Using the Echo360 Transcript Editor (Instructors only)

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Videos uploaded to Media Hopper Replay will have transcripts automatically created for them using Amazon’s ASR (Automatic Speech Recognition) service. You can review and edit these transcripts using the Transcript Editor and use the transcript to generate Closed Captions for the videos.

Accessing the transcript editor

The Transcript Editor can be accessed either from the Media tile menu in your content library or from the Media Details page. If system and course settings allow it, it may also be accessible from the Class list by clicking the video icon.

Edit Transcript is an option in the Media Tile menu on your Library page, as shown in the below figure.
**Edit Transcript** has TWO locations in the Media Details page: one is in the main options area immediately below the playback panel, and one is in the Transcriptions drop-down list of the Details tab. Both are shown in the figure below.

If co-instructor editing and/or Student transcript editing is allowed for the section, **Edit transcript** also appears in the Class List icon menu for the video, for instructors and teaching assistants.
When opened, the *Transcript Editor* shows the *Playback Panel*, showing the media, on the left, and the transcript, with its associated cues on the right.

The panel at the top has the control buttons for the transcript, including:

- Editing (including undo/redo buttons and changing Speaker tags)
- Apply Transcript to Closed Captions
- Exporting
- Uploading

When *Edit Transcript* is opened, the following options will be available:

- Saving
- Search and Replace
- Confidence Score Slider
- Selecting a different version of the transcript to edit

Selecting *Edit Transcript* changes the right panel and allows you to click inside any of the cues and edit the text there. You can also change the speaker identification if appropriate.

The playback pane on the LEFT side of the transcript editor allows you to play, pause, scrub to a different location and set the playback to pause while editing.
Using the Transcript Editor Playback Panel

The Transcript Editor provides a Playback Panel on the left side of the page. This allows you to view and listen to the media while you are editing the transcript.

The Playback Panel provides the same kinds of controls as most of the Echo360 media players do, including play/pause, scrub on the timeline, variable speed playback, show closed captions, and selection between video or audio-only sources if there is more than one to choose from.

When the editor opens, the volume slider is set to half by default. Slide the handle to change volume level (to the right for more; to the left for less). Click on the volume button to mute/unmute the video.

Click Play to play the video; the play button changes to a Pause button. You can also use the spacebar on your keyboard to play and pause the video IF the page focus is on the player (hitting the space bar while you’re editing the text in a transcript cue will, as you would expect, add a space).

Click on the timeline directly above the control buttons, or slide the playhead to skip to a different location in the media. The timestamp located to the right of the volume slider tells you where in the video the playback head is located, along with the total time of the video.

If the video has closed captions, click the CC button to show them in the player. The figure above shows the CC button grayed out, as this media does not have closed captions yet.

The Source drop-down list lets you select either of the Video feeds of the media (if there is more than one) or you can select to only play the Audio of the recording.

The Speed drop-down list allows you to play the media at variable speeds, from half speed (0.5x) up to 2x speed.

Sliding the Pause when typing toggle to the right allows the player to pause while you are typing in a transcript cue. When you stop typing, playback will resume.
Editing a Transcript using the Transcript Editor

When the Transcript Editor opens, it provides a playback panel on the left, and the text of the transcript, broken into timed cues on the right. The CURRENTLY applied transcript is shown by default. In most cases, this will be the Original automated transcript generated through the Amazon ASR (Automatic Speech Recognition) service. In some cases, it may be an edited version or later uploaded version.

Once you make edits and save your changes, your edited transcript becomes the current transcript applied to the media and will be shown in the transcript panel in the classroom.

To edit the text of the cues, or to change the speaker tags for any of the cues, click Edit Transcript to enter "edit mode".

Once in "edit mode", the right panel changes, and allows you to click into any of the text cues to activate it. When active, you can move your cursor within the cue to make changes, or select a portion of text to type and replace it, as shown below.
After changing the text of a cue, click outside of it, or click into a different cue to edit.

If necessary, use the **Undo** or **Redo** buttons to revert/restore your edits.

When finished, click **Save As New Version**. This creates a new version of the transcript complete with your edits. This will be the version users see in the transcript panel in a classroom.
IMPORTANT: If another user is also editing the transcript at the same time, and has already saved their work, you may be asked to compare differing cues where differences are found. You will have the chance to approve or reject YOUR changes for each differing cue, then save your version as the next version. **DON’T PANIC!** The other user’s changes, even if you reject them, are still there, but will be in the version previous to yours (and will not be in the currently applied/visible version of the transcripts). You or another user can select the previous version from the Version drop-down list if the other user’s version needs to be accessed for any reason.

You can also **CANCEL** all of your edits if necessary.
Using Search and Search and Replace in the Transcript Editor

**Searching** for a word or phrase highlights all of the instances of the search text, and lets you skip to each one.

Use the **Arrows located to the right of the search box** to jump "up" and "down" (chronologically) directly to each of the found results.

Click the **X** to clear the search and the results.

If your transcripts have a mis-transcribed word or phrase that you need to correct in the transcript, you can use **Search and Replace**.

This can be common in the case of names used multiple times in the transcript. The figure below provides an example of a search for Linda where the name is actually "Linde".

In this case, we want to replace "Linda" with "Linde".

Click the **chevron to the right of the magnifying glass** in the search bar. This expands the box to show a Replace with field, and associated Replace or Replace All buttons.
Enter Replace with text, then click Replace or Replace All (if there are only a few or you know all instances have the same replacement). The Search text is replaced as you select. If replacing each instance separately, use the search arrows to move to the next instance as needed.

When finished, click Done.
Using the Confidence Slider to Streamline Transcript Editing

In the transcript editor, you may notice a **Word Confidence slider** above the transcript text pane as shown in the below figure. The confidence slider appears for any transcript generated by the Amazon ASR automatic transcription service (unless it has been previously edited, as described later on this page).

What is a confidence score?

When Amazon performs a transcription, each word is given a "confidence score" based on how certain the machine transcription was in selecting the correct word. Lower confidence often indicates speech that was garbled, difficult to understand, lower in volume or other reason it may not have been interpreted properly by the automated program. The scores are presented as a percentage and as such range from 0 to 100.

Words are underlined in the transcription panel based on the confidence value configured for the slider. The value shown by default is an average confidence score across the entire transcript. Underlined words are those whose scores fall **below** the confidence score.

Changing the confidence score applied

**Click and drag the Confidence slider** (or type a different value in the box located to the right of the slider) to CHANGE the confidence level used to underline words in the transcript. For example, if the speaker had a thick foreign accent, you may want to lower the confidence percentage to reduce the number of underlined entries. This lets you target the words most likely to have been incorrectly transcribed.

Lowering the confidence slider a bit is a good way to find those terms that are repeatedly mis-transcribed. You can then use **Search and Replace** to fix them. Then raise the slider to find remaining words and review them.

**NOTE:** Word Confidence is not the same as accuracy. While we wish machines could provide us with 100% accurate transcripts, at this time the best they can do is gauge how confident the algorithm is with its output. Word Confidence is a good tool to first review words that may be inaccurate, but it
should not be the only indicator and is not an alternative to reading through the entire transcript and confirming its accuracy against the media’s audio.

**Do all transcripts have confidence scores?**

All transcripts returned from the Amazon ASR transcription service will have a confidence score applied to each word. These are contained in the NOTE CONF entries of the transcript file (see [Defining sections of a WebVTT file](#) in [Editing Transcriptions Outside of Echo360](#) for more information). If you upload an automated transcript that you may have edited offline previously, and the file still contains the NOTE CONF fields, the confidence ratings will be used for the Transcript Editor interface.

If a transcript file is uploaded that does not contain the NOTE CONF fields, the Word Confidence slider is grayed out and the value shown in the box is 100%. Essentially, the editor assumes that if there is not a confidence score, that the transcript was generated by a human and is therefore correct.

When a user makes their edits, the confidence scores are CLEARED from the entire cue (single line of words) where ANY of the words have been edited. Meaning that if you edit a single word in a cue where multiple words are underlined for being below the confidence score slider threshold, when you move to a different cue, the underlines in the entire cue are removed, because the confidence scores are cleared.

As indicated above, no confidence score implies 100% accuracy because human intervention is assumed. In this case, it is assumed that the entire cue was reviewed along with the change and as such, the cue is 100% correct. While the interface will show that the scoring has been removed for each edited cue, you still have to save the edits to a new version, at which point the scores are removed from the transcription.
Transcript Versioning and Applying Previous Versions

When you open the Transcript Editor there is a Version drop-down list in the top left side of the screen, above the playback pane.

Every time a transcript is uploaded or edited and saved, it gets a version number. The Original version is the first transcript applied to the media. This is typically the one that was returned from the Amazon ASR service. This is shown in the figure below.

When a version is selected, the text to the right of the Version drop-down box shows when that version was created/saved/uploaded, and who applied/edited and saved it. The version number is increased by one every time the transcript is saved or a different one is uploaded.
Among other things, the Version drop-down list allows you to apply another version if edits made to a transcript are inaccurate or inappropriate. Notice above, the text in this version has been corrected.

When you apply a different version than the one currently applied, you get a notification message asking you to confirm the change. You can always select other versions if necessary. Users are also able to select a previous version, edit it, then save it. A new version is created and is applied to the video/audio media. If you select the Original (or any previous version) and then save it (even without changes) a new version is created, that is identical to the one you selected. This makes it possible to track when and by whom any given transcript is applied to the media.
Merging Edit Conflicts in Transcripts

If multiple users are editing a transcript at the same time, when each user attempts to save their changes, there may be conflicts in the changes done by each user. Echo360 deals with this by presenting a list of the changed cues and asking the user to select which is the one to keep in the newly saved version. This is done when the user clicks Save as New Version.

Essentially what happens is that multiple users open the latest/currently applied version of the transcript and begin editing. When the first user saves their changes, those changes are applied and a new version is created. When the NEXT user saves, there are conflicts because there are cues in the first user’s saved version that no longer match the ones in YOUR version, whether YOU made those changes or not.

YOUR changes are in the list on the right, and the other user’s changes are on the left. The area above the listed cues also shows how many conflicts there are (remaining). As you select which cue to keep, that number decreases. Once at zero, the Merge Changes button becomes active.

Obviously, only cues that are different in the two versions have conflicts and require intervention to determine which is the one to keep.

Use the checkboxes to the left of each cue to determine which version of that cue to keep.

Use the checkboxes at the top to select ALL of the cues by either you or the other user.
Once the changes are merged, a new version is created and saved. OTHER users who may be editing the original or previous version will be faced with conflicts between your newest saved version and theirs. Subsequent editing should be done from the newest saved version, to reduce conflicts. See the Best Practice section below for help and tips.

**Best Practice for multiple concurrent editors**

If you know that you are going to be editing transcripts in parallel with one or more other users, best practice would be to split the work across segments of the video. For example, if you and one other user are editing an hour-long transcript, agree that one of you takes the first 30 minutes and the other takes the second 30 minutes.

In this case, when the first user selects to save, they do not see a conflicts page, because their edits are the only ones Echo360 is aware of.

When the second user selects to save, they WILL see a conflicts page and there might be a large number of conflicts. **DON'T PANIC!** If each user worked only the sections of the video/audio transcript file they agreed to, the second user can accept their changes for the half they worked on, then select the OTHER user’s changes for the other half. Each conflicting cue's time stamps are shown, making this method easier.

After both users have saved, WE STRONGLY RECOMMEND that if there are further edits to make, that BOTH USERS ensure they are working with the NEWEST (most recently saved) version and continue editing their section of the cues.

**If the individual cues do not HAVE checkboxes**

You may run into a situation where you go to save your edits in the Transcript Editor and are faced with a slightly different "merge editing conflicts" window and individual cues don't have checkboxes. This is shown in the below figure.
This is a fairly rare occurrence but can happen if another user uploaded a transcript file while you were editing, AND the uploaded one has a SIGNIFICANTLY different number of cues. The person uploading may have removed some while offline-editing the file, or perhaps they uploaded the wrong VTT file for this media. In either case, there are too many conflicts to allow for merging AND the number of cues do not line up.

To address this situation, you can view the differences and determine whose version is correct. It should be reasonably clear which is the one to keep, especially if the wrong transcript file was uploaded. Once you determine which one to keep, use the checkbox at the top - to retain either YOUR version and ALL of its changes, or the uploaded one by the other user.

**IT’S VERY IMPORTANT TO NOTE:** If you select to keep the uploaded changes, you will LOSE all of your changes. We recommend instead that you KEEP all of YOUR changes and apply them. This creates a new version of the transcript file. The uploaded version is still available (as the previous numbered version) and you can switch to it if needed using the Version drop-down list.
Adding and Identifying Speakers for Transcripts

In some cases, you, the transcript editor, may want to identify different speakers in the transcript. Speaker names are currently shown in the transcript panel for media viewed OUTSIDE of Echo360. This includes public media links posted for widespread viewing, and videos or interactive media posted in an LMS/VLE window.

Amazon and the ASR service attempt to identify DIFFERENT speakers in the transcript. These identifiers are shown as Speaker 0, Speaker 1, Speaker 2, etc in the automated transcript. This means that in the Transcript Editor, applying accurate speaker information involves one or more of the following tasks:

- Editing the speaker defaults to the names of the actual speakers
- Adding speakers to the list of names to choose from
- Selecting or changing the Speaker for each cue as needed
- Deleting speakers from the list if not needed

Editing Selectable Speakers for a Transcript

You may need to edit the speakers in your selectable list, particularly if you have the Amazon-applied speaker name defaults mentioned above. Or, if you added a list of speakers before you began editing but were not sure of everyone’s name initially, you may have entered a placeholder instead.

Editing the Speaker Name in the list applies this change to ALL CUES where this speaker is identified.

For example, the automated transcript may come back with the instructor identified as "Speaker 0". Using the below procedure, if you change "Speaker 0" to "Dr. A.N.Other", all cues labelled as Speaker 0 will change to show Dr. A.N. Other as the speaker.

To edit transcript speakers from the available list:

1. In the transcript editor, click **Edit Transcript** to enter editing mode if needed.
2. Click the **Speaker** marker for ANY cue.
3. Select *Edit Speakers* from the menu as shown in the below figure.

![Edit Speakers](image)

4. In the Edit Speakers list, click the *Edit button* (pencil icon) located to the right of the speaker you want to edit or delete.

![Edit Speakers](image)

The Edit button changes to show a *Delete button* (trash can) or a *Checkbox* to indicate you have finished your changes.
5. **Select and change the text** in the Speaker text box, then click the **Checkmark**.

6. Alternatively, to delete a speaker, click the **Delete** button (trash can).

7. **Repeat for any other changes** you want to make to the available Speakers list.

8. When finished, click **Done**.

After making the edit to the speaker name, notice that all of the cues that had been identified with the original speaker (in this case, Speaker 0) are now tagged with the name given to that speaker.
Adding Speakers to Select List for Cues

If you know that the automated transcript does not identify enough different speakers, or you have an older transcript that did not identify different speakers, you can add others to the **Speakers** list. If you do this before starting to edit the cue text, you can simply select each speaker as appropriate, while you are listening and editing the cues.

As noted above, you can also edit an existing speaker which will then apply that change to all cues where that speaker has already been identified. However if you only want to apply a speaker to SOME of the identified cues, add the speaker to the list and select them for each cue as appropriate.

**To add a speaker to the speaker selection list:**

1. With the Transcript Editor open, click *Edit Transcript*.
2. Click the **Speaker** marker for ANY cue.
3. Select *Edit Speakers* from the menu as shown in the below figure.

![Edit Speakers](image)

The Edit Speakers box appears. If there are no speakers already associated with this transcript, your only option is to **Add** a speaker. Any existing speakers will be listed above the Add a new speaker text box.
4. In the Add a new speaker text box, type in the name or identifier of the speaker.

5. Click Add. The new speaker appears in the top section of the Edit Speakers box.
6. **Repeat these two steps to add more speakers** to the transcript. This allows them to be selected as needed while you are editing.

7. When finished, click **Done**.

The newly added speaker is now available to select for any cue in the transcript, as shown in the figure below.

![Applying a Speaker to a Transcript Cue](image)

**Applying a Speaker to a Transcript Cue**

You may apply speaker identifiers to each cue as needed or to only the first cue of a particular speaker’s set of speech. See **Editing Selectable Speakers for a Transcript** above to change the name of an existing identified speaker, and apply that change to ALL the cues for which they are tagged.

**To apply a speaker to a transcript cue:**

1. In the transcript editor, click **Edit Transcript** to enter editing mode if needed.

2. Find the cue whose speaker you need to identify, and click **Speaker**.
3. **Select the speaker you want from the list**, as shown in the figure below.

Once added, the cue now shows the speaker name/identifier you selected. Repeat these steps as needed while you edit the transcript.

**Deleting Speakers for a Transcript**

You may want to delete the speakers associated with a transcript. Leaving them in the list doesn’t harm anything and those speaker names only show up if they are applied to a cue. REMOVING them, however, will also remove that speaker assignment from any and all cues where it occurs in this transcript.
NOTE that if you enter a speaker to the list, but do not use it for any of the cues, that speaker is not retained with the transcript. The next time you or some other user opens the transcript in the editor, any unused names no longer appear.

To delete transcript speakers from the available list:

1. In the transcript editor, click **Edit Transcript** to enter editing mode if needed.
2. Click the **Speaker** marker for ANY cue.
3. Select **Edit Speakers** from the menu as shown in the below figure.
4. In the Edit Speakers list, click the **Edit button** (pencil icon) located to the right of the speaker you want to edit or delete.
5. Ensure this is the speaker you want to remove, then click **Delete**, as shown in the below figure.

6. **Repeat for any other changes** you want to make to the available Speakers list.

7. When finished, click **Done**.

The deleted speaker no longer appears in the selectable list. IN ADDITION any cues that had the deleted speaker assigned will no longer have an assigned speaker, and that cue returns to a default assignment of “Speaker”.
Applying Updated Transcripts as Closed Captions

Once a transcript has been reviewed and/or edited for accuracy, it can be applied to a video as the closed captions file.

Understand that the transcript-based captions will not have non-speaking elements such as "music" or "paper shuffling" as visual indications of non-spoken sounds (like closed captions may have), but it will provide visual indications of the spoken sounds of the speaker for users (as text).

To apply an edited transcription as a closed caption file

1. Open the Transcript Editor.
2. Click Edit Transcript to open edit mode.
3. Make any changes necessary and save the changes to the transcript.
4. Click the **Apply to CC button**. This applies the current version of the transcript to the closed captioning file for the video.

5. Review the confirmation message that appears, and click **Apply** to apply the transcript as closed captions for the media.

To see the applied transcript in action, play the video in the playback panel, with the CC button turned on. This is shown in the figure above.
Uploading a Transcript File for Editing

There may be times when you have a transcription that you want to upload to the media through the Transcript Editor. It may be a file that was generated via manual transcription or otherwise done externally to Echo360 and the ASR service or it may be a transcription you downloaded previously and edited offline.

In any case, you can upload a transcription file to the media in the editor, then apply it to the media. This makes that file available through the editor for further revisions.

The uploaded file must be a webVTT file and meet the WebVTT specifications as defined by the W3C: https://www.w3.org/TR/webvtt1/. As long as your VTT file meets the specification, Echo360 will accept it.

To upload a transcript file

1. Open the Transcript Editor, and click Upload as shown above,
2. Use the Filepicker window to find and select the .vtt file to upload (either from your local machine or from a shared drive).

Once uploaded, the file is processed and the transcript text changes to show the newly-applied transcript file.

The uploaded file is also given the next version number and is immediately applied to the media.
Exporting a Transcript for Offline Use
There may be situations where you want to export or download a Transcript file or a version of a video’s transcript to view or otherwise work with offline.

The Transcript editor provides an **Export** button for that purpose.

You can select to download the **WebVTT file**, just like the Download transcript feature on the Media Details page, or you can download a **simple text file** of the transcript cues, just like the Download transcript feature in the Classroom transcript panel.

Two things you should know about the TXT file download:

- If you are using a Windows computer, do not open the file in Notepad; Notepad does not retain the line breaks in the file. Use **WordPad or Word or another more robust text viewer**. Macs typically open .txt files in TextEdit which **DOES** retain the line breaks.
- The TXT version of the file does **NOT** contain the cue timestamps or any confidence scores that may be associated with the automated version of the transcript; it only contains the spoken text for each cue.
The downloaded WebVTT file can be edited the same way we previously described in Editing a Transcription, using an offline text editing file. The edited download can then be uploaded to the media or uploaded to the Transcription Editor for further refinement.