



Olu Ibrahim

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Annalies Corbin: [00:00:18] Welcome to Learning Unboxed, a conversation about teaching, learning, and the future of work. This is Annalies Corbin, Chief Goddess of the PAST Foundation and your host. We hear frequently that the global education system is broken. In fact, we spend billions of dollars trying to fix something that's actually not broken at all, but rather irrelevant. It's obsolete. A hundred years ago, it functioned fine. So, let's talk about how we re-imagine, rethink, and redesign our educational system.

Annalies Corbin: [00:00:53] So, as always, I am super excited today to have on a new guest. And we are going to talk about after-school, out-of-school STEM programming that is incredibly creative. So, today, I'm very excited to have, with us, Olu Ibrahim. And Olu, one of the things that I loved about her back story because it's one that I could totally relate to, and so I got a little bit jazzed by that, is that client says that she started to explore in technology when her dad brought her home a Gateway 2000 PC, told her and her sister that computers were the future. I was also a recipient of a Gateway 2000 PC when they first came out. It's a small, small world. So, welcome, Olu.

Olu Ibrahim: [00:01:45] Thanks for having me. Wow. Oh, my God. Wow. Wow. Wow. Gateway 2000 is making a difference.

Annalies Corbin: [00:01:53] There you go. Funny things, right? And I remember when that thing came and like nobody had one of these, and it was just like, it was this giant unknown, right? What is this? What can I do with it? What's it going to mean? So, I very rarely met somebody who actually had one of those. So, it's pretty exciting to me.

Olu Ibrahim: [00:02:13] Yes. It was early '90s, and we were in our cramped apartment, and he brings home this computer. Yeah, it definitely changed the trajectory for my sisters and I, especially being raised, and we were low-income children that time. So, yeah, education was really the way out of poverty and to reach our full potential. And technology was part of that story, too. Definitely.

Annalies Corbin: [00:02:43] And you went forward with that, and literally, the last decade or so, you have been heavily involved in a variety of education, nonprofits, a lot of roles in advocacy for technology, and to the point that in 2016, you founded something called Kids In Tech in Lowell, Massachusetts.

Olu Ibrahim: [00:03:08] Yeah. So, Kids In Tech is headquartered in Lowell, Massachusetts, one of the areas that was heavily involved in the industrial revolution in the context of US history. Yes, I have some family that lives in Lowell and I saw a need. I was actually looking for volunteer opportunities in the area. Some stuff going on, really good STEM work going on, but didn't really see a lot of them. People focus on the T and computing skills, the computer literacy skills and the computational thinking skills.

Olu Ibrahim: [00:03:47] So, I went around asking kids like, hey, if we focus on how to help you guys learn how to make your own computer or learn any other additional tech skills, would you participate in this program? And so, we did focus groups and we got feedback from the kids that they want a real scientist to come into the classroom. They wanted to go on field trips and want to make hands-on learning projects, and they wanted a space to be creative.

Olu Ibrahim: [00:04:14] So, based on their feedback and based on my understanding of education, we came up with our tech lab program, which is essentially, we go onsite to schools, and other youth-serving agencies, and provide hands-on learning projects and technology for kids primarily ages eight to 14 because that's a pivotal time in the kids' educational trajectory. They're like, who am I? What do I want to be? Who do I see around me? Who will I become? Those questions start to form.

Olu Ibrahim: [00:04:43] And so, we focus on that group and we go on site so the educator, like a person who understands pedagogy, instructional leadership, they are paired up with STEM professionals who provide another type of mentorship and leadership in education, right? They're working on real issues, real challenges at work, but they also want to get back to their community in some way. So, that pair goes to school, and then they administer the projects for the kids and they also take the kids on field trips.

Olu Ibrahim: [00:05:16] And at the end of the academic school year, they have like a little showcase about what they've learned and, hopefully, all that mentorship, going to different companies, see what they're working on, learning collaboration skills in a fun, engaging environment, hopefully inspires to at least pursue tech outside of school or pursue it in high school, too, furthermore and get more in-depth knowledge. But really, our goal is to equip, empower, inspire kids, especially in underserved communities or high-need communities.

Olu Ibrahim: [00:05:54] They may not always have the access because we believe that genius comes from everywhere and untapped geniuses are everywhere, we just have to tap them, and hopefully, they all become tech leaders, and hopefully, they all lead our tech innovation economy because we desperately need leaders from everywhere to make sure that US is strong in particular. That's our focus right now. Maybe one day, our focus will change, but right now, making sure that American tech innovation sector is strong.

Annalies Corbin: [00:06:25] Critically important goals. And the need is absolutely everywhere. And I really, really appreciate your focus on that sort of eight to 14-year-old. We find the same thing at the PAST Foundation, the PAST Innovation Lab. That's the moment that we have, right? And it's not that what happened with kiddos in high school isn't important, but the reality is we stand a better chance of, A, having a meaningful impact, inspiring kiddos, helping them find their passion, see the potential careers.

Annalies Corbin: [00:06:54] They have no idea it even exists. And it's not enough that I can't do what I can't see. I can't be, also, what I don't know, and kids don't know so much because they haven't had the opportunity to play, and to explore, and to experience. And certainly, what we see in so many others that are out there, advocating and working so hard, there's many of us, right? We roll up our sleeves to try to get more and more kids excited and jazzed about the potential of STEM.

Annalies Corbin: [00:07:28] And it's not just a worthy endeavor, but back to your point, it's critically important to the future of our country and the world for us to have this amazing, diverse group of creative and innovative thinkers who are fearless. You couldn't get a better group than kids, right? They haven't learned yet, well, what's not possible? And I always love that, because in my mind, what that means is they come to problems. They can take on just about any challenge. And kids are resilient, as many of us have learned over the years. They're incredibly, incredibly resilient.

Annalies Corbin: [00:08:05] And I love that you started by thinking about the fact that every kid is a genius that you encounter, that walks in the door, that participates in your program. They have that potential in there. And it's powerful for kiddos. So, I want to talk a little bit about, so how did you get here? So, your background beyond the fact your dad showed up with a Gateway 2000, and that was awesome, but the journey between that moment and saying, hey, I want to actually build this innovative STEM program, was there something along that pathway that, in your mind, felt like, it's a game changer, I have to do this? Because quite frankly, starting new organizations or new endeavors, it's not an easy thing to do.

Olu Ibrahim: [00:08:52] Yes, you're absolutely right. Starting new organizations is hard work. It's like giving birth to something literally. Yeah, it is. And people often say like, what's your value-add to the space, right? People always want to know if you are new, what is your value-add? And for me, I thought in my community, I saw that the conversation is heavily influenced by coding. I think coding is great. I think you can teach coding. I think kids should know like Scratch to C++.

Olu Ibrahim: [00:09:31] I think they should know all those languages, but I also think there's a space for more comprehensive technology education, right? You can learn tech robotics. You can learn tech concepts through graphic design. It was just broadening the reach of, what is technology? How can you use it to solve different problems in different industries? So, I kind of wanted kids to understand how technology was used in different industries. And at that time, it was like it was great. I think there's a lot of initiatives focused on women, and people color, and coding.

Olu Ibrahim: [00:10:10] I thought those were all great. I was like, yes, yes, yes, we need all these players in the field, but I felt like there was a need for focusing on younger kids. As you alluded to earlier, we often focus on high school students. And I think it's a little too late, like more investment dollars need to be focused on younger kids in getting them inspired, and engaged, and thinking earlier about what they can do. That was one.

Olu Ibrahim: [00:10:33] And then, I just wanted kids to have a broad overview of what tech is and what computer science computer literacy is like. What are all those concepts in a very broad background? And not so like single and focused on one type of technology. So, I thought that was what I could bring to the table. I also felt like it was really important that kids learn from people who are not necessarily teachers, but they're teachers in the way that they actually go, they're like real scientists, real technologists, engineers, and they're working on real everyday problems, and they use technology to solve those problems and they have those kind of critical thinking skills.

Olu Ibrahim: [00:11:12] So, kind of having those people volunteer once or twice a week and just helping the kids on projects, not only those mentorship relationships, we know it's really crucial for kids to be successful. Even as adults, we need a mentorship program. Yeah. We need a community to support us, so we figured like, why not people really working on these problems? So, kids can start to see like, oh, I can be a scientist, so-and-so like lives in my neighborhood or close by.

Olu Ibrahim: [00:11:41] Oh, my goodness, we have so much in common, we have similar racial, ethnic backgrounds, similar stories in general. Oh, my goodness. He loves the Red Sox. I love the—those are the kind of experiences that we know helps kids gravitate towards. At least especially in STEM, it's very important that the kids see real scientists, and technologists, and all engineers to kind of make it real, to connect the dots of like, this is how I got from A to B. And so, the kids like, oh, this is more real.

Olu Ibrahim: [00:12:16] So, I think it was a confluence of a lot of factors, just of organization focused on young kids kind of making the push for some proper college to say, your investment into us will create more kids more interested in STEM earlier, which is what we need for the pipeline, too, and that we are thinking about all aspects of education, which we know is really important, which is really good teaching and led by really good teachers because we know teacher quality matters.

Olu Ibrahim: [00:12:49] We also know that kids need to learn from people who are not "teachers", but people in the field. We also know the kids need to like see it, see tech in action, so the field trips are really crucial to that. And we also know that kids need to play. I mean, I'm an adult and I like to play. Like I mean, it's even more crucial for kids to play and school doesn't always afford that, right? A structured school. And there's a place for school.

Olu Ibrahim: [00:13:17] There's a reason why school is the way it is, but we also provide structure, but there's also like this structure that are being unstructured, where they're like, oh, this is why I got this wrong, I fixed it, and so and so helped me understand why the robot wasn't working, for example or, oh, I coded this frog, oh, that's why it was like brown instead of blue when it showed up on the screen. Like there's no penalty, there's more like learning, growing in a supportive environment. So, I know it was a little long-winded, but just to say that there were a lot of things going on that we could be a value-add, and those are some of the areas that were a value-add. And so, why not? Why not get started and try?

Annalies Corbin: [00:14:01] Well, there's no question that you're incredibly passionate about the work that you do. And the reality is we desperately need people just like you that are out there saying, A, I have a passion myself, but you also come, too, to this problem with this whole set of skills and this recognition around the sort of what and the opportunity value that sort of sits out there at that intersection between education and industry career development, right?

Annalies Corbin: [00:14:31] And that's one of the things that I always find really intriguing, because, again, people are often thinking about, we need to utilize that sort of partnership, that relationship opportunity, I guess, if you will, sort of at the collegiate or at the high school level, but they forget, I think often, that younger kids can benefit from those same sort of mentorship opportunities. And certainly, by enriching what happens out of school provides, hopefully, a better context for what happens in school, right?

Annalies Corbin: [00:15:02] So, that's one of the things that I sort of love to see. And at the PAST Innovation Lab, we have kids who are coming to summer programs, and it's not uncommon for us, and so much of the work that we do involves the opportunity for kids to play in technology. So, again, so much kindred in terms of what you're doing with Kids In Tech and what we're doing at PAST, what makes it, in my mind, an easy conversation. Because the reality of it is, we let the kids play.

Annalies Corbin: [00:15:29] So, maybe we're doing a program on techno fashion. And yes, right, we built that program, for example, because we were trying to find a hook to get more girls, quite frankly, really, really to understand and invest in why tech, really powerful tech. It was going to have meaning in their lives and it could be everything from learning to 3D print shoes to building wearable technology, and everything in between, take

your pick because the team that works on developing what the content is for techno fashion, as we call the program.

Annalies Corbin: [00:16:03] And it's just kind of all over the place, but the reality of it is, by letting the kids play, they actually come up with the things, the opportunities to use the technology that they're being exposed to or the creative opportunities around what it could be that nobody's teaching them at all in that moment way faster than all of the adults sitting around the room can. And then, when you pair that with industry experts who are actually working on real things, and if the kids have the opportunity to work on that real thing with them, then, oh, my gosh, it's like magic.

Olu Ibrahim: [00:16:35] Absolutely. You see it every day, like you just see the light bulbs going off. And even adults are learning from the kids, too.

Annalies Corbin: [00:16:42] Oh, yeah, absolutely. When it's being done well, truth be told, the kids are fearless and they're teaching the adults in the moment. The other thing that we often have done with these programs that we have found really, really effective is part of our aim, which is a little bit different than Kids In Tech is that we're really also trying to change the pedagogical practice in the classroom as well, right?

Annalies Corbin: [00:17:06] And so, one of the things that we're doing is we have been immersing our teachers in training, whether they're new teachers or veteran teachers, but who are wanting to learn how to do applied STEM instruction as the everyday in the classroom instead of the every now and then if you're lucky in the classroom, right? So, no matter what kind of teacher you are, an English teacher, elementary teacher, a middle school teacher, a science teacher, math teacher, it makes no difference to us.

Annalies Corbin: [00:17:34] We believe that every classroom could have its baseline, I guess if you will, steeped in STEM pedagogical instruction, but that is a really, really tough thing if you weren't taught that way as a kid nor you trained that way to become a teacher, and then you're launched into a classroom in a very traditional setting that doesn't necessarily support that. So, how do you help folks make the leap? And we learned years ago, well, the kids can help the adults get there if you showed them all the way.

Annalies Corbin: [00:18:06] And so, we immerse our adults in some of our student STEM programs as students with the kids, right? And then, we pull them out, and do PD, and all that other sort of stuff. But the thing that I love about it, the thing that I see is, suddenly, when you take the artificial barrier away that says, the adults have to always lead and have all the knowledge, possess all of it, soon as you let that go, what we find is the kids are happy to lead others down, especially when they're so excited about what it is that they're learning. And I'm sure you see that, too, in your own programming.

Olu Ibrahim: [00:18:46] Yeah, absolutely, right? Everybody's a teacher and a student at the same time. That's where the best kind of magic happens. Yeah, I'm just happy to hear that there are other similar organizations to us, doing things, having like a similar approach to really integrating STEM into every day.

Annalies Corbin: [00:19:06] It's so foundational, right? It's funny to me. I mean, for those of us who've lived it, like you for, I suspect a million years, our career, it's really difficult for us to sort of separate out and say, okay, now, I'm not going to stop doing STEM and I'm going to go do something else.

Olu Ibrahim: [00:19:22] Yeah.

Annalies Corbin: [00:19:22] Because for us, STEM is literally foundation. It is the building block. On top of which, everything else exists, right? And I can change it. I can make it look and feel like whatever community

it's all happening in. I could change the aesthetics of it. I can weave the art and the story of my community. And I can grab whatever my local community culture is. And I can weave that through it. But the reality is, it's the foundation through which great things are possible.

Olu Ibrahim: [00:19:52] Absolutely. It's STEM or STEAM, as some people would like to argue, it seems.

Annalies Corbin: [00:19:59] I've been keeping the acronym for years.

Olu Ibrahim: [00:20:02] I know there's a bandwidth there, but people go back and forth. I'll say, it's all inclusive, like absolutely. Absolutely. We need builders and creators of technology. And we create the world that we live in, right? So, yeah, absolutely. So, we need people to think, what does the future look like and how do we create the world that we want to live, work, and play in? Yeah, looking down my window right now.

Olu Ibrahim: [00:20:25] I mean, it's the middle of the afternoon, I still see the night post and somebody had to engineer that specific shade and electricity that goes through it. There's an electric grid somewhere that says, sometime after dark, you got to turn it on, so people could see. Like it's everywhere like you said. It's everywhere. Even we're talking through a computer right now, the engineering behind the computer, the aesthetics, the colors used on the computer, yeah, it's everywhere. It's everywhere.

Annalies Corbin: [00:21:01] And it's not going away anytime soon, right? And the reality is, for younger kids, they have been so immersed in this world. Lots of folks talk about digital natives and I actually think you have to take it one step further than that, right? I don't think that quite gets at the true essence of an entire generation of kiddos who, they've never known the world without an iPhone or that personal mobile device, right?

Annalies Corbin: [00:21:28] And because they've never experienced a world without that, they process very, very differently. There is not just the socioeconomic or the sociocultural implications of it, but there's physiological, there's fabulous research about how the brains of the kiddos today are very different in some respect from the brains of kids of the past, right? And part of it is the way they process information. And so, they're physiologically developing slightly differently.

Annalies Corbin: [00:21:56] It's minute. It's hard to trace and understand, but the reality is just step back, and look, and watch these kiddos, you can tell something's very, very different. And part of it is that they are not afraid of data. They may not know what to do with it yet and that's where the work that we're all doing collectively helps them to be able to figure that out. There are great data programs, camps, and whatnot that feed into all of the technology for kiddos, but they are not afraid of it.

Olu Ibrahim: [00:22:20] No, they're not. They're absolutely not. They're not afraid of a lot of things that's good. And so, I think that there's no limitation to their creativity, which is awesome. I think often, at least for my generation, the millennials, the older millennials because there are younger millennials, or the older millennial crowd, I think our generation was like, our parents were very like, you have to achieve teaching.

Olu Ibrahim: [00:22:52] These are the steps to get to where you are and there was kind of like a set pattern you must follow to get to X. Whereas now, I think kids understand and know that I can get to anywhere. As long as I have the information, I have to follow the rules first, but I can create my own rules, use the information to get to X, like I know where the destination is, and so I can get—yeah. Yeah. I see that all the time with the kids. Yeah. You're absolutely right about that, even a lot, very creative, not afraid, the sky is truly the limit. Yeah.

Annalies Corbin: [00:23:30] Which is a wonderful thing because there's so much that they'll be able to do with that. But I do want to spend a few minutes talking about the things that you perceive or you see on a regular basis that are the biggest barriers. So, let's think about the fact that within five years, because the rate and pace of technological change right now is just so incredibly rapid, and I suspect we're going to see technology and use of technology amped up even more after we all find our way outside of a global pandemic, right?

Annalies Corbin: [00:24:03] Technology is playing a really, really key role in all of our lives right now in ways that we probably—those living in technology probably understood, but it made me focus in day-to-day, maybe just didn't really quite understand what a role it was going to play. And so, I'm really curious where you see the current barriers and the barriers in the near future that you're going to have to collectively—I use the giant we hear as it relates to providing students with opportunity and experience, where do you see some of the biggest constraints that we really, really have to wrestle with sort of urgently to be able to move STEM programming and access to more students further, faster?

Olu Ibrahim: [00:24:50] Yeah, that's a great question. Oh, my goodness. That's an awesome question.

Annalies Corbin: [00:24:54] It's kind of a loaded one, I know, but still.

Olu Ibrahim: [00:24:56] Yeah, a very loaded one, but it is a question we should be contemplating right now, actually. So, it's very relevant. I would say a couple of things. There are still kids who don't have access to reliable internet. That problem needs to be solved with the providers and with the government. Like we need people to understand, have access to the internet and have access to computers. I also really think we probably need school fundamentally changed, how it's—I think still, kids, there's something about interacting with people and I think that's very important percent.

Olu Ibrahim: [00:25:37] But I do think that COVID has kind of shown that kids can learn in and outside of school, and they can learn through a computer, too, now. And so, how will the school change? How will school be re-imagined during the school day? And how will after-school providers continue to complement what's happening in school and vice versa? So, I do think that there is a great opportunity right now, actually, for nonprofits like ourselves, school districts, and government state officials to really think about the infrastructure behind technology and investments behind that.

Olu Ibrahim: [00:26:17] How does the government do it? How do everyday people support nonprofits or foundations? How do we support like all the key players or ourselves to make sure that we have the digital infrastructure we need so the kids can learn, not get left behind? I think it will be really interesting to see. Kids will probably start—we're probably going to have like apps or things on your phone that kids can learn from their phone. And so, I do think the classroom is going to change in the futuristic world. It may not be futuristic as we think, it may be right around the corner. Those are my thoughts around it. I'm kind of curious about your thoughts, actually, but those are like my initial thoughts about it. Like these are big, structural, systematic things that need to happen, so I do think-

Annalies Corbin: [00:27:06] They are, yeah. Yeah, I do, I agree with you. I mean, we definitely see the same thing. Almost everybody that I talk to or work with both in the US center and around the globe, I hear this over and over again, that one of the things that, of course, that global pandemic has done is, on some respects, it has increased the divide between the haves and the have nots, however you want to define that, right? And broadband access is one of the big key pieces, right?

Annalies Corbin: [00:27:37] If we don't have enough technology and we can't deploy it fast enough, appropriately enough, with enough bandwidth to truly do what needs to happen, then the reality is, we've got

kids out there who are not able to switch to virtual learning because the technology doesn't make it possible. It's either not there. The schools don't have the devices to be able to hand out to kids. And even if they did, the kids may not have internet at home or access to it, even close to their homes.

Annalies Corbin: [00:28:11] And so, you have all of those components. And so, I do think that without question, that is one of the things that we cannot leave this experience without a very comprehensive and funded plan to change that paradigm forever, right? Because at the end of the day, access to knowledge and information is power. It is, so I would agree with you that that's one of those barriers that I think that we have to figure out how to fully overcome.

Annalies Corbin: [00:28:41] I think that one of the other ones that's really interesting and intriguing to me is, like you, I feel very, very strongly, and I've been saying this for years, and so folks who know me, this is no surprise, I've been talking about the fact that we have to re-imagine the schoolhouse. It's no longer working because it's not relevant to the world we live in today. It's not that it's bad, it's a system, right? And it's an engineered system.

Annalies Corbin: [00:29:12] And as designed and developed a hundred or so years ago, it was doing exactly what it needed to do, but we've not truly innovated the system in a very, very long time. What we've done is we keep trying to tweak it and we keep trying to fix it or modify it, but reality is that that artificially-engineered system can only be modified so many times before it has to be completely re-engineered. And I think that what I have seen over the years is we keep coming up with these new initiatives.

Annalies Corbin: [00:29:45] We throw a lot of resources, government dollars towards them, and then we forget that what happens then is we patch a hole or a leaky pipeline for those who love to talk about STEM and the leaky pipeline to get us there. Those are band aids. They're not long-term, structural fixes or redesigns, and so until we do that and we truly, truly think about, what does it mean to be a learner in the modern world? And what is teaching and learning supposed to look and feel like until we sort of get at the sort of core of some of those pieces, I think, that we're going to struggle?

Annalies Corbin: [00:30:20] But I do think there's an intriguing opportunity that actually ties back to the work that you and I both do. And because I believe very strongly that formalized education can learn a tremendous amount about engaging students, teaching and learning, from the informals, right? Think about what you do in that after-school environment, think about what happens further, Kids In Tech clubs that you deploy in and around your community. Those kids are learning and engaging with you in very, very different ways, and they often do in a traditional classroom.

Olu Ibrahim: [00:30:55] Right. But there's space for that and I think policy—as you know, you're an educator, too, so you know policy just takes what kids learn from in minutes per day and policy also dictates gym and other electives. That idea, I mean, I'm going to remain hopeful that parents, and kids themselves, and policymakers, they all have hopefully their space that everybody has to say, just re-imagine what the school day looks like and how do kids also feel supported?

Olu Ibrahim: [00:31:27] Because I know for some of our kids, we had to deploy technology because they just didn't have access, right? I mean, some of the language barriers are too silly. Some of our volunteers, and staff members, and myself were like, try to speak to kids as best as we do, like it's standard, or fragile, or whatever, like as much as you do to kind of make sure. But kids are very resilient because a lot of the kids, we're helping them translate with their parents, too, on the job. But like I guess back to your point, yeah, there is an opportunity, and hopefully, people grab the opportunity, really include all stakeholders in play, and say, hey, like how do kids learn?

Olu Ibrahim: [00:32:08] But I know a lot of kids also miss their friends, like they love—we all love the in-person interactions, so how do we keep those in play but also be flexible enough? So, God forbid that COVID-19 doesn't happen again, but even if COVID-19 doesn't happen again, how do we create a more flexible world for learning and ensure that kids are not being left behind because you don't have the tools to like create flexible learning. So, how do we try to create that flexible learning for most kids? These are all really complex questions. And yeah, these are just lots of conversations, but I'm going to remain hopeful that people take the opportunity now to start thinking about it instead of not doing it. This is a crucial time to do it, definitely, I agree with that.

Annalies Corbin: [00:33:00] It is a crucial time and there's so much opportunity. And so, I am very, very excited about the work that you were doing and I want to thank you so very, very much for taking time out of your day to share the conversation with us. So, thank you very much.

Olu Ibrahim: [00:33:18] Thank you. Glad to be here. Thanks for having me again.

Annalies Corbin: [00:33:23] Absolutely. Thank you for joining us for Learning Unboxed, conversation about teaching, learning, and the future of work. I want to thank my guests and encourage you all to be part of the conversation. Meet me on social media @AnnaliesCorbin and join me next time as we stand up, step back, and lean in to re-imagine education.