Good afternoon, everyone, and thank you for attending

Episode 4 of our webinar series:

The Accessible Classroom Redefined. For those of you who are not aware, this webinar series is where we feature EdTech trends and companies or organizations who are spearheading the emerging of technology in the educational environment to promote the creation of accessible content. Today's episode is called Lecture Capture 101:

How To Set Up Audio and Video Like a Pro.

We are extremely excited to partner up with Panopto

to discuss caption lecture videos

and how they are instrumental in ensuring

an accessible and engaging learning environment.

Before I go ahead

and let the panelists introduce themselves,

I will go ahead and run through what the agenda consists of for the next 45 minutes. We will introduce ourselves. We will discuss the evolution of lecture capture, the flexibility of lecture capture, "start with the end in mind," where will you be recording, what will be presented, what equipment do you need,

camera/microphone types and where to use them,

types of equipment,

and captioning with Verbit and Panopto.

I will go ahead and let David and Scott introduce themselves. My name is Shir. I'm the Marketing Manager, and they will take it away from here.

Thank you, Shir.

Hi, everybody.

I'm Scott Ready and I'm the Accessibility Strategist and Head of the Educational Vertical here at Verbit. I have over 30 years in education, and accessibility, or in various sectors,

higher ED, K-12, government, private practice.

My parents were both instructors at the Missouri School for the Deaf. So I had the opportunity to experience

what it was like growing up in a subculture.

Some of the challenges that it presented itself

in trying to have access to the majority culture around.

So I look forward to joining you guys today. Dave?

Well, thank you, Scott and Shir.

My name is Dave Dumler.

I'm Head of Product Evangelism for Panopto. I've had the great pleasure of working in the technology industry for the last many years. I hate to say how many years it is. But I've spent time at Microsoft helping them develop new products, like Microsoft Azure, as well as helping them launch Microsoft Office. So that will show how long I've been in the industry for. I've had a lot of fun working at a lot of smaller companies. So I've been with Panopto for quite a while. So I want to thank Verbit for inviting me to speak today. We have had a great partnership for some time. Today, I'm excited to share some tips, tricks, and suggestions for how to use

video in a classroom setting.

So during our time, I'm really here to make sure that you get questions answered. So please feel free to ask those. We'll make sure that we get them

answered along the way.

But with that being said, over the next 30 minutes, we're going to be discussing how to set up any room for lecture capture. As we just saw a moment ago, there's lots of information for us to cover,

ranging from three questions you should ask prior to

setting up a lecture capture system, to equipment that will work best based upon the lecture capture scenario that you're trying to achieve. We'll also review three lecture capture setups

that will give you some ideas of the type of

equipment that you should consider. As I mentioned, we're going to be reserving some time for questions. So please feel free to ask those. I'm really here to make sure

that you get the answers that you need.

So now, before we jump in, I don't know if many of you are familiar with Panopto, but some of you maybe. But we are an industry leading video platform

that organizations and institutions

use for lecture capture,

things like information sharing, webcasting, so on and so forth. Now, Panopto includes everything you need for video. It's got a built-in recorder, it's got a built-in editor, it's got permission management, and it can be integrated in with a variety of pieces of hardware. As from Panopto standpoint, we're just really in the software and services business. So if you have AV hardware that you've already purchased

or that you want to integrate with Panopto,

there's a very good chance that we can support it. Now, Panopto can be integrated

with a variety of solutions,

including your LMS and your authentication solution. Just to give you an idea of our size

and what we've been doing,

we stream about 300 years worth of videos every month and we're recognized as a four-year video platform leader by Gartner

and many other analysts.

So with the formalities out of the way, let's turn our attention to investigating lecture capture. Now, what I thought it would be fun today is by starting and reviewing the history and evolution of lecture capture. Many of us don't think about this, but lecture capture has actually been around for quite some time. But over time, the affordability of technology has really modernized what lecture capture is and what lecture capture means to both educators and students. Now, the reality is, not that long ago, and again, it was in my time, long before the Internet really gained its popularity, lecture capture existed as teachers teaching and students taking notes while attending a lecture class. That's how I went through school. Now, while by today's standards, this may not constitute what we mean by lecture capture, it, nonetheless, was the earliest form and most effective form of the ability to capture what was taking place in the lecture. But the reality is, as technology became more affordable,

lecture capture evolved.

So cameras got better, storage got cheaper, video became more scalable, but there were still a lot of challenges. Now, most cameras needed to be installed in a fixed format, video recordings were often lower fidelity, and microphones were not that high of quality. So they were not sensitive enough to be able to capture, not just what the lecturer was saying, but also all the discussions that were taking place in the hall. Now, the other problem was all this equipment

normally required someone to physically

be there to manage it.

This means like starting the recording, troubleshooting issues, and also stopping the recording. Plus, there was a lot of post-production work that still needed to be done manually. But today, we are in the next generation

of lecture capture.

For our time going forward, that's what we're going to be focused on, it's what you can achieve with this next generation of lecture capture. The reality is, it's all about flexibility, ease of use, and student

experience. So this generation of lecture capture is rapidly being pushed forward

by the decreasing cost of cameras and microphones,

so all the hardware, plus the decreasing cost of storage. Now, think about it for a moment. Just a short period of time ago, if you wanted to store a lot of data, it cost a lot of money. But today, it's actually remarkably very cheap, and that, of course,

is enabling all these new types of scenarios

to be supported, including the ability

to automate the recording, editing, and sharing of lecture capture. Now, here's the deal. With the decreasing prices and growing capabilities, what's happened is new lecture capture systems

are really allowed to capture

an infinite amount of customizations. So you can do things in class, as well as in the field, over video conferencing,

you can also capture Smart Boards,

and the list goes on and on. So literally, virtually, any room or learning experience

can be provisioned for video.

Now, using technology in general and video specifically, can help institutions reclaim class time, facilitate active learning activities, and develop a new style teaching that adjust to the needs of the individual students. Now, lecture capture also enables students to consume course material at their own pace,

in any location that they're at, and they can do it in

bite-sized chunks as they hop between their devices,

like their laptops and their mobile devices.

Now, I know me personally, if I was able to go to school today, having the ability to review the lectures

that I went through, would be remarkable. So it's a really great time to be a student today.

So now, before we go any further, I want to stop for a moment and discuss a mindset that I believe that you need to adopt if you are considering either implementing or updating your lecture capture experience. Now, what I recommend is you start with the end in mind. Now, make sure to ask yourself a few key questions before starting your implementation, and then use these answers that you get from these questions to shape how you're going to do the implementation. Now, questions that I want you to consider is what do we want the students to see, how do we want them to consume the information, and what experiences do you want the presenter to have. Again, if you start with the end in mind, you're going to be able to get the outcome that you want.

Dave, if I may, how will the learner engage with the content? Will they be able to view the captioning of all the content that's being shared audibly? Interestingly enough, I don't know if you guys know this,

but in 2016, 85 percent of all video content

on Facebook was actually viewed silently, and it's even more the norm today. So if the learner is going to stay engaged and learn the content, captioning is a must and a cost. It actually costs less if it's part of the initial workflow design rather than as an afterthought or as an accommodation. So being able to add that caption and component

when thinking of the end first could be really critical.

You know what Scott, that's absolutely a great point and that's one of the reasons why I'm recommending that you first start by getting

answers to these key questions

because they're ultimately going to shape

the outcome you want.

So if captioning is a critical need for your organization,

it's important to make sure that you think about that when you're starting to implement lecture capture,

so that you can make sure that you get

the outcome that you want,

which is a great capturing experience.

So let's go ahead and jump into learning more

about how to do lecture capturing.

We're going to ask ourselves three specific questions that will guide us in the type of setup that we need. Now, the first question we should ask is where will you be recording? Now, this is an incredibly important question as it can shape many of our decisions

and highly influence what equipment

we may or may not need to purchase. Now, the size of the room will impact the type

and placement of your audio equipment

and your video equipment as well. Now, large lecture halls that we're all familiar with, or auditoriums,

will require equipment and installations

different from those needed in a smaller classroom

or even in your professor's office.

For example, a webcam that I'm using here today

may be suitable for a faculty office space,

but not for something like

a large lecture hall or auditorium.

Now, prior to provisioning a classroom, you'll want to confirm its dimensions, so you're going to want to do some measurements. So in doing so,

it may help you identify spatially similar rooms.

So in other words, if you go in and measure one room, there's a very good chance on your campus that you have many rooms of that very same size. So that will help you guide in the type of implementation that you want to do. Now, the deal is lecture calls are typically big, sometimes dark, and usually full of people,

and as a result, something like

a single fixed camera lecture recording solution can

produce an on-demand video that is often noisy, out of focus, and it can also feel obstructed. If the classroom features a projector or another large screen as we've all seen, it's possible that the recording may be too dark

and also too bright at the same time.

So in cases like this, it may be actually better to record two or more camera angles

or even record the screen video feed

separately for the presentation itself. Now, another thing that I really want you to consider

is the seating arrangement.

I know this seems like a small nuance,

but it's very important.

The standard seating arrangement within a classroom or lecture hall will impact the type of placement of where

your recording equipment will go.

Now, in most cases, you'll only want to capture the lecturer's voice, their image, and minimize any sounds

or other views from the audience.

However, the deal is in most spaces commonly used for seminars or workshops or more what I'll call "casual learning environments", you may need to plan for capture of audio and video, and this will include the students

seated in the classrooms.

I mean, how many times have we seen recordings

where somebody asks a question in the classroom

and we can't hear it,

and then the professor or the teacher doesn't repeat it. So at that point in time,

as somebody viewing the content,

we don't really know what's taking place. So courses in science, engineering, and arts, and other fields regularly include discussions as part of the classroom experience, and these are often well-served by having extra recording devices that will capture those activities as they're happening.

Although I hate it when I only hear the answer to the question and I don't know what the question was. The reality of it is asking the professor to repeat the question usually will happen the first time,

but just doesn't end up being a consistent result.

So being able to hear those questions and hear the answer really enables everybody to participate.

Well, and the other thing too is everybody just hasn't quite built that behavior in of, "Hey, can you repeat the question?" It's just not normal to them yet, and it may still take some time. But with a few extra microphones and you understanding the audio in the room, you can make sure that you get those questions answered and the classroom still has that natural experience. Now, another area that is commonly overlooked,

yet is incredibly, incredibly important, is lighting.

Now, does the room, faculty, and area have the sufficient lighting to support the high-quality capture that you want to get. Now, typically classrooms already suffer from lighting issues, and to achieve the acceptable quality

in your lecture recordings,

you're going to have to address this issue. Now, some scenarios with lighting

may make your subjects

hard to see when you're recording them. Now, being aware of potential high and low lighting issues

can help improve the quality of your videos.

So what am I really saying to you? It's not just about putting a camera in a room, it's about being aware of what takes place in that room over the day. Now, if the room has a lot of windows, you may need to take into account what time of day it is

and perhaps when you're recording.

So if it's in the morning, the room may be totally flooded with light, in the afternoon, it may be not. So how are you going to make sure you place your cameras in the right places to still get the capture and the best video quality that is necessary. So there may be some cases where you want to dim the lights in the morning, make them lighter in the afternoon, so that it's acceptable for the students to not only be able to see all the slides,

but also for the cameras to be able to record it.

So I really strongly encourage you

to make sure that you go into a lecture hall room,

whatever room you're doing, and make sure to test the light. If the light isn't quite doing what you want, there are automated lighting systems that you can use that will help assist you with making sure that the lighting is perfect

so the cameras capture the absolute best experience for

those that are going to be watching it online. Now, the final area that I want you to think about is considering any existing AV equipment that you may have. Now, there's tons of options on the market, and you may already have the equipment that you need

or perhaps, in time, you may want to be upgrading it.

You may have cameras that are in your rooms today

that are very high-quality,

you may be ready to upgrade into something better. Now, the reality is only you will know and only your budget will dictate, but existing classroom tools,

like projectors and audio systems,

can be quickly and affordably

provisioned for room for lecture capture. In classrooms that have existing AV equipment

that are already connected to a computer,

it may be possible to provision lecture capture

in a matter of minutes by simply downloading

the appropriate recording software.

So you're going to be surprised

how flexible everything is,

but in some cases,

if you want to capture other sources, you maybe need to take your lecture capture computer

and add some external cards

and other things so that you can capture

even most sources.

Now, it's time to ask us a different question which is, what will be presented and where will it be recorded? So we just covered what will take place in the room. Now, we're going to ask another question

which is what are we going to

try to record and why are we trying to record it. So there are two very important considerations to make here. The first is about the presenter, are there specific things we need to consider when it comes to the presenter. The other area is for the content they may be presenting. For the presenter, there are four key points to keep in mind. How many presenters will there be. So if you have just one camera

and there's four presenters,

are you able to capture them all? While most classrooms will only need to capture audio and video for a single instructor, you may want to plan for those scenarios,

especially in larger rooms

where you have multiple presenters.

You want to make sure that you get all the content together. Now, capturing audio from multiple presenters may require adding more lapel mics that a lot of people use, or it may even require you to get an audio mixer, and you may need one or more video cameras to capture the multiple people just given the size

and shape of the room.

Now, another question that you should ask and this one, I think, over time will go away,

but today it's very prevalent is,

does the presenter want to do audio only? Now, not everybody is comfortable on camera, myself

included. So some are comfortable, some aren't. So you want to make sure that you have options. So for those people that come in and say, "Look I just want to give a presentation. I'm a little embarrassed about how I look on a camera," you want to make sure that you can do both options,

which is audio and video or just audio.

Now, something else is how much

a presenter will move about the room.

Now, I'm somebody that normally likes to walk around a lot.

As you can see, I use my hands a lot.

So if you set up a fixed camera setup, this may be a big issue because what you're asking the presenter to do

is stay in one spot and for certain presenters,

that's not a natural thing. So make sure you understand

what the presenter wants to do,

and then you want to design a system that is flexible enough to be able to capture both the presenter, that is comfortable with how they present versus them just standing in one place. So it's all about making sure that you have the maximum amount of flexibility

and as I mentioned earlier,

a lot of this technology is very affordable

to an [inaudible] .

Now, another thing, again, that I think will disappear more in time is the presenter themselves have got to be comfortable with the technology. If there's a really steep learning curve, which some of these lecture capture systems have, there's a lot of chance that your presenters are not going to click the record button. So it's very important that you make it super easy and painless to use lecture capture. In some

cases, you may want to have your lecture captures setup so that it's completely automated, so that the presenter just simply walks in, hits the top of the hour,

and they're doing their presentation,

and it's being recorded.

So with that out of the way, now let's change our attention to actually recording the content. Now, there's lots of considerations here. So what I have here is an extensive,

but I want to make sure that you

understand not complete list.

So depending on your situation, there's a very good chance that there's even more types of things that you want to record. Now, in the majority of classrooms that you're going to set up, instructors will include visual materials to support the students learning experience. Now, these materials may be written on a board,

which is how I went to school,

projected in the form of slides, which is becoming much more common, additional videos, so there are some cases where professors want to show videos from YouTube or other sources, they may also want to demonstrate their computer screen, they might have document cameras where they're demonstrating different types of math formulas or things of that nature. So there's a variety of all these different types of formats,

so you've got to make sure that you

design your system to be capable of it.

Another suggestion too

is that we really need to use

clear descriptive words when we're presenting.

When we say, "Look here," for example, it's not always clear as to where here is. But rather, if we were to say, "Let's look in the upper right quadrant of the table," not only does this provide a clear reference point, but the reference point

will also be searchable in the captioning,

making it much easier to be able to find that location and refer back to that information that's being referred to or talked about. So being able to use clear descriptive words

as we're presenting just helps the learner

to be able to engage better.

Scott, that's absolutely right. I mean, the better that we can do

in capturing that audio information

and especially in the words we use,

the better that we're going to give the student the experience, the better that the caption experience is going to be,

the better the overall experience.

So it's really important that these endpoints that you're capturing, audio and video,

be done in a correct format

and also be done in high-quality.

The good news is

with the cost of these pieces of hardware today

and the cost of services,

it's very affordable to do this. Now, what we're going to do is we're going to switch our focus to what

equipment you will need in order to successfully capture a lecture. Now, you have some options here and depending on your setup and requirements, one or all of the equipment setups that we're about to review may be highly applicable to you. Now, there's really three categories of equipment

that you will need in order to do this

or you're going to need to purchase them.

These categories include:

lecture capture computers.

Now, there's both third-party hardware that you can buy

in terms of electric capture computer

or you can also buy AV rack mounted systems as well.

You're going to need video recording tools, which is really cameras, and there's a variety of different ones of those, and you're also going to need recording tools. Now, we're going to deep dive on each one of these. But for the lecture capture computer, as I mentioned, you really just have two choices. You can either use a standalone PC or Mac

with recording software installed on it,

and then any recording peripherals that you have, like a document camera or a PC cameras of that nature,

you can plug in,

and the peripherals can include

all sorts of different things, like microphones,

video capture cards, cameras, so on and so forth. But if you go this route, it's important that the computer have a capable processor and a large amount of storage. So in other words, you may have an old PC sitting in your storage room that you think you can use, but you want to make sure it's got capable

enough processor and enough storage,

both in RAM as well as physical storage.

Because some of these video files

you're going to generate are going to be pretty good size.

Now, a different direction if you want to go is you can also use a purpose-built rack mounted lecture capture appliances, and we normally see these being done in big lecture halls. Now, these solutions come ready out of the box. So setup is really quick and easy, you just plug them in and you're off and going. While it's typically a more expensive option than a customized desktop that you may be implementing, what a lot of folks find is these rack-mounted systems

can be just as flexible and may fit in

with your existing rack mounts

that you've got in the back.

Now, the other thing

that I don't have listed on this slide

that I highly consider you to consider is, your faculties computers themselves can also be lecture capture tools. So all your faculty needs to do

is install the recording software on their computers

and they can start to make their own recordings.

We see this commonly done at a lot of organizations. So let's just quickly review a matrix

of the different types of recording tools that you have.

So as you can see, there's a variety of ways, you can use different cameras,

but what really matters is depending on your need,

a certain camera may perform better than other cameras. Now, I'm not going to go into all the detail here, you can look at this over later on in the recording, but I suggest that you spend a little time experimenting and researching the different types

of recording options available to you,

and then choose the best one. So as we can see here,

this matrix is set up with camera types

and the different types of learning environments,

from lecture hall all the way to in the field. So take some time, look over these recommendations. They may not be a 100 percent perfect

for what you want to do,

but they will get you in the right direction. Now, we're going to switch to this, we're going to talk about audio. So here's a quick matrix and list of different types of microphones, and just as we saw a moment ago in the video space,

we also have the same issue with microphones.

Now, again, I'm not going to go into a lot of detail here, but, again, I suggest you spend some time experimenting with the different types of audio options available to you, and then choose the ones that you think will be most applicable. Now, the good news is,

a lot of these are not very expensive.

You can test with them and make sure that things work correctly for you, and get that audio,

that crisp audio signal that you need,

in order to be able to not only make sure you

get the best lecture capture experience, but you can also build the best captions. Now, I want to turn our attention and we're going to go through three lecture capture setups, and I chose three. There's many more than this, but this will give you a good idea of what's involved in setting up lecture capture. So for the first, we're just going to review what I call a standard room. Now, this is a typical hardware setup and it features the ability to be flexible,

while also the ability

to capture the necessary capture points,

including video, audio, and other devices.

Now, we suggest to use a lecture capture computer

and have all the associated devices

directly connected to them or have them routed through,

as we can see in the center here, an HDMI splitter.

Now, you'll also note that we suggest having the flexibility in building your system so that your instructors can connect their own laptops to the system and you can record it. Now, in this entire scenario, the recording software on the lecture capture PC can record all the sources at one period of time. So in this case here, you can see just the basic amount of information and the basic amount of hardware

that you need to do lecture capture.

You can see it's not that complex, a little bit of configuration, but you can get it done with just a few pieces of hardware that you probably already have today. Now, this one maybe applicable to a lot of you,

so I included it.

But let's go ahead and review and discuss what a large lecture hall equipment setup looks like. Now, as you can see here,

it's a little bit more complex than what we just reviewed,

but it's really not that much more. The reason why this is a little bit more complex is because you want flexibility. A large lecture hall is able to host

a lot more scenarios than a small classrooms.

So you want to make sure that you've got flexibility. So in this case, we're suggesting you use different types of cameras, including a PTZ, and I don't know if any of you have heard the acronym PTZ in the camera world,

but it stands for pan tilt zoom camera.

So they're basically automated cameras that can be controlled. They can be fixed in one spot if you want. They are a little bit more expensive, but they provide a lot of flexibility. You'll also see that I'm recommending that you use an audio mixer. Now, again the reason why you want this is because you want some flexibility in the audio types that you're capturing. Because as Scott has mentioned earlier, good quality audio really matters. The other thing too that you'll see that we are suggesting that all of these devices be connected directly to the PC. So, again, in this scenario here,

if you don't want to use a PC

and you have a rack mount system

in the back of your lecture hall, no problem, you can use a rack-mounted AB solution, install it in there, and still do the same setup, just simply substitute the PC in this image for a rack mount. Now, let's go over our last example, and I wanted to touch on a very simple example that you may be using

and a lot of your professors may be using.

So for this example, we're going to be recording digital content for a biology course. Now, lecture capture software simply needs to be installed on the teacher's laptop

or a dedicated computer in the lab.

Now, a USB scope camera is attached to the stereo microscope and then connect it to the laptop along with a desktop microphone, two microscopes is not what's needed. The instructor can simply

use the microscope as they need to

and they can record everything

that is in their eye pieces.

So as you can see, lecture capture can be something as simple as this, just simply taking a laptop, connecting the devices to it, starting the recording system, and recording the lecture. So we see this commonly used by a lot of professors who do what we call "flipped classes", so they'll record portions of the lecture first using a setup like this, send it to the students, and then during the class time,

they can also review and answer questions

on what that was.

So we viewed three setups,

and I want to really encourage you to understand,

there are many, many more than this.

So I showed you three, there's a lot more,

but my whole goal today was to show you

how simple and easy it is to set this all up.

Wow, Dave I've learned so much about how to create the right environment, the right equipment. So thank you. I also want to bring in the fact that one of the platforms that Verbit seamlessly integrates with is Panopto. So once the video has been created, you're able to submit all those videos for captioning. In addition to having the video caption, you'll also have a transcript of the lecture

where the learner is able to engage

with a digital, searchable, annotatable document. So we're all familiar with the libraries that are full of valuable content,

that is never engaged with

because it just sits on the shelf. The last thing that we want to have happen is that to have your content that you create, that you've put all this time and effort into making the video content, put on the shelf. But by capturing it, it really does increase the ability

for everybody to engage with it.

So if you will, let's make sure that we're able to have our learners engage with this. So Shir, have there been any questions that have come into the chat window?

So we received one question by Maurine who had asked if this was being live captioned, but I already answered her saying that,

no, we are not live captioning this.

Verbit does offer live caption. We do offer CART services for universities, but we're not live captioning this

because we're still tweaking it for Zoom.

We did just get a question by an anonymous attendee. Will the slide deck be made

available after the presentation?

Yes, it will be.

We will be closed captioning this recording of the webinar

and sending it out to you all next week.

Does anyone else have any more questions? Feel free to ask it away

and Scott or Dave will be more than happy to answer them.

We'll give it like a minute. If we don't get any questions come in, I guess that's the end of the presentation.

If I may, while we're waiting for folks to ask some additional questions. There are a lot of great resources on the Internet that you can go look up that will walk you through what lecture capture is required and what it is. Again, the big thing that I've seen

in so many implementations and solutions

that I've done throughout my career is we often make these implementations a little overly complex, and therefore, it causes us to get a little bit,

some levels of anxiety if we can actually

implement these things correctly. As I showed you, there's a lot of very simple configurations that you have. You can literally take your laptop and connect the devices in it. Just start with your first lecture capture there and see if that works for you

and build your way up.

You don't need to be going out and buying these super high-end cameras quite yet. My suggestion is to start with what you've got, make sure that that works, achieves the results that you want, you're getting good feedback from those people that are viewing the videos

and then you can work your way up.

You'll be surprised how quickly people will adopt and start using lecture capture. As Scott had mentioned, a lot of folks watch it on silent. So making sure you have good quality captions

really does matter.

Thanks, Dave.

We got a few questions while Dave was speaking.

Nick: Can we also have access to the PowerPoint? Yes, we'll give you access to the PowerPoint as well. Anadine: We are using Padcaster Studios for our class capturing at the moment as a cheaper option. Do you know this system?

Scott Ready?

Yes, I am familiar with that system. Yes, it uses the iPad controls. We actually like it. I think, to your point, it does provide a lot of flexibility because it's got the rollers on it. It's got the ability to capture different endpoints. So we feel very highly about it. I think there are some cases where it may not be the appropriate solution for you. So again, in light of the type of scenarios that you have, and especially the types of cost that you want to spend on doing lecture capture, do you want someone in the room to be manning that camera? Or do you need somebody that needs to be somewhere else?

Do you need to have it automated?

These are questions that you should ask yourself. But the Padcaster solution is a good solution.

Awesome.

Dale: From the least expensive

to the most expensive setup,

what do you think would be reasonable for this?

There are three things

that are going to drive up your cost.

Three things.

If we can go back a few slides, let's go back to the video slide, if you would please for me. There we go. Back one. There you go. Perfect. So let's talk about these cameras just really quickly so you understand cost as they go up. So webcam, not that much, $50-$100. Logitech makes a very good one that does high-quality. It's what I'm using here today. You can buy those and scale very quickly. Camcorders and DSLR cameras are a little bit more. They can be anywhere from $500-$1,000. They provide you a lot of flexibility. But in some cases, it may require somebody to be there. Now, when we start getting into really high cost, like things like PTZs and motion tracking cameras, we're talking about in the thousands. But again, they provide you a lot of flexibility. A good PTZ camera can have very high-quality zoom and it can also be moved about. Motion tracking cameras are also very high quality. But again, these are types of solutions that are in the world of automation. So if you don't want somebody to be in the room when the recording is going on or somebody back in the AV studio, these are solutions that may be viable for you.

But in most cases, the PTZ and motion tracking cameras, you're going to use those in your big lecture halls. I don't know how many lecture halls you have. But that's going to be higher cost. Now, let's go forward the next slide. Thank you. Now, in this case here, similar set of situations. Desktop mics and boundary mics, they can be a few $100 in cost. They can go off from there.

Lavalier mics, which normally are wireless,

are much more expensive.

So you're going to reserve those for unique scenarios. Handheld mics, you're going to want to get a good one, but they're not overly expensive. They can be a few $100. Podium mics, they're less costly. Then, any type of built-in native mics, those can be less costly as well. So in the case of audio collection, you're going to spend some money on these things. But again, you don't need to blow the bank. I mean, the biggest thing that I've seen is in these large classrooms that aren't sound engineered, you're going to want to make sure that you get a better quality mic because just hearing the audio is the most important part. So having something like a lavalier or an attached microphone is all the better. So you're going to spend some additional money there, but you're going to get better results. A lot of this hardware will last for quite a while.

Perfect. Thank you, Dave. We received a question from Andrew. When it comes to audio capture, do considerations have to be made for FERPA, especially if an instructor plans to use any captured contents down the road? Scott?

I'll let you take that one, Scott.

I'd be more than glad to. When you take in the considerations for FERPA, again, are you using student's names? Are you sharing any kind of grade information? If so, then that might be a segment that you want to cut out of the video if you're going to be using that video in future cases. You just don't want to have any kind of identifying student information in your video when you're distributing it to all the other students or using it for multiple purposes.

Perfect. Thank you, Scott. I don't think we have any more questions here.

Actually, I see one that I'll go ahead and field really quick. It's a question about,

can you go live with lecture capture?

I'll answer that question in two ways. So generally, the answer to that question is yes, you can go live. But it depends on the video solution that you purchase. Some video solutions do live high-end streaming, other ones don't. So make sure whatever video vendor you talk with, they are able to answer that question. Now, the second part of the question is,

in most cases, these video solutions,

if they do go live, you want to make sure that they can do it automated,

so you don't have to be there.

You want to make sure that an individual at the endpoint can set it up on their own

or that you can set it up automatically, as I mentioned.

But the other thing that you want to be aware of is a lot of the live streaming solutions that are available today, there is a latency that happens, and that latency is there for a variety of reasons. But the latency can range anywhere from 5-10 seconds, all the way up to 20-30 seconds. Now, as you can imagine, the ones with shorter latency are going to be more expensive. The ones with a little longer latency are going to be a little less expensive. So it's really a question of how much are you going to be using this and how important is it to be real-time. But absolutely, you can live stream a lot of things. A lot of our customers do it. They use it for campus events and things of that nature. So make sure when you're talking with a video vendor that you get the answers to that that you need.

Perfect. So it looks like we're about done here. Look out for an email from me next week. I'll be sending out a recording of the webinar with captions and an interactive transcript. If you guys have any more questions, you have my email. I can give you Scott or Dave's email, if you have another question that's more related to their field of expertise.

Yeah, that's pretty much it.

Thank you so much for joining. Look out for our next webinar next month. Yeah, have a great week, everybody. Thanks, Scott and Dave, for joining and speaking. You were great panelists.

You bet. Thank you for having us.

Thank you. Bye, everybody.

Bye.

Take care.

Bye.

Take care.