

THE ROLE OF TECHNOLOGY IN
EDUCATION IN 2021 AND BEYOND

EDU TECHNOLOGY LEADERSHIP PANEL Q&A



Michael Berman

Chief Information Officer
California State University



Michael Marassa

Chief Technology Officer
New Trier High School District



Terry Godwaldt

Founder/Executive Director
The Center for Global Education



Doug Reid

Chief Technology Officer
Ableby College



Lianne Castelino

Director of Marketing
St. Michael's College School

Q: How has video conferencing technology helped higher education get through the school year? And what challenges have you faced with virtual education?

A: Michael Berman The short answer is we couldn't have completed the school year without the use of technology. Many of our campuses had already moved to a model of mobile equipment to ensure that our faculty and staff had a good camera and a microphone for their environment. It wasn't universal, but a very high percentage of our campuses were already well down the road to virtual education. The fact that we already had 500,000 licenses for Zoom meant that we were able to pivot very quickly. All of our campuses were given two to four days to move to online instruction. And we saw that in spring 2020, our completion rates for our students were higher than the previous spring. We were already doing a lot of work to make that happen, but the fact that despite the pandemic's huge impact on everyone, we were still able to complete the year, and that is amazing. And the tools from Logitech were certainly a part of that story.

Q: How did video collaboration and virtual education work in the K-12 public school?

A: Michael Marassa We knew that our teachers were going to face a hybrid learning format, and that is completely new to K-12 educators. So, we wanted to find a solution that was going to provide the ability for remote students on a Zoom session to see what was going on in the classroom, not just the teacher's face. It's also important that classroom communication can go on seamlessly, so the kids in class weren't just sitting

on their mobile devices with earbuds in. We wanted it to feel like a natural, human experience like you would normally get in the classroom. So, we met with a third-party vendor that talked to us about all the different technologies that would meet these needs. We landed on the Logitech Rally system, which comes with speakers, mic pods, and a camera. We threw the camera on a tripod, so a teacher could capture a demonstration, a conversation, and students in the classroom, and a whiteboard. The teacher could of course share their screen, but we wanted to facilitate conversations between the teacher and students at home. We wanted that to work seamlessly, and we needed a solution that was going to be easy, because as anyone knows, there is a whole paradigm of readiness when using a technology tool, and this was super plug-and-play. You plug it into your device, and it just runs. There's no feedback. There are no issues of echoing, and it really became a solid solution. Teachers were stopping me in the hallway to talk about how much this tool helped them make the jump into this new arena of hybrid learning. It was really a valuable investment.

Q: How has video collaboration worked in the private school setting, and how are you using technology as a strategy to attract and retain students in your school?

A: Lianne Castelino The video conferencing solutions provided by Logitech unequivocally enabled hybrid learning and hybrid teaching to take place at St. Michael's. The school installed a camera at the back of each classroom, high-end audio equipment, a monitor, and microphones in the ceiling. And that allowed

students learning online to actually participate as if they were in the classroom, even though they weren't. They weren't merely observers of the class, but actual participants, which I think is really key. It really did enable the school to continue with the curriculum uninterrupted. The other interesting thing with the video conferencing equipment is access. When the pandemic first struck, the school was in the second week of its March break, and there were actually several students who became trapped in foreign countries and still have not been able to leave, so they have been learning remotely all this time. That is entirely enabled by the video conferencing solution. St. Michael's has 1000 students, and every day 500 of them are learning in class, and the other 500 are learning online. Video conferencing has also allowed teachers to really explore and take their creativity to another level while providing unique learning experiences for students. For example, the former Canadian Prime Minister was able to join a political club meeting, thanks to video conferencing equipment, and in Italian class, students were able to improve by watching a chef prepare a recipe from his home in Rome, Italy. Again, one of the gifts of the video conferencing equipment. Video technology has also allowed the school to hone into other aspects of school life, like extracurricular activities and clubs. While they looked a bit different because they weren't in person, they were still allowed to continue online. It's so important for children, and in this case, boys, between 12 and 17 years old, to have the familiarity of routines and schedules when everything else in the world is unpredictable. But because our students were allowed to tap into the classroom online, it really did make all the difference.

Q: How are you applying your innovative teaching methods in hybrid and remote education settings? And how has it expanded accessibility for students?

A: Terry Godwaldt The shift to virtual learning has given our teachers the skills and technology to make extraordinary opportunities ordinary. In the beginning students wondered if classes were even going to happen, but they walk into a class now and wonder when. Moving the extraordinary to ordinary. Basically, taking experiences that would have been extraordinary and making them an expectation and a possibility for all classrooms. Recently we brought together over 43 countries, thousands of students, and gave them the opportunity to work together online by sharing, writing, and blogging from home or from school. They synthesized all of their ideas and presented a carbon mitigation plan to the Director of Mitigation Uses for the UN. He's essentially the director of carbon mitigation for the planet, and so here are these students who had the opportunity to present their plan to the individual who

has the ability to implement it. On Global Dignity Day back in November, students had the opportunity to connect from all over the planet and create live music together and perform for the prince of Norway's keyboardist and all of these professional musicians. So now something that would have cost \$10,000 is brought into a kid's home for sixty bucks. When we come out of the pandemic, we will have the skills and technology to break down the barriers of education and help us move forward as a planet.

Q: How can we ensure that video collaboration technology is actually easy for teachers to use, and how do you make educators feel comfortable with video in their classrooms?

A: Doug Reid Thinking back to last March, which seems like so long ago now, I think one of the first things that we learned, and what we now recommend, is to find a video collaboration equipment provider that offers the ability to really prototype, whether with a company like Logitech and their partners or someone else, it was really about the ability to test things out with faculty members and students. That made a tremendous difference, and we were able to really get a feel for what it's like to be in a classroom remotely, what it's like to engage with someone from that perspective. We had tremendous comfort with the reliability of the solution, and we really took on a user-centric approach in terms of what it's like when you come into a classroom where you have to consider those people in the room who are physically distanced, those people who are coming in from different time zones. It could be overwhelming for a teacher, so we find the Logitech Tap unit, the control box for the room, to be a really tremendous addition in terms of simplicity. Like the ability just to walk into that room to see that your class has been pre-scheduled, and really, the teacher just has to click "start meeting" to start that class. I think it pushes technology to the background, and hopefully those relationships come forward. Simplicity has been a huge driver for us.

Q: How have you implemented these hybrid classrooms at scale, and how do you make everyone comfortable with the incredible variation of environments?

A: Michael Berman The art to it is pushing as many decisions as close to the classroom as possible. So, we do have hundreds of specialists all over the state of California who are working directly with faculty and facilities folks on these types of issues, but we also try very hard to figure out where we can aggregate our demand for purchasing purposes. I know in the last spring and summer, we were all facing a lot of challenges with supply chain and getting cameras and getting headsets and so forth. And you know that that's certainly where we have

an advantage to kind of come in and say, we know they're hard to find right now, but we're not looking for 20 headsets, we're looking for 20,000, how can you help us? It does tend to get attention. So, we try to do that. But we do try to make sure that a lot of those decisions are made directly with the faculty and the people who work with the students.

Q: How are you using technology to attract students to your school?

A: Lianne Castelino Continuous and uninterrupted learning, student engagement, and hopefully student success are all things that parents consider when looking into an independent school. The fact of the matter is, it's obviously an investment, and parents want to know what you're doing today, but they also want to know that what you have in place today is going to be sustainable for the next three, four or five years, because when you're talking to them, you're ideally looking at the length of time that their son will attend school. The other piece that's on a lot of prospective parents' minds these days is what else your school offers outside of academics, so at St. Michael's College School, we talk about the mind, body, and spirit in terms of clubs, activities, and wellness, and those important pieces that contribute to the formation of the whole child are really important considerations for a lot of parents. In tandem with that, I think it is the ability to demonstrate nimbleness, agility, and ultimately resilience that the students hopefully can learn, which is certainly a global competency moving forward. And the ability to learn or think critically, problem solve, and collaborate, these are all skills that are going to be required for the jobs of tomorrow, many of which don't even exist yet. Parents want to know what you are doing in that realm. The books and everything that's part of the curriculum is great, but how are you driving that forward and making it relevant and engaging for their children now, but also into the future?

Q: What are you planning for the next school year? What's changing, and how are you preparing for that?

A: Lianne Castelino The planning is underway, and we have learned a lot of lessons this last year. We are looking at what the school day is going to look like, so there could be some changes to scheduling and the number of courses, but I think that the technology enhancements have been so impactful, meaningful, and instrumental in augmenting the learning that we're going to continue to see that grow, and I say this as a champion of innovation and technology, and I think part of this discussion really is about the students. We're talking about Generation Z, for

the most part, so children 25 years-old and under. These are people who have grown up with technology. They don't know life without it. The fact is, they have always lived in a globalized world, so they understand a lot of these concepts that may be new for people in another generation—understanding technology and being nimble and agile with it. I don't think is a hard sell for a lot of the students in this age group, and also a lot of them have millennial parents, parents 40 years of age and under who also have a deeper appreciation and understanding of the power of technology and what it can do in terms of learning.

A: Michael Marassa We knew that these changes were needed to support students, and so changes that would typically take multiple years to get through committees and pilots were embraced immediately. The classroom of the future is here today, and we're incorporating that into our construction plans for new classrooms, so these types of systems are becoming the standard because we anticipate distance learning will become an option for many students or when the weather gets really bad and schools would traditionally close our educators and students will be able to leverage these kinds of tools so that the learning can continue. We're also looking for alternatives for students who might not be able to access our curriculum in person as a part of our overall strategic plan.

A: Michael Berman We are finding that the student's background also makes a big difference in how well this new format works. We have so many students who come from very impoverished backgrounds who are the first in their families to go to college, and so on the one hand, we have students who come in owning 10 devices and having had a cell phone since they were six years old, and then we have other students who might have shared one cell phone between eight people in a family. We've got that entire spectrum so one of the challenges we're also facing is just the range of preparedness in our students in terms of their access to and experience with technology. It's really challenging, and the events of the last year have just brought that to the fore front. When so many services and so much of education was predicated on face-to-face contact, this gap wasn't as obvious, but once technology became our primary mode of connection, that ability to connect, to have bandwidth in your home, to have the right kind of device— it really put things in stark contrast. Looking ahead to the fall we're taking a much more proactive approach to ensuring that every student has the tools they need to succeed.

A: Doug Reid In terms of preparing to come back to campus, there'll be more emphasis on what it means to be physically together again even if it's distanced in a

classroom. The hope is that the exciting opportunities that have opened up with virtual learning continue to happen in a physical classroom. So I think going forward, there will be more of a premium placed in terms of the intentionality beyond what it's like to be in a physical space because we've taken it for granted, and I think coming back together with technology there will be more emphasis on making these experiences better than they were before.

A: Terry Godwaldt This technology revolution has been amazing, but I think there are factors we need to keep in mind. Right now, teachers are drinking from the firehose. They're just barely staying alive, and they're doing everything they can to provide access to education to as many students as they possibly can, and so they're not necessarily ready to take these Ferrari's out on the highway. But, as we roll into next year, I think we're going to have a whole crew of teachers who are equipped with the skills, technology, and students to do something exceptional. In the midst of this we need to remember that we are going to see an increased digital divide and unless we acknowledge that divide and unless we are proactive to address it, we risk losing more students. So, I think that we need to think about hard questions in our public post-secondary or public secondary and independent schools. We need to think about the students that are not in our classes, who does not have their screen on, because who knows what's going on in their home. How are we equipping our teachers to deal with this reality that they're zooming into some very challenging situations? We have a lot of serious questions we need to address around educator mental health, around student mental health, and ultimately around that digital divide which is amplified because we have this technology.

Q: What changes that have been implemented during the pandemic will become permanent moving forward?

A: Terry Godwaldt We will never go back to a classroom that is restricted by a textbook. With technology added to the curriculum, students can connect with people around the world and maybe even enact real change. Technology enables experiences that change kids' lives, and I think that's the excitement on the horizon that we have going into this next year.

A: Michael Marassa I think that there has been a loss that I'm not sure we're going to recover, and that is the piece of educator and student mental health. There are aspects of what was just natural in schools in learning and in classrooms that feels very different now. We've been in-person with students coming into class since November, and it's taken some people time to adjust to that, and we have some adults and some kids who are

just not comfortable with coming into contact with people, and so I think it will be difficult to get that relationship between teachers and students back to what it was, and those real meaningful learning experiences, it's difficult when you do it through Zoom. It's difficult to be there, to sit with a kid and help them through whatever academic or personal thing that they're going through. There are just amazing things that can happen in a classroom when you have a full set of kids, and it's just not the same when you have some kids that are on Zoom, and I think that's one of the last things that we may not get back, and we may lose some good educators who may decide "you know what, I can't do this anymore, I need to take care of my own personal health." They're just not in a place where they can go out in public and be around people anymore which is a sad loss for the whole education community.

A: Lianne Castelino The pandemic has irrevocably impacted education, and I think that can only be a good thing. We're no longer looking at teachers as the sole holders of education, they are more co-collaborators and co-designers of education, which I think is key because the fact is, you can pick up a device and get the answer to your question in nanoseconds. You don't necessarily need to be in a classroom to learn, and I think that is exciting. I also think because so many people have been forced to adopt things that never believed they could because of the pandemic, and that could mean that people are more willing to embrace change and try new things and be more of the mindset that technology can be your friend, and I think that's an important message because it speaks to the constant redesigning, rethinking, and refining of learning and teaching, and continuous improvement can only be a benefit to everyone.

Q: What are you most looking forward to in 2021?

A: Michael Berman I'm really looking forward to a more informed conversation about how we meet student needs with technology. I think that so many of our faculty and staff have been forced to change the way they work this year. They've had to learn so much in order to do that. And I'm not saying that everybody now becomes a proponent of using technology for everything and some people are going to say, "okay, I lived through that, and I never want to do anything like it again, I want to be back sitting with eight people in a room and our books open." And that's fine, because there's absolutely value in that. But I also have talked personally to many instructors that have said, "I never really got the online thing, I never really wanted to do it. And, wow, now that I've been through it, I never, ever want to go back to the

classroom. I think this is better.” And I've heard that from a number of faculty. So it's on both sides. But the critical mass, we've talked for years about when we're going to hit the tipping point, and when we're going to hit the critical mass where it's commonplace for faculty to understand how to do technology enhanced or technology enabled teaching? We're there now. And I think we can have much more informed conversations and much less of “It's just not for me, I don't want to talk about it.” So, I'm looking forward to that.

A: Doug Reid I think I'm looking forward to what's next. I think we've raised the bar in terms of expectations. I think people have seen a little bit behind the curtain of what education is, what it's like to be in a classroom. And I think the expectations will probably get higher in terms of, if we're going to be together physically, then hopefully, interactions will be more meaningful. Hopefully we can bring in these tremendous global experiences where we're actually working on real problems rather than theory. So I think the more we can tweak the use of this technology, the more effective the classroom can be. Hopefully video collaboration in education will be more of a choice in terms of pathways and experiences, and hopefully, the education providers can respond to that in terms of passion for people to really craft their own kind of learning experience. And I think if we respond to that there'll be a tremendous uptake.

A: Terry Godwaldt I think that our teachers have done a Herculean task to transition in the way that they have. This year has been about survival, for many. Next year is going to be, okay you know what, I now have this Ferrari sitting in my driveway. I've kind of cruised around the block. I know there's a highway out there, the Grand Canyon, just down the street, I want to go, and I think that if we as education leaders train our teachers—just because the Ferrari is in the driveway, it doesn't mean that we know how to use it on the highway—we need to train them. I have been involved in technology for a long time, I've seen a lot of technology make its way back to the closet. What we need to do is empower and train our teachers, and then provide those opportunities. We need to make sure that we reach out and make sure that teachers are ready for it.

A: Michael Marassa I think the thing that I'm most excited about is that teachers have really embraced new tools and new resources because they were forced to, because of the pandemic. And some of them we talked about today, but there is a whole set of resources and tools to engage our students in real world experiences

and real-world questions and when you have a room of brilliant educators that will collaborate and share information about how they're engaging students with these new tools, I think again, we're on the forefront of an exciting time with educational technology, and how it's going to be used to raise the bar for our students' knowledge and experiences.

A: Lianne Castelino I'm looking forward to expanding digital connectivity and decreasing the digital divide. These things absolutely have to be prioritized. I'm also really looking forward to the use of AI in creating personalized, customized experiences for the student. I think that's really powerful. Let's say everyone in a classroom has their own device, how can they communicate in that classroom in a seamless way that's customized and personalized? Add that to the discourse of the classroom, and I think the potential is incredibly exciting. And with open-source technologies—the sky's the limit, right? So, what do we have to look forward to in that space? As somebody who just loves this stuff, I look forward to what's next. And again, really driving creativity and driving new ways of learning and new ways of teaching is really at the core of all that enabled by technology.

Q: How do public schools fund technology? And how do you plan for that? Is it in your budget? Do you go through grants? How do you plan for the future around supporting this technology purchase?

A: Michael Marassa We knew that, during this point in time, we were going to need to use money outside of the budget. So we had some conversations at the leadership level to plan for some contingency, and set some funding aside to just take care of that. But to me, it's really about long-term strategic planning. So it's really about laying out a map, a roadmap of what you envision from engaging the proper stakeholders all the way down to the classroom level, and the students and the parents all the way up to the senior leadership level so that they understand the direction you're going and what resources are going to be needed to accomplish that. Making sure everyone's on the same page. It's just putting together a plan and effective communication skills that are critical.

A: Michael Berman It's challenging because, on the one hand, it's brought into stark relief how critical technology is, and certainly there's been a huge expenditure on technology. Some of that's been driven by federal stimulus money in our environment. But these aren't

one-time costs, you can't just buy a lot of technology, and then you're done. And while I think our leaders know that, in theory, it's very hard to adjust when there has been a model of projects and investments like constructing a new building, right now we've got some money, let's buy some technology. And then we don't have to worry about that for 10 years. And we know that's not the case. These are ongoing costs, and they're greater than before. And it's going to be a long-term process. But I think the good news is that a lot of our leaders and in my case, as a public institution, including at the state level, they understand, but they're still challenged, because there are so many needs for everything from health care, to roads, to K-12 schools versus higher education schools, I always say versus because there's only so much funding. And it's really tough. It's going to take many years to shake out; it's not going to happen quickly.

Q: How do you provide teachers with the training they need to use this new technology? How do you get teachers comfortable?

A: Doug Reid I think one of the key things is to try to simplify, and it sounds so easy to do. But if you can simplify the technology that's in the classroom and make that as intuitive and straightforward as possible for the teacher to use, hopefully your training needs actually go down. So, if you've taken those steps beforehand to understand the issue and try to account for things like great audio, which is so important in a remote setting, I think that diminishes the need for training. Obviously, there's still a tremendous need to support teachers and help them along the way. But I also think they've learned a tremendous amount and to some extent we need to get out of their way. There's an element of showcasing that now and letting those teachers lead the way.

A: Michael Marassa I think there's certainly power when some of your own teaching staff that can provide that training. We've really tried to leverage that through the use of video. We have all seen what YouTube can do to teach you a new skill, whether it's a cooking skill, or fixing something in your home, just to be resourceful. And the same thing happens in the area of educational technology. When we were rolling out our Logitech camera system, I had a team work with some teachers, we put together four short, two-minute clips demonstrating how to use the system that became super-efficient for our teaching staff to become comfortable with using it. I think the power of video in

that forum is really good.

A: Terry Godwaldt I remember going at this 10 years ago, where we would wheel in these massive video conferencing systems and you had to talk about portals and ports and firewalls, we didn't even connect without a test. And now we're at the point where with Logitech technology, we'll send it out on a shipment, students will open it, they'll connect it to the computer. And the next thing you know these teachers are connected to the world. I am so incredibly excited about the potential to really do something different to democratize access, and to open those opportunities to all students because it's not just in North America that this is happening. But this is happening all across the planet.