

Transcript

Derek Bruff: [0:00] This is leading lines. I'm Derek Bruff. If you're of a certain age, you might remember logo, the educational programming language that involved issuing commands to a little virtual turtle, moving him around the screen, drawing lines as he moved. I think it was fourth grade maybe when I encountered logo at school, and I couldn't get enough of it. And my friends and I would challenge each other to figure out the commands to draw more and more complicated patterns. On the screen. There was logo and then there were some, some chapter books. I should track down the name of these that included basic programs that you could type in and execute. And the programs would advance the plot of the books. Between those books and logo, I was I was hooked on computer programming at a pretty early age. That was as I now understand it, the goal of the logo project to provide children with a way to learn about computing. Not only to teach them programming, but perhaps more importantly to help them think abstractly and practice metacognition certainly worked for me, but this kind of initiative using computers for child development hasn't always panned out. On today's episode of leading lines producer Cliff Anderson brings us an interview with Morgan Ames, author of the Charisma Machine: The Life, Death, and Legacy of One Laptop per Child, published in 2018 by MIT Press. One laptop per child, or OLPC, as it's often known, was a non-profit initiative launched in 2005 to bring low cost laptops to children in developing countries. Under the assumption that doing so would transform education in those countries. That didn't quite work out that way. However, in the interview, Morgan Ames talks about the origin of OLPC, the challenges the program faced, and its legacy on computing and education around the world. As someone who remembers all the buzz about OLPC back in the early 2000s, I was fascinated to learn what became of that project and what lessons that has for the future. Professor Ames at and welcome to Meeting lines are gas to introduce you to your audience. You are the faculty member in the School of Information and Associate Director of Research at the Center for science, technology, medicine, and society at the University of California, Berkeley. And most importantly, the author of a new book called Charisma Machine: The Life, Death, and Legacy of One Laptop per Child. So welcome to leading lines. **Morgan Ames:**

[2:43] Thank you so much for having me so happy to be here. **Derek:** [2:47] So, maybe we can begin our conversation just like a description of what was One Laptop per Child project I had. What were its origins and its stated goals? **Morgan:** [2:57] Yeah. Well, its most immediate origins were in the early 2000s when a lot of folks at MIT Media Lab, which Nicholas Negroponte was leading at a time. We're talking about making a new laptop for children all across the global south. And they wanted this to be made and hundreds of millions. They wanted this laptop to be cheap and robust. Looking back at the longer origin of it, though the idea had been around among even just among those same researchers or some of the more senior folks, at least since the 1960s. And this is of course long before laptops existed, long before personal computers really existed. But there were some researchers, even. I think there was a 960, nine NSF grant around exploring the possibility of education via computers for children. And that was really the, the most, the long-term but direct origin of this project, right? They started working on the 1960s with the 1980s developed logo and other things. Carried on into the 1990s with a few projects overseas. And then in the 2000s, started working on this idea of designing this custom laptop to just kind of roll all of these other projects into one. **Derek:** [4:19] And in fact, you trace the origins back to Seymour Papert and his educational philosophy of constructionism. And you say that he really laid the groundwork for the project incident as it about. Can you talk a little bit about who he was and what constructionism is in terms of an educational philosophy? **Morgan:** [4:39] Yeah, sure, yeah, it's, it's, it's funny. Nicholas Negroponte was really the face of the project. But even in his talks, he always said the idea, the origins of this project really go back to Seymour Papert. So, at the time that one laptop per child was being announced and discussed a lot in 2005 and 67 pepper, it was already an emeritus professor at the MIT Media Lab, right? He had, he was fairly senior at that point in fact, and I think in 2007 he suffered an accident in Hanoi and suffered some brain damage from that. But, but his idea of constructionism is in many ways kind of an offshoot of Piaget's constructivism with a sort of cybernetic AI bent. So, it builds on Piaget's ideas that children kind of construct models of the world and they could stay. They build on the knowledge that they've already produced about the worlds. There are different phases of reasoning, but Papert said, so our idea that kids can't think abstractly is a little false because the connection between abstract and concrete is a little more tight than you think. And computers in particular are very good at doing things that would normally be pretty abstract in a more concrete way. And he, and this is where the kind of AI in cybernetic side came in, right? He, along with many other programmers and what they called themselves hackers at MIT really, many of them attached to Marvin Minsky's lab. Really thought about thinking like a computer

program. And Minsky of course, is famous for this, right? But the whole kind of society mind and, and, and constructing a huge database to like solve AI, right? As, as inputs into AI systems. But this was kind of common in cybernetic thinking more generally. And people really is nexus of all these different fields that was being called Cybernetics. And this kind of carried forward into AI research to some degree, but also into education research and Papert was someone who bridged those two pretty directly. He was co-writing things with Marvin Minsky throughout the seventies and into the eighties. But he was also writing this logo programming language, which had a little robotic turtle that could move around as a way to kind of bridge that abstract reasoning and a more kind of concrete reasoning, right? These abstract math, mathematical notions in a very concrete way that constructionism really, really focuses on. And yeah, I think also one thing that's interesting with constructionism is the focus on computer programming as this one of the best ways to really think about thinking, right? If you can think in a kind of procedural way, if you can program a computer that gives you these insights into human thought. There are, of course a lot of problems with this parallel. But it's a very common metaphor in our culture more broadly, right? And it's become increasingly so over the last 50 years we say like, oh, I'm, you know, I don't know. I hear people say joking things like them all out a disk. Right. Or I've got my external backup when they pick up their phone to look something up, right? I feel like these metaphors come up all the time, right? So it wasn't that big of a leap to kind of take that one step further and think about programming as the ideal way to think about thinking and to help kids have metacognition basically help them, help them teach themselves how to learn ultimately. **Derek** :[8:33] So actually this connects directly with the next question I want to ask you, which is about Nicholas Negroponte, who was the co-founder, as I mentioned on the MIT Media Lab. Because what you describe is that he protected a kind of social imaginary of striving children who, who had this idea that the working with the computer and being able to program this turtle would be a kind of liberatory educational practice for them. And it formed sort of the vision for where he hoped that the one laptop per child project would go. Can you talk a little bit about that kind of social imaginary and the way that it, that it's sort of formed the vision for the project. **Morgan**: [9:09] Absolutely. And I'm actually going to start back with paper it again because this, I'll get to this very clearly in interprets writing. Throughout the 1970s, he wrote a whole bunch of memos about logo and the development of logo in there early experiments. Then in the 1980s he writes Mindstorms, of course, I guess I was probably late 1970s, he wrote that. And then he wrote The Children's Machine and the 90s, a number of other papers. And they all kind of embody this, but they're often pretty technical and pretty hands-on. These, these accounts right there, they're

full of, if you read Mindstorms, it's actually full of little, little bits of logo code. Negroponte, on the other hand, was a bit more of the I would say big picture visionary. That kind of that might give them a little too much credit, but we'll go with that for how he was founding the MIT Media Lab. He was out there raising money all the time. He helped. He was one of the founding investors in Wired magazine. Back in the nineties, of course, Wired was incredibly utopian, was, just, was convinced. I mean, it, it really bought into this, you know, this emancipatory potential of, of computers and the Internet. And it's, I think all of that was present in Papert's writing, but in a more kind of like concrete, detailed way. Whereas Negroponte was like, No, we're going to transform the world, right? And so I think the two of them, I mean, both of those impulses are certainly very strong in one laptop or child. And I tend to focus a little bit more on paper just because so many people point to Negroponte is the found, the foundation for this project. But in some ways I, I feel like B. An intellectual basis for that broad reaching cyber utopianism is actually kind of thin, and it was really paper tradition that, that carried to the project much farther by definitely wanna come back to some of the constructionist ideas that are at the core of the project and in later questions.

Derek: [11:00] But let's actually just talk about what this laptop was for a moment. So can you just describe the sort of famous introduction of the laptop where it's hand-cranked, the idea that it would be able to be charged and whatever condition about itself to be in. And then also sort of where it ended up in and what was actually passed out in the schools, particularly Paraguay, where you did your field research. **Morgan: [11:29]** Yeah, sure. Yeah, there is a demo in late 2005, very famous with Kofi Annan who think that if you have, if you have the head of the UN Secretary General doing your demo, you know, you're, you're doing pretty good in the world. But Denker Pontiac, it was a non-working prototype, right? Just a just a vinyl mock-up basically. But it was maybe the size of a hardback book. A little green laptop with I think a black border, big yellow hand crank. And so he's talking about it. They're going to be mass-produced hands of Han, in the hands of every child by 2010. All kinds of kind of grand proclamations in that Negroponte style in this demo. And I think one thing that I, I, I make a point of highlighted hit the narrative is as, as they are going to demo this hand crank, which is going to of course allow this laptop to, as, as they said, leapfrog past decades of development. Not need infrastructure basically either. You can, you can power it up yourself. The broken coffee turns it and then it falls off. And it turns out that that hand Craig, totally unfeasible. I've read lots of forum discussions about it and about different alternatives. It just put too much torque. It didn't generate much power. They weren't able to get the laptop power needs low enough that a hand-cranked could actually generate enough. Which I suppose is why no one else has done it right? I mean, I think they put

themselves forward as this really innovative project and there were some innovative things about it. But there's a lot that was just like, No, you're up against limits, like physical limits. So, the hand crank was one of those physical limits that they just couldn't quite overcome. They did explore like sewing machines style treadmills, like those old manual sewing machines. They explored some other things. But all of the laptops ended up shipping with, with AC adapter. So just standard adapters and the power and the power brakes were designed to be pretty flexible, so you could charge a 10 amps extra 20 with USB-C. We're now pretty used to this, but that was pretty, that was definitely forward thinking at the time, right? To try to account for flexible power sources. The final laptop, though, of course, didn't have hand crank. It was a little bigger than expected, had a great big handle on it. It was white with kind of green outline and then a little, a little X and a little dot above that acts. And so, this was meant to be the XO, which was the name of the laptop. But also, a kind of symbol of a childlike with, with arms flung wide and excitement. Very, I think many parts of the visual design of this machine, we're, we're pretty clever and in fact, it's not surprising that it's ended up in the permanent collections of some CMBS to thank the Museum of Modern Art, both in San Francisco and New York has, has XOs in their permanent collection because it's, it's really interestingly designed to face. **Derek: [14:34]** But you also found in your field research. And I should say, you spent, I believe, two periods of research and Uruguay or maybe more than that. I'm not sure. But that the laptop didn't necessarily performance as expected. At first. The claim was that these laptops basically wouldn't need any local support. They would be very, very resistant or breakage. And students could just pick them up and use them with, without any kind of infrastructure support. But in your research, you found that over time that really proved not to be true. Can you talk a little bit about how these laptops were used in practice in Paraguay? **Morgan: [15:13]** Yeah, sure. Well, let's talk a little bit about the the infrastructure first because that just sets the basis focuses. Okay? Yeah. So both in, in Paraguay as well as in order by which had a countrywide project. They gave out laptops eventually to every child in the whole country where spotted. Why was a smaller project? The schools that these laptops went into, many of them didn't have plugs in the classrooms. It wasn't something that was needed, right? Cruciate electricity. They had lights but they didn't have plugs. And so, so they had to add Paraguay NCA. In the case of Paraguay, added plugs to all of the classrooms. They added a school server for backups and kind of the main office. They put it in a cage because they were worried about theft. They added wireless access points as well as a big tower with a WiMAX antenna on the top to every school. They put want to also in the main plaza, the mean kinda town plaza and cocoa pay with the project was outside of the main capital. And an even this

was all needed just for kind of like getting on the internet. This is one of the tenants of the project. Was this prompt, this laptop would connect children. To each other and the world as, as the project like to say. But without Internet it wouldn't necessarily be able to. Now the laptops did ship with a mesh network system. I was just chatting over the weekend at a conference with a colleague who is reading a book about mesh networks and all of that kind of promises that had been made about mesh networks. So that's I can't wait to see that because I feel like I saw a lot of those promises and a lot of the limitations of those promises kind of play out. One laptop per child project. It turns out that these machines are just way too slow to support mesh networking and also eat the battery up so fast. And so if you had more than two or three machines connected over the mesh network like bay ground to a halt. They were just not functional at all. So, so you really needed like wireless access points and a separate wireless network to, to use the Internet on these. So Paraguay educa, this NGO in Paraguay put this, put the system in place. Plans say ball in OT ago I did this countrywide, right? So they had a bigger scale. I mean, it's not a huge country, but, but it's still react them in order of magnitude more than, than butter guy was able to do with an NGO supporting it. So this is a lot of infrastructure. So they'd been, they give out these laptops and they say, Okay, go for it kids, right? And there was this story that these kids would be inspired by it, that they would take care of it. I think Seymour Papert himself had an interview or HE said, if kids care, if if kids care about the laptop, they will make sure it doesn't break. And if it does break, I think he said something like a nine-year-old could do 90% of tech support and a 12-year-old a 100 percent. And it's a great learning experience, right? And this was many of them thinking back to, to their own kind of formative experiences with computers. When computers were a lot simpler and people built their own towers, right? They put things together themselves and satisfy Fry's Electronics that you go to there, yes. It turns out to be a really key part. There is probably someone to ask what part they should care, right? All of these assumptions that went into like, oh, of course, kids can fix their own laptops. So they give out these laptops. Embodied why that first year. The teachers were like, What is this thing? They did have a little bit of training, but many of them hadn't used a computer at all before. That's right. So they got like signed up on email, learned how to use it. You use a web browser, learn just a little bit about the philosophy behind the project. But I think at least at that point was like, this is inspiring to us. It's going to be inspiring to these teachers. I'm going to rewrite their whole curriculum. It'll be great, right? And I don't know as much about plans say about, but I know they eventually put in a lot of support structures, but I don't know if it was there in the early stages and I think a lot of projects were, were kind of caught up with the, these captivating promises that

Negroponete and others were making about one laptop or child. **Derek: [19:33]** In a way, I think that Paraguay and Jaccard comes across as the hero of your story. Because there is, there is some sense in which like that It's kind of crazy ideas that Negroponete had, which I'll just say are kind of amazing to hear. Like you could take a helicopter and airlift out laptops and then sort of land them in places. And kids were just pick them up and start learning and wouldn't need to go to school. Essentially that, you know the fact that it worked in practice seems to me, from reading your book really do to, to both the teachers but also to this NGO that provide an infrastructure and sort of made it happen. Otherwise, it's kind of hard to imagine to would've gotten anywhere close to where to go. **Morgan: [20:17]** Yeah. I'm so glad that that's the perception you have because I feel like they really did. I mean, they were really caught up in indecision. But they, they were very flexible in their approach. They said like, wow, this isn't working. We need to think of something else. They put in teacher trainers and every school. That's an, a very expensive prospect to have a whole big support staff. They had ongoing repair staff circulate between the schools. Even with all this support. There wasn't a ton of usage, and they were they were they were honestly pretty disappointed, and they had a lot of anxiety around like Okay, how can we, how can we inspire more kids uses? How can we get more teachers using in the classroom? How can we get kids using it? Spare time, like what's going on? This is not the vision that Negroponete had put forward. **Derek: [21:14]** Yeah. And so actually let's talk about that a little bit because when the kids did use these laptops, they often use it for different purposes than like paperwork or Negroponete had in mind. So, one of the things that you noticed that they were really interested in connecting the Internet, but also like media consumption through the Internet was, was a primary motivation for them. Much more so I think it's fair to say from my reading of your of your work. I say using the constructions tools like Scratch or each warns them are on their laptops. **Morgan: [21:43]** Yeah, absolutely. And I do want to preface this by saying that I actually think media consumption uses in themselves or how they use, right? They have a place and I especially love the connected learning approach that says like let's start from kids interests, that's their interests. Now let's build on that. Let's build on like maybe they can remix media. Maybe they can start building up their skills in that direction. That's not what I generally saw. Facilitated on these machines though. I mean, they did not ship with. So, for example, YouTube was blocked in Paraguay. Possibly. And that might be a good idea. There's a lot of violent content on YouTube and in, a lot of teachers were worried about that, but there's also a lot of great stuff on YouTube. So, I heard parents and teachers be ambivalent, feel ambivalent about that blockage, but, but ultimately justify it. And I mean, these didn't come with a, with a media player, came with the TAM, TAM sweet, which

technically complete media. But the Tim times suite is about creating music. It's not, it wasn't really meant to play music back. So in some ways I'm kind of amazed that. So about two-thirds of the kids were like, not interested, didn't use their laptops for months on end unless their teacher kind of required it. But about 1 third of the students downloaded media players, download found torrent sites, learn from one another, right? They were downloading Naruto, they were downloading the Simpsons, they were downloading music MP3s. I think there are a lot of really active sites that, where you can find those kinds of things across Latin America. And this fits into broader cultures of, of kind of open-source and, and, you know, proceed to an extent, although again, I'm, I'm sympathetic to their interests in this space. I think the thing that I am a little more critical of, and this is my critical media scholar hat on is the way that companies ended up kind of capitalizing on this rate. So, it's like great media consumption. This isn't the programming that, that peppered imagined, although I can also imagine pepper. It's saying like the kids are interested, that's fine, right? Maybe later the whole kind of branch off into this, this other thing. But when I saw like Nestle specifically making games for the exo and marketing Nestle products all throughout these games, I was like, Oh, that's gross. That's I don't like that. That's my again, my critical media scholar had on but, but I think I've long been pretty critical of using schools as marketing platforms, are using educational software as marketing platforms, and this laptop became another platform for that. **Derek: [24:39]** It's also interesting that you noted in your observations that there were certain gender differences that were kind of caught up with the social imaginary. I like how these laptops to be used. And that seems to be a really important theme to you. And you highlight two stories that I thought I don't, but you'd probably go into detail about them, but they're really interesting stories about the differences. On the one hand between brother and sister Manuelo and an Elisa. And then Isabel and her friend Nelson or the first being sort of they got involved in using Scratch and got a widespread recognition, but Manuelo got more recognition, perhaps unfairly. And the same thing with Isabel that with eToys. And I wonder if maybe you could just talk a little bit about the way in which that social imaginary or the gendered vision at the heart of the project played out and encouraged and discouraged boys and girls in different ways. **Morgan: [25:38]** Absolutely. And I feel like this is sadly such a parable for the tech world more broadly, right? So, we see certainly with one laptop or child, they never made this as like a boy's machine, right? But they shipped it with a ton of computer games, game environments. A lot of discussion of like, there was a discussion of like competitions and clubs and all sorts of things that have been the purview of boys for quite a long time, right? I mean, there is a big pivot in the 1980s around computer game culture that specifically marketed they pulled it

all off a consumer shelves and put it in the toy shelves. And that was, it wasn't a boy, I'll write. And so in shipping this with games and game engines and having these kind of discussions about that, they're implicitly bringing up those images of like, Oh, who plays computer games? Boys play computer games and of course plenty of girls do. I play computer games back in the day and still, still do sometimes when I have time. But the way it was marketed suggest like, Oh, well, if this thing has computer games, it must be for boys. And a lot of people picked up on that. I heard a lot of those kinds of things from even in Paraguay, right? From people who, who saw this and said, Well, it's, you know, it's these technical things like, oh kids are very good at it. O in this. Especially in their example, would always be a boy. Even when in the case of like Manuel am Analisa, they work together and if anything, a lease, I think kind of grow their projects in many ways. I think also an issue that comes up and also comes up again across the tech world more broadly is that in setting up additional learning opportunities, Paraguay educa, again had kind of gender neutral language. Anyone can come, come to our coding club on Saturdays, come to our after-school clubs. But then who showed up was mostly boys. And that was never questions, right? They never pushed back and said like, Oh, let's make a Girls Club. Let's do something specifically to draw girls were interested out. They were like, Great. I also saw some of the teacher trainers even do like in the classroom, like boys versus girls kinds of competitions. And there's just, there's so much research and gender studies showing that those sorts of anything but kind of accentuates gender difference tends to also bring up those stereotypes right in people's minds. And I just, you know, I saw a lot of that kind of thing. I mean, PO2, I sadly is, is a fairly patriarchal culture in many ways, right? And it doesn't have great, a great record for women's rights. Like a lot of Latin America throughout the 19 eighties and actually impetigo I even decades before, dictatorships, human rights generally aren't really well-respected. And women's rates continue to be, to be an issue, right? In many of these countries. Not to say in the US to sadly, but all of this kind of contributes I think. And so it's not, you know, I feel like it's a lot of small things, but together they add up to a culture that welcomes boys and that just subtly or sometimes overtly discourages girls. **Derek: [20:03]** Yeah, I think that was one of my favorite parts of the book. Does it but I also felt coincide when I read about Isabel sort of giving up her work on ignorance. It has been heartbreaking and aware and I guess. **Morgan:[29:15]** It's still is heartbreaking when I think about and what even Isabella, when I think about it, Lisa and the way that her hard work got some recognition, but not nearly as much as her brother. I'm sure she noticed that. I mean, I tried to talk to her a little bit about it, but I didn't want to be leading rate my interviews. And so, I think at that and I kind of got the feeling from her at

that point that she was already used to kind of on equal opportunities based on gender. And she was like, it's the way things are. She'd say things like that and I'm just like, Oh honey, oh. **Derek:** [29:55] So when it comes back to the title of the book, which has charismatic and charisma, Charisma machine. And, and I think this year they're your experiences sort of witnessing Walter Benders visit to Paraguay kind of brings this idea of charisma to the four and the way that it's sort of use both to foster and hinders these kind of educational technology projects. So what if you could talk about Walter Bender wasn't. And what you observed when he came to Paraguay to talk about the project? **Morgan:** [30:27] Yeah, share so, so Walter Bender has been a longtime senior researcher at MIT Media Lab, I think, taught some classes. He's not an official professor, but as someone who has a similar position at a university, right? Some are contingent faculty. I understand the kind of complex ecosystem. He's been part of the, the MIT Media Lab world for a long time. And when one laptop per child started up, he was Jose, he was vice president of content at first, basically in charge of the software. Eventually, they, there was a kind of big falling out in OLPC. A lot of employees left, including Walter Bender. He continued though and in fact continues to this day to develop the software that was originally made for the XO laptop. It can be downloaded on anything now called sugar, which I find. In fact, I was even told by various developers that was kind of a cheeky reference to something that parents don't want kids to have, but kids really want. Remind it has no nutritional content. Anyway, there's some limitations maybe to the metaphor. But so he, he's been involved in MIT Media Lab, has been involved in sugar development. He continues to be a pretty powerful figure and had mentors. In fact, a few of the very talented developers that Paraguay NCA had that were contributing not just to the local potter Gua inversion of sugar, but to the main sugar pill they were, they were uploading content upstream. And so, within this context, and Walter knows them very well, but he comes to visit the project. And the way that pot away NCA was talking about his visit was like, you know, this is going to be a great opportunity for us to show that the project is really important. And to hopefully get the Paraguay and government eventually to take it over and to scale it up to the country that was like the dream for them. In the short-term. They were hoping that they could, you know, Walter Bender could promote the project, be this, you know, powerful figure to, to meet with various funders and to convince them. Waterway as you come more money. So that was kind of, you know, clearly that was the goal of his visit overall. But one of the parts of this visit was, oh, he's going to visit schools. And when I heard that I was like, really hope my gosh, she's so you're going to see that there's some there's some issues with the vision as he continues to talk about it, what will happen from that? And so, there's just this one morning we drive out to

calculate. It's about a two hour drive depending on what's going on the roads. And we get to the school that were visiting one of the larger schools, but a little bit kind of outside the city center of cocoa pay. And the school principal assembles everyone, it makes us grand announcement. Here's a very powerful person. Please give him your full attention. He doesn't actually understand Spanish, so he's just standing there and her quite sure what's going on. And eventually she says, the children who are here to work with him, please come forward. And I noticed that all of these kids are actually from different schools. And I realized that their trainer, the teacher trainers that working for pedagogy, I should have brought them to this school this day to, to be in this session with Walter vendor, but they were like missing their normal school day and all the kids who actually go to that school go off to their classrooms. All these kids go to spare classroom. And Walter gives a really surprisingly kind of didactic demo, hope of turtle arch, which was kind of his pet project. And then the kids go back to their schools and we're done. Like that was the visit to the school. And I was just kinda shocked by this in some ways. But then I realized like, if partway NCO had allowed Walter to actually see broken laptop's broken infrastructure at schools. How little these laptops are actually used day-to-day. I mean, if you poke your head into that all of the different classrooms at that very school we were at. I don't think any of the teachers are using the laptops that day. Nobody was right. The kids weren't using them in the schoolyard very much. There were a few kids maybe who did. But like It's not part of school culture and the way that like OLPC kind of had wanted, right? And but none of that happened. He did advocate view. And so in connecting back to charisma, is't, I realized over time that the reason his visit was so kind of circumscribed and that he didn't really push for anything else is because everyone involved waterway NCA and him. Maybe not so much the students, they were just kinda happy to be at this important thing. Missing Am warning will go for it. But a lot of the other folks were there to say like, we know we understand that vision that you put forward for the laptop and we want to do what we can to sustain it. Because then you can translate that vision to our funders. You can maybe take that vision back to MIT when you go back home and you can tell people what a great job we're doing that will get us more attention, that will get us maybe more funding. Anything to question that vision would be to question in a way their existence. They had really built the project around this. And I feel like this is I call it a kind of a catch-22. I think another term that I've, I've co-opted in various ways is one from effect theory, Lauren Berlant's Cruel Optimism, right? Where the project had set up this optimistic vision. We need to do is hand out laptops and the kids will teach themselves, they'll take care of these machines. There won't be broken ones, of course there are tons of broken ones and potted way. Everyone will be really inspired by it. And it

neglected all of the kind of structural barriers to that, right? And in Walters visit they had to kinda reaffirmed this very story rather than really grapple with the fact like, Oh, actually those structural barriers are, are a big deal. **Derek:** [36:42] So, you know, it's we come to the end of our conversation together. I'm going to ask you what the legacy of this project is. I mean, it is it is ongoing in a certain sense. There's still a one laptop per child foundation or association, I believe, but I also wonder to what extent it gave rise to maybe other, maybe perhaps more fruitful projects in education or what do you think that sort of long-term legacy of this project will be? Maybe that's a simple way of asking shocker. **Morgan:**[37:14] Yeah, I think it's a little bit complicated, but I'll go through a few different things that I see. OLPC likes to take credit for kind of inspiring netbooks and Chromebooks and all of these kind of intranet focused intranet focus machines. I'm not totally sure that the credit is warranted, but that is something that they say as part of their legacy. I do feel like the, in some ways the timbre of projects that got pitched in in the global south around tech and education changed a little bit after one laptop or child. Paraguay NCA, for example, one thing that they've worked on since is girl's robotics programs. And if anything, I'm really excited that they did this because I feel like it does actually push back against some of the narratives that OLPC just kind of wrote along with eight, they didn't explicitly embrace, but they didn't push back against that like, you know, technically precocious boy, kind of imaginary that. That pervades gaming culture and kind of computing cultures for youth more generally. So I'm glad that they did that and I'm glad that overall, there's, there's kind of movement around. I think girls robotics especially is, is kind of one in. On the other hand, I keep seeing projects. New projects, make the same kinds of promises. One laptop or child did. Actually just wrote a little bit about some of the donations that, that have happened with COVID, right? Lots of, lots of people banded together to give tons of funding to schools to buy laptops. In the end. I think in this case, the teachers were part of the loop ultimately. But the way these projects were talked about was we need laptops in the hands of kids and Wi-Fi in the hands of kids. They will feel empowered to like take control of their own future. That's what they need to, to succeed in this world. And I just was thinking, Man, it's the same kinds of story. You're taking out the social world. You're taking out all of the kind of support structures that children have and need to, to learn. You're taking teachers and parents out of the loop. It's all about the child and the laptop, at least again, the way it's talked about publicly. And so I feel like in some ways these projects haven't learned the lessons. I would hope that in from One Laptop or child and I, you know, I can hope. I don't. I also, I think the maker movement was another one that was a really kind of interesting echo of one laptop per child. And in some ways, growing out of the same culture, especially fab labs was, was

also an offshoot of MIT Media Lab, right? And it was kind of developed by MIT Media Lab folks. But it also told very similar stories. I think that there have been some really exciting innovations though in the makerspace, like feminists, makerspaces, intersectional makerspaces, ones that really push back against those narratives and are much more aware. So I'm, I'm hopeful with those and I'm hopeful with girls robotics. I'm hopeful for the discourse, the more critical discourse around technology more generally about, okay, what role does programming play? Or should programming play in children's development more broadly? And maybe should we be talking more about kind of critical media analysis, right? Being able to really look at a web page or another media message and think carefully about truthfulness and motivations. So I think it's legacy is a little bit complicated in that way, but I am, I would say cautiously optimistic about some of the at least small pockets of new directions. Even if, again we see the same narrative sometimes come up of we'll just get computers in the hands of children and, and everything else will fall into place. **Derek:** [41:13] And this connects well with my final question to you and we've been asked Mr. Vargas, in what ways has sort of this pandemic and it's quick transition online also change your practices of teaching. You found things differently. I'm, I'm like so many of us have. **Morgan:** [41:29] Oh man. So, it's split actually, there's one class that I had been teaching online since I started teaching for Berkeley in 2017. It's for their data science masters and it's an online master's. So that one luckily had been designed to be online. We use this flipped classroom model where we were prerecord a whole bunch of lectures and then use our time together every week as a discussion. Kind of brainstorming are much more active kind of time. So for that class, I mean, I think the added stress of the pandemic really wait on everybody. You know, I had students who had COVID, who had, who were like, I'm trying to call him from the hospital or I can't because I'm in the hospital or my, you know, my loved ones in the hospital. So I think there were certainly a lot of stress induced by all of that, but, but that class at least was the online. Luckily, I did use a similar model to adapt another class that I teach to online. I think more crucially though, I've got two young kids, and one was in kindergarten when the pandemic hit, when everything shut down and watching him suddenly have to pivot to being online. Watching his poor teacher who is incredibly talented, but like man having 20 kindergartners in a Zoom room and they're all like, what's going on, right. Like there's no way she can keep control of that situation. What those kids ultimately needed was apparent sitting in there whenever there is a Zoom meeting, right. Like so that that kind of took away some of the work that she was doing, that she did to manage the classroom and put it on the parents. And so I feel like that was the real eye-opener for me of like just how much do so many people take for granted that teachers, you,

all, they bring to the classroom, especially for early childhood education. That then got offloaded onto like generally poorly trained parents. I think I've always had a ton of respect for early childhood educators and I didn't know that I am not one. I mean, I've read enough about it to and I've been in the classroom enough for different ages, like I can kind of fake it. But when I see really skilled ones, I'm like No, they are that they're the real deal. I am not the real deal. And so I feel like that was the big eye-opener for me of like, wow, there is so much that goes beyond just having that laptop and having that zoom window open, right? So much that the teacher does in the classroom that doesn't always translate well. I think that it's really as younger kids. **Derek: [44:13]** Sorry to interrupt. I think this is a wonderful place to end because I think it also comes through in your book, It's crucial role of a teacher is added. And the successes that they manage to make happen, even despite some of the challenges with these laptops, the program. So I, I think that's, that's a great place to end our conversation. Thank you so much. Professor Aims. I really enjoyed speaking with you and again, grateful for the opportunity to talk about your new book. And I encourage our listeners to go out and purchase a copy in our library. **Morgan: [44:42]** is such a pleasure. Thank you very much and I'm always happy to be in touch. So, if anybody wants to reach out, I'm on Twitter, I'm on e-mail, and I love hearing from people. **Derek: [44:53]** Thank you so much. That was Morgan aims hopper of the charisma machine, the life, death, and legacy of One Laptop per Child, published in 2019 by MIT Press. Morgan is also an Assistant Professor of the Practice in the School of Information at the University of California at Berkeley and Associate Director of Research for the center for science, technology, medicine, and society at UC Berkeley. Thanks to Morgan for taking the time to talk with us about her book. And thanks to my colleague Cliff Anderson for another fantastic author interview. If you'd like to learn more about Morgan aims or her work, please see the show notes for links to her website and her Twitter handle, Morgan G aims. I've also added a link to a website that will let you use logo in your web browser. So if you're unfamiliar with logo, you can see the little turtle and how it moves. Or if you're like me, it's a, it's a welcome blast from the past. Leading lines is produced by the Vanderbilt Center for Teaching and the gene and Alexander heard libraries. You can find us on Twitter at leading lines pod and on the web at leading lines Pod.com. This episode was edited by Red McDaniel. Look for new episodes the first, third Monday of each month, and sometimes you will find them. I'm your host, Derek breath. Thanks for listening.

