

Tech Workshop 2: Live-Streamed Program
Thursday April 22, 2021 | 1PM-2PM Central
Association of Midwest Museums
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MODERATOR: We ask that you share your candid feedback with us. Following today's program you will be sent a link to a satisfaction survey and share your experience to the survey will only take a few minutes and will greatly improve our work. We encourage you to post questions to our presenters which will be addressed at the end of the program after the presentations.

Please type your questions in the chat and digital empowerment team member will gather them and I will moderate the Q&A at the end. We will get to as many questions as time allows however we may not be able to address all the questions during the live session. Others may arise after reflecting on the program. For this reason we have set up an online community forum for raising questions, posting answers and connecting with your fellow museum practitioners on the Museum Learning Hub website. That is museum.hub.org.

If you're looking for help between programs please visit this forum and create a login and post your questions. A member of the community 01 of our fabulous student technology fellows will get back to you. To stay connected with us in be aware feature programs please follow also social media. We have all the social media channels and links will be posted in the chat.

It is my pleasure to acknowledge today's panelists. Sina Bahram, Corey Timpson and Ana Chiaretta Lavatelli. Those who joined us last week, Sina is the president of Prime Access Consulting an inclusive design firm. He is an accessibility consultant and computer scientist and researcher and speaker and entrepreneur.

Corey Timpson is the principle of Corey Timpson Design's. He is an active collaborator and thought leader and experience designing inclusive exclusive museum discourse in the cultural sector.

Ana Chiaretta Lavatelli is the owner of Solid Pink Productions and has been working and moving image for over 20 years as an artist and director and producer.

You can learn more about our presenters from their full bios available on the Museum Learning Hub website. I'm thankful for the time that each has promoted to the session and now I place to turn over the floor to Ana to begin the presentation.

ANA: My name is Ana. I use the pronouns she and her. I am a white person with long light brown hair and eyewear, clear framed glasses and giant headphones at the moment. I am wearing a black shirt as always and there is a course ombre of my hair the indicates I was a bit punk . When I just or you can notice tattoos on my arms affirming that suspicion. I you today from Buffalo, New York where it is believe it or not snowing. I would like to recognize the Onondaga and other members of the original stewards of the land. I am very excited to contribute.

Today we will dive a bit deeper into technical workshop 2. We are looking at Digital Accessibility and Inclusion specifically for video. Do we have our signs up? Slides up? Okay good. First I wanted to remind us of the you thousand that Sina and Corey share last week. I could not have worded better.

I think this is the framework that we can bring to all of the ways that we think about using video media whether it is prerecorded or live. The slide viewed rather than design and develop something and then figure out how to make it accessible, we designed with the consideration to all audiences and all vectors of human different from the outset. So we will see how that guides the way we think about video and inclusivity.

To give us a strong understanding of all of the aspects of video production and live streaming, need to know the terminology. I will start with an overview of the various tools we have that incorporate into making a video accessible. You will see that many of these presentation include ASL interpretation, streaming captions and transcripts.

First captions. There are 2 kind of captions. You may not be aware that. We will get down to brass tacks with everything so everybody's on the same page. Closed captions are optional on-screen textual representation of the audio portion of the video image. They are stored in a text file that is separate and in a special format. It is important to recognize they are stored as text because these can be read by screen readers. So if you're using a text to braille device, those captions can be accessible if you are a DeafBlind.

Open captions however are on-screen textual representations of audio. Except they are burned into the video image. They are not stored as text but are permanently part of the image. They will always be on the video. There are applications where this is necessary. Typically you're going to see this in gallery. That is the most common use and that is when you're working with a player that does not support a sidecar text file. The text file that rides along with the video file.

So this is a screenshot of a video player that shows a closed-captioned file in use. There is an English-language closed caption activated on a video still of the entrance to a gallery exhibition called take care. The caption reads this exhibition stems from a few driving questions. This caption is just above all of the player controls . So on the far right, there is a CC button that is activated in a very tiny menu where you can see the words English, CC. You can see that is activated. That tells us that the closed captions are turn on.

This is where it gets tricky. People confuse captions and subtitles. They are just text at the bottom of the screen, right? Subtitles are on-screen text that is a translation of the audio of the source media into another language for access by speakers of that language. So captions are directly related to the audio language, the existing language of the video whereas subtitles are a translation. T

hat might be to provide access to English speakers in the United States if the speaker is using non-English. Or in this case, I am showing a screenshot of a video and video. We have the player controls and this time in the literacy menu we have three options English, Spanish and other. You will notice that this is next to Spanish because this is a Spanish-language video. So the English is subtitles.

In the online context however the way these are delivered it at the same type of file. Is designating so the user is aware that we are transcribing the words so when those words that are in literacy will align with and match the lips of the speaker when they are on-screen. That same video this is a video still I did not describe the content of it. Is people on a beach who are seated and laying down and crouched in various positions to spell YUMA RESISTE.

You see an open caption in an open subtitle that is burned into the video. This is used for the in-gallery installation of the video. On the first line in white text outline, in black, we see the Spanish-language open caption. This is the direct translation of that caption into English-language. This is the direct translation of that caption into English language for access by English speakers. What are transcripts? They are static textual representations of the audio portion of the source media.

This is now a block of text that can be navigated at any rate. Unlike captions, these can be consumed at a rate independent of the source media. The transcript link that is available alongside this video I assume you can open in another browser window and you would be able to scan back if you joined us late to catch up on what you may have missed. This is one of a ceiling examples of how these tools improve the ways in which your audience can engage.

Ideally, best practices is to place the transcript next to the video. What I am showing now is a screenshot of MCA Chicago website. This is a video called *Chicago works* by Chris Bradley. The bulk of the page is filled with a still from the video. It is a video with player controls at the bottom of the frame and to the right is a paragraph of text describing the video. Below that is a transcript that is opened with the two speakers identified.

The text that is contained in the video can be read at any rate chosen regardless of where the video is at at the timecode. I will also note the paragraph of text on the upper right I will circle back to but there is a specific writing style implemented in that paragraph of text. It describes visual information in the video. There is a reason for that. That is audio description.

The audio description is description of visual information of the source media incorporated into the timebase delivery. That means part of the audio track. Typically is added to a technique called audio ducking. Audio ducking is a process of reducing the source media audio to bring it down to the background to permit the audio description to be heard. Example of audio ducking that I don't have on-screen but what I do have is a screenshot of an editing software timeline.

We can see clips of a top track that are clips of dialogue. Any trite below that that is a white line that represents volume. Below each piece of dialogue that white line dips down to lower the loudness of the track to permit the narration to be heard.

That is just one technique. That is one technique to incorporate audio description. There are ways of incorporating description into the script as well. We will get more into that when we review video production. Going back to a video like this, a workaround has been implemented. I am back on the screenshot of Chris Bradley's video where there is a paragraph that includes audio description because audio description was not part of the conception of the video project.

We wanted to make sure we could frame the content of this video. This is a remediation technique that has been implemented where we tell the audience what is the visual information contained in this video. So there is some information that can be taken going into listening to the dialogue between the curator and the artists.

Sign language. I do have a video example worry that I am saving it for the end. Ignore the links those are for you later. Sign language is the last term to review. Sign language is also known as signed languages are languages that use the visual manual modality to convey meaning. Sign languages are expressed through manual articulations in combination with non-manual elements. The official working language of the American deaf community is American Sign Language ASL. This is the interpretation that you're seeing here.

This language has equal status and priority within the national association of the deaf and its activities. To be inclusive of this audience, this is the first language. This is providing a deeper level of access and understanding. What captions can provide just simply text. You will find their organizations using ASL as primary content. So there is a series of videos that Whitney has produced.

I included this example just to flag that there are different approaches to how ASL can be incorporated into programming. But the video clip I want to show which I think we have queued up is a video that features audio description, open captions and sign linkage interpretation . It is a way for you to see all of these pieces coming together. They come together in one video. This is from CMHR thank you Corey Timpson for sharing this file. Let's play the first 30 seconds to 45 seconds.

[VIDEO PLAYING]

ANA: Just to give you a taste of what these features look like when they come together. Now that we have a glossary of terms and we know what they mean and generally what they do, let's talk about what this means for video production. We are going to come along to live streaming to build of the foundation as we go for thinking about how these are going to influence the decision-making and processes that you have around creating video content.

Video production to has three phases pre-production, production and post-production. I don't know if there are any producers on this call. Hopefully this hits a few different notes or if you work when in-house teams were higher out, these are all things you can bring to the table to the conversation. This is so you can all develop solutions that work for your organization.

Starting with pre-production. This is the planning phase going to write a script and make a video and this is what it's going to be about and this is the message. That is the scriptwriting process and the designing of what the video is going to be which is a great moment to say we are going to make this video. It is going to be inclusive of everybody.

How are we going to do that? So scriptwriting and audio description. Writing a descriptive script. Perhaps you do not have a budget to create audio description files separately and have a voice of voiceover and fitted into post-production. You can approach it by writing a script that includes the descriptive content required to convey all of that visual information.

If not working from a script may be working with as I call it talent, you can train talent in descriptive approaches. That can be training it curator, educator and how they can implement visual description in the way that they speak about work so it's not just interpretation and an assumptive of the abilities that people have to the table but an inclusive approach that identifies all of that visual information as part of the talking points.

The other thing to do and that's group riding and planning phase is what are the translation intentions? What kinds of pacing do we need to adjust? As Corey pointed out, having to account for the difference in language that French and English take up. If you put a video in both languages you need to be sure there's a bit of space on the English to accommodate the additional words. Different languages take up different amounts of time and space. Giving yourself space to be inclusive is an important part of the process.

Even though production is production and it feel separate, the production planning you might want to start talking about it and thinking about where you are shooting it, how you are shooting at and especially if incorporating capture of ASL interpretation, whether that is being recorded separately or at the same time. Typically recorded separately. Making sure that you're considering that you're using the background that is neutral, monochromatic clothing so we can follow what's happening. You're seeing an example of all this right now. Identifying the phases of capture.

Post-production. I will point out the cyclical nature that these phases may have so you may produce the core content, do a primary edit and then go back into production on the ASL interpretation. And then incorporate that audio description recording because maybe you are not sure what needs to be described yet. You do not have everything script it out yet. There's a lot of that can be done before you start shooting be sure you have the tools necessary.

During production, it seems obvious but I like to emphasize quality audio capture. You want to reduce background noise. You want to be sure it is clear and understandable content. That is also a big part of being able to access the content. Also framing. You notice in the CMHR Canada video that we should show the clip of open captions and open translation, make space in the frame for these other elements.

When developing graphics with designers that the designers are aware they need to avoid using the lower part of the screen where the closed captions will appear for people using those. Were where in the frame you will place a box or a green screen interpreter. Don't forget duration and pacing goals. Is easy to get into the heat of the moment when you are shooting and under shoot or not get enough description to explain all of the details.

You must really remind everyone of the goals throughout the production process. Keep everybody honest. Remind whoever is being your talent your subject in the video and the crew of what the goals are so everybody can keep that inclusive goal in front of their mind. post-production. Editing taking all the wonderful footage that you've captured in putting it together. This is the point at which there is a matching a visual content to descriptive narration. Making sure that you are thinking about that video from all of these different points of access.

If you're doing separate audio description, Leave spaces where it is needed to insert it. I recommend editing content from a transcript overall capture. I usually send my raw capture out for transcription because then I can approach the content both as text, which removes me from the visual information and focuses me on the content so I can get a sense of if it's descriptive enough. I will then approach it from the footage capture and then also from the audio only.

So you're looking at each way in which that material can be engaged. Also and post-production this is where the compositing of ASL interpretation happened. Ideally, it would be a separate video feed that is served by a player but frequently it will need to be like open captions for in gallery and be burned into the video.

That can be done as picture in picture. Or in case of the stream, our images are off to the side of the slide. It can be shown as the video clip as green screen so it's really embedded into the video. Of course if shot in gallery, this is one of the hardest because you need to be cautious of background and framing to include all of the communication and the capture. You cannot miss any part of that because then you are missing part of the story.

What happened to transcription in an captions? I see this as part of the distribution layer the final step in production. This is if you've already transcribed your raw capture. This is turning that into captions or sending out your edited video for transcription. I have listed a few transcription services. Human transcription services verbal Inc., Rev, Casting Words and automated auditor AI and YouTube.

Human transcription will be higher-quality and it means less work for you. It is an investment that is definitely worth it especially if you are looking at taking a 10 minute video or half-hour video these are usually just over a dollar a minute and many of them have nonprofit rates. Developing a closed-captioned caption file. These services will allow you to download a SRT file which are the closed-captioned caption files and it's a special kind of file that has timecode tied to the fragments of the transcript.

Developing a close caption file can be done with YouTube, Rev, 3Play and Amara that integrates with Vimeo and there also some free captioning software's were you would manually create by hand. Aegisubs and Visual. Personally I use YouTube. I have clients that love Rev because it has an interface and even the human transcription will have errors. Rev has a great interface I hear a few clients really like for editing transcription in browser. So everything matches exactly how they want and names are spelled correctly in everything is titled correctly.

YouTube is free so let me show you how to do it there. It's a common distribution tool. I uploaded a video called in caustic which is the kind of paint. This is the video of YouTube studio and it shows my thumbnail on the upper left and below that is a menu that reads details, analytics, editor, comments and subtitles. We are activated on subtitles menu item and to the right we have video subtitles and it says English automatic. Modified April 19. To the right of that we have a link that says duplicate and edit. This is the magic you to auto transcription. When you click duplicate and edit it opens a window that gives you English language in this case. I don't know the quality of YouTube in other languages or which other one which are auto captioned but it's improving all the time. I am sure new linkages are being added. This caption editor look nothing like the one I have been using five years ago. It is so much better.

We have hour block transcription test text that can be copy and pasted in another document and also edited in line so I can clean up all the words that are poorly transcribed because YouTube has called it plastic paint instead of in caustic paint. This is a screenshot where we had transcript on the left and a video on the right which has playback and a playback this is because while typing it's a beautiful tool.

Below all of that is a timeline with 2 tracks one captions that shows the start of each caption line associated with the timecode and below that audio waveform. So one can match of the captions to the audio exactly the way they want to. I personally prefer one line of captions. The standard is a maximum of 2 lines and depending upon your aspect ratio Nvidia resolution 32 to 48 characters wide.

I find one line of captions to be more user-friendly. I think it is more generous and more work because finding the right pacing to make intelligible can be more challenging. It is a personal preference. You will see nuanced differences in these techniques especially with so many video formats. We now have 4K but has a wider frame so you may be able to fit of humor characters in there.

I am now showing a screenshot of auditor of the same video clip I uploaded as an MP3 file. I stripped off the audio input in. Just to compare the automation and the robot capacity. It recognize names and spell them correctly. This is the same block of text that was shown in the previous screenshot that just demonstrates an improvement in the AI capacity. I assumed that I had seeded.

You can also seed with terms if you have a lot of particular names with particular spellings and technical terms you can put all of that in so it can start to map those better. It can get the words correct. I had assume I had seated this with some words because there were particular words I did not expect to transcribed. Correctly but I did not so is just a better AI which is exciting.

But there are still plenty of errors so there's a lot of cleanup to be done. Do not trust the robots yet! All of these tools are very useful in the idea I mentioned about the remediating content and building workarounds when certain things cannot necessarily be done or could not be done because there was not awareness in those planning phases.

As mentioned with visual description, instead of incorporating audio description, give that visual information is a framework to viewing the video as a paragraph of text so there is more meaning in that video. Definitely always edit those audio transcriptions because they're never going to be right. The fact that you can download the edited transcript to poster transcription or the edited caption as transcription. There is no reason you cannot make sure that all videos have a visual framework. That they have captions and a transcript with them. These are all things that can be done to the content already produced.

A little attention slide. The signing box activated area to communicate for sign language must always be clearly visible. This is where ever signing is happening is the sign box and it needs to be clearly visible. Leave space in the framework captions especially be attentive to graphics. Automated transcripts have many errors. Put time into the schedule for editing. You always need more time for editing than you think. You can also invest in higher-quality human transcription which I still find I need to edit those a bit.

Lastly just a no animated ASL robots do not sufficiently translate. Work with human professionals. I realize that was a refrain throughout the presentation. Work with human professionals and they're very good.

Before we get to questions since I'm moving quickly and covering a lot. Let's talk about live streaming. Let's take all the knowledge we have accumulated thus far and talk about live events like this one. We are in a live event. This is how it happened. One thing you'll notice is our interpreter switched. We have a new person. So this is something you need to account for when you're doing a live event. Duration can be a bit more demanding. So like a live event in person, live events online also need to provide at least 2 interpreters to give everybody a break. There are little nuance difference that come with live streaming. Thank you for the timing on that!

Live streaming platforms. A big framework because there is a lot of platforms out there. To the delivery service that has an accessible player and supports all features. Be careful with all-in-one solutions. I'm seeing platforms pop up like mushrooms especially during the pandemic. The demand is high. There are lots of developers trying to get a piece of the pie. Not all of them but many of them have accessibility issues.

Whether that is a simple web content or accessibility guidelines failures so people cannot even access the video through a screen reader or they cannot login. There are so many issues. I have listed here some of the tried and true platforms that I have worked with and today is my first experience with stream yard which is what we are on right now. Delivered via website and YouTube. This is a little parenthetical. We have listed Zoom, Vimeo, YouTube and stream yard and sometimes a combination of services is the best solution.

Live streaming and finally which. Adding interpretive video feeds is clearly a capacity that your platform will need to have in this case we are able to have multiple speakers on screen. I have noted here again, Zoom and Streamyard and Vimeo Studio, OBS which the downloadable software where you have's somebody playing producer. It's similar to Streamyard you need somebody to operate as the producer except it is a bit more complicated and more like the old Livestream studios.

If you do not know this, Livestream and Vimeo merged. Vimeo studio is a development that collaboration. It is a very robust tool I have not had a chance to personally use it but the very exciting thing they're doing is I believe Zoom also does that is multi audio track support. If you're delivering audio description during your life event, you can have that delivered on another track. This is also great for translation. You have a Spanish-language audio or French audience you're incorporating, that can be sent out as a separate track.

Why is this not normal? There are many complaints. We need to continue to demand that feature. I think Vimeo Studio is a good sign that they will bring back technology into the regular player environment. So we can have multiple audio tracks and stop having to upload a video with audio description any video without. Ideally I think incorporate the description so you have one awesome video everybody can enjoy and comment on in the same environment.

Live streaming audio description in translation I just review. Provide separate audio feeds zoom and Vimeo Studio. Live streaming and captions. CART which stands for communication access real-time translation is an interpretation service for speech to text. It is the gold standard for speech to text live event captioning. Because it is created by a trained professional. Not a robot. Once again trained human professionals are amazing. Available for on-site or online. So this is your ideal caption solution for live events. It does come at a price. So I believe automated captions despite the significant error rate are better than nothing if that is the ART is out of budget. I have listed options here. All of these have a monthly subscription model that integrates with Zoom that provides automated captions with a bit of delay. I have found that auditor has the least latency or delay. I feel like it's a bit more impressive than AI but it's mostly the seating with content. I believe letter to replay media allow you to upload glossary terms. Experiment. All services have free trials. So you can try them out to see which will be the best fit for your event. Most services will provide a transcript. Not the same as captions. It's a different thing. They provided different kind of access to the material textually so audiences can engage the content at their own rate. Captions are there and then they're gone but the transcript is a document that is collectively added to so you can consume the content at your own rate. Streaming transcript can usually be provided for services that provide captions. Just do the research and ask about it if you're working with CART can be incorporated into the plan.

Live streaming means test, test, test. Things go wrong and things do not work as expected. Does do a lot of testing and find the right equation of platforms and tools to. To create the most inclusive event possible. I did not want to leave outputting some onus on your participants. Participant education is a huge part of successful life events. Train, practice with your presenters or talent so they are prepared to approach their material inclusively. That means describing slide content in using inclusive language and cooperating with the tech teams to ensure everybody can do their best. We can deliver the most accessible and inclusive and awesome event that we can.

At the beginning of this I describe myself in the moderator described herself. We are going through and describing all of the content of the slides. Is just something that can be incorporated into the way that we present. It only improves the experience for everyone. If you're still asking why you should not be. It is the right thing to do. It creates an inclusive conversation and inclusive engagement around the content. That means we are all on the same YouTube page together dialoguing together about the content. The video content is more usable for everybody with these features. If I do not have my headphones with me I can

watch a video silently. Is more findable. It improves search engine optimization that are SEO and findability. If you really need another reason, it's the law.

I want to close with do your best. We are learning together. This is a huge learning process and we will make mistakes. We're going to use the wrong platform but we are going to learn something from it. Every single thing I have looked at in preparation for this in every single piece of work I have made I would go back and do differently. A big piece of the learning process is communication. Manage expectations. Clearly explained the program offering. Explain how attendees may engage with it. Identify available most of accessing the content and how those features can be accessed. What might not work ideally. What to do go something is not working as expected or they expect it. Provide a means of gathering feedback. The audience is you want to include will probably have great ideas of what can be done better next time. I think it is all about learning together and doing the best we can together. We are going to develop new ways of doing things. We are developing new ways all the time. That is really exciting! I think were going to continue to develop new modes of video production and you modes of doing online events that make a better experience for everybody.

To give us at least 15 minutes for questions let me wrap up and get Sena and Corey to join me for Q&A.

MODERATOR: That was wonderful Ana it's a constant learning process for everybody also for me. You are doing your visual description of yourself and you noted you were wearing glasses I've done visual description so many time I am also wearing black grandpa cats eyeglasses.

ANA: Fabulous glasses.

MODERATOR: I think we can learn from each other in this kind of interaction. I didn't do that last time but now I will never forget it. So thank you for that. It's nice to have Sena and Corey back for questions. There are a lot of questions that run the gamut for very specific to very broad. I will start with this first one. Where can I find guidance or best practices for writing all text for images and graphics in mobile apps? Especially with and without captions and most rations and also is redundant to have all text describing an image instead of captions?

SINA: Caption versus visual description is very important. Captions are for everyone. They should be made accessible on a webpage or a mobile app. They are not the visual description. They may say something like Grand Canyon 2015 or May identify some of the people. The visual description is the alt text. That should be programmatically associated. There is usually an alt text field or in mobile apps like iPhone or android there's a programmatically to put that in were in WordPress. Just to note that the caption in the visual description are never redundant because captions are for everyone. Visual description is were all text is the visual description that is most useful for somebody who made a have access to image but also helpful for somebody on a low bandwidth that has the images turned off. To tell if you have good alt text or not disabled the images and of the interface still make sense? If so you done a good job with all text. Some standards we can share the Cooper guidelines are public and if I recall the MCA guidelines may also be public as well.

MODERATOR: Thank you Sina. Next question is green the preferred color for a background screen or can it be any plain background?

SINA: I think I prefer green screen.

ANA: I'll defer to Corey on this because I have less experience incorporating that but I would say typically a neutral background. I like to go for a medium gray personally.

COREY: To clarify the green screen is the standard? It depends what were using it for. If you're going to overlay onto another video certainly working in post-production with a green

screen works very well. What we are always trying to do is have high contrast between the background in the foreground. The same things we talked about last week if you were not there. Ensuring high contrast whether it is text on the background or personal the background or text on the image or in this case talking about interpretation, a video on a video or an moving image on a moving image. One insurers high contrast. The green screen that you see here provides that because the interpreter is wearing black. So it is quite high contrast. If we wanted to take that interpretation and drop that an overlay that onto another image, working with a green screen is quite effective.

ANA: It allows for the most flexibility because you can decide later how you're going to composite that.

MODERATOR: Thank you all. This is a question for Ana. I am still unsure how you add audio description to the video. Can you explain that again?

ANA: Okay I tried to go through a few approaches probably way too quickly. That is the approach that was shown in the video where there is a description scripted and recorded separately and integrated into the edit in post-production. In moments of pause between narration . A different voice should contrast with the narrator's voice. It will describe the visual information. That is one approach. Typically this is where audio docking is used so that describes voice is better heard. And the source audio does not interfere. The other approach I described which I may have emphasized more because it is a budget friendly approach and a great way to get started it doesn't require a rethink of the production process is to incorporate description into the scriptwriting process. That means any visual information that will be in the video is described as well as whatever interpretive narration that matters. Depending on the type of video, different approaches. Corey probably has more to add. Or maybe not.

COREY: I was actually getting the resources for those different alt text and captions, etc.

SINA: I will add something depending on the type of video it really depends on whether or not you can naturally embed to the audio description . For example for Ana presentation we would not need third-party audio description . She had some screenshots and she described them. There was a visual description of herself at the beginning. When she had a photo on the screen, she said what it was. That kind of thing. On the other hand if you have an action sequence, you may not be able to make that happen. So 2 cars chase each other down a busy Los Angeles Hwy. That is an audio scription that would be necessary because it may not be able to be incorporated in the video. That is the production choice that Ana is referring to. The how to do that is dependent on the video production methodology. Are you using Final Cut? Premier? Are you shooting a video on an iPad? All of these mechanisms of producing and capturing the video then affect how you get the secondary audio track into the video.

MODERATOR: Okay. We have time for may be 2 more questions. Can you edit previously published video on your YouTube channel in order to update test videos to be more inclusive?

SINA: That's a really good question. I don't know that you can modify a published video on YouTube. That's more of you to question and we don't want to steer you wrong . It is an excellent question though.

COREY: You would hate to lose all the discourse around your primary if you have to Eddie edit. I'm not sure. It probably changes from platform to platform.

ANA: Mimeo supports version control and you can replace files and keep all your interactions. YouTube last I checked does not. This is another reason I prefer there are out. What you can do in YouTube is add captions to existing videos. You can go in and edit those automated captions to make them more correct.

SINA: Also if you have a described version of the video which would have to describe anyway you would need to produce that separately is a video anyway if you have 2 different versions because YouTube does not support that language track feature. You can edit the description of the video to put in the link to the described version. That way somebody going into it can have access to the more accessible version of the video.

ANA: True.

MODERATOR: We are running out of time in the questions are rolling in. We will do 2 questions. My organization shares livestream video on the natural environment. Often this runs for many hours and months of the year. Do you have any advice for making videos like this more accessible?

SINA: Write a 500,000

SINA: Write a \$500,000 grant for crowdsourcing.

ANA: That sounds fun I would participate.

SINA: People watch each other play video games on twitch so we can get people excited about the scraping describing nature.

ANA: Exactly.

MODERATOR: This will be our final question addressed to each of you and maybe you can each way in. The question is I've been working with companies together quotes for captioning services for our annual conference. What services should I focus on budget wise in order to provide as much accessibility as necessary? I am new to this area and I don't want to leave anything out but also need to be mindful of budget keep abilities.

SINA: I think you had that slide Ana can you bring that up again? We will share the slides with the list of vendors.

ANA: The gold standard is CART I did run the tech for conference where there was no budget for platform expansion. We use daughter. There were some significant errors. Some words I would not want used! And some meaning was lost. Fortunately we had a very cooperative community that worked with that. They used the chat to amend errors. Of the services I found Otter to be the best. Depends on your delivery platform I would check out the options and see what integrates with the tools.

SINA: One additional tactic surfacing as much information about the event as you can before the event happened. That can be a pretty good mitigation tactic that can help manage expectations. We talked a bit about that last week as well. Managing your audience expectations before they arrive. Using the platform that you have with your website and social media, etc. just to try to provide as much context and information about the event and logistics. How accommodations will be surfaced, etc. for takes place will go a long way as well. In addition to the of ordinances and picking which ones you can perform. Make sure to tell people they're automated that way when mistakes come up because of automated transcription people have an understanding that it's an automated thing. Does not excuse the error but at least it contextualizes it. Setting those expectations.

MODERATOR: Thank you all we are all out of time. It was a wonderful presentation and I swear I didn't ask the last question even though I do run conferences. Is good information for all of us and we are always learning. I would like to say thank you to Ana, Corey and seen never being with us today. Thank you to everybody for attending this technical introduction to Digital Accessibility and Inclusion and live streaming. Really terrific presentation and wonderful and practical takeaways. Just a few final reminders. As we wrap up. If he missed any of the session due to various reasons or you want to watch it again, you can access the recording on the Museum Learning Hub website Museum " hub .org under the recent webinars tab at the top of the page. Please complete the event survey in feedback form which will get via email. Visit the forum on our website. Ask any of your questions because

there are probably a few that we could not get to. We can put those back in the forum to get them answer for you. Please follow us on social media. Also please join us next Thursday, April 29 for the third and final technical workshop in module 1. Accessibility and digital collections. This session will once again feature to have today's presenters Sina Bahram and Corey Timpson in the final workshop in inclusion module will focus on digital collection from the time an object is acquired and catalogued and entered into the database to when and how it is published online. There are many opportunities to assure collections are accessible and encourage exploration and participation by all. I will be here with you to again for the final session in module 1 next week and we hope you will join us. Thank you all to the presenters and we will see you next week. Goodbye everybody.