

PATRICK Thank you all for joining this webinar today entitled "Best Practices for Accessible Instructional Videos." I'm Patrick Loftus from 3Play Media, and I'll be moderating today. Today, I am excited

LOFTUS: to be joined by Jackie Luft, Online Accessibility Specialist at Texas Tech University, and Ian Wilkinson, Section Manager at Texas Tech University as well. And with that, I'll hand it off to Ian and Jackie, who have a great presentation prepared for you guys.

IAN WILKINSON: Thanks, Patrick. So Dr. Luft and I came to work together. I do IT support, specifically with our video platform that we use here at Texas Tech. And I've been involved in some accessibility efforts. And then, of course, Dr. Luft has a great deal of experience with accessibility, especially online accessibility. And as we worked together, we came to realize that accessibility for video is a multi-layered, multi-disciplinary prospect. And so we're going to take you through some of what we've learned and how we apply this here at Texas Tech.

So here we have some folks looking at a screen. And this denotes passive video, which is sort of what we've always had, or had for 50, 60 years. And this would be like what you're watching on TV, something on a DVD, where you just sit and absorb whatever's on the screen. You don't do anything else but just sit, watch, and listen.

And a lot of studies that show that video is not a good educational tool actually studied this sort of video. And so those studies have been updated. But if somebody comes to you and says, well, video is not a good educational tool, passive video's not. But if we talk about interactive video, where people can rewind, move through the content at will, especially in new forms of streaming where we've got searchable text and indexed chapter markers and all that sort of stuff, that becomes just as helpful as a book. So do keep in mind that we're going to look at a lot of interactive video things. And these are great for accessibility purposes as well.

Here at Tech, and in most places that I've seen in education, we've got a couple of types of videos that we produce. There's lecture capture, which is just a recording of something already going on in a classroom. This isn't super easy to make accessible because there's a lot of background noise. There's doors slamming, people dropping books, coughing, that sort of thing. And then there's instructional video, which you plan out ahead of time. This is going to be more of like your Khan Academy-type stuff. And it may have a talking head. It may just be a screen capture.

But a lot of what we talk about will assume you create instructional video that's going to be interactive for your accessibility purposes because the passive and the lecture capture stuff is just extremely difficult to retrofit into something that's accessible.

So as I just mentioned, lecture capture, here's a bunch of students in a classroom. And a lot of faculty think that this is a great way to do things because you just walk in, teach your class, and walk out, and nothing could go wrong with that. But actually, there's all kinds of things that can go wrong.

Usually the camera is not in a good spot. Lighting's terrible. This causes all kinds of problems for people who may have visual difficulties. Very often in these rooms, the microphone and the audio quality is going to be terrible. And even if you mike the presenter, you usually wind up missing a lot of the audio from student questions in the audience, that sort of thing, or you pick up too much audio in the room, so like I mentioned earlier-- people sneezing, coughing, that sort of thing.

And this stuff has to be captioned. And what we found here is that a lot of faculty, who would do a 50, 60-minute lecture, can actually, if they sit at their desk and just do their lecture in a controlled, rehearsed situation, such as in their office or a studio, they can get those done in 30 minutes instead of 50 minutes. So they're going to save quite a bit of time on their captioning efforts.

Lecture capture is good for students who normally go to that class, and they might miss a day because they're out sick or they're off playing a sport for the university or something. But for people who are not normally in that classroom, lecture capture, it makes them feel a little bit excluded, and they miss a lot of the context that we get from just naturally walking into a room. And again, like I said, this is not the best type of video to turn into your accessible content.

And we see in instructional videos, we see people there using their laptop. A lot of the tools that we provide for faculty here at Tech, we provide a lot of video and audio production tools through side licenses that we offer to faculty and staff. This sounds like it's a lot more work from the get go. But this is one of those things where you're going to do more work-- you're going to do your work one way or the other. And you can do it either up front, or you can do it after the fact and have it actually be more effort.

So we encourage instructional video because you can plan it out and you know how it's going to go when you get into your accessibility efforts and that sort of thing. And you've got more

control over what the final product is than if you just wander into a room and there happens to be a camera that's capturing things.

And so we came up with three main steps. Now, there are, of course, a whole bunch of steps within here, but we tried to boil it down to three main areas, and that's planning, producing, and publishing. And I think Dr. Luft can take it over from here.

JACKIE LUFT:

Yeah, so you're planning, and you're scripting, and you're thinking about what exactly it's going to say. Planning your video is going to take about 90% of your time. A lot of people spend time watching the video, and they have a keen eye for quality. So if you think about all the TV people watch, and they want to see that quality.

With lecture capture, you have not the best quality, but we're able to work with some technical considerations the quality. And so your message comes not so much as an amateur quality, but a better quality. You also want to keep in mind that the planning takes a great deal of time. But also, lecture capture, when you go back and try to caption that and make sure you're including audio descriptions, there's a lot of things that take time after the lecture capture. So when you plan ahead, you're going to save time in the long run.

You also want to make a checklist for the process that you're going through. And if you look at your handout, I think that's included. Yep, I see handouts there. And there's basically, you can just walk through all the different steps of the planning phase. Want to go on to the next slide.

So the first thing we considered is the audience and the objectives. And on this image, we see an instructor at the front of the room and then all the students watching him. So who is your audience? When you have an audience for your online class, it's basically you still have to consider who your audience is. If you're doing a face-to-face class, you consider who your audience are and your objectives.

You have different learners that require different types of content. And so you have to consider all the modalities and universal design of learning when you have your online class. And so when you have a full lecture, when you have a face-to-face class and you have a full lecture, you can talk about multiple things. But sometimes in a video, maybe chunking that into smaller pieces is a better idea.

Do you want to go on to the next slide? This slide here says you want to plan out your objectives. You define your learning objectives. This helps the student and the learner. So the

student is able to look at those objectives in their online class and the video and determine, oh, this video is going to be about this. And then it also helps you as an instructor to say, oh, this is what I have to talk about.

I'm an instructor. I have taught classes. And I've been very guilty of getting off on a tangent. And I loved how Ian talked about the instructor who had a 50-minute lecture. And then they sat down and did a lecture capture, and it ended up only being 30 minutes. He's probably talking about me because I talk, and I get off on a tangent, and I don't really need to talk and caption all that information. When I have good objectives, it really keeps me focused.

So we can go on to the next slide. And I think this is your slide, Ian, when you talk about how to share and present content.

IAN WILKINSON: Yeah, so the first thing you want to do, if you're kind of new to this, or even if you aren't, is go watch a lot of instructional video created by other people. This is going to help you decide what's best for your presentation style, what's best for your content.

If you're history, you can do a lot more talking. Whereas if you're math, you're going to want a lot more screen capture that has formulas and things like that that you're delivering. There's a lot of ideas you can get. So you will learn things that you want to do, things that you want to emulate from other people's videos. And then you will also learn a lot of things that you definitely don't want to do. And so it's nice to be able to benefit from other people's experience.

And a lot of this may not be necessarily related to their delivery or their ability. But you may see a video where you say, well, this is the type of thing I want to do. This would be nice, but it doesn't fit my content, or it doesn't fit my delivery style, that sort of thing.

The next thing to do is decide what you're going to record. So what do you need to show the student? This especially is important when you're trying to boil your content down to those bit-sized nuggets. There's a lot of study that shows that people, especially younger students, don't really want to watch anything more than about seven or eight minutes. And so you really need to decide what is the most important thing and how you're going to break your content up. And that is a real challenge, but you'll be glad to have done it once you have.

You want to kind of decide things like, do you want to just narrate a slide show? Do you want a talking head with you speaking? Some people go-- we have one department here where they

have a green screen studio, and every instructor decides on a different background. So one guy has a library-looking background. Another faculty, she has a tropical beach in the background for her lectures.

So these are just sort of things you want to think about as you're in the planning process. And then, of course, you have some lecture capture and instructional video systems that will allow you to do multiple windows of content. So you might want to be on screen talking and then also show what you're doing on your document camera, that sort of thing.

So you want to keep things timely as much as you can. But some content is just not going to apply per semester. So this is another aspect of planning your content. You may want to avoid the latest fashions if you're going to appear in your video because it may not be fashionable a year or five years from now if you're going to keep using that content. And then you want to say things like "this semester" instead of "In the spring 2017 semester." You want to use phrases such as "this was written in 1966" instead of "this was written 51 years ago," just sort of things that might date your content.

This is really good if you want to reuse content. And if you're creating instructional video that you're going to the trouble of making accessible and captioning it all, doing all that, you're probably planning on using it longer than the current term. So these are just some things to consider as you go into that.

So content length, as we've already mentioned, you want to keep it 6 to 10 minutes of video for most sections. This is really enough time to get a basic point across or do a short lesson about something without wearing out the viewer's time or attention span. And then these are easier to replace.

So if some new knowledge comes into your field or some new discovery is made or you just want to talk about current events instead of a historical event, then it's easier to replace these little segments of video than it is to replace an entire hour-long lecture. Also, if you are producing shorter video segments, these are much easier to record. So it's a lot easier to get through a six-minute lecture without any "uhs," "ahs," or, as I'm prone to do, even if I'm sitting down, just falling over. It's also easier to get this stuff captioned, replaced, than it is if you do an hour-long or even longer lecture.

Create an outline-- this is pretty basic planning for any class. So if you're teaching, then you're pretty much going to have something like this ready to go. If you are just narrating slides or

speaking without being on camera, it's really a good idea to write a script and then follow that script without deviation as much as possible. This will make your captioning a lot easier because you can just feed a transcript into any of your captions services and get that stuff back to you quickly.

This also helps you organize your content. I always encourage folks to tell a story. This helps keep your viewers engaged in the content. If you have a story to tell, it's just going to be a lot more-- I kind of had to say entertaining in education. But that is something that does help spark the learning nodes in our brain. And then again, like I said, a script is going to facilitate your caption process, as well as keep you organized.

You want to practice a lot. You want to sit down in front of a camera, if you want to. Pretty much all of us are carrying video cameras at all times in our pocket. So turn that thing around, get a phone case with a little stand, and get yourself used to the idea of being in front of a microphone and a camera. Rehearse your timing. You might want to deliver this for your friends, spouses, kids, whatever.

But what I see a lot in the technical side of things is I see faculty who know their content very well. Of course, they're teaching it at a major university, so they know it. But when they sit down in front of a camera, they haven't practiced this mode of delivery. They're totally happy to stand up in front of a room full of students or even their peers and deliver content. But when they sit down in an empty room in front of a camera, that's a little bit different. So get yourself used to the idea of doing that.

To me, I did radio back in college. So the idea of sitting in a room and talking to myself is not foreign to me. But for a lot of folks, especially people who do a lot of presentations in front of folks, it can be a stumbling block. So get that stumbling out of the way before it's actually time to do your recording.

And you want to manage expectations, not just for others, but also for yourself. There are a lot of people who will come out and say video will never replace the classroom experience, and that's absolutely true. But video is better than no education or no content delivery. We live in an increasingly online world.

Here at Texas Tech, we have always had a pretty robust mission to do outreach and distance education. So we consider video to be a very useful and essential tool. Yes, it's always better to get somebody here. But if we're going to use video, we can make it as good as possible.

And along those lines, you want to make your video conversational, especially if you're going to be on screen. Don't worry about having a few "ums" and "ahs" and things like that. That's actually very natural in conversation, and people regard too polished of a presentation as almost a little suspicious very often.

Even faculty who have a face-to-face class use video here at Tech. They do the flip learning method. So that have video content. And they'll say, hey, everybody, watch the lecture. And then when we come to class, we're going to discuss that. So you can use video in all kinds of ways, even if you do have a face-to-face class. You don't spend your valuable time with students talking at them. You can deliver your content through a video and then have a nice lively discussion when you get to class.

So that's one way you can help manage expectations. And if everybody knows what they should be getting out of the video and you know what you want to deliver, you're going to have a much better experience with it than if you just set up a camera and see what happens, which we see still too often. And I see the big CC, so that must be a Dr. Luft slide right here.

JACKIE LUFT: Yes, and so the other thing-- and we're going to go into captioning in more detail later on-- but we're still in that planning phase. And so you need to really consider how you're going to do your captions.

How are you going to make your content accessible to everyone? They benefit all students. I am dying to do a research to see the different ways that captions are used by students who are not disabled. And even the transcripts, including those transcripts, it's a good thing to do. So make sure that you're figuring out ahead of time, before you do your recording, how you're going to caption everything.

Also, I want to talk about-- Ian talked about shorter videos. And that is so important. Those little shorter videos makes captioning so much easier in the long run.

The next slide is someone who's using their hands to talk. And I think that all of instructors usually do that. But if you cannot see what's going on, then you don't get that body language, or you don't see the slides that are on the board.

So this slide reads, "audio descriptions describes what is visual on the screen. This includes words on a slide or anything that's being demonstrated." So just by telling people what's on the

screen, it not only allows a person who's blind to see it, but I don't know if anybody else does this-- I never do this. But when I'm traveling, it would be really great if I could just watch all these 3Play webinars.

So that's not true. I listen to them all the time. 3Play's great about downloading them, sending you the download. And I load them up on my phone. And as I'm driving, I just listen to it.

Well, I can't see the screen because I really don't watch the screen. My coworkers might think I do. But when those audio descriptions, when the presenters are talking about what's on the slide, I don't need to see the screen because those audio descriptions. So those are super important things to happen.

You want to go to the next slide, Ian? Other things to consider when you're creating your slides-- and again, this is in the planning process. If you're creating slides, you need to consider other accessibility things, things like color contrast. And on this picture, we have a bunch of people looking at different slides. They're drinking coffee, and they're talking. And you can see where the color there is.

So let's think about the color contrast of your slides. And if you're curious about what color contrasts are acceptable, there's a plethora of tools online. I'm not even going to say which one is good because you need to pick one that's good for you. And you can easily find out what is good for color contrast and what is not.

Other things are keep in mind about background fuzz. Make sure you're using good fonts. You want to try to stick to sans serif fonts so that don't have the squirrely things. We have students who are just kind of visually disabled, and so when you use certain fonts, they work better than others.

Also, if you're not familiar, there are special fonts for people who have dyslexia, which is really awesome. So check those out. Also, you want to avoid slashing content and animations when possible. Some animations or slide transitions are OK.

But WCAG 2.0 AA standards-- and those are what we follow for accessibility according to federal law-- they have a specific number of times something can flash in a second. You want to avoid that flashing because it causes migraines and seizures in people. But if you want to get super particular and you can count how many times something flashes in a second, email me or go check how we WCAG 2.0 AA standards, and they'll tell you how many times it can

flash in a second. And so those are just a few things to consider when you're creating your slides.

The next thing I'd like to talk about, Ian, if you wouldn't mind, please-- intellectual property. So we have to consider copyright, and we need to make sure that we have the right license for outside visual and video content. So if you're using someone else's video, 3Play and I have a lot of tricks about that. So you can contact one of the people at the 3Play, or email me, and I'll tell you what we do for videos that aren't ours that we need captioning. And then also, you want to make sure that your intellectual property, your copyright, you display it. So I got this article from here, and I got this article from there.

So you want to have a method for citing your sources. I had one instructor who had multiple videos that we captioned for him. And he just had the last slide that said references and listed his references right there. And he kept it on there for a long enough time that if a student needed it, they could get it. And then also, you want to consider your metadata features in your video platforms.

So Ian, do you remember that story you told me about the instructor who found-- there was a section in her video that was replayed over and over and over again? Anyway, she looked at that video and found out she didn't really explain the content very well. So her students kept trying to replay and replay and replaying it. So she would have never had discovered that she wasn't addressing the objective correctly had she not checked out that metadata features. And so that was pretty cool. Pretty cool.

OK, next one is produce because we spent a lot of time on planning. But remember, we spend a lot of time on planning. But now Ian's going to talk a little bit about actually producing the video itself.

IAN WILKINSON: Yeah, and a lot of this will still come in to your planning. But these are things that will kind of go on when you're shooting, when you're on the set, as you might say. Sometimes, I tell people that video production is going to be a lot like a wedding. There's a lot of planning. The actual thing only takes a few minutes, if you're lucky. Weddings should be short. But who knows? Other people do it different.

But then there's going to be long-term consequences. And that's why it's so essential to get the planning right because you want those few minutes that the event is taking place, the wedding, if you will, you want that to go correctly so that that long-term consequence is a

happy ending, and there's no resentment later on.

It doesn't matter what devices or software you have. A lot of people say, ah, we're just going to fix it in post. It doesn't matter what you have to fix it in post if you don't capture it correctly at the outset. And you do need to think about your video production environment, just like a movie set, just like in Hollywood. You're going to have microphones. You've got a background of some sort. You've got a wardrobe, which could be considered a costume. And you don't have to spend \$1 million and hire Michael Bay to do all this. But you do need to think about all the things that you see.

In a movie, it's carefully orchestrated. Everything on TV is carefully orchestrated. And you need to orchestrate your recording environment in the same way, at least by just considering what's there. You may look at your wall behind you and realize it's a blank, gray wall, and that's great. Or you may look behind you in your office where you're doing the recording and realize that your shelves are full of-- I don't know. Like in my office, I've got R2-D2 and Stormtrooper figures back there. So maybe I want to put a sheet over that or find a different place to record.

Something I find is a lot of faculty say, well, I'm just going to walk into a room. And I've got a 15-minute lecture, so I'm going to give myself 15 minutes to go record that. And with the exception of a privileged few, nobody's a one-take wizard, as we say. You're not going to get it right.

So if you've got a 15-minute lecture to deliver, you need to give yourself at least an hour of studio time because you're going to want to start, stop over, do it again. You're going to want to give yourself-- even after you've practiced and rehearsed-- sometimes we get a minute into our lecture, and there's some dust in there, and you have a sneezing fit. So give yourself plenty of time to do the actual recording itself.

You need to think about-- and again, this goes into planning, but this will affect your day of and your actual production-- that is your backgrounds and your clothing. You want to have something professional. Like I said, a plain, blank, gray wall is a great background or a green screen or any number of things. You just want to be sure that it's not a bunch of clutter in your background.

And same with your clothing-- of course, as I mentioned earlier, you want to keep it fashion neutral so you're not wearing your hyper color shirt or your bell bottoms in your presentation.

But you also want to keep it fairly season-neutral, because it looks a little incongruous if you're delivering a video lecture in a summer course and you're wearing a parka or something. But also be careful of patterns and other kind of busy stuff in your outfits.

Your heavily plaid-patterned blouse may look great in person. But on video, not only does a lot of that get lost in the fuzz and the way video's encoded, but this actually adds weight to the recording that can cause problems, especially in streaming video. So you can create more data by having a busy pattern on your shirt in your video. So just wear something really plain, really neutral, for technical reasons as much as some of the other reasons I mentioned there.

Lighting is important. People don't think about it because our eyes adjust to things. But you want to take a look at the room, get some pictures in advance. If you've got any kind of a studio or an office you're working in, just actually do some video, get some sense of what the lighting looks like.

You may need to do something as simple as turn the overhead lights off and get just a nice desk lamp or something. You certainly don't want to be in front of a window because you're just going to look like a silhouette with blazing light behind you. And just get a couple of lights that you can move around and kind of get the best combination.

If you get super into it, you can try different types of lights and things. I'll say from experience that your typical office overhead fluorescent lights are just awful for video, and nobody's going to look good in that situation. So think about just getting a couple of cheapo desk lamps to help light your office instead of those overheads. And certainly, get a sense of what it's going to look like on video, and then get an opinion from somebody else to kind of give you some feedback on that.

For video equipment, an HD webcam is OK for most talking head stuff that's done in an office. If you're going to do anything outside of a small room, you're going to want to get at least a mid-grade HD video camera. You want to be sure and look for features like optical zoom and not digital zoom because that's going to produce a better image if you do any kind of closeups.

Be sure and get a tripod, and don't get like the obligatory cheapest tripod. Get a tripod that's going to have a nice pan and tilt handle on it because you never know when that's going to come in, and they're not that much more.

And then you want to practice using whatever equipment. So if you get a camera, you need to

practice in advance knowing where the buttons are. How do I start this thing? How do I pause? How do I stop it? How do I adjust some of the inputs?

Some video cameras come out, and they will export all that battery information and how many minutes left of data. It used to be tape back in my day-- but how many minutes you have left. And sometimes they'll just burn that into the video. So you need to get familiar with the controls so you can avoid some things like that.

As far as the video quality itself, my philosophy is to capture at the highest available quality because-- and I am talking about bit rate, frame rate, resolution. If you can capture in 4K, capture in 4K. You're probably not going to distribute it in 4K. It may be down at 1080 or even 720p, something less like that.

But you want to capture high because you can scale it down, but you will not necessarily be able to scale video up. And there's some good resources out there. We'll put it in the handout. But there's really, in particular, good easy-to-understand tutorial about how the mechanics of video streaming work. And so it's good to have a general sense of that. You don't have to be an expert in it, but just have a general sense. But long story short, capture as high quality as you can because you can scale that down.

Now we've got a microphone here because this is something everybody forgets to do. People come to me and they say, hey, we're going to start recording our video. We've got \$10,000 to spend on a camera. What kind of \$10,000 camera do we need to get? And I tell them, just back up. Maybe spend \$5,000 on a camera and spend \$5,000 on microphones and mixers and things like that.

People don't think about audio because it's invisible. But it's actually more important than the video part of your video, as evidenced by Jackie listening to recorded webinars in her car while she drives, or, of course, any of us listening to the news or programming when we drive, and people sitting around for fireside chats way back in the day.

People will sit and listen to audio, and they can make up pictures in their mind. But people will not watch video if the audio sounds terrible. So even if it's crystal clear, if the audio sounds like garbage, people will turn it off. Or if it's for a class, like for students, and they have to watch it, they're just going to hate every second of it. And it's going to take away from whatever message you're trying to deliver.

So be sure you have some good quality microphones. A lot of great microphones can be had, like USB, that are just plug and play for real cheap. They're worth every penny, I guarantee it. And then again, like I said of lighting, you want to test and listen to your audio.

You want to be sure that you're not too close to the microphone, that you're not too far away from the microphone, that your audio sounds good, and that you sound good because, like I said, people are just not going to enjoy or get much out of your video if it sounds terrible. And similarly, you want to be in control of your recording environment. So be sure that you close the door. Maybe put a note on your door. We don't all have the on-air recording light to hang over the door, but we can put a nice note on there, a door hanger, or something like that.

If you do buy a camera, don't rely on that built-in microphone. You're going to need to buy something else. That built-in microphone is sort of the last-ditch effort. I like to say it's kind of like the floating cushion in your airplane seat. Like you just don't ever want to have to use that thing.

And then again, part of the testing is to identify things that we don't hear when we're in a room. So a lot of times you're in a room, the air conditioner kicks on. You kind of subconsciously register that. But in a recording environment, that becomes very loud and very apparent because microphones don't ignore audio like we can train our ears to do. So again, just be sure and record some stuff in advance, listen to it, test it, make sure it sounds great so that you can produce with confidence.

JACKIE LUFT: Hey, Ian, can I jump in--

IAN WILKERSON: Sure.

JACKIE LUFT: --about the microphone? The other thing about having a really good sound quality is when you send your videos off to be captioned, if your audio file is hard to understand, they'll charge you more.

IAN WILKERSON: Yeah.

JACKIE LUFT: So if you have better audio, pay upfront for a better microphone because otherwise, you may be spending more for captioning later on.

IAN WILKERSON: Well, then, if you're doing your captioning yourself or if you've got like a student assistant or somebody captioning for you, or if you've got even a provider captioning and you're using a

bunch of highly technical jargon, it does take longer to get that captioned. So you are definitely correct on that.

We're looking at a computer now. It's installing software. I'm sure nobody spends much time doing this. Whatever software you use to create and edit your content is really what you want to accomplish and what's going to help you do what you need to do. You may be able to use something as simple as just a basic screen recorder, or you may need to do a bunch of products. You may need to record with a camera and then import into some fancy video editor and add some effects or replace the green screen with a tropical beach or whatever it is. But you do need to spend a little bit more time.

Again, before the day you walk into the studio, you need to evaluate-- and this goes all the way back to deciding what content you're going to include-- what kind of a video you want to produce. I will say that there is no silver bullet. I've never seen anybody just rely-- or very rarely just rely-- on a single video production product to create something that they were happy with.

Some people will use a single product and kind of begrudgingly accept it. But the people I see who are creating video that is effective and that they are very happy with and they're proud to show people use a bunch of different products at different levels of the process. And hopefully, you have IT friends or coworkers who can help you out with that side of things.

And so now we're looking at publish. We've created a beautiful video, and Jackie will talk about publishing it.

JACKIE LUFT: Yeah, this is the most exciting step. So you put all this time in planning. You recorded your perfect video with a great audio. And now we get to share it. It's like making a cake and then sharing it with friends.

So if you want to go to the next slide, and this side kind of has the computer there sitting. And it has that little clicky thing. I want one of those for my office. I had one in my classroom at one point. But you know like, take two, take three.

So how are we going to do this? The first thing you're going to do is watch your video. No one hates to watch themselves or hear themselves more than I do. So I know how painful that is.

If you have teenagers and they're grounded, you could make them watch it. But they're probably not going to see the errors that you would see. So kind of watch your video. You

want to look at the length and the content and make sure it's not too long or it's not too-- so the content is good.

Also, this is a great time to add titles and other fun things, like transitions or screen shots, to your video. You want to make sure on the quality assurance. So you want to make sure everything is right, and it's good.

Yeah, so then the next comment on here is like everyone hates seeming themselves on camera. I guess I already covered that. But, oh, my gosh, but you should watch every minute. So no matter how hard it is, watch it.

IAN WILKERSON: And Jackie, I'll jump in here for just a second and say that you need to get your editing done, especially before you create captions, because you don't want to wind up creating captions that you wind up editing out of the video at the end of things. That's another thing to watch.

JACKIE LUFT: Absolutely. I'm so glad you mentioned that. So I have an example of this instructor who-- she wanted to share her information from her night class. So she would lecture capture, and it's good. She's like a really good teacher.

But for the first five minutes of the class, she has where she's just talking to the students. You can't hear the students. You can hear her. So you don't know what the students are saying. And then there's like 20 minutes where there's a break in class. She calls it biology break for them to go get something to eat and take care of things. So I thought, I love that. I'm so using that. And then sometimes there's a test, and so we don't need to capture those things. So if we were able to chunk that up, it would be better. So that's definitely why you want to edit before.

The other thing for closed captions-- and here again we have this beautiful closed captions. If you don't know much about captions, I will tell you-- oh, wait, we do talk about the different types of captions in a second. Sorry, I'm rushing ahead.

So I'm sure you all know that captions are required by law. If you have a video, it has to be captioned. I don't care if you have a letter of accommodation for closed caption or not, every video has to be done. I also have this great question this week, and I did a little research. I kind of thought I knew the answer, but then I did some research, and I was right-- is there a grandfather clause? And if I'm wrong, let me know and give me the research.

But there is no grandfather clause. So if you made a video in 2005, your video has to be captioned. Things just have to be accessible to people with disabilities. And it's just the right thing to do.

We already talked about how captioning is great because it doesn't just help people who have auditory disabilities. It helps a lot of people. I read a study once where they said 60% of the people-- I think this was a 3Play study. 60% of people that watch captions don't have a disability. And then I saw another thing on CBS a couple of weeks ago in the morning where it talked about one-- or it was a crazy number of kids, like 10% of kids between 14 and 29-- and if you're under 29, yes, I think you're a kid because I'm older than that. But they have an auditory disability, hearing problems, and they don't even know it. So it's just really important to have all these captions.

There are certain standards that we have to go by. A lot of times, 99% accuracy is what's thrown around. That is very good statistic there, or not a statistic, but a good thing to say, a good guideline to go by. The federal guideline, the actual verbiage is that it needs to be word for word, and it needs to include the spelling and grammar and punctuation and all that for that.

So 99% is good. But if the Feds ever come and visit you about your captions, they're going to say, well, it needs to be word for word, and you need to include punctuation. So on the next slide, we talked about the two different types of captions.

And there's burned-in captions, and this actually becomes part of the video file. So these cannot be turned on or turned off. They're OK. You can't use those captions to search something. So like if I ever had to take algebra again-- I hope not-- but I need to learn more about in the time of the lecture where they talked about quadratic equations, I could type in quadratic equations, and I would know where in the video to watch it. So if you have burned-in open captions, where they're there, you can't index it.

So the other one there-- closed captions are sidecar. These are nice because they can be turned on and turned off. This is really helpful for instructors, because typically, instructors will use slides with verbiage or words on the slide. And sometimes the captions might come over the words that are on the slide. And when you have closed captions, then you actually have the opportunities to turn them off, and you can read what's on that slide. So that's pretty nice. And then also, they are searchable. So that's pretty cool.

So the next slide, it's kind of a retro gas tank. And it says very low to excellent, and this is all about service. So how do you get your caption files? Because caption files, unless you burn them on your video, it's going to be a separate file that kind of sits along with your video file, and they get married, and they live happily ever after. And they work together, and the divorce rate is very low.

But how do you get that caption file? So Ian had mentioned a couple of things. And at Texas Tech, we use the different things. So we do have a captioning lab, where we have students who caption. We teach instructors how to caption if their videos are smaller.

But what we love to do is to send it to a third party vendor, like 3Play, and let them do it. It's super quick. It's super easy. It's about \$2 to \$4 a minute of video. They might work a deal with you. I don't know. You'll have to ask the 3Play geniuses about that.

But the great thing also is that when you have that caption file, you can also download a transcript. And so what I do with any of our caption files in the online accessibility lab is that we will send the instructor, the SRT-- which we download SRTs for our caption files. And then we also give them a transcript. And the transcript, I encourage them to upload to their course. But they can also use that to review it for accuracy. Because some of those really detail classes, you may not know the terminology.

Like I know in our lab, my students-- I have students in biology or whatever courses. But they don't know all the lingo and the terminology from every course that is provided. I do know that third-party vendors, like 3Play, they have a plethora of knowledge people that they'll say, OK, so I'm a biology major, I'll caption the biology ones. And so that's pretty nice.

They also-- third-party vendors-- and if you're going to have like students just do captioning, you can include a glossary so that the specific terminology and the words and the lingo are all spelled the same. So--

IAN WILKERSON: And Jackie, I'd like to throw in here that we've got thousands and thousands, tens of thousands of hours of video in our video platform system. And so creating captions is a really time-consuming and expensive process for us. But one of the things that we like about 3Play is that if we do get a letter of accommodation for a class that perhaps hasn't gotten to captioning yet, we can literally click a button in our video platform, which is integrated with 3Play, and get the videos to 3Play within a matter of minutes and get our captions back within the legally prescribed time for having that.

So if we do get a letter of accommodation, it's much less of a panic for us than if this had happened five or six years ago. We have a quick and expedient means of doing it. So that's great.

JACKIE LUFT: Yeah, it's really awesome. So the time-- like the government says, you have to provide an accommodation for 10 days after you get identified, and 3Play usually is back within a week. So that is really awesome. So the next slide is, I believe this is a video projector and a script. And this is a lot of fun because I just want everyone to know captioning is so much easier with a transcript.

When you're doing the recording, you can read along. It's great for non-viewing reference. So again, if we have that transcript, students can get on. I don't know about your college, but I think there's people at Texas Tech who live in the dorms that don't have the best Wi-Fi. I can't figure it out. And so if they don't have enough broadband to download a video, at least the transcript's there. And it's much easier to download a transcript. So at least they're somewhat prepared for class.

Oh, yeah, so also, if you lose power-- so Kansas went through a huge ice storm, and they didn't have power in the town where my son lives for like four days. And so if he had had a transcript already downloaded before the power went out, that would have been great. Somehow my kid had cellphone service all that whole time. I can't figure that one out.

So let's talk a second about audio descriptions. And we mentioned this briefly before. But this is really for visually impaired viewers or, like I said, for people who can't see the screen. This can be a separate audio track to describe the images and actions.

If you go to the movie theater and you ask for the audio descriptions, they'll give you a little headset that will describe everything that's happening on the screen while you're watching and listening to the movie. So that's really cool. But keep this in mind during planning if you're going to use a lot of visual content.

I love this picture on here because it has all these microphones. And basically you're going to tell someone what's on the screen. So, yeah, let's go to the next slide.

IAN WILKERSON: I just like that picture because I think I've made it clear how I feel about microphones. So we're going to talk about sharing, so we've got a picture of somebody tapping a tablet and sending

something out magically to the world.

So you might burn a DVD. Your students are going to consider this extremely passe. They may not even be able to play it because most computers and things don't have DVD, and that's physical media you've got transport. But that's a method for sharing your video.

You can use shared storage, such as a Dropbox or OneDrive or something like that. But once you've-- of course, you probably won't be able to email a file to your students. But once somebody has a hold of that file, they can do whatever they want with it. So they could copy it, give it to somebody else.

In at least one unfortunate case, I know a teacher was auto-tuned by her students, and she did not care for that. You could set up your own video server. And that's going to be really expensive. Hopefully, your school or institution or organization that you work for has some sort of video sharing thing. But setting up your own server, unless you have people to care and feed for that thing, is going to be expensive.

There are a number of video services. So if you don't care who sees it or what happens, you might use a YouTube or something like that. This is great because it'll play back on nearly all devices for your viewers. There's really not a download time. They don't have to wait for a file.

But this can be challenging for students who have poor bandwidth wherever they are. We have a lot of students who work on farms or in rural areas, where they really only have a dial-up, and they have to go into Dairy Queen to borrow the Wi-Fi to just get their assignments. So have a backup plan for students who may not have the best bandwidth.

Our video platform has a really good file export and package management that we use. And then if you're using this, inherently you've got a bunch of backups. We like our video platform because we restrict viewing to just students at Texas Tech University. Using the security, we can actually narrow it down to students in a particular class, or our default is sort of like all students can see stuff.

But we can see-- because they are signing in with their University ID, we can see exactly who's watching. And some of our distance instructors are using the delivery method to actually take attendance because they can see students are watching the video and how much of it. They're able to give some sort of attendance credit in a fully online class in that regard.

Some of these free services-- I mentioned YouTube. That's something you can certainly use.

It's cheap and easy. And it's not quite free, like a puppy, but there are some hidden costs. Very often, ads are going to be shown to your students before or with your content. So there'll be a truck sale banner that pops up at the bottom of your video.

The other thing is your student views are getting tracked by these companies. They are not providing a free service out of the goodness of their hearts. They are tracking student views or your viewers and monetizing your content. And in a university situation, we don't always feel like that's an ethical or correct thing to do, which is why we maintain our own video platform. And this, again, it keeps our content within our community. It's already tied into our campus security, and then it's supported by an IT department.

I've never heard of anybody actually speaking to a customer support rep at YouTube. You're just not going to get it. Whereas if you use your institution's IT department, you're going to have some people who are invested in your process and your product and have an interest in making sure it works well for your viewers.

So if you've got it in a video platform, you can link in an email. You can embed your video. Here, we very often embed the video in our [INAUDIBLE] management system. And that video's available for all the students. In our streaming platform, our video platform, we're able to get a certain amount of feedback. As I mentioned, we can see who's watching, how often, and we can run these report against an individual viewer, against an individual presentation, a whole folder, a class worth of presentations.

This feedback and evaluation is going to be really helpful for your next set of videos that you're going to create. So if you get some feedback-- and surveys are great. And if you can gets students to fill out surveys and say what they do or don't like about it, that's absolutely wonderful to have. But students don't always fill that out.

But some of these analytic tools that we have in our video platform, in particular, can help identify hotspots. So we can see that students are re-watching minute 8 through 10 of a 12-minute presentation. Well, we can go look at minute 8 through 10 there and kind of figure out what's the deal. And I know of cases where a teacher kind of mumbled through a really expansive topic in a couple of minutes. And so students re-watched it to kind of get a better sense of what they were saying. And in another case, it's just the air handler in the room came on, and the recording got real noisy, and they couldn't hear it very well.

But these will help you evaluate your video so that on your next set of videos that you're going to keep making, because this isn't a static or finished product really, you will know how to improve your delivery, your presentation, what you need to do by getting this feedback or evaluating your view statistics and things. And just in under the wire, I think that's about it.

If you have questions, I'm certainly happy to take questions either now or after the fact. So if you come up with a question tomorrow, you're watching the recorded version of this, feel welcome to reach out to me directly. And I'll answer any question that I am able to.

JACKIE LUFT: Yeah, me too. I love to get questions. And I love to hear all the different problems people have and try to find solutions.

**PATRICK
LOFTUS:** Well, a ton of questions are coming in already. Why don't we get straight into Q&A?

IAN WILKERSON: Sure thing.

JACKIE LUFT: Great.

**PATRICK
LOFTUS:** So first question here-- someone is asking, how do you get buy in to build out a plan for making course videos accessible?

JACKIE LUFT: Wow, that's a loaded question. We provide trainings. We have a great instructional design team that always includes accessibilities. We have a grant process at Texas Tech. If you're building an online class or if you're changing a bunch of an online class, you can get money to make that class online. And when you go through that grant process, accessibility is a huge part of that.

I think it's a slow and gradual process, the other universities I've talked to. In my position, as the accessibility specialist, you start off slow, and then you teach one person, and then you teach another person. And then they invite you to your department, and then another department hears about it.

So it's a lot of chocolate and trainings-- C&T-- Chocolate and Trainings. So does that help answer your question? I don't have a script that says this is what I did first. This is what we do second. This is what we do third. It's a lot of training and awareness. I think that a lot of people just are not aware. I'll do a training, and the most often feedback I get is, oh, I had no idea.

PATRICK LOFTUS: Yeah, that definitely covered a lot of ground, that response. Thank you, Jackie. And another one that came in earlier is someone said they had a really strong Southern accent. And they were wondering if you have any advice for people with strong accents?

JACKIE LUFT: We deal with that a lot, being in Texas. I got nothing for you. Talk slower? Ian, help me out. I just don't know. I have not-- I don't have a great answer. I wish I did. I wish there was some sort of audio converter that would take out the accent-- I mean, not just Southern, but any accent.

IAN WILKERSON: We get-- and I think this is where practice comes in. We have accents of all nationalities and regions here at Texas Tech. We've got people from Europe, from Asia, from the deep South, here in Texas, from Latin America. I think the main thing is for the presenters to be mindful of how their presentation comes across. And the best way to become mindful of how it's going to turn out is to do some practice recordings and practice the delivery of the material.

A lot of times, people kind of get in a rush. Or here in Texas, we have a lot of people who talk really slowly, which is actually easier to understand. But I think this would go back to a practice situation, where you just practice your delivery, evaluate your test recordings, and adjust from there.

JACKIE LUFT: Yes, and then I would also say that if you have an instructor who you know is going to be doing a bunch of videos, get one video, and get it captioned. And maybe it'll come back that it was a little bit difficult. So they have to pay a little bit more. And then it'll say point blank difficulty because poor audio. And then I'll be like, oh, well, I need to-- I don't know how you try not to use your accent. But I think you can be at least a little bit aware of that.

I know I had one instructor who we captioned a class, and then she wanted another closed caption. And she said, I'm going to redo the audio because the audio was so bad for the first class. And so I think she got a new microphone, and the second class was much better.

PATRICK LOFTUS: Great. Thanks, you two. Here's another question. Is there a Texas Tech website overview of the different software and technology products we can consider using?

IAN WILKERSON: We don't have a--

[INTERPOSING VOICES]

JACKIE LUFT: Go ahead.

IAN WILKINSON: We don't have a website that we keep that. We do have some things that are probably going to [INAUDIBLE] protected or protected within our authentication. But if I am given an email address to respond to, then I'd be happy to share a list of products with the person that asked that question.

JACKIE LUFT: And we are in the process of creating a website for best video practices. And we had some faculty and myself who wrote a white paper, just looked at research, and discovered what was in the research. And then also, our marketing team at eLearning is creating an infographic on the plan, produce, and publish. And so that infographic will be ready in the next month or so. So there will be some resources on there, and you can keep track of that. I think the website was up there at some point-- ttu.edu/accessibility.

PATRICK LOFTUS: Great. Thanks. The next question here, what do you recommend for faculty who prefer not to be on camera?

JACKIE LUFT: You don't have to be on camera. You can just-- so I don't want you to have to look at my frizzy hair. So I just do slides. As far as audio, there are-- I frown upon it greatly because studies have shown it's not as effective, but there is software that you can put in text, and it does talk for you. Find someone who has a great voice.

IAN WILKERSON: Yeah, and we have-- so one of the challenges we're actually dealing with is I have some faculty who want to be on camera some of the time and then not the entire lecture. And not all of our software really, the stuff that we're using right now, accommodates that. Although one of the packages we're working with now does.

So what he wants to do is be on camera for the beginning of the lecture and then go to slides and show slides and then come back on to kind of wrap things up. But there's all kinds of screen-recording software. And again, I'm happy to answer questions about what we've used and how it works.

I totally sympathize with that. I don't really want to be on camera myself. I'm happy to deliver content, but I don't feel the need to be on camera. Now, if we're talking about a lecture capture situation, they may be in a more sticky situation. But again, I'm happy to talk about some things we've used. And since I do a lot of the video support for the whole university community, I've seen a little bit of everything. I'm happy to talk about that.

PATRICK Ian, you mentioned a video about streaming basics earlier in the presentation. Would you

LOFTUS: mind repeating that?

IAN WILKERSON: It's not a video. It is a PDF or sort of a white paper by Jan Ozer. And if you go to a streaminglearningcenter.com, he's got it for free download there.

But it's a really great primer on the basics of bit rate and frame rate and how streaming video works. And that may sound very dry and technical to somebody who's teaching like plant science, but it's good to have that two or three-page overview because then you understand oh, that's why I shouldn't wear that zig-zag pattern blazer during my video. That might be a great gimmick in the classroom or whatever. But on video, it can actually cause distraction, at least pedagogically, if not for technical reasons. So just look for Jan Ozer in the Streaming Learning Center.

PATRICK
LOFTUS: Great. Thanks, Ian. We have a ton of questions right now. And I think we'll just do a couple more just so no one has to stay any longer. But someone asked, do you have any information on how students and instructors use captions and transcripts? Do you have any resources or studies to point to?

JACKIE LUFT: No. So I just have a list of ideas, which is scary. But that is something I've been rolling around in my head, trying to figure out this would be a great research project to evaluate how students use transcripts that are allowed. But when I'm teaching and I have a transcript there, I'll tell my students, download the transcript. Print it out if you want.

But from my experience, students will print out a transcript. Students with learning disabilities, it's hard to take notes-- people who have dysgraphia and can't take notes. But they can highlight a transcript and highlight the important things.

I know one thing that I did as a student is I would print everything out, and I would cut it into chunks because people learn in chunks. And again, I told my students this so they could learn from this. And if you have that transcript and you can chunk it out and then staple it together, and then you have your information chunked up. Throw it in your backpack. And then when you're waiting in line for the ATM or lunch, you can pull out that group of information and review it.

People, again, if you don't have Wi-Fi, at least you have the transcript downloaded. Students, we have at Texas Tech, and I'm sure your university does too, we have students who have visual and auditory disabilities. And those screen readers can read a transcript much easier

than they can a caption file. And so that's really great. Gosh.

IAN WILKERSON: And I'll throw a couple in here. We have a lot of students down in our computer lab, which is the area where I work, who, it's a shared computing space. So they like to use the captions because they don't have to go plug in headphones or disrupt other people. And then we've had students say, hey, they've got noisy roommates, so the captions really helped when they needed to do their studying listening to their homework because their roommates were doing something loud, listening to music or whatever. And having the captions there helps these perfectly hearing-able students actually get the content a little bit better because they had the captions.

And I'll relate one anecdote where captions somewhat worked against us. Our video platform allows the caption content to be indexed. So you can search a presentation for particular words or phrases and be taken right to that point in the video, which is great. And it was really great for students, these online students, who were using the videos that were still online during quiz time.

They would just go watch the video and search for the word in the question on the quiz and get right to the answers. So we had to actually turn off the search feature for those presentations. The instructor wanted to turn those off because the students were viewing it to less than honorably complete the quiz. But that's the one and only time I've ever heard of captioning having an unintended and perhaps not entirely wanted effect.

PATRICK LOFTUS: And I'll also mention Oregon State University and 3Play Media recently released a report based on a nationwide survey of students and how they used transcripts and closed captions in an academic environment. So I'd be happy to include that in the email that everyone gets tomorrow. A couple more questions here-- how did you get faculty to buy into this, or how do you get faculty to buy into this?

JACKIE LUFT: Well, I'll be honest, our provost sent out an email that said all videos will be captioned by fall of 2018. If you're using a video, it has to be captioned. And so we're fortunate that way. Otherwise, OCR-- and I'm glad you mentioned University of Washington. Their DO-IT Center has a list of legal cases. And I have used that website a ton. And I'll have an instructor who says, well, I want to know exactly why I have to do this or whatever.

So I can go to that website and find the legal case that that instructor's talking about and say, hey, look at the University of Cincinnati and University of Miami and university of this and this

and Netflix and this and this and this. All these have lawsuits that have happened. And the university lost because they chose not to do it.

So I really try to, and I have told people this, that I am not the captioning police. I'm not going to look in your class and tell you what's accessible or what's not unless you ask me to. I cannot be the accessibility police. I would prefer to look at it as I go, and I sprinkle fairy dust, and I make things accessible and just really try to win people over. And it's just the right thing to do. I've never had anybody argue with after I said it's just the right thing to do. It's just--

I have a lot of questions about that question a lot. And I don't have any answer except that it doesn't come overnight. We were very, very fortunate that we have that mandate from administration. And University of Colorado will tell you, if you ever go to their presentations, they'll tell you, we wanted to have accessibility for a couple of years. And it wasn't until the Feds came in and we had a lawsuit that all of a sudden, five different full-time positions were hired. All this money was allocated. And all of a sudden, everything's accessible.

So we're very fortunate at Texas Tech that our administration has been more proactive. But it's a process. You've got to start off little and just add a little bit more, a little bit more.

I also tell instructors that. So I'll have instructors who are like, I don't know how to caption all of this. Or I don't know how to make everything in my course accessible. And I'll say, start with one thing. Everybody uses a syllabus. Let's make that accessible. And then when that's done, you'll know how to make all of your documents accessible.

Or I'll have an instructor who will come to me and say, I have a student with vision disabilities. And my PDFs aren't recognizable with optical character recognition. I say, well, let's start with one and see what we can do. And so don't be the police and start off small.

PATRICK Solid advice-- totally agree. Thank you, Jackie. And we'll do one more question here.

LOFTUS: Someone wants to know what does Texas Tech use as an accessible video player?

JACKIE LUFT: Ian, I'm going to let you mention that or address that, because I think Mediasite-- go ahead.

IAN WILKERSON: Yeah, so by video player, that could mean a number of different things. I'll talk about the platform that we use. We use our Mediasite, which is made by Sonic Foundry. Pretty much most video platforms are going to have some accommodation for captions and accessibility.

Mediasite, we were able to get a VPAT. So that's something important for our compliance folks

to have on file. It's really easy to just drop in an STL or an SMI caption file if you've created one manually. And of course, we've got the integrated service with 3Play so that we can literally just click a button and have it go off to 3Play's folks who do the captioning. And not only does it create the caption and we get a transcript and a caption file, but the caption file's actually inserted into the presentation that we click the button to send it off to.

So really, our only responsibility is paying for that caption and verifying that it's accurate, which everything done through 3Play that I've seen was quite accurate. We didn't have some of the same problems that you get when you use perhaps voluntold and not entirely happy about it student assistant do your caption.

JACKIE LUFT: Hey, Patrick, is there a chance I could address one of the questions? I'm just kind of scrolling through the questions. And someone had a question on, do you prefer transcripts or captions?

PATRICK Absolutely.

LOFTUS:

JACKIE LUFT: And basically, federal law will tell you you have to have captions word by word at the same time. I failed to mention that in the presentation. And now we lost 100 people. So that's that.

But if you have just a talking head or you have just an audio, then transcripts are fine. But anytime there's any kind of visual that represents or that brings content to what is being said, then you have to have captions. So one of the issues we have is we have instructors who will use Presenter, Adobe Presenter with PowerPoint. And basically, they'll have a voiceover on the slide, and then it'll move from there to there.

Now, on a Mac, it exports as an MP4, so then the caption file is fine. Otherwise, we just request a transcript. And then in the Notes section, we put the transcript of what is said on that slide. And then when it's saved in the Presenter format, then you can identify that the Notes section, the sidebar next to the video pops up.

PATRICK Thank you both, Jackie and Ian, so much for such a great presentation.

LOFTUS: