

Welcome, everybody.

I think we've had a chance
for the majority of individuals to make a transition,
and I still see more people coming into the room,
so let's go ahead and get started.

Thank you for joining us and
for our closing keynote session.

We've heard from some
really incredible thought leaders
that have addressed
common challenges due to
the current situation with COVID-19,
and I'm really inspired by the questions that
you all have really been submitting here live.

So please continue to submit
your questions through the Q&A feature that
you see in the menu bar
at the bottom of your Zoom session,
and we will continue
to answer those questions at the end of this session.

We're also featuring
Verbit's live integration with Zoom today
that enables you to view
a live transcript throughout the session.

To enable the transcript,
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the CC button on the bottom menu bar,

and then click "View full transcript".

Well, guys, I am very excited to have Katie Blot with me today to discuss the future of education technology and her predictions for what's ahead.

Katie is renowned for her work in the education sphere and serves as a consultant for many institutions who need assistance in navigating all of the changes that's happening to this evolving industry due to technology.

It's truly a privilege and a pleasure to bring to the virtual stage a mentor and a friend.

Katie, I'll turn it over to you.

Thanks, Scott. I'm really excited to be here with this group.

Unlike all of you,

I'm not an expert in accessibility,

but I have spent

the last 28 years in higher education space,

working with schools, as Scott indicated, and even a little stint at the

Department of Education at the federal level,

helping organizations achieve their strategic goals with the help of technology.

Now, I've been a CIO at the Department of Education,

I've worked in Ed-Tech for a long time, and I'm

a big believer that technology is never the end.

Technology is only as good as it is helpful to help us achieve the aims that we've set for ourselves, that in the education space certainly, help us empower students and drive the learning experiences that we want to.

So I personally have enjoyed the earlier session so much sitting in on them, especially hearing about how many of you, how schools, have put technology to use in really powerful ways to make sure that learners of all types have high quality educational experience accessible to them and that we're really making education inclusive.

So you've been very inspirational to me this morning, I hope I can return the favor with a good talk for you now.

Now, when we look our discussion topic today, the title is Future of Ed-Tech when we think of that, if we don't mind advancing the slide, we often think of this question, what will Ed-Tech look like in the future?

So I'm going to start us off by talking a little bit about how technology has evolved, how it's devolved generally,

and how it's evolved within education.

A real quick view of the last couple of decades.

Then I'm going to offer a re-framing of this question.

So a little spoiler alert:

if you are looking for predictions of what crazy technology we're going to be wearing or implanted in our cells in the next 10 years, you might be a little disappointed.

So how technology has evolved and we can go to the next.

Now, technology is many things.

My kids often try to trick me by asking me if a certain thing is technology because technology is really anything that's automated something.

But I think the right area of focus as we look at the evolution of technology and how it will impact and has impacted education is looking at really the evolution of computers, this specific part of technology, because it's really one of the major evolutions that's fundamentally changed and created some paradigm shift in an education system that hadn't shifted in quite a long time.

Now, the computer wasn't born for entertainment, it wasn't born for us to be able to

e-mail and connect with each other,
which, of course, we're using it in
a tremendous way these days.

It was actually born out of
the need to solve a serious
number crunching crisis that we had.

In the late 1800s,
the US population had grown so big
that it took more than seven years
to count everybody in the census,
and, of course, we try to do that every 10 years.

So that tabulation problem
that we were facing as a country
led to a first investment by
the government to create
a faster way to get that job done.

That created our first punch card based computers.

These were the computers, of course,
that took up entire rooms.

In the past 50 years,
we've gone through five major generations
of computing power.

As I thought about that, I was like, "Oh my God,
wasn't it cute when we used to
measure generations by decades
instead of every 12 months?"

Right now, every 12 months, we have a new generation

of computing power coming out, which is interesting.

But we went from whole room computers

with vacuum tubes and punch cards

moving to transistors versus vacuum tubes,

which let things get smaller,

semiconductor let us push more power into computers.

Then we got to microprocessors, our fourth gen,

which was the real game changer because

this made us all have desktops.

Now, they were big and weighty,

and right now, we would think of them as huge,

but that was the first time that we really started to see

individual-based computing power

of any type of capacity.

Of course, now we're on what we call our fifth gen,

which is, it's wireless,

it's cloud enabled, and so it can be handheld.

So we moved from computers that were only accessible to

people who had tremendous power sources and huge rooms,

and they were, as you can imagine,

incredibly expensive, to desktop,

to mobile technology that we're looking at today.

This happened super quickly.

Some people would argue this is what

this has done to us.

It's taken us backwards

from an evolutionary standpoint.

But in reality, especially this advent of handhelding held computing has changed our lives. We all know this: we can sit on our phones today and do things that people couldn't even dream of doing with a huge computer that took up four rooms at an IBM lab. Again, you all know, we can connect with each other, we can take pictures, we can engage in a virtual summit about higher education all from our phone if we want to, we can do our financial banking. How many of us can imagine being quarantined right now without one? So something that was all first built to make sure that we could count people in the United States before the next census happened. Even the phone, as we think about that was first created, the mobile technology really, so that we can make calls without being tethered to the wall. So we could have these huge things in our cars that allowed us to make phone calls. Now, it's enabling us to do so much as we walk around. Again, all because we wanted to count people in less than a decade. So pretty exciting.

To me though, probably the most important thing and the real power of what's happening in technical evolution or the evolution of technology, especially because it's happening so fast.

When we talk about that first leap in generations of computing, that happened across about 40 years, and all the last leaps have happened in the last 20 years.

So we're starting to see, if you draw this line about how quickly technology has evolved, the number of advancements we're having in every 10 year period has multiplied by more than a hundred times.

So it's advancing incredibly rapidly.

Then we're seeing what, again, I think is super powerful, the democratization of computing technology.

So we see, as this evolution of computing power has changed, it's gotten less expensive to build and therefore, less expensive for people to buy, and therefore, [inaudible 00:08:50] usage go up.

So we start to see people who have access to technology grow and grow and grow.

I liken it to right now.

We're seeing, in the last few weeks, because of the current situation with COVID-19,

so many people staying in place.

We are seeing the democratization
of a lot of educational content.

So things that people thought, were having
debates for decades and decades about, should it be free?

Should we make it available?

Should we keep it behind a firewall?

Now, we're seeing so many places, with three kids,
I'm so grateful for all of the companies who have made
their educational content broadly
available for people who are now homeschooling.

So we're seeing the democratization
of educational content right now,
which is super exciting.

We saw the same thing and we continue
to see the same thing in computing technology.

So to me, as we think about what happened with technology,
generally, there are two big takeaways from that.

One, and, again, this is probably no surprise to anybody,
the pace of technology changes
increasing rapidly and everything
points toward that's going to continue to actually grow.

So I joked about,
we used to measure generations
from a technology standpoint and
in fact from a people standpoint
because the impact of technology has

such a big impact on how we think about generations from a behavior and norms standpoint, used to be measured in chunks of 50-70 years.

Now, they're being measured in chunks of annual, every couple years generations moving.

So that technology pace is going really quickly.

Just as we saw with

developing computing power initially to solve the problem of counting people, we're now using it to be able to do banking from our hand and be able to live and continue to do our lives while we're in quarantine.

The power of technology absolutely fits well beyond its intended use.

So we have very few things to the world of technology that are still isolated to their intended use.

Normally, we start to get exponential power from technology when we start to see the possibilities of the other things it can do, rather than what it was purposefully built for.

So just as we've seen the impact of technology on our daily lives, we're certainly seeing it in education as well.

I think the best example of this and certainly the use of

the computing evolution has been online learning.
So you can see here,
it started out a long time ago,
just about the time we were having
that census problem where we first
started to do correspondence courses,
mailing things to students who
for whatever reason couldn't get to a physical campus.
We've evolved to TV courses,
phone-based courses where someone would
call and give you content, and then, of course,
with the advent of the Internet
and then the World Wide Web,
things really began to move quickly.
We had our first fully online courses in 1981, and then
programs started up in the mid 1990s.
We went pretty quickly when we're all in education,
so we know how slowly many things go in education.
When you think of the ramp up
of online in higher education,
it's happened pretty rapidly.
So we've moved, in fact, even in the last 15 years,
from a good majority,
we went from the first online class
in 1981 to early 2000s,
the majority of colleges
having at least one online course,

to now, we have the majority of colleges have at least one online program.

Almost all of them have online courses, at least from a hybrid standpoint.

We heard in the opening session from Korey at George Mason that they've gone from one in seven students taking online class to all students in just the last four years.

So we also see the impact as more and more institutions have embraced online education.

More and more students are now experiencing online education.

I think, as we enter the upcoming fall term at the end of the summer, we're going to see a hundred percent of schools with online offerings because we now know that it's going to be hard for students to make a decision to go to a school that doesn't have technology enabled learning now that they're needing to do their learning fully at home for a period of time. Just like general technology, we're seeing the use case of technology.

That was arguably the biggest instance of the use of technology in education.

It was originally intended for home bound students who, again, couldn't get to a physical campus.

Now, of course, we're seeing online courses being used in all different types of use cases:

for working adults,

to give them the flexibility that they need,

for students who need more time with coursework to give them that type of flexible use of technology.

We heard from Korey, again, at Mason,

they're seeing campus students take online courses,

and that is absolutely the norm.

Your average on-campus student is taking

at least one online course

during their experience there,

even while they're living on campus.

So we're now able to do

some really valuable things with technology,

reaching all types of students,

again, inside and outside the classroom.

Inside the classroom, we're using it

for scaled differentiated instruction.

So we just see all of these powerful use cases.

So again, what started as something with

a small intended use cases of people who

could not mobilize themselves to an

on-campus is now being used in a lot of ways.

I've been very lucky to be able to go see that in person.

Probably one of my favorite experiences was going to Saudi Arabia and helping to implement technology there that enables women to have access to the same quality of education as men in that country.

So we just see technology, again, breaking down a lot of access barriers in a lot of different ways.

To me, some of the most powerful ways come to life when we talk about technology that's being utilized to allow students who otherwise wouldn't be able to access educational material or educational experiences with enabling technology, which, of course, is what you all do.

So, again, technology that was made for the student who's hearing-impaired is incredibly helpful for the working mom with a sleeping baby on her chest at 10:00 PM who wants to be able to read what's happened in the video instead of listening to it out loud and so we have things.

In fact, in Scott's earlier session, he was talking about how captioning moved from an accommodation to really a core learning feature and made all students better for it.

Now, I've seen that so many times where,

especially, again,
in the world of technology for accessibility, it's
built for a particular use case and then gets expanded.
Rick at FIT this morning even talked
about their work on a sound system,
and to serve students with hearing impairments.
I love this quote, "It ended up raising the bar for
all students because they delivered this great solution."
So my reframing of the question,
this is a mouthful, the big question now.
But what we really need to understand,
I believe, because of the pace of
the change of technology and because of
the power of technology really
fitting beyond its initial intended use case,
is the question we need to ask ourselves, is not,
what will technology look like
in five years or in 10 years
because if we're honest, we don't know.
We can make some guesses,
but we really don't know because of
this explosive growth and innovation around technology,
we don't know what's going to be available.
What we can know and what we can control is,
how we position ourselves to be ready for
that rapid pace of new technology coming at us
pretty much all the time and how

we maybe even shift our mindset to look beyond original intended use or our first [inaudible 00:17:19] of use of technology to be able to see and recognize the potential of technology delivering for our learners.

So I can't tell you what technology is going to look like, but I would like to share with you next just some observations as well as a little bit of advice from my time in education about what we can and should be thinking about as educational institutions to position ourselves to do just that, to be ready to take advantage of technology and deploy it out in meaningful ways for the learners that we serve.

So I'm going to start with some common pitfalls.

Ignore my cheesiness, but I've tried to write them like *Waiting for Godot*, *Waiting for Perfection*, here in movie title format.

So I say these pitfalls with a deep amount of admiration and respect.

I spent my whole career, absent my first year out of college, in the higher education space.

I was immediately bitten by

the bug of education when I went on
my first project at
UNC Greensboro and fell in love with the mission,
and the dedication, and passion,
and focus of the people who
were serving students at that institution,
and decided that I would spend
the rest of my career in education.

So I say this with a deep amount of respect,
but I think we need to be
really open-eyed and honest about the challenges and
the things that we tend to
do on average in education that hold
us back from what we want to be able to
do to move ourselves forward.

So waiting for perfection is certainly one thing.

We're made up of a lot of academics.

We're committed to teaching and
reaching everyone all the time.

We like to think things through.

If we're honest, then in
the last session we talked about this,
we get worried about liabilities.

So we think and we think about everything.

We think about every edge case,
we plan a lot,
we spend a lot of time planning for

exceptions instead of the rule.

Oftentimes, we let perfection get in the way of starting something, figuring out what can be good, and then building on it.

As we just talked about, technology, the way it's evolving today is really meant to be thought of, have something done with it quickly, and then evolve the use cases for it over time.

Instead, we tend, at least I see on average, we tend to be stuck into a very old school methodology, even around technology, which is your traditional waterfall.

We're going to sit down and we're going to think about everything we can think about that this thing needs to do.

When we think about what we needed to do when SISs first got created. We did.

These were huge, large enterprise installations.

We had to write down every requirement and think of everything so that we could set all those business rules at the beginning.

Technology just doesn't work like that anymore.

It doesn't need to work like that anymore, but we're still working like that as education institutions.

I'm trying to get perfect defined before
we take a step forward with technology.

Then we have, this is often called analysis paralysis,
probably a common term to most folks.

The next thing I see a lot is Death by Consensus.

I think we've all been there.

We talked for months and months because we
have to not just get everybody's perspective on things,
but we have to get everybody to agree on something.

That's often very hard to do.

Now, I say that, in education,

I think we understand a lot more than
many folks, which is so important,
and we value the benefit of multiple perspective.

We know it's incredibly important and it is,
but we often take this beyond gathering
the perspectives and allow
ourselves to fall into the trap of thinking,
we don't just value
all those different perspectives and pull them together.

We actually have to come to
a common perspective together,
which, in a way, defeats the purpose of
the multiple perspectives on problems.

So we study things a lot and we
focus on that agreement
instead of just the meaningful engagement.

But, of course, as probably a lot of you know,
if you're working with technology,
technology doesn't work like that.

It's not scientific.

There's not one right answer that everybody has
to come to around something.

The spectrum of experiences that we can
provide and the capabilities we can enable,
in fact, are really hard to know until we start
getting in and doing
something and seeing something in action.

So again, this process of trying to get everybody
to one common right answer
usually doesn't work in education.

Maybe even the most important point,
if we wait too long to define something to decide it,
the technology will have moved and it'll be a moot point.

So I've seen this happen many
times where somebody sits down,
spends so much time analyzing
whether something is a fit or how it should work
that by the time they're done with that,
the thing has changed or evolved
so much that they almost have to do it again,
which is a real problem.

We love a pilot.

Nothing wrong with starting small.

I'm a big fan of starting somewhere,
and I'll talk about that in a minute.
But we tend to think pilot and not beta.
We tend to think, "All right,
we'll do all of this thinking and
all of this work and we'll
define a pilot and then we'll do the pilot,
and we don't get ready to do what's after the pilot.
Then again, by the time the pilot's over and we start
trying to create through
consensus and analysis paralysis,
a plan for the next step,
again, a lot has changed with the technology.
I've seen many times where people have to
just run a second pilot
because things have shifted so much.
So I think that's a pitfall that we have.
Then the last one is what I'll call Equity Blinders.
I don't mean them really from
a pure accessibility standpoint, but that education,
it's incredibly important to us
and it always should be that we serve
everyone and that we serve everyone equally.
But sometimes, that causes
us to go to a lowest common denominator
or it causes us, again,
to really try to think through

everything before we get started.

Again, this morning heard some powerful examples of starting with a small use case and then growing it and how that was highly effective in education.

So I think we tend to think of equity as just super near term, like we've got to do something and it's got to hit everybody in the same way right away.

As opposed to thinking about the way technology really works is, we want to get everybody to a certain point at a certain point in time and we're going to help more people in more ways if we let it go out that way than if we try to figure out how to serve everybody at the same exact time, at the same level.

So those are my perspectives on just these poor primary pitfalls that I see out there.

Before we move on to talking about what we could and should be doing about them and to get to a different place, I wanted to do a quick poll for you all around which of these you've experienced.

Maybe Scott will tell me, are we doing the poll just in the chat?

Yes, we'll just do that in the chat.

Yes. Okay, awesome.

So I see in all of them already,

thanks, Rose, waiting for perfection. It's super common.

They're all, I think, fairly common,

all four, yeah, death by consensus.

All of the above, not surprised.

So probably a lot of all of the above.

So let's move, certainly

keep [inaudible 00:25:15] in there on the chat.

Great, yeah, this will be good for us to see afterwards

is how prevalent are some of these.

Looks like a lot of them.

So what we can and should do,

and so we want to share with you, again,

hopefully very quickly, I know we started a little late,

but we're already at 12:30,

my perspectives on the four key things.

So why don't we just move right to

the next slide and we'll start talking about them.

So one of the biggest things: have a process,

a clearly defined process.

My big recommendation is a process that's inclusive,

that scratches that itch and

that knowledge that we all have,

that if we get multiple perspectives,

we'll end up in a better place.

So it should be highly inclusive with regards to input,
but very narrow and very clear on decision-making.

So there's a big difference between getting
perspectives and trying to come to a common perspective.

So have a process that includes a lot of people,
more people than you want to include,
even though you want to go fast.

I call it going slow to go fast.

The more perspectives you get in
the beginning and the more
inclusive you are in that process,
the easier it will be to get buy in later on,
and the better your overall view
in order to inform decision-making will be.

But you should have a very narrow and very clear path
on how decisions are made.

It should be as tight as it
possibly can be from a standpoint of who are
the absolute key stakeholders that need
to be included in making this decision.

Then you'll have a broader group
of the key stakeholders who
need to understand why the decision was made,
how it was made, and what it means for them.

Then just get started.

This is the biggest thing.

It's so easy to get paralyzed

around trying to boil the ocean.

So don't try to do everything at once.

Pick the norm or pick an edge case.

You can start in two very different ways.

You can say, "I'm going to go for the rule instead of the exception," or you could say,

"I'm going to go for a particular exception for which this is most important."

Of course, this happens a lot and should happen with technology focused on student accessibility, which is, "I'm going to serve those students who are not being served in today's world first, and then I'm going to figure out how it expands out to the broader population."

So again, depending on what you're doing, one approach, starting with the rule versus the exception, versus the other will be the right approach.

In your world, most likely, it's the edge case first.

I call it edge case, but it's a very substantive, very strategically important use case, and then figure out how you can broaden that out to raise the bar for all of your students.

Know what's most important and set yourself up to discover it.

So especially when you start narrow, so I'm going to start with this case, but you should be starting with an end in mind of,

"I do want to eventually have
this technology work for
more people or work in more use cases,"
and there will be very concrete things you want to
discover along the way to help you know how to do that.

So it's the same thing as,

"I'm going to kick the tires at the beginning."

So what am I going to do initially with
the human-based work around that
eventually I want to automate with this technology?

Maybe I'm going to serve these type
of students in use case

and I'm going to do something else from
an equity standpoint for other people,
and I'm going to do it manually
until I can get it into the system.

But knowing those things,
what you need to learn about either how to scale
the technology or how to bring it to other use cases,
you should plot that out ahead of time,
and you should set
a little marker out for
yourselves of when you need to know that.

Then finally, time-box it.

Figure out what a reasonable amount of time
is to know what you need to know in
order to broaden the use of

technology and then stick to that timeline.

Or we've all seen this too:

betas become two or three years,

and then again,

things have moved on as you've been in that process.

So have a plan with narrow decision-making.

Just get started; don't paralyze yourself.

Probably the biggest takeaway would be

don't be afraid to start,

and then start small, but think big.

So plan to succeed. Say,

"Okay, I'm going to pick this use case,

but I'm going to expect that it's going to work."

I think this is, again, something like

a hangover from the way that technology used to be built

is we had these big honking systems

and we had to be really

sure it was absolutely right for us before we spent

millions and millions of dollars

in two years implementing it.

Now, we have fairly agile technology.

We have a lot of innovations coming out quickly.

You can be just relatively

sure that something's going to work for you.

If you start small,

you limit the risk of the fact that it

doesn't work because obviously,

you're not going to choose something that will be harmful to people.

So the question is, does it help as much as you thought it would?

But you can just start quickly and then learn along the way.

But you should always be planning that it's going to work.

I'm going to plan that it's going to succeed.

I love the fact that many of these themes actually came out in our opening sessions when we heard from the several institutions who are really doing things right with respect to inclusive education.

We heard from Mark at Virginia Tech about these bite-sized campaigns.

So how do I get faculty really engaged in helping without feeling overwhelmed?

Well, I start with these bite-sized campaigns.

I pick one particular thing, give them a campaign around it, allow them and us to experience success, and then we build the next one.

So I thought that was a great example of this start small, but plan to grow.

Rick from FIT talked about

how they design things accessible first.

I loved it. I hear a lot about mobile first.

But because they took an accessible first approach

to that sound system,

they had such thoughtful design that it was

actually really easy for them to

then apply it to a lot of

other learners and help a lot of other people with it.

So again, starting with that end in mind

of we're not going to shortcut because we're

only doing this for a small number of students.

Even though we see a narrow use case,

we're going to plan that it's going to

work for a lot of other people,

and so we're going to be really

thoughtful in how we start it.

Then finally, and this is a little more

just from a resourcing standpoint,

I think one shift that has started to take place,

and certainly, we're seeing it with

institutions who are doing really well with

rapid adoption of highly useful technology,

is that they've changed a little bit

the landscape of who they have and how they hire.

To me, the top two things are:

you need project managers and project managers

who understand stakeholder engagement,

decision-making processes,
and agile technology implementation.

These are somewhat new if we think about
the last 10 years in education,
but people who know how to plan
for quick implementation and
rapid evolution of technology are critical.

Then I would say hire for agility.

So we're moving from a world where we were
hiring both in the IT space,
but really in the operations space.

Again, when all we were doing
was large SIS technologies,
we could hire somebody who was expert
in a particular coding field,
and that was what we needed.

Now, we don't need experts in
particular technology stacks or in particular systems.

What we need is people who are agile,
who have an ability to learn
new things quickly and apply them,
and people who are able to manage
rapid moving projects for
us in a cross-institutional way.

These to me are some of
the most important skill sets for being able to
take advantage of a rapidly evolving

technology that, again,
is going to be useful for your institution,
not just for what you initially think it's useful,
but in a lot of ways moving forward.

Finally, would just say that
everybody has a role then in this.

So you can think of a role of administration in
senior leadership in helping to
drive that decision-making process,
all the way to the role of the IT teams to
be hiring for the right people and to have
agile and growth mindsets in
place within their team so that they're ready to move,
and, of course, everybody also
just on the front lines that are student-facing.

So I will wrap it up there.

I know, again, we're over
our allotted time given that we started late,
but it's been great talking with you all and
we still have a bunch of people on.

So I'm definitely happy
to take questions if people have any.

Please feel free to put your questions in
the Q&A option that you have in your course menu.

I do see one statement I would like to share.

This person said, "An entire session on death by
consensus would be a good

follow-up webinar for higher-ed."

I agree. Yeah. There's a lot of best practices out there about how you move away from a culture of that to a different culture of more rapid decision-making and inclusive perspective building.

There was a question about if the session is recorded and will you be able to have access to it afterwards?

Yes. There will be an e-mail sent out to all of the participants with access to the recording.

Any other questions?

Well, fantastic.

Well, first of all, Katie, I would love to say thank you so much for being our keynote speaker and wrapping up our very first Verbit Virtual Summit.

This was quite exciting, quite an opportunity for us all to get together.

While we know that we're not able to get together in a physical location, we've had the opportunity to meet remotely.

So again, thank you to all of you participants that have joined us throughout today's session.

We will be sending an e-mail out to all of our participants that signed up with a link to all of the sessions.

So you'll be able to go back and to

review and to also share those sessions with other colleagues that you have at your institutions that might not have been able to join us here today.

So again, thank you.

Enjoy the rest of your day.