- Polls can be added before or during sessions
 - Only hosts can create new polls
 - Hosts and co-hosts can launch polls
- Zoom polls are simple (i.e., no graphics) and generally accessible
- **Challenges:**
 - Inaccessible to those calling into the session
- **Workarounds:**
 - Read questions and results aloud
 - Give audience time to complete polls
 - Allow entries in chat

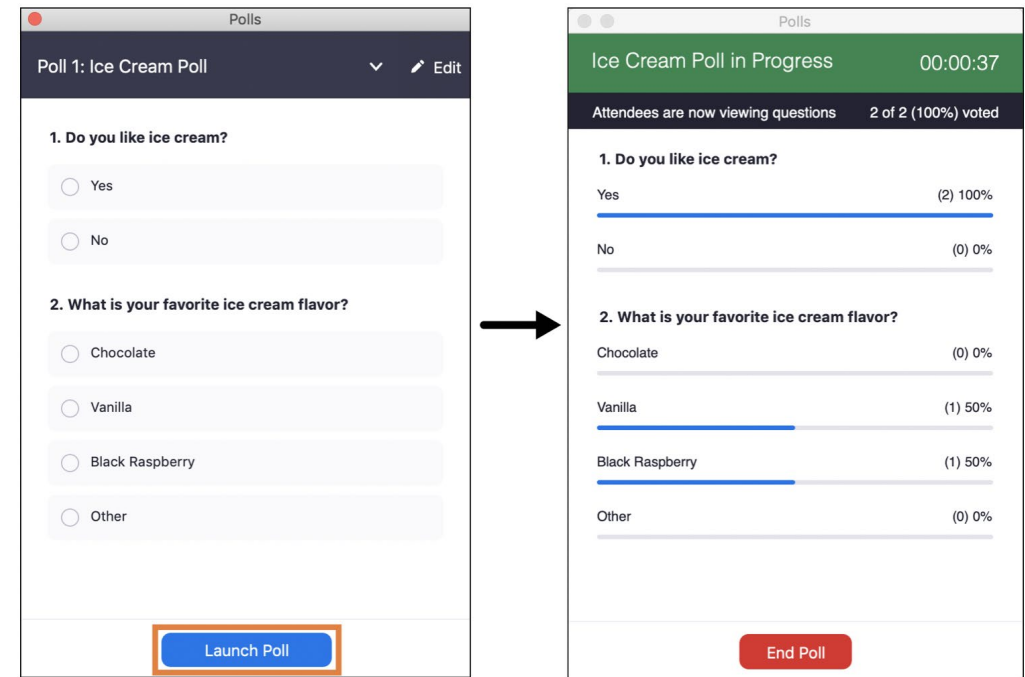
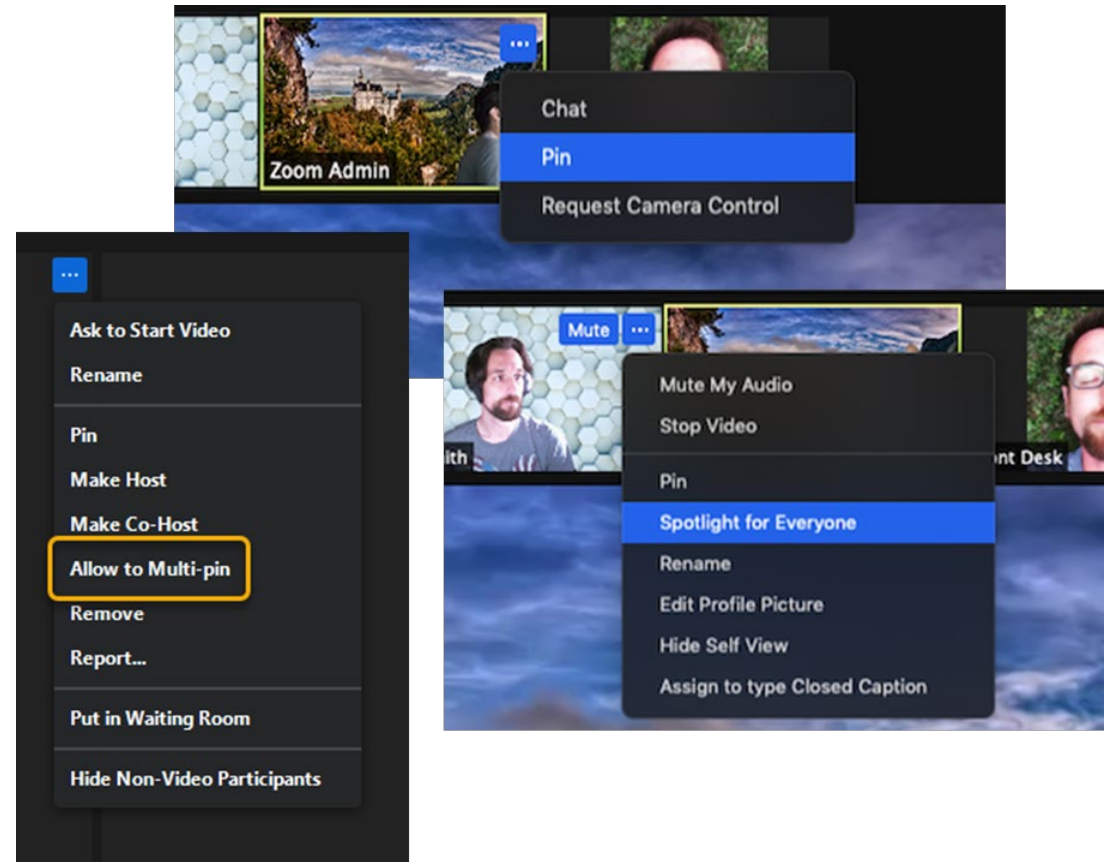


Image taken from shorturl.at/actN5

Pin Multiple Video Streams

- *Multi-pin* allows participants to pin multiple video streams at once during a Zoom session
- By default, Zoom participants can only pin 1 video stream. The host, however, can override this setting enabling *Multi-pin* for that user. The host can also [spotlight videos](#) for everyone to see. See [Pinning participant's videos](#) for more details.
- Why is this useful?
 - *Support for Deaf/Hoh students.*
 - Typically, sessions that last longer than one hour require 2 interpreters. This allows the student to pin the streams of both interpreters as well as the speaker





Screen-Sharing Questions?

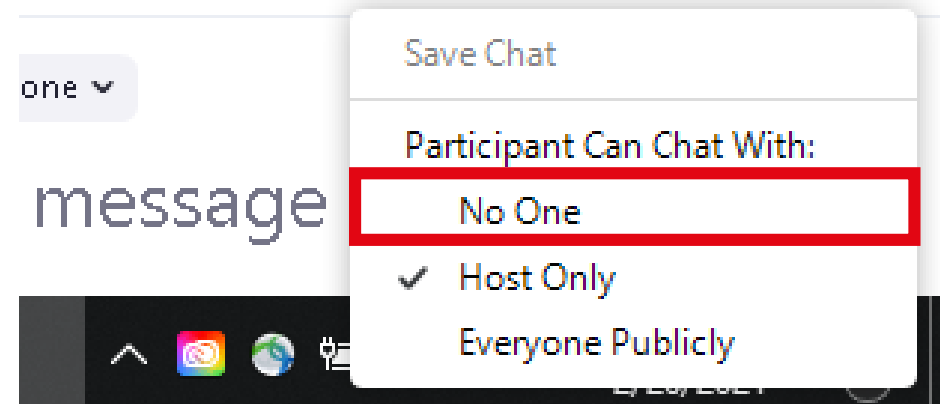


Managing Chat Discussions

Basic strategies, documents, URLs

Strategy #1 – Avoid using Chat

- In the **Chat** window, click *More (...)* to change chat settings.
 - Turn off chat to **eliminate all chat**
 - **Host Only** -- private communication between host and attendees
 - **Everyone Publicly** allows open chat with host and other attendees -- no private communication



Strategy #2 – Schedule Q&A/Breaks

- Build breaks/Q&A into your lectures (e.g., break between sections or every few slides)
 - Gives students time to ask questions when material is presented as opposed to at the end of the session
 - Manages expectations -- *students know when to ask questions*
 - Better gauge of comprehension/engagement



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Strategy #3 – Enlist a Helper

- Use a GTA or student from class to monitor the chat for questions.
- Empower them to chime in whenever questions are asked or during the break sessions
 - This is especially helpful during screen sharing
- Can post documents/links/re-state information in the chat



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Make sure documents are accessible (i.e., Chat)

- Documents (Word, PPT, PDF) uploaded or shared via Chat should be accessible:
 - Use Headings
 - Alt text for complex images
 - Meaningful hyperlink text
 - Sans Serif fonts
 - Good color contrast
 - Tables with headers
 - Avoid merged or split cells in tables
- Step-by-step guidance coming in trainings later this month/early next



Use Shortened URLs (i.e., Chat)

- Avoid posting long URLs (e.g., <https://suicidepreventionlifeline.org/help-yourself/for-deaf-hard-of-hearing/>) in the Chat
- Shortened URLs are more user-friendly (<https://tinyurl.com/sh646e7u>)
- Resources for creating free, shortened URLs ([Bitly](#), [TinyURL](#), [ShortURL](#))

<http://looooooong.url>

<http://short.url>

Image taken from shorturl.at/actN5



Managing Chat Questions?

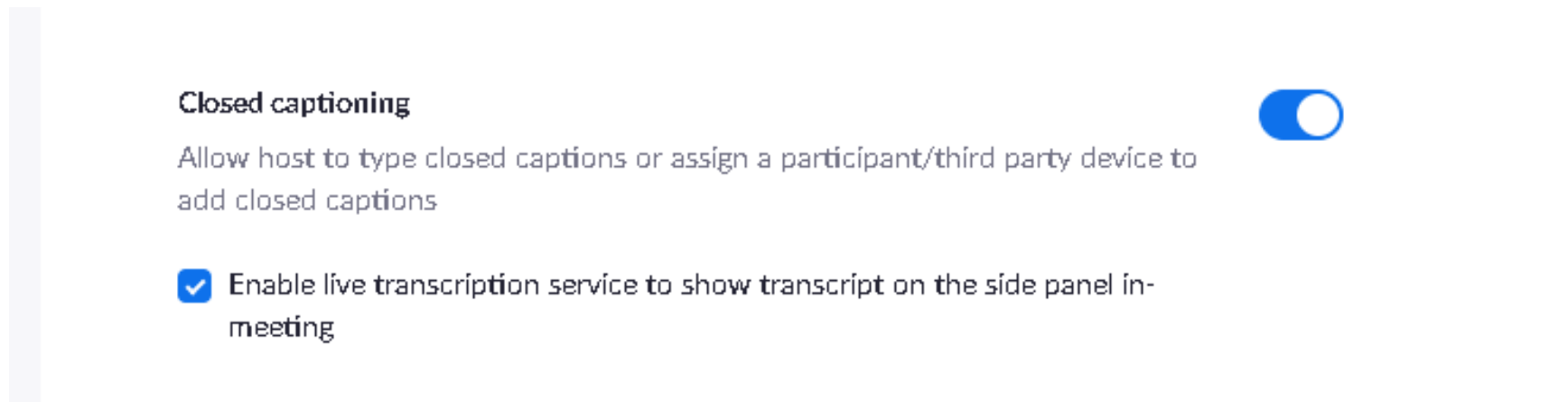


Live Captioning Options

Automated, Assign a person, 3rd-party (i.e., Verbit), Post-Production
Captions

Automated Live Transcription, (Cloud)

1. Sign into your account through the Zoom web portal
2. Under **Settings/In Meeting (Advanced)**
3. Make sure **Closed Captioning** is turned on.
4. Then check box to **Enable live transcription...**



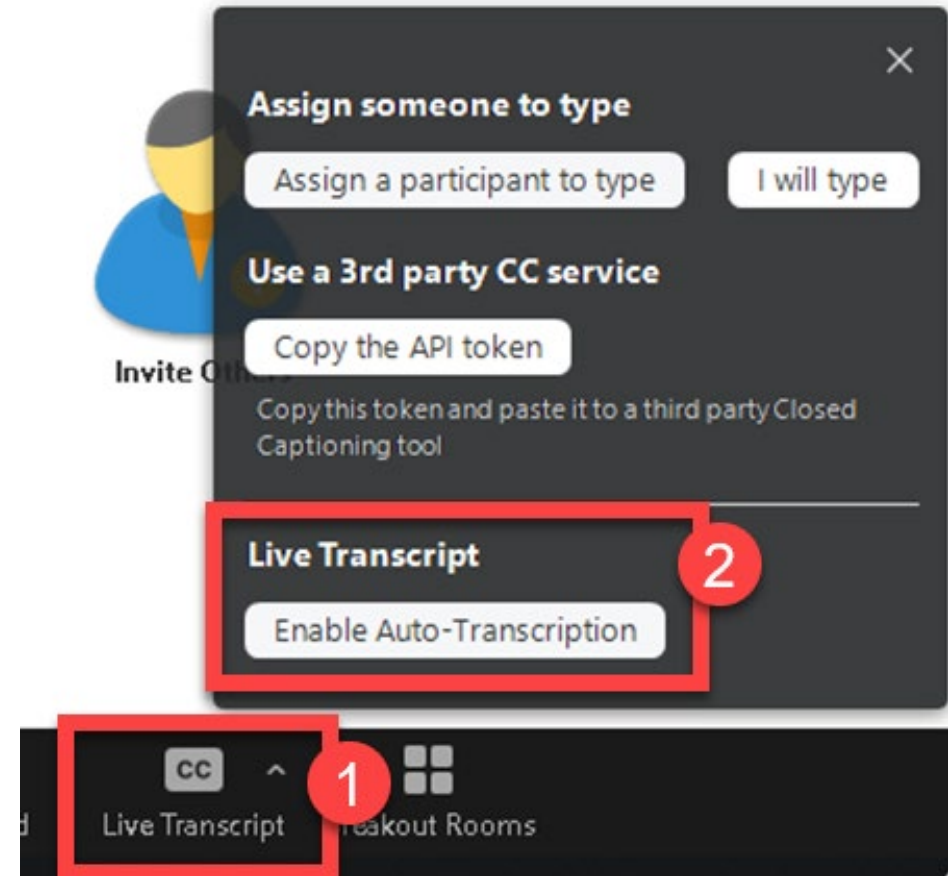
Automated Live Transcription (*In Session*)

Instructions

1. Host clicks on *Live Transcript* button
2. Click *Enable Auto-Transcription* to turn on Live AI captions

Notable features

- Released Jan 2021
- Powered by [Otter.ai](https://otter.ai) (ASR-only)
- 3 lines of transcription (< 32 char per line)
- **Drawback(s):** English only, no breakout room support, must be initiated by host



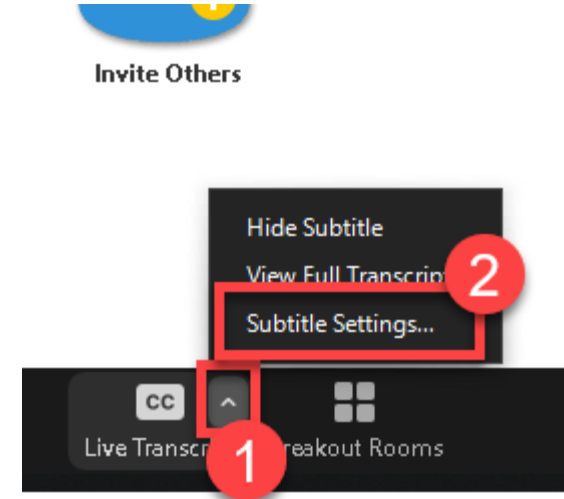
Adjust Caption Size

Instructions

1. With captions on, click arrow on top-right of the *Live Transcript* button
2. Click *Subtitle Settings...*
3. Under **Closed Caption**, use the slider to adjust the size of the captions.

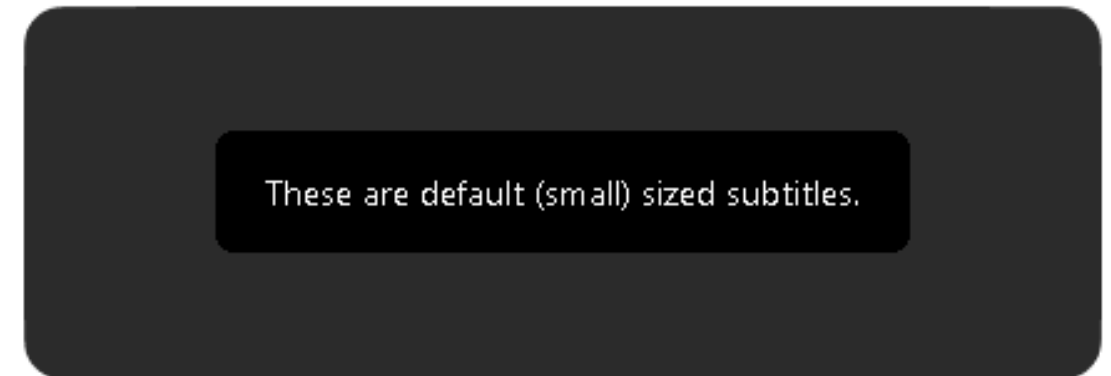
Notable Features

- Small, Medium, Large
- **Drawback(s):** Captions limited in terms of placement of captions (e.g., bottom, sides, top – full transcript window can be floated, however)



Closed Caption

Closed Caption Font Size: Normal Medium Large



Full Transcript

Instructions

1. With captions on, click arrow on top-right of the *Live Transcript* button
2. Click *View Full Transcript*

Notable Features

- Transcript is searchable and time-stamped
- Speaker identification (*only available in Full Transcript*)
- Attendees can save the transcript
- Available on mobile devices (not searchable on mobile)

The screenshot displays a Zoom meeting interface. At the top, a dark bar indicates "Talking: Korey Singleton". Below this, meeting details are listed: Meeting Topic: Meeting with Scott Lissner (OSU), Host: Korey Singleton, Password: 787503, Invite Link: https://gmu.zoom.us/j/92540927120?pwd=QkpaOW1QVHp..., and Participant ID: 235567. At the bottom left, there are "Join Audio" and "Share Screen" buttons. A red box highlights the "Live Captions" button in the bottom right corner. Two red arrows originate from this button: one points to the "Transcript" panel on the right, and the other points to a dark grey box containing the text "For example, we've got car insurance and home insurance here. We're not going to give up something." The "Transcript" panel is also highlighted with a red border and contains a search bar, a list of time-stamped captions, and a "Save Transcript" button at the bottom.

Talking: Korey Singleton

Meeting Topic: Meeting with Scott Lissner (OSU)
Host: Korey Singleton
Password: 787503
Invite Link: https://gmu.zoom.us/j/92540927120?pwd=QkpaOW1QVHp...
Participant ID: 235567

Join Audio
Share Screen

Live Captions

Live Captions

For example, we've got car insurance and home insurance here. We're not going to give up something.

Transcript

Search transcript

00:13:59
get some popcorn.

00:14:04
Yeah, me too.

00:14:25
giants nurse right.

00:14:59
Come on.

00:14:59
anyway, He said to me, there is his side so.

00:15:08
Well, I'll tell you some things are all over.

00:15:18
Think we love

00:15:23
people like Geico because it's just easy.

00:15:26
For example, we've got car insurance and home insurance here. We're not going to give up something.

Save Transcript

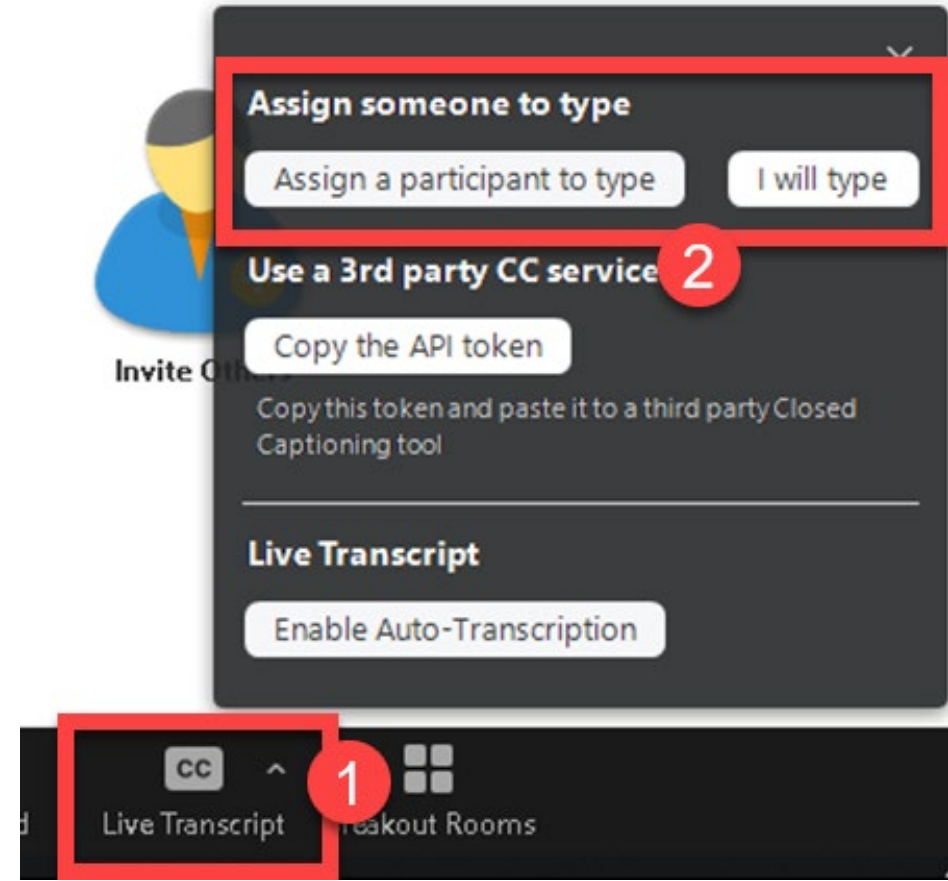
Assigning a Person for CC (*In Session*)

Instructions

1. Host clicks on *Live Transcript* button
2. Click *Assign a participant to type* or select *I will type* to have someone in session provide the captions.

Notable Features

- Host can assign CC privileges to anyone participating in the session
- **Drawback(s):** Rarely practical, platform does not always integrate with captioner's software



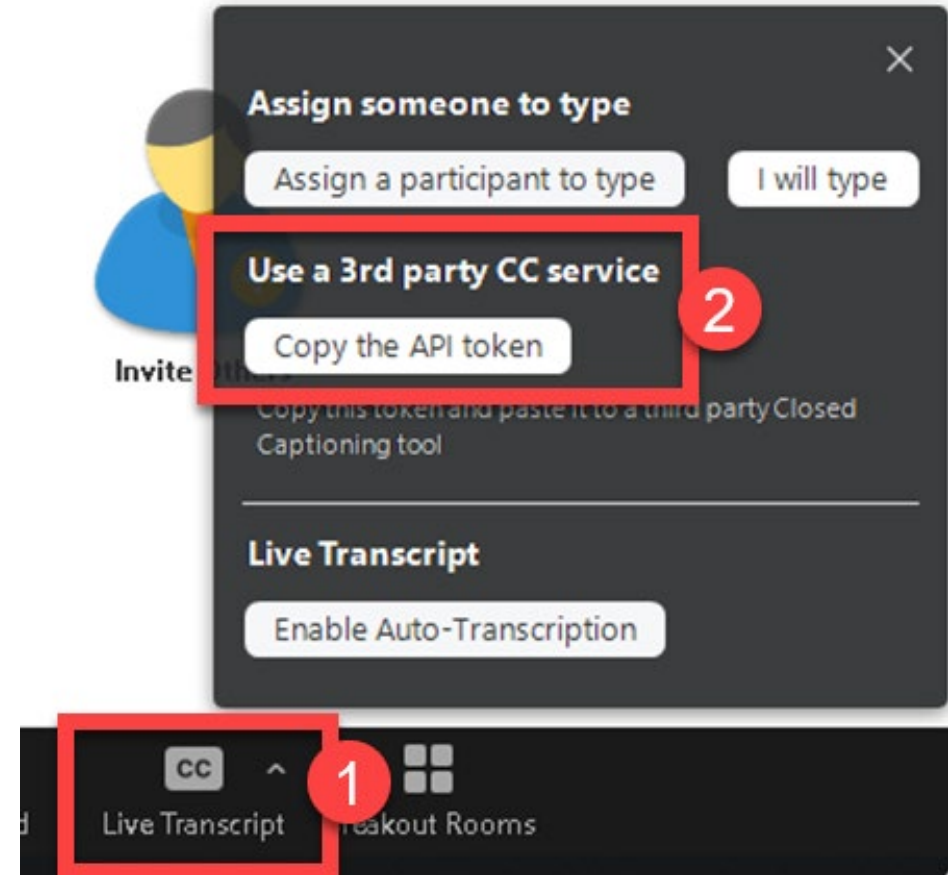
Integrating 3rd-party CC (*In Session*)

Instructions

- In a Zoom meeting, click **Live Transcript**.
- Click **Copy the API token**.
- API token needs to be shared with live captioning vendor (process likely to differ from one vendor to the next)

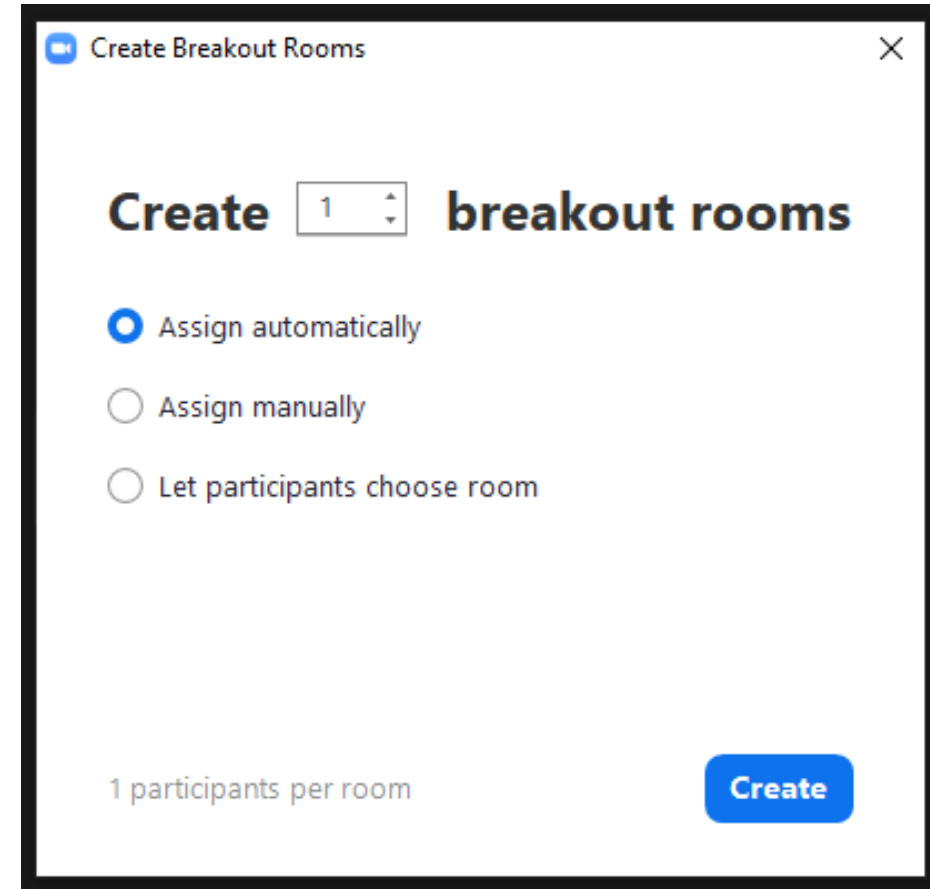
Notable Features

- Human transcription
- Typically, more accurate than ASR-only
- **Drawback(s):** Costs, coordination of services



Live Transcription (CC) and Breakout Rooms

- Keep in mind, live transcription (ASR-only) **NOT** available in breakout rooms. Only available in main room
- **Workarounds:** 3rd-party captions available in separate window, Use separate Zoom sessions to host breakouts





Live Transcription Questions?



Post-Production Captioning and Transcription Options

Recordings, Transcripts, and Captions

Recording Options

- Local Storage (Off by default)
- Cloud-based Options
 - Record active speaker with shared screen (MP4)
 - Record gallery view with shared screen (MP4)
 - Record active view and gallery view with shared screen, separately
 - Record an audio-only file (MP3)
 - Save chat messages from the meeting/webinar (TXT)
- For downloading or accessing multiple video layouts please see Zoom's explanation/documentation: <http://bit.ly/zoomrecoptions>

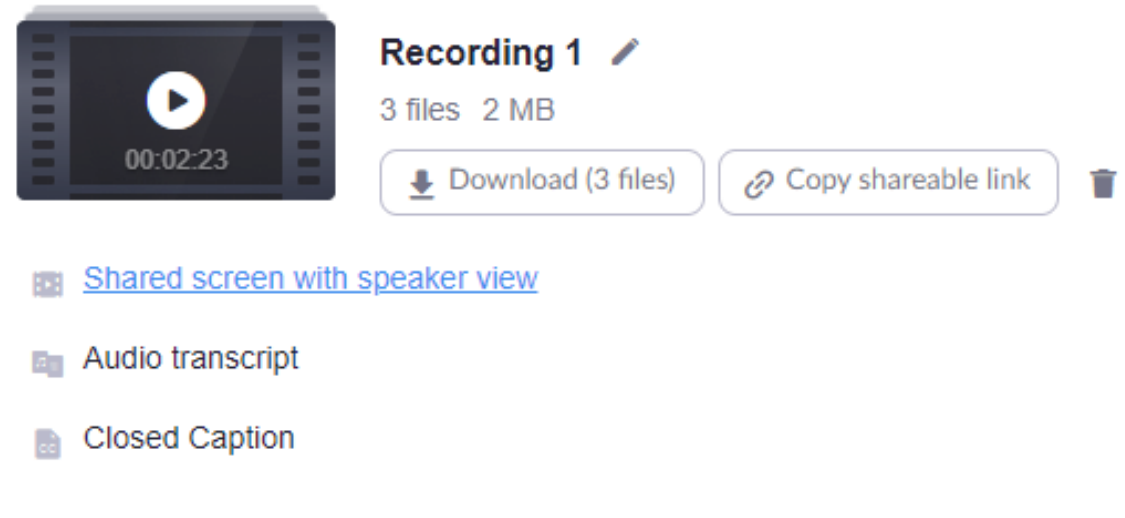
Recording Settings (Cloud)

1. Sign into your account through the Zoom web portal
2. Under **Settings/Recording** tab
3. Under **Cloud recording** options...

The screenshot displays the Zoom settings interface. On the left, a navigation menu includes 'Profile', 'Meetings', 'Webinars', 'Recordings', 'Settings' (highlighted with a red box and a '1' in a black circle), 'Account Profile', and 'Reports'. Below this menu are links for 'Attend Live Training', 'Video Tutorials', and 'Knowledge Base'. The main content area has tabs for 'Meeting', 'Recording' (highlighted with a red box and a '2' in a black circle), 'Telephone', and 'Collaboration Devices'. Under the 'Recording' tab, there is a 'Recording' section with a 'Local recording' toggle switch (currently off) and the text 'Allow hosts and participants to record the meeting to a local file'. Below this is a 'Cloud recording' section (highlighted with a red box and a '3' in a black circle) with a 'Cloud recording' toggle switch (currently on) and the text 'Allow hosts to record and save the meeting / webinar in the cloud'. Under 'Cloud recording', there are five checkboxes: 'Record active speaker with shared screen' (checked), 'Record gallery view with shared screen' (unchecked), 'Record active speaker, gallery view and shared screen separately' (unchecked), 'Record an audio only file' (unchecked), and 'Save chat messages from the meeting / webinar' (checked).

Accessing captions/transcripts (GMU Default Settings)

- Once recorded, host will be emailed two links:
 - Link to files (downloaded as .zip or individually)
 - Recorded video of session (.mp4)
 - Audio transcript of the cloud recording (.vtt)
 - Closed caption transcript (.vtt)
 - Link to *shared screen with speaker view* (to be shared with viewers)



Transcript and Captions files

- Difference between *audio transcript* and *closed caption* file?
 - Closed caption file - does not include speaker identification
 - Audio transcript - includes speaker identification
- Both files available as VTT files
- What if I need another file format like SRT?
 - Use free online converters like *gotranscript.com* (<https://gotranscript.com/subtitle-converter>)
 - Some video hosting platforms will only support SRT, VTT, SCC, etc. file formats for captions. Check the platform you plan to use.
 - GMU uses Kaltura, which accepts both SRT and VTT for captions file formats

Shared Screen with Speaker View (Participant)

zoom

Korey Singleton's Personal Meeting Room - Shared screen with speaker view

Audio Transcript

Search transcript

Korey Singleton

00:02 My name is Korey Singleton. I manage the Assistive Technology Initiative with George Mason University.

00:10 As you can see,

00:15 Zoom is captioning what I'm saying.

understand what is being said.

Transcript is searchable

Speaker identification

Audio Transcript

Captions

Speed CC

Shared Screen with Speaker View (Host)

- Looks exactly like Participant's View.
- Transcript can be edited. Changes automatically fixed in Participant's View.
- **Note:** Downloadable transcripts will not be updated when fixed in this view. Only the shared screen views are updated.

The screenshot displays the Zoom 'Audio Transcript' interface. At the top, there is a search bar labeled 'Search transcript'. Below it, a user profile for 'Korey Singleton' is shown. The transcript content includes the following entries:

- 00:02 My name is Korey Singleton. I manage the Assistive Technology Initiative with George Mason University.
- 00:10 As you can see.
- 00:15 zoom is captioning what i'm saying.

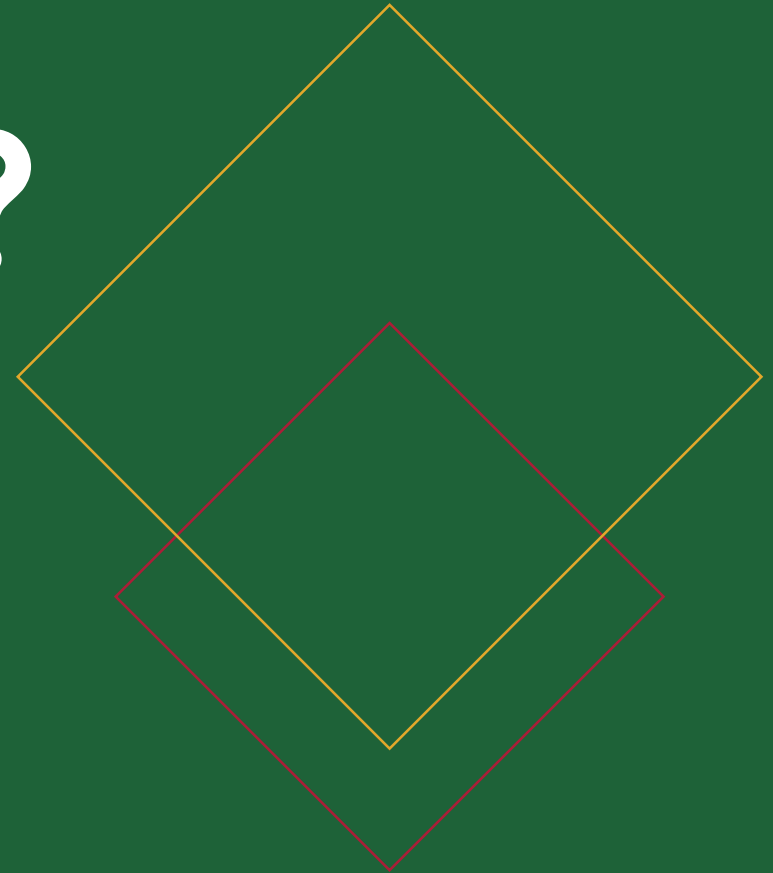
The interface is annotated with three numbered steps and red callout boxes:

- 1:** A red callout box says 'Hover mouse to access *Edit* button.' An arrow points to a small edit icon (a pencil) located at the end of the 00:15 transcript line.
- 2:** A red callout box says 'Make edits.' An arrow points to a text input field where the transcript for 00:15 is being edited. The text in the field is 'zoom is captioning what i'm saying.' with a red squiggly underline under the word 'i'm'.
- 3:** A red callout box points to a confirmation dialog box at the bottom right. It contains a blue checkmark in a square box and a close button (an 'X' in a square).



Post-production
captions and
transcripts
Questions?

Questions?





Thank You