

Okay, great. So I

think we're good to get started right now.

I'm seeing some more people join in and as we go along

and I'm sure will continue to see more people join live.

Thank you so much again for joining.

This is Verbit's first EduALL event,

which is our first virtual summit.

We're really excited to have Rob Lipps here today.

Rob comes to us from Mediasite and

the Sonic Foundry which is the maker of Mediasite.

This event, this whole two and a half hours today

are really about making higher education work

for all different learners.

This is a really big mission of I said

Verbit and I know that Mediasite feels the same way.

Rob is going to be talking to us about how

AI is creating the Netflix model in higher education

and how Netflix has really changed

student's expectations for video and for learning.

We are going to be taking

live questions and answers at the end of this.

So we definitely encourage you to write

your questions into the chat as we go along.

You'll also have the option to select

from the "Closed Caption" button

at the bottom of your screen

to select captions or to view the full transcript.

We encourage you to view the full transcript,
we want this to be accessible to everyone,
so we definitely encourage you to do so.

With that, Rob, I'll turn it
over to you to introduce yourself.

All right. Well, thank you, Danielle.

So it's a pleasure to be here.

I think it's great that this virtual event
has been in the works for some time
and I think having this event happened today is great.

It's a great proof of what can be done in using
technology to overcome some of
the situations that we find ourselves in.

So I'm Rob Lipps,

I'm Executive Vice President
at Sonic Foundry, makers of Mediasite.

I've been with Mediasite for 14 years.

So I've been advocating for video for
a long time and I've seen a lot of
the evolution on campuses with the use of video.

So I'm hopeful that the topic
today will be relevant for you all.

So I'll get started, Danielle.

So the AI in creating
the Netflix model in higher education,

I will say that, it's a catchy title,

but I think it's a bit more

aspirational than reality at this point.

But I wanted to speak to the opportunity that I think exists in this intersection between AI and education and what can be done using AI and how it's being used today.

So my agenda, I'll talk a little bit about the current environment because I actually know of a few of our Mediasite users that are attending this conference today that had reached out to me and was hoping that I would say a few words about what the current environment looks like even relative to this.

So I'll comment a little bit on that.

I'll talk about the generation of learners that we have today and what they've grown accustomed to, and then link back AI to some of the video initiatives that you all have, as well as some of the policy decisions that you're making, and hope that you'll understand a little bit more, whether you should be using it, how you could be using it, and what other technologies are using it today.

So I mentioned a little bit about myself.

So I don't actually come from the video space,
I come from the business analytics space.
So my background is data analytics,
and that was one of the things that drew me
most to video in education,
wasn't just the plumbing around moving the video from
the classroom to the student
or from the desktop to the student,
as much as what can you learn
in the process of delivering that video.

This has been an interest and a mission of mine
for the 14 years that I've been here
to start really tapping into the data side
of what's possible with this.

So I think that I'll touch
on a bit more about why I think that's so important.

So to the request from a couple of
the attendees that wanted to hear
about what's happening today.

Certainly, online learning has never been more relevant.

There have been shutdowns on campuses before,
whether it was bird flu,
SARS, H1N1, snow storms,
extreme cold, like we had in Chicago last winter.

So there is a lot of
things that have happened that have put
universities into crisis mode to

try to figure out how to continue reaching students during the shutdown. Temporary shutdowns are certainly more easy to deal with than the one that we're in today. But it does open up a lot of opportunities to think about how to do this differently and video plays a huge role in that, but there's a lot of different kinds of video. So I think for a lot of schools, whether you're really far down the road or having used video on the past or maybe video is a little bit new to your campus, there's a lot of unknowns about this future world of video. One of the things that I think is most relevant, especially when you consider AI, especially when you look at accessibility and then just learners in general, is the opportunity to personalize the learning experience, I think is the benefit that is nearest reach to us at the moment, and I'll touch a little bit more on that. So as I mentioned, campuses are closed and looking for ways to reach students, and I think I want to start by just giving an example.

So I'm going to say this name slowly so that I don't expose how bad my Chinese pronunciation is, but Xi'an Jiaotong-Liverpool University in China is very close to where the epicenter of this epidemic started and they were one of the first campuses to be fully shut down. Interestingly, this campus had deployed a lecture capture solution using Mediasite back in 2017. So a more traditional approach, but it was the first step in a three-step process for them over the course of three or four years to move their campus into a fully blended delivery of video and in-person. Now, the closure of the campus and the pandemic actually accelerated a lot of those plans for them. So what they were planning to do over the course of about 18 months, they did it in three weeks. This school opened back up on February 24th to all of their students. They have about 17,000 students on campus and what they had done was they rolled out a not for credit course on how to be a good global citizen. That was the first thing they did

before they open campus.

They opened it to all instructors and students just so they could get used to learning how to learn over video and it was very successful, it was very widely attended by their student body.

So when the campus opened on 24th of February, there was quite a bit of momentum, so much so that they created over 3,000 videos in the first two days from all of their faculty and the students had viewed these lectures are a 100,000 times by the end of the day on Tuesday the 25th.

So a very quick turn around to moving their campus online and if you speak to some of the folks that are administering this campus, they certainly see it as an opportunity to look forward and not go back to a world that they had been in.

They will be a blended university now and experiences learned.

One of the things that we've learned by talking to people is one of the first LMSs have already been in place, and LMSs are key because they provide the structure for the course, whether you're in person or online.

So I don't think LMS has got
deployed as a reactive part of the strategy,
but they got leaned on very heavily,
and one of the first go-to
solutions for many universities was conferencing,
and Zoom was a big benefactor of that.

What many universities are learning now is if
Zoom is the virtual classroom
where we all get together and talk.

On-demand video delivery is the library or
the textbook or the advanced
reading material before you come to
that class and it's important to look at
these pillars of technology or the
foundations that you need to make it successful.

So I say that because
all of that is very important to campuses
building a repository that's large
enough of video that AI could be useful.

I think one of the things that helped
schools back from doing
more video besides
the adoption issue amongst the faculty,
is how do we ensure
compliance from an accessibility standpoint?

When we look at today's learners,
I think all learners benefit

from accessibility compliance because that enables not only this on-demand mindset that the students have today where they're not used to searching for things they're used to having things suggested to them and that all comes from data that's collected from those students.

So this future learning process or this learning environment will certainly consider student preferences and one of the most important aspects from that is the data that you have for technology to leverage that data and actually do some of this suggested personalized learning in the first place.

So time-shifting we've been hearing lately is students don't want to hear lectures over Zoom.

They want to have dialogue with their professor over Zoom.

They want their lectures and material to be served up to them on demand and certainly every student learns differently.

That's no more true than what's in the accessibility needs space that disabled students have

specific needs that need to be accommodated,

but all learners really learn at unique paces.

They learn differently on different devices.

They learn differently in person than they do remotely

and making videos is interactive as possible.

One of the things I'd like to say is that if I open

a video and I watch a video

that has captioning turned on,

I almost always leave the captions on and what

I've realized is that I read faster than I listen,

and I listen better if I can see the text on the screen.

So I don't have a disability need per se,

but the benefit to me for

my style of learning is huge that be there

and that having a caption on

isn't very engaging thing for me personally.

So when we think about

students and all the different ways that they learn,

there's a common need between the disabled community and

other learners that I think

often gets overlooked in terms of

how we solve the accessibility problem.

AI can play a huge role in

bringing the cost of accessibility

down so that it can reach all people.

I'm sure one of the concerns that you watching this may

have and I know this because

others have expressed it to me is well,
what if we make our Mediasite
deployment from every classroom and every desktop?

We're creating so much more video
now that has to be compliant.

There's a cost issue in doing that and I think
that's a real world thing that has to be dealt with.

But I think the technology companies like
Mediasite working with Verbit are coming
up with a mix of
human and technology components to bring
that cost down and make that accessibility,
compliance capability within reach financially,
not just technically but financially for campuses.

Because one of the things that would
be a disservice to
the students in general is if we produce
less video because of the compliance issue.

I have a child that is in the disabled community,
that is not what the disabled community wants.

They do not want to pull back
on things like video being
produced because of this compliance issue.

They want more video for more learners,
but use technology in ways to solve the problem.

So when I talk about AI,

I'm not going to give a lesson on what AI

is because I'm not qualified to do it.

But what I have learned is that AI is

an umbrella term that is

used to refer to

a lot of things that aren't necessarily AI.

Cognitive engines, machine-learning, robots,

is it the matrix, what is AI?

For all of you that are curious,

that want to understand,

there are some really good articles

out there that talk about,

what is AI specifically?

What is machine learning,

and is machine learning AI?

Are cognitive engines AI or not?

So have a look at that because

you'll learn a lot about what types of technology

would be useful to you

in your day to day if you adopt it.

So if you're wondering,

while everybody must be using AI and you're not,

that is certainly not true.

IBM did a study

just in the business and the enterprise side of the market

to ask business owners about how important is AI?

The vast majority of them agree that it's

a strategic opportunity for them,

but almost nobody is actually using it directly.

I will say that probably more of them are using it in the technologies like Verbit that they are licensing or subscribing to.

But they're not buying AI engines specifically to help run their business yet, but I think that world will change going forward.

So at Mediasite, a couple of years ago we did a survey with university businesses where we went out to the higher education leadership, specifically to ask them about their impressions of AI.

Many of them if you read over what's being shown on the slide here, the bottom area of the lower numbers are people responding to how they're using AI, which is quite low.

The top categories are talking about how people endeavor to use AI or what they think the benefits could be for them.

Certainly more innovative ways to teach and reach students.

But all of the combination of that is to personalize the learning experience as much as possible for those students.

But administratively there's a huge benefit to using AI in your student information systems as well.

So I think there's a lot of people on the sidelines looking at it trying to figure out beyond a research use case, how do we use AI in practice to actually benefit the learning experience?

When I look at the AI space and I look at education, the caption providers like Verbit are leading this hands down in terms of using cognitive technology to actually reduce costs and provide better results.

So don't worry about it if you're not using AI.

We don't use a lot of AI and in our business we use a lot of analytics.

But I'm not sure that I would go so far to say that we're using AI.

Sorry about my printer firing up in the background.

So if you think for years we've talked about video disrupting the way that we teach, I think we have to think about AI in terms of disrupting the way we administer universities.

But I think there's an opportunity to look at the two together and understand how we can benefit from these two technologies being used concurrently.

So one thing we know Mediasite origin from Carnegie Mellon University was a phonetic audio indexing tool.

So that particular technology,
what we learned early on is that it's very hungry for
data and if you're not
searching a large enough pool of data,
AI is going to be very limited in its use for you.

So to give you an example,
if you had a library of 100 videos
and you didn't open search on those videos,
the odds of returning a null result
are actually really high,
and the odds of walking into a library
and finding the book you need
is going to be very low
if they only have a 100 books on the shelf.

So AI is data hungry and producing more video
prepares you to potentially
benefit from AI down the road.

So what does all of this have to do with Netflix?

How is Netflix actually like higher education?

Netflix is all about
personalization and about user experience.

Some of the AI that I mentioned is,
we can think about how it can benefit us
from a compliance perspective,
and how can we reduce the cost of compliance.

These are financial issues,
these are policy issues.

But these two benefits

of AI are actually very close together,

and Netflix does it this way.

So Netflix is famous for suggesting videos.

The videos that it suggests to me in

my use of Netflix tells me that Netflix knows a lot more,

probably about myself than I know about myself.

Google certainly knows a lot about its users,

Apple knows a lot about its users.

So for students that are listening to Apple music,

they're wanting music that they know that they like,

but they want that to come to them automatically,

so AI is suggesting that.

So what's interesting and

digging into how Netflix does it,

is they personalize things all the way down to,

not just recommendations of videos,

but how those videos are presented to you.

Two different users of Netflix

can be presented with the exact same movie

using two different thumbnails

based on data about them.

I've seen this actually in the real world.

I picked this example because

this is a lot like my house.

If I was going to go watch The Godfather,

I would probably see a thumbnail of Marlon Brando.

My wife, to get her to watch the movie Godfather,
certainly is going to be
more likely if there's a wedding.

So this is the same movie,
two different users, two different thumbnails
based on personalization.

Certainly, they use AI for
lots of other things like scouting,
where the best places are to actually shoot movies.

But for this crowd,
one of the things they use AI for is to
tell them in an audio file and a video,
where is it most likely that they may have
a caption sink issue based
on previous edits that they've made to other movies.

So they can actually compare audio files
across all of their movies and look at where
these captions have had issues
that had to be corrected before and suggest
to them places in a particular
movie shoot that they may have to
go back to to fix a sink issue.

So these are all efficiency things
that enhance user experience.

So when we talk about accessibility, specifically,
I think the intersection of this type of technology,
this Netflix mindset, is common both to the users.

But also the technology, the underlying technology,
I think it's going to allow us to be more
confident in creating a lot of video.

When I showed the example of XJTLU in China,
creating 3,000 videos in two days,
that use case has been
a concern to university administrators about,
should we secure that content as much as possible so
that we can control
what content needs to be captioned and what doesn't?
Is that a good way to do it?

Those decisions of locking down
videos and making things even more secure,
actually move you a little bit further away
from the personalization of the delivery.

If the student can only be suggested
videos for the courses that they're enrolled in,
I think the personalization
is going to be a little bit more challenging.

But if you have more of an open policy where
the content is more widely available
across courses for students,
then suggested playlists and things like that for videos,
I think can be much more effective.

So I see this partnership between Mediasite and Verbit,
and using AI to generate a caption file that can
be reviewed by human

and make sure that the accuracy is there.

In the same manner, I think there's another partner in this process, which are the integrators and the specialists that design room spaces that can actually make changes to the audio configuration and rooms to give you a better shot of your machine captioning actually coming out accurate, and we're learning a lot about that today.

But these are all things that I think will reduce costs and give people confidence that they can create more video.

We're creating video today now because of this current pandemic at a faster pace than I've seen in the 14 years that I've been here, and it's very exciting.

The last two or three months have been some of the busiest months in our company's history for user adoption, and it's very exciting.

People are trying to figure out, "When this ends and our campus is open back up, we want to stay blended.

We don't want to go back to just teaching in rooms, or teaching only online and the distance learning, and only in-person.

We want to have a blended approach,
and we want to take advantage of
the situation to do that.

But how do we maintain
an accessibility compliance in the process?"

There's certainly a lot of
factors beyond captioning that go into accessibility,
like players that can be converted to
text-only so screen readers can
read them, audio descriptions.

There's a lot of other factors I understand.

But from an AI perspective,
I think this is low hanging fruit on the caption side.

So I mentioned about search,
and I did a search for
artificial intelligence in Google,
and it came back with 563 million results.

I have no idea whether there should be a billion results.

So Google may be bad at search for all I know,
but what I do notice here is that the odds
of getting a positive search results are really
high because of the volume of
content that they've indexed.

If you think about your video library
in much the same way,
if you want to personalize that delivery and you
want to do suggest the videos to students,

think about the size of

the video repository and how open that is.

The more open it is, the more you're going to have an experience like this and get a positive result.

So lots we can learn from the enterprise.

To be honest, the enterprise is

learning a lot from higher education.

I tell everybody that much of

what we see adopted in enterprise,

especially even on the analytics side,

the business that I've come from,

all of that technology originated in education.

So I think there's a great opportunity

there to look at it this way,

and see what can be done to take advantage of

this current situation and make the most of it.

So that's the end of my prepared remarks, Danielle.

So I believe you're going to ask the questions.

Yeah. Rob, thank you so much

for talking us through all of that.

I think it's incredibly interesting to see how

something used in a lot of people's personal lives,

and with Netflix is really now transforming

people's thoughts of how they should learn,

how they should expect to receive video in the classroom.

I encourage everyone to feel free to

submit your questions in the chat now.

A couple came in, Rob, while you were talking.

So I'll start with one that we did receive.

This is probably an issue that pretty much everyone is dealing with right now.

Our campus just recently moved to 100 percent online learning due to the coronavirus.

We don't have much experience at all with the formal lecture capture program, and faculties sometimes create one-off supplemental videos.

How do you suggest that we get them up and running with classroom video fast and where can we start?

Well, I think today there's a near-term and a long-term approach to it, and I think the one thing that everybody's going to want to be really mindful of this, for years, at least for the 14 years that I've been doing this, resistance to technology is real, that struggle is real.

Not every professor likes video, but I have been amazed in the last three months that my parents who are in their '80s figured out the webcam on their computer, and there's more people now that are far more comfortable being on

the business end of a camera
today than they were three months ago.
I think that's a great thing for adoption.
So when we think in the near-term,
supporting those users with preferences
is really important,
where the content comes from.
Certainly give them tools that allowed
them to create the content if they don't
have any tools but I think the focus should be
helping the users understand
how they publish the content,
because if you're a professor
and you're home and you're trying to reach students,
and you're unsure how to do that with video,
your first response is probably going to be,
"I have to put it on Google or I
have to attach a video to an e-mail".
I would say that, focus a little
less on how they create the video,
and focus a little bit more on where they put it.
That's why I think the LMS is so important now,
because you should put video on the LMS.
But if you can help your faculty
understand what that publishing step looks like,
so taking a Mediasite video off
the desktop or even a video off of

your phone and feeding that into
your My Mediasite content portal,
that step is the most critical step
where I believe most people have the most frustration.

I think in the end,
the vast majority of our users can record a video here,
if they need to,
but what you do with it after you recorded,
I think is where I would tell you to focus.

Then when classes are resuming and you're back on campus,
keep that mix, but keep the classroom content coming.
Record what they do in the classroom, record it,
and until then help them record using Zoom or Webex,
or Teams or whatever they're doing,
and feed that into their Mediasite portal
so that all of those video objects can live together.

But I'll say that
we tend to put the focus on how to record,
and I think how you publish
and how automated and easy that is,
is where the frustration can really manifest.

I'd say that that would be our focus.

I hope that answers the question.

Yeah. Absolutely. Thank you Rob.

We do have some questions coming in about ASR,
which is automatic speech recognition technology,
artificial intelligence and how that plays in,

and also the human element.

At Verbit we really believe it's super important to hit that 99 percent accuracy.

So we use ASR to start the process, and we're using human fact checkers all along.

So someone else was asking, how accurate is machine captioning and how important is it to have that human component.

I'd love to hear your take on that Rob.

That's a great question, because I think there's a lot of folks out there that assume that the technology can do it exclusively for them, and since I go to conferences with the disabled community related to my daughter, and I know what, not necessarily what their expectations are, but what they need to actually make it meaningful.

Most people don't understand the difference between 80 percent accuracy and 95 percent accuracy.

Eighty sounds pretty accurate until you read it.

So machine text, I would caution everybody not to put too much dependency on the machine captioning, the ASR without some cleanup focus, especially for the content that you know is targeting a disabled audience.

I understand there's an economics factor to this,

but I think you can use IBM Watson,
and you can use Google to get captions.

There's a lot of technologies.

Microsoft generates captions,

but the reality is that none of

those providers have that missing piece

that's critical that Danielle mentioned,

which is the human component to go with it.

So I encourage every customer we talked to,

if you're looking for ASR,

talk to your caption vendor.

Even if ASR only has what you think you can afford,

talk to your caption vendor

because there's going to be that content that

needs a premium component to it

that you're going to want to clean up.

So caption editing,

we have a caption editor in Mediasite

that can be used to clean up caption files.

But I think our experience has been

the accuracy is a little

less dependent on the ASR technology.

Specifically, I know there's some that are

better than others but it is

almost exclusively dependent

on the quality of the audio

and what we've learned from customers,

we've done a lot of consulting about rooms,
we know about AV spaces
and how to design them
because of our approach to capturing content from rooms.

Whether you have ambient microphones in your room
that are turned on together with a lapel mic,
that the professor is using makes
a huge difference on quality of ASR.

Turn those ambient.

For years we've been trying
to capture student audio in the room,
so we can get the full room capture experience
in an ASR world that actually works against you,
and those additional microphones create
a lot of noise that reduce the quality of the ASR.

So think about your room design
and how you have your audio to
focus that audio up toward the front of the room,
either a boom mic or lapel mic only
and get some of these ambient mics turned off,
then I think you'll see a huge
improvement in the audio quality,
and just turning their microphone
on as obviously a big first step.

Great. We'll take just one more question,
just because I know we're getting into
the timing of the next session.

But what degree of content recommendation would you suggest?

Are many higher level courses are going to have some choice for students, like selecting a book for a book review.

But let's say you're taking a calculus course, what would be your best practices in terms of that.

Well, it's a policy question,

I guess, and that's

a tough one because I think that's a hard one for me to answer.

I will say that what I've seen is that people

restrict access to content as

a way to control accessibility compliance,

and I think all content

should be captioned because I actually really,

really, really believe in what forbid says that

all learners benefit from content that's accessible.

We just have to understand what

that bigger picture is because I think

looking at it exclusively through the lens

of the disability office,

I think is selling it a

little bit short in terms of the benefit you get.

So the question was around if you're teaching

a calculus course, higher level courses,

I think all of

them can benefit because

those learners today appreciate that.

So I don't know.

What I do think, some liberties as and

we're working with a lot of universities

that give student assignments,

for example, and those assignments are on video,

or groups submitting video homework assignments

through to their professor to be graded in Mediasite,

and should all of that content be captioned?

Could it just be ASR and not

have a human component to it?

I don't know. Those certainly

are policy and questions that have to be answered.

But what I'm always

hopeful is that the provost to the academic side of

the house is working together with

the disability office to try to figure

out how do we bring these two worlds

together to a common benefit,

to pool funding or things

that help get us a little bit closer to the goal.

As technology vendors, Mediasite on

the video platform side and prohibit

on the accessibility side.

We're doing everything we can with technology

to make this more approachable economically,

and I think policy is probably the one big piece that needs to move forward, especially as the volume of videos is skyrocketing. I mean, it is absolutely beyond belief, that viewing and uploads of video that we're seeing in our Cloud infrastructure today. So I think that that's going to force this accessibility thing even more front and center now, because I think the world before coronavirus is not a world we were necessarily going to go back to. I think it's going to be blended now going forward, and I think that's a really great thing. Yeah, absolutely. Thank you so much Rob. So we encourage everyone to continue to submit your questions. We'll be producing a lot of content coming out of these sessions. We know that they are only 30 minutes long, and we obviously can't get to answer everything that we'd like to, but we will be providing a plethora of resources, hoping to build a community here where people can share links similar to how Erik Moore was speaking later during the event just shared in a link

now to really encourage collaboration.

But it means so many different universities who have already initiated such wonderful initiatives.

So we encourage you to continue to reach out to us.

If we don't know the answer,

we will help you to get the answer.

We want to really help universities,

both online and offline during this COVID-19 pandemic and after it to really be accessible to everyone.

So thank you Rob so much.

We encourage you to go to the next session now.

So you'll just X out of this Zoom session, and click to join the next one.

Thank you Rob so much for your time.

Have a great day everyone, stay safe.

Stay safe everyone, thank you.