

# Transcript

[0:01] (music)

**Derek Bruff:** [0:05] This is Leading Lines. I'm Derek Bruff. This is a podcast about educational technology in higher ed. One of our goals is to understand and perhaps shape the future of educational technology in college and university settings. As I record this from my living room in late March 2020, as I and all of my colleagues are social distancing, most institutions of higher education in the US and around the world have closed their campuses in response to the coronavirus pandemic. And in most cases, those institutions have shifted the entirety of their instruction to online and other alternative methods. In the next few episodes of Leading Lines, we're going to explore what this means for higher education, both in the short-term, as faculty and other instructors find practical ways to navigate this transition to remote teaching and learning. And also in the long-term, considering how educational technology and indeed all of higher education might change, in response to what's happening here in 2020. To help us understand that longer-term impact, I reached out to one of my favorite futurists, Bryan Alexander. I've actually wanted to have Bryan on the podcast for a while now, and I'm glad he was willing and able to jump online for an interview on short notice. Bryan has a PhD in English Language and Literature from the University of Michigan. And he taught for a number of years at Centenary College in Louisiana. From 2002 to 2014, Bryan worked with The National Institute for Technology in Liberal Education, or NITEL, a non-profit working to help small colleges and universities integrate digital technologies. It was during that time that I connected with Bryan through his blog and his Twitter presence, finding a kindred soul interested in understanding how technology might enhance and change teaching and learning in higher ed. These days, Bryan is a futurist, a researcher, writer, speaker, consultant, teacher, and a senior scholar at Georgetown University. His latest book, *Academia Next: The Futures of Higher Education*, was published by Johns Hopkins University Press earlier this year. Bryan and I had a wide ranging conversation on futurism, higher education's current pivot to online teaching and some ways to think about the potential long-term impact of the coronavirus pandemic. As you'll hear,

Bryan is informed, insightful, and compassionate, and I'm glad to share our conversation here on the podcast. (music)

**Derek:** [2:34] Bryan, thank you so much for being on Leading Lines during these strange times that we find ourselves in. I've been looking forward to having you on the podcast, actually, for quite some time. I'm glad we get to connect here today.

**Bryan:** [2:45] Me too. It was a pleasure having you as a guest on the Future Trends Forum, a couple of weeks ago.

**Derek:** [2:51] I enjoyed that thoroughly. And actually, your name came up recently. I was having a conversation with someone, who was making the argument that you can't kind of create meaningful relationships in fully online environments. And I thought, well, I feel like Bryan and I are colleagues. We've never met in person, but we've known each other online, through Twitter and other means, for probably a decade or so.

**Bryan:** [3:13] I agree. I think back in the 1990s, in the mid 1990s, shortly after the inception of the web, there was a lot of discussion about that. Are virtual communities real? Are online friendships real? I still hear echoes of that now, but I think largely that's been debunked simply because of historical evidence, the huge migration of people online, the rise of all kinds of online developments. You know, I've mourned people who I've never met who died online, as far back as 1999. And I think the tools have just gotten better and more proliferated and just easier to use too.

**Derek:** [3:53] Well, I would agree and I, and I think it's been really valuable, the connections I've made with folks I've never met in person. I do hope to meet you in person one day.

**Bryan:** [4:04] Indeed and we shall. Not right now.

**Derek:** [4:06] Not right now. It's hard to meet anyone in person right now. Let me ask a question, though, that maybe goes back a little further. Can you tell us about a time you realized you wanted to be an educator?

**Bryan:** [4:20] Yeah. It came to me when I was around 20 and it came to me as a big surprise because when I was in elementary school, junior high and high school, I really hated

school. I had a terrible experience, most of the time, and I wanted to get out, as most kids did, but I really just never saw myself going back to education. But then when I went to university, I went to University of Michigan, it totally reversed my brain. I was blown away by the sheer richness of ideas and learning, the people I met, everything from students to faculty. And I think some of the professors really inspired me just by being fantastic instructors. And one of them was in literature, Eric Rabkin and one of them was in history, John Fine. And they both just delighted me. Just sent my brain a light. And I found that I kind of wanted to do that. And then for both classes, I helped organize study sessions. And I found that that was really rewarding. That was very sweet to do. And I thought, "Oh, I can do this." And I just really, it felt really satisfying. And then I think I wanted to recapture that kind of great, great environment. And I wanted to bring that back.

**Derek:** [5:29] I have to share. I had, I think a similar experience in college. I was in, my first year of college, I was in an interdisciplinary humanities class. And we had these epic study sessions before the exams and papers where we, we tried to help each other make sense of all that we were learning. And I remember those moments of thinking, "oh, there's some sense of clarity here that I helped to create and that's really rewarding."

**Bryan:** [5:53] That clarity is immense. When I started grad school, the dean of the graduate program said, "Oftentimes you're going to find yourself mentally in a big thicket, lost in the woods, but every so often you'll stumble upon a clearing and it'll all make sense," and I really like that. But for me, the real delight is helping somebody else see that. When the light bulb goes on over their head, when they say, "oh," when they make a connection that they hadn't seen before, I don't think anything in the world does that.

**Derek:** [6:24] Yeah. Yeah. And you're still doing a version of that, I think as a futurist. What is a futurist and what are some of the methods that you use as a futurist to make sense of the future?

**Bryan:** [6:37] Sure, a futurist is somebody who helps people think more effectively, more creatively, more strategically, more usefully about the future. As a profession, it dates back to the 1960s, although we can find antecedents going back centuries. And now it's a pretty well-established field. There are multiple professional societies, professional journals, graduate programs across the US and other countries. And for me, there are a lot of methods, there are a lot of established tools you can use in the futurist toolbox. And for me, I use several. One of them is I use horizon scanning, which is a method that kind of does what it

says. You basically look at the horizon for signs of the future. But the trick here is you're looking for evidence of the future in the present, excuse me. So you're looking for objects, you're looking for movements, you're looking for symbols, things that suggest something that will come down the road. So this is evidence-based, maybe small evidence, I often think about this is looking at a seed or an acorn and trying to imagine what kind of plant, what kind of tree is going to follow from this. So that's one thing I do. I do this pretty continuously and there are a lot of methods involved in that, which we can talk about.

[7:46] But based on that, I do trend analysis. And trend analysis is when you examine a force or a movement that is reshaping your field of study. And one thing I should say is that most futurists don't look at the future of everything. They often look at one particular slice of the future's world. People might look at the future of biology, or the future of packaging, or the future of finance. I look at the future of higher education. So I look at major forces that are occurring both within and outside of higher education. So within, we can think about things like the major enrollment shift over the past 20 years that's been going on towards the sciences and certain other fields and away from the humanities. We can look outside to forces as diverse as macroeconomics, as demographics, state policy, cultural shifts, and of course, the huge impact of technology. So I track those trends and try to extrapolate them forward a bit to see what happens if this goes on. What does it look like if this trend just keeps doing what it's doing? And I can build in data and metrics for that. Third thing I do, is I generate and I share scenarios. A scenario is just a story about one future, usually based on one or two things happening. So it's not just saying, "Imagine a world where universities are enormous." I mean, it's, "Alright, well what happens if, for example, a pandemic strikes the United States?" How does that change higher education? And that's something I've written about before. Or "What happens, say if enrollment, if overall enrollment just keeps declining?" How does that change everything from curriculum to marketing, Alumni Relations development, and how trustees think about their campuses, how state governments respond. And scenarios are playful and very creative. They give participants a sense of a future that they could inhabit. So one way of using scenarios to say, "Alright, you're an educational technologist, you're a librarian, you're a professor, you're a trustee, you're a state governor. What happens to your work if this thing comes true?"

[9:53] So for example, one of the scenarios that I'm most fond of that my audiences seem to think is completely unremarkable. They just think it's true, is called the "Healthcare

Nation.” I came up with this years ago. And the idea was that what happens if the healthcare sector becomes the dominant sector of the American economy? How does that change higher education? It’s interesting to think about. I mean, you think about how different disciplines respond, how obviously allied health grows. You think about how non allied health fields try to connect with that. You think about, say, in pre-k through 12, do we have pre, pre-med programs? How does this change information technology? And so you wonder, ok, what is it like to be governor of a state in “Healthcare Nation?” How does it change your budgetary priorities? How does that change how you support higher education? If you’re a parent, how does that change parenting and thinking about your child, and so on. So I find scenarios, they’re not as rigorous or as data drenched as horizon scanning or trend analysis. But they’re much more accessible and they’re often really good just for getting people to shake up their thinking and imagine a future that’s different than the present.

**Derek:** [11:05] And I would imagine, also, to kind of see how things intersect and how kind of things are related. Once you’ve kind of start playing with these things and imagining, you start to, you start to see maybe more conceptually, how certain trends and forces are affecting each other.

**Bryan:** [11:19] Well, absolutely. I mean, this trials on your own experience, when you referred to the interdisciplinary program. Futurist is a field that is a profession, but it’s thoroughly interdisciplinary. I mean, I, in my daily round I have to dive deep into, say, the hardware around virtual reality, and what standards are being set and what happens with wireless VR. Then I have to turn to trends in unemployment and in economic inequality. And then I have to turn to trends in higher education financing. I mean, it’s a transdisciplinary field. And I think one of the pleasures of that, it gives you the chance to really expand your thinking and move across different domains. And that can be challenging at times. Academics are well-trained in our niches. And so we do want to put things in their proper pigeonhole. So futurist work can be challenging. We have to excel as communicators, in order to get everybody interested and involved.

**Derek:** [12:16] So one of the terms that I know you’ve, you’ve written and talked about, is a “black swan event”. What is a “black swan event?” And are we in the middle of one right now?

**Bryan:** [12:25] Well, it’s an interesting, it’s an interesting question. And people are debating this furiously, all kinds of ways. To back up a bit, the term “black swan event” was coined

by the statistician and financier, Nicholas Taleb, who in a book called *Black Swan*, argued for low-probability, high-impact events being important. So these are things that have very, very little chance of actually occurring, but when they do, they change an awful lot. So you can think, for example, about say, the September 11th attacks, which almost nobody foresaw. And yet when they happen, they literally change the world. Or you could think about say, the 2008 financial crash, which again, you know, going into the fall 2008, you could find easily the super majority of financial analysts say, "Things are great. Fundamentals are sound" and then bam. One side effect of black swans that people like to go back and say, "oh I knew that was coming all along." You know, they kind of like to do a little back formation there, which can be very entertaining.

[13:25] So is this a black swan? Well, yes and no. In a sense, it, was there a high probability of pandemic happening in February 2020? Well, kind of and kind of not. People in the futurist world had been a forecasting pandemics for decades. In fact, this is something that I've written about in my new book. I wrote a passage, two passages talking about how pandemic could hit higher education. And I wrote that in 2018/2019, there are multiple public documents, public simulation games theorizing this. The problem was, and this is always the curse of futurist work, because if nobody listens or if nobody takes it seriously. And it's clear that at least in the US, the Trump administration did not take it seriously. And it's possible that we will pay a very, very heavy price for that, indeed. So I think for many people that experience it, it's a black swan. But I think the situation is little more complex than that.

**Derek:** [14:24] It sounds like the black swan, kind of idea has two parts. One is big impact, which I think it's pretty clear that we're in the middle of with the coronavirus pandemic. But the other is the kind of, "Is it highly unlikely?" And that's where some of the debate is.

**Bryan:** [14:41] Highly unlikely is tricky to plan for. I lived in Louisiana and taught in Louisiana for a while, and it was really obvious to everybody that at some point a giant storm was going to swamp New Orleans. And the state of Louisiana and the city of New Orleans really didn't do much to prepare for a long time. And one of the reasons was a lot of political actors just made the calculation. Is this going to happen during my term? The odds are against it. So why should I go out on a limb? And it's also, Louisiana is a very poor state in public funding and New Orleans is a poor city, poorer now. So it's hard to make that case. I lived in a small town in Vermont for a while. And our town invested in basically an elaborate construction project to protect the town from the river that runs through the heart of the

town. And our argument was this is a century flood protection, once every 100 years where you get that kind of flood. The flood happened two years later. So we were, we were very, in a sense, very fortunate. The construction really saved the day.

[15:48] But it's hard for university do this, especially when there's so many, much more certain demands that have to be met. And this ties into some of the problems that I talk about in my book, that higher education since 2008, especially since 2012, has really been suffering kind of ratcheting up of pressures of all sorts. And that makes it very difficult to plan, very difficult to allocate resources. In many ways, just difficult to think creatively about how to respond.

**Derek:** [16:15] I'm curious because the 100-year flood is a nice example for my mathematical brain because, you know, it's a rare event until it happens and then it's happened, right? And so then you kind of have to recalibrate all your priors. How does a futurist react to a situation like now where we're getting a lot of new information about this highly impactful event? Is there some kind of Bayesian thing that you do to kind of recalibrate?

**Bryan:** [16:47] (laughs) In a sense, with Bayesian logic or not. One of the things that we do, is we continue our environmental scanning. So I've been doing a lot of work to just keep up with what's happening with COVID-19, in general, as well as its impact on higher education. Listeners may know I launched a spreadsheet to track campus closures and shifts online. A spreadsheet became so popular that the number of hits actually broke Google Docs' ability to maintain it. So we maintain this analysis and track list, which is important because it's not easy to do. And in the United States, unlike a lot of other countries, higher education is not organized. It's very disaggregated. So with 4000 odd institutions, it's a lot of work to track. So that's one thing we do. But the other thing is, we tried to bring to bear what we've learned from futurist's work. So we take a look at different scenarios, we look at simulation games that people have run. We look at analyses. What can we learn from this? How can, what can we apply? And that can be very helpful. At the same time, we can look ahead and say, "all right, well what happens after this?" I've already published a few scenarios about this, depending on how long the coronavirus does its thing. Do we look at a clear end point where coronavirus stops? You think like the bubonic plague, for example, where we just no longer suffer it because our immune system is totally good with it now. Or does it become a kind of persistent threat like the seasonal flu? And maybe 2021 December we'll be told, "remember to get your flu shot and your COVID shot." So imagine how does this change us? What does this do to interpersonal relations? How does it change the world of work? And of course, in education, do we have a massive permanent

migration to online education? I don't think so, but I believe that we learn a lot from this process. And it's going to shape how we approach digital learning, including what you do, Derek, digital learning in the classroom itself.

**Derek:** [18:54] Yeah, let's talk a little bit more about that. That kind of educational technology is the focus of our podcasts. There's a lot of aspects of the current pandemic that we could explore. So as you know, in the last few weeks, pretty much all of higher education has made this so-called pivot to online and remote instruction. And I've tried to be clear with my faculty here at Vanderbilt, that we're not doing online education, we're not doing online course design. We're doing some kind of just-in-time online teaching, as we move elements of what we're doing online and try to kind of have some form of teaching continuity. What do you notice as particularly significant about what higher education has done by pivoting online in the last couple of weeks? Are there elements of that to kind of stand out to you that may be more important looking ahead?

**Bryan:** [19:45] Yeah, in terms of technology or in general?

**Derek:** [19:49] I think probably the kind of factors that may affect the role of technology and higher education downstream.

**Bryan:** [19:56] Well, there's some things that were general and some things that were not so general. So many, many campuses shut down for a period of time. Either they closed for two days or they extended their spring break, in order to give faculty and staff time to move materials online and to set up mechanisms for teaching wholly online. That was pretty commonplace. Was it enough time? Clearly no, but it was some time, it was more than zero, which is important. Second, we've seen a shift to a combination of synchronous and asynchronous teaching. So you can think about as video-conferencing plus the LMS and its route. So we have the desire to recapture the give and take, a lively nature of the physical classroom, using all kinds of video technology. I mean, you and I are recording this with Zoom and Zoom is very, very popular, but there are other tools out there too. Blackboard has its own video tool, it used to be called Illuminate. Adobe has Connect, IU Shindig. There's also people using Skype and so on. So there's a, that's the simultaneous synchronous effort. And then we have the asynchronous tools. So how do you get student work done, broken up over time? So that's everything from giving students assignments they have to complete and turn in through the LMS to using discussion tools. And there are a wide range of tools for that. Beyond the LMS, people are using everything from email to Twitter to

discussion boards hosted outside of the LMS. But that's I think a major, major move that twostep to the synchronous and asynchronous.

[21:29] What's not, what's not generally done. There are a few things. One of them is questions of access and equity. So if you have a bunch of students, you send them all home and all the students are sitting on fast broadband connections and have nice shiny laptops, you're good to go. The problem is that picture's not universal. We have students who may not have the right hardware. So for example, if they don't have a desktop or a laptop computer and they're using their phone. Is your learning material, are your tools accessible by phone? That's an interesting question that has to be answered. Do they have sufficient bandwidth? And this is something I've written about and agitated for, for years. In the United States, we have this major digital divide, which we really aren't interested in solving. It's marked by a lot of things including economic class, including some degree of race, including education level, but especially by geography. Generally speaking, the closer you are to a major metropolitan area, the better your chances of good broadband. The further away, the harder it is. But that's, that's a real issue. Now until last week, one of the solutions was to send people to other physical locations. If they don't have it at their home, they can go to a Starbucks or McDonald's or best of all, to public library. Because public libraries have been providing this kind of access for decades, and just absolutely heroic in that measure, for me. The problem is now, of course, many of these places are now closed. So I've heard stories about people pulling up outside of a library in the parking lot. If the library's Wi-Fi is still on, getting that and doing classes that way. I've seen some campuses that are loaning out hardware, laptops, tablets, and even Wi-Fi hotspot material. And there's at least one college that simply closed. Berea in Kentucky, just will not offer online instruction at all because they thought that they could not guarantee their students would have access to the appropriate infrastructure.

**Derek:** [23:22] But could you say a word for our listeners about Berea? Because it's a really special place.

**Bryan:** [23:26] Berea's an extraordinary, extraordinary university. It's located in Kentucky and they do not charge tuition. And the reason is because its foundation in the 19th century, set up an endowment specifically for the purpose of paying for tuition so that students wouldn't have to pay for tuition. And its mission is to serve Appalachia. So across Kentucky, across West Virginia, across Tennessee. There is just a wonderful range of students who get to go to Berea and learn like mad. In Berea they also work. Work is a requirement. So you'll see

students doing everything from serving at the cafeteria to making handcrafted tools using Appalachian tradition. One of my favorite stories of Berea actually is a couple of presidents ago, the president went around to a lot of small towns and said, what's the biggest obstacle to your teenagers going to college? And the answer was pregnancy, that too many of the young women were pregnant and they couldn't handle being 18, having a baby and going to college at the same time. So the solution was to set up a dormitory just for pregnant mothers or mothers of children. And they built one. And they had students supplied all kinds of things. Students working construction helped build a building and building and swing sets and all those kind of things. Some students did childcare and so on. Just a wonderful solution. It's just one of my favorite campuses, not well-known in the US and it really should be better known. But there a few other options that are out there. There's a big debate right now about grading. So do you give students pass/fail? And if so, do you make this semester pass/fail by default or do you make it opt-in? Have you heard about the AA method?

**Derek:** [25:14] No, I haven't heard that.

**Bryan:** [25:17] This is you give students one of two grades, A or A-. And basically A- stands for everything below an A. There's been talk about either just giving students A's or about giving students an asterisk for a grade or having the registrars add some kind of tag, "pandemic season," that kind of thing. But there are other problems, as well. I mean, if you're in quarantine, you may not have the situation where you can really work on your classes. You could have a family member who is ill, either from COVID-19 or from something else. You could be having to care for children. I mean, right now in the US, a lot of K-12 schools have shut down either completely or moved online. But either way, someone who's a student is now also parenting a child, either doing home-schooling or trying to help them get online. There's a lot of, and not to mention, the likelihood that more and more students will actually be infected over time and that they will be sick and unable to carry other studies. So there are a lot of pressures on trying to do this teaching online and different institutions are responding in different ways.

**Derek:** [26:29] Yeah. Yeah. And I know that at Vanderbilt we're encountering all of those issues, in one form or another and trying to kind of make good decisions in the short run. I'm curious how we can start to think about the long run. What are some ways we can, I guess I'm trying to ask, if we imagine higher education three to five years out, what are some ways we can think strategically or constructively about that?

**Bryan:** [27:01] Well, I can recommend my book, which is all about that, and it's called *Academia Next* and it came from Johns Hopkins University Press in January. And the idea of the book was to look at the major forces reshaping higher education over the next generation. And so there's a lot of stuff we looked at there. I can pull out some of the major trends. COVID-19 has, in some ways, accelerated some of those trends. So for example, one of the trends that I follow is the increasing financial instability of higher education. So listeners may know some of this. Since 1980 or so, state governments have gradually defunded the per student support to public higher education. And this is blue states and red states across the board. And Chris Newfield has a couple of great books about this, including one called *The Great Mistake*. But a key thing is, we've shifted from public higher education getting a majority with support from state governments, to getting the minority of support. My alma mater, the University of Michigan, its one time president said he used to refer to his university as a state-supported institution. Then he referred to as a state-located institution. And now he refers to it as a state molested institution. And you could say, I mean, this is uneven by state. North Dakota, until recently, was very generous in support. Vermont was 50th in the state, in the US. But generally speaking, this is a problem and the solution that colleges, public universities and colleges found was to turn to debt and financing. So the students take out larger, larger loans. And this appalls many, many people outside of higher education.

[28:39] Another problem is that college and universities are more expensive to run. And there's whole books written about why this is the case. You can take everything from increasing physical plant needs to increasing staffing support. And we can come back to this if you want. But the key thing is higher education is more and more expensive to operate than it has been in the past. So putting all these together, you get this kind of financial crunch happening on higher ed. COVID-19 just ratches it up even further, puts it on steroids. Already, I've heard of two West Coast institutions, one which announced that it was simply closing. And other one which said that it was not going to accept students anymore, which is effectively closing. I will expect more of this. So looking ahead, say three to five years, it depends on how long the pandemic lasts and how much damage does to the economy. But we have to assume some degree of economic challenge is too weak of a term. But mass of economic blow, which then has impact in higher education right down to the funding of individual LMS's, individual campuses. State governments will be able to spend less on public higher education, even less. Families may have less to spend on their education as a whole. And it may be that the wealthiest schools that have an endowment that matters

are gonna struggle with getting their endowment back up to speed. So that's one of the things that we have to pay attention to.

**Bryan:** [30:03] The other, the other force. And you mentioned three to five years, which is a very nice frame for what I'm about to say. We're experiencing a fantastic transition in the human race that we've never experienced before. And it's largely unaddressed and unrecognized. Derek, what year were you born?

**Derek:** [30:20] 1976.

**Bryan:** [30:22] 76. Okay. So you were born right after what I'm about to say started happening. For most of the human race, most of human history, we were terrific at just producing lots and lots of kids. As Neal Stephenson once said, "we spam the environment with children." And then, one of the reasons we did that was because child mortality was significant and lifespans are relatively low. We think of people dying in their thirties or forties. But then starting around 1900, we actually start getting better. We started living longer and longer, thanks to all kinds of great stuff, like public health getting better, medicine getting better. And then we also started having fewer children and women started having fewer children later in life. And reasons for that include access to reproductive technologies and practices, but also getting more education. And we know every society, the more education women get, the fewer children they have. So one of the things that's been going up to about 1976, so I'll center this on your birth, Derek, we're getting more and more afraid of overpopulation. In fact, if you look at science fiction from the seventies and nonfiction, there's *The Population Bomb*, just last week, my family rewatched *Soylent Green*, which is a vivid depiction of overpopulation and of course, a famously horrible solution. But those images have turned out to be incorrect. Instead, what's happened is we are living longer and longer and our median age is getting higher and higher. And this is changing the world in ways that we're just starting to grapple with.

[31:56] So if you look, for example, at countries like South Korea or Japan, you look at them, the population's actually starting to shrink because they are having children below replacement level. Replacement level is 2.1 children per woman. And historically we've had up to ten children per woman and now we're in the 1 point something range, if not below. Actually South Korea chucked into 0.9 last year at one point. So what, how does that change a society? I mean, you think about what does it do to mores and culture when you have more and more of your population are elderly and fewer and fewer children. How,

how does this change economics when we have to support a larger and larger population through retirement and so on? And we're just beginning to figure this out. And the reason I mentioned that here, is because first of all, this is a trend that's locked in place. It's a huge, huge movement. But the second is, it impacts higher education. Institutions that serve traditional age undergraduate populations, age 18 to 22, or so. That incoming population is starting to shrink. At Carleton College, the demographer Nathan Grawe, modeled this out and he found that in 2008, thanks to the Great Recession, we had a huge down tick in childbirth. And if you do the math, 2008 plus 17 plus 18, in your 3 to 5-year window, Derek, we're going to be coming through a serious demographic crunch. Grawe is a very restrained writer, a very good communicator, but he says, this is a, this is a demographic cliff. So imagine more and more competition between colleges and universities for students and more and more colleges and universities closing.

[33:45] So I think COVID will have some impact. It depends, in part, on how it plays out in different major populations here in the United States. We know that right now, while it can make people under 60 sick, it very rarely kills them. The major mortality zone is people over 70. And that's the real, the real death zone through a center of lethality. But we still have to think about what this will do to our overall population if we lose significant numbers, hundreds of thousands, if not millions. But we also have to think about what this means to our comfort with online learning. So if you and I, and I assume a lot of your listeners are very comfortable with teaching and learning online. But it may be that we have students who find this alienating, uncomfortable for various reasons. It may be that we see stories, bad stories circulate through the media. And students don't feel happy about this. So maybe that they demand to pay less in tuition. We're already seeing some signs of that right now. It may be they just decide to put off higher education until after COVID, in which case, we can see another reason for enrollment drop. That's something we have to worry about. The flip side is unemployed people going back to school, which is a traditional pattern aimed especially at community colleges. So it may be a wash, but I would look for some of those forces in the near future.

**Derek:** [35:13] Yeah. Can you say more about what might happen with technology? I mean, one of the things that I've just had to observe in the last two weeks is that all of our faculty are now doing some form of online teaching, right? We had to work to get about 1400 or so faculty to do, make some kind of pivot in the past two weeks. And I have to think that that's going to have an effect on how faculty approach their work in the future. And now all of our

students are learning online. I think it was something, I think the data to say something about, I think I read this in your book actually, maybe a third of undergraduates were taking a course online, kind of in any given time. And now..

**Bryan:** [35:55] The majority.

**Derek:** [35:57] Yeah, the majority, for sure. But how can we, how can we think about how that might change the role of technology in higher ed in that 3 to 5 year window?

**Bryan:** [36:06] Well, when it comes to professionals like yourself, you now have the benefit of faculty having more experience than they used to. Which really, really counts for a lot. A lot of resistance to teaching online came from people not experiencing it or having a bad experience sometime in the past. But now they're actually doing it. They're familiar with Zoom settings. They're more familiar with how to set up a discussion thread on Canvas or wherever. I mean, it's that experience counts for a lot so you have more to work with. So in a sense, you're not teaching intro classes, you're teaching intermediate classes or advanced classes. And I think that counts for a lot. A second, my hope is that we will see a large wave of creativity and learning from the faculty as, as they figure out how to make this work and how do you have a discussion work on video conference? How do you really shape a conversation on a discussion thread? How can you use Twitter really effectively? And we know the answers to all these. These answers have been public and available for a long time, but now these faculty get to experience it themselves. They are learning by doing, they're engaging in lifelong learning this way. So I hope that we'll see a real boom in creative engagement and very nice practical usage. My fear is that we'll see a backlash. Again, this could be because of stories that circulate badly. So for example, imagine a student at Yale has a bad experience with a class online. It gets reported in The New York Times, The New York Times like likes to cover the elite IVs. And then this gets circulated around, NPR picks it up. It may be that this curves in social media where students say, "My faculty member can't remember my name on Zoom, or the professor keeps forgetting how to do this thing." And that may confirm anti-technology or anti-online faculty and the desire to stay offline. So the first chance they get, they'll pull it off and they'll resume their previous habits. Maybe that we see both, again, 4000 plus colleges and universities in the US, there's lot of room for variety.

[38:18] The other thing is we, we're seeing a split in the level of technology. So we're seeing some people calling for more and more advanced and challenging technology, in order to really power the experience. So thinking about using lots of video, but also using say, VR, in

order to get a kind of social presence. We're seeing the flip side. We're seeing people say, actually we should push for lower technology, partly for equity reasons, and also partly because we don't think faculty and, or their infrastructure can support it. We had a conversation with Stephen Downes, where he said, "do less video, do more audio." Audio is easier to make. It is the tip of my hat here to the engineer for this program. It's easier to make than video. It takes less time and it takes up less bandwidth and the files are smaller. So shift to that or maybe, maybe shift to more asynchronous classes. So we could see kind of spread of educational experience from the most advanced to the more basic.

**Derek:** [39:22] Yeah, I guess I'm now thinking a little bit about a much smaller event, but still significant in higher ed, which was 2012 in the year of the MOOC. These Massive Open Online Courses that for a number of faculty and administrators kind of showed them another version of online. And they kind of, you know, the numbers were big, you know, 100,000 students in a course. It caught a lot of attention. A lot of those MOOCs had a kind of particular format that were kind of lecture video heavy, some quizzes and some discussion boards, not particularly sophisticated online learning environments, but very effective for some students, certainly. And I feel like it gave a lot of higher education one vision of what online could be. And I suspect that we're getting a different vision of that now even a competing vision, as you say. I think some faculty and administrators are trying to replicate the in-person experience with as high fidelity as possible. They're going with synchronous, they're going with video. But other folks are realizing, as you pointed out, that there's lots of other options actually that we may need to pursue, for a variety of reasons. And that I guess I would hope that if folks pursuing those other options can see kind of student success, student learning outcomes in ways that are meaningful, it'll help to kind of validate a richer set of tools for online instruction.

**Bryan:** [40:45] It may. I think about, for example, the use of chatbots to handle basic functions for university information. Think about using AI and more advanced levels. Thinking about using tools like Hypothesis, which I love dearly, an annotation tool. And also, I think that we don't get enough of, which is to remember that students are makers, students are producers, sort of celebrate that. For example, this summer, I'm teaching a graduate seminar on gaming and education. Half the class is about digital games, and half the class is about tabletop games. And somebody's like, "All right, now the class is online, how am I going to do tabletop?" Well, one solution is to have students, I mean, the plan all along was to have students make games. But now I'm thinking about doing, is having them make physical

games, upload them to a shared site, and then have students download them and print them. Print cards, boards, pieces, and play them themselves, so that they can get a sense of how it works.

[41:49] But students are makers, students are creators and they're making digital content. I think that's a really important thing that we really have to appreciate. And I believe this is partly where age may come in. I mean, I was born in 1967 and 1967 as well as 1976, if you wanted to make some media, you usually had to have access to a giant pile of capital. You either had to own a radio station or figure out how to get into TV or movies or print. And I think for a lot of faculty, they're still used to that one-way broadcast experience. But the fact that students now, like the rest of us, are potentially makers of all kinds of things. We really have to embrace that in education, I really, really hope that more and more classes really embrace that and in months to come.

**Derek:** [42:36] Yeah. Well, you're speaking my language. We've been advocates of the students as producers approach to teaching, for quite some time. And also I'd love to take your board game course.

**Bryan:**[42:46] Oh, great.

**Derek:** [42:47] That's been quite a hobby of mine, actually.

**Bryan:** [42:49] Oh,\* really? We should talk about this.

**Derek:** [45:51] Yeah, yeah. I'm a board gamer and I love this, kind of intersections of games and learning and how that can play out in both analog and digital formats. Speaking of analog, I'm going to, I'm going to kind of wrap this up here with a couple of final questions. We often focus on digital educational technology here on the podcast. And we'd like to ask our guests, what's one of your favorite analog educational technologies?

**Bryan:** [43:23] Can I mentioned 3D printing or is that too digital?

**Derek:** [43:27] I will accept that answer.

**Bryan:** [43:29] Okay. I find 3D printing, just absolutely fascinating. It's, it's very, very challenging to use. I mean, it's still, it's just getting out of the hobbyist stage. But I've watched

my students go through this mental process of thinking through some concept in their head and thinking through the process out of which comes of the object that you can hold in your hand. I had two students who were just absolutely brilliant last year. They were interested in publication in education, thinking about things like textbooks and students as makers. So what they came up, instead, for a final project, they 3D printed a 15th century printing press. So they went back and got plans. It wasn't Gutenberg's first, I think it was a third generation. And they printed this thing out. It's like six inches by four inches. They printed a screw for it and then they used a laser centering to print plates for it so that we could actually print individual plates with it. So their presentation to the class, they actually brought sheets of paper and tubes of ink and we printed out plates. And the plates that they made were different things. They were quotes, they were images, and one of them was a QR code. You clicked on the QR code and it took you to a website in augmented reality, which was their essay. So I think that's fascinating. So I'll put, I'll put 3D printing out there for now.

**Derek:** [44:50] Yeah. Yeah. Well, I'm glad you mentioned augmented reality. I know you've done a lot of writing on that. And I do think there are these technologies like 3D printing and augmented reality that are very explicitly bridging the divide between the digital and analog experience. And I think a lot of us who are in socially distancing and staying home and being quarantined. We're, we're seeing how these online tools that we're using to work, to communicate, to teach, to learn are also intersecting with our lives, right? I mean, I mentioned earlier that I'm learning all the coffee mugs that my, my work colleagues have at their houses. And there's this kind of embodiment piece that's really critical to what we're experiencing right now, along with the digital piece.

**Bryan:** [45:35] There's a lot of embodiment and we have to rethink the body in education. And that's actually one of the challenges, which is, you know, how do you, how do you digitally support the more embodied experiences of learning? You know, you're thinking about certain wet labs. You think about some of the hard technologies like diesel technology, dance. We've been wrestling with that in online learning for a while, but now we have to really get up to speed on that.

**Derek:** [46:00] Yeah, I know you've gotta run. I got one last question. Where can listeners go to follow your work or interact with you?

**Bryan:** [46:08] Well, one way is to go to [futureofeducation.us](http://futureofeducation.us). And that has links to a few of my different projects. There's a link to my blog, which is [BryanAlexander.org](http://BryanAlexander.org), it has links to

my writing. So I have several books out, most recently *Academia Next*. You can find me on Twitter, Bryan Alexander, B.R.Y.A.N, Alexander. And you can also if you go to the either the future of education site or you go to my blog, there's a link to my Future Trends Forum, which is a weekly video conversation about the future of education. We're in our fifth year right now. We have a lot of conversations and Derek has been a great guest. And I would love to, I'd love to hear from everybody. And Derek, thank you for the opportunity to chat. I really enjoyed this.

**Derek:** [45:53] Yeah, thanks. Thanks for sharing your ideas and experiences and perspectives on the strange time we're in. I'm really glad we had the chance to talk today. (music)

**Bryan:** [47:00] My pleasure. Stay safe and uninfected.

**Derek:** [47:07] That was Bryan Alexander, futurist, Senior Scholar at Georgetown University and author of *Academia Next: The Futures of Higher Education*, among other books. I've wanted to interview Bryan since we launched our little podcast on the future of educational technology, I would have enjoyed our conversation under more typical circumstances, but I was especially grateful for his insight during these unprecedented times. Bryan is quite realistic in his assessment of the current and future state of higher education, while also bringing that touch of hope for that future, which I really appreciate. If you'd like to follow Bryan and his work, please see the show notes for links to the resources he mentioned in the interview, including his website, [futureofeducation.us](http://futureofeducation.us). I'd been reading his new book, *Academia Next*, it's expertly written and more useful than ever. Again, see the show notes for some more information. You'll find those show notes for this and every other episode of Leading Lines on our website, [leadinglinespod.com](http://leadinglinespod.com). We would love to hear your thoughts on higher education's online pivot and how the global pandemic might affect higher ed in the years to come. As I mentioned at the top of the episode, we'll focus on these topics over the next few months here on Leading Lines. You can reach us via email at [leadinglinespod@vanderbilt.edu](mailto:leadinglinespod@vanderbilt.edu) or on Twitter @leadinglinespod. Leading Lines is produced by the Vanderbilt Center for Teaching and Jean and Alexander Heard libraries. This episode was edited by Rhett McDaniel. Look for new episodes, well, when we publish them. We're kind of throwing the schedule out the window for the duration. I'm your host, Derek Bruff. Thanks for listening and be safe. (music)

