



Dr. Jeff McClellan

Annalies Corbin: [00:00:00] So, welcome to Learning Unboxed. We're very excited today to welcome our guest, Dr. Jeff McClellan. It's really exciting to have Jeff with us. I have had the privilege of knowing Jeff for a number of years now. I, first, met Jeff when he was the Founding Head of School of MC2 STEM High School in Cleveland. And through that journey and talking with Jeff, discovered along the way that this is one of the most creative individuals I've had the chance to meet.

Annalies Corbin: [00:00:33] And the work that he's been doing along the way is pertinent to our conversations that we've been having in Learning Unboxed in the sense that the journey along the way has led to lots of discovery, which has then led to some pretty amazing next steps. In addition, to being the Head and Founder of MC2 STEM High School, Jeff is now the Founding Director of something called STARTSOLE, which we will talk about here at length. I'd like to start Jeff with a hearty welcome.

Dr. Jeff McClellan: [00:01:02] Thanks. Thanks. I'm really happy to join you.

Annalies Corbin: [00:01:05] Excellent. And I wanted to start our conversation today. This program has been talking an awful lot about what it means to wrestle with the ideas around thinking about teaching and learning very differently, and how that translates then into these ideas of what are we preparing students for. At the end of the day, what's our true purpose in this endeavor? 21st Century learning is a very different beast than it's been in the past.

Annalies Corbin: [00:01:32] So, let's talk a little bit about sort of what brought you to being involved in a school transformation or a new school startup with MC2 because you were a science teacher by training out of the Lima School District as I recall, and then suddenly found yourself in a really large urban district trying to do something completely new. What got you there?

Dr. Jeff McClellan: [00:01:57] Yeah, that's a good question. I often ask myself, "How am I where I am?" And this one, I guess, the the actual trajectory was I was teaching science at Lima Senior. I was there, actually, in a really good time because there are a lot of really innovative people around me there, and a lot of energy to really try to make the high school a lot better place. And when you think of Lima, you don't think of large urban, unless you are in the area, but Lima got a very -- It's a very urban high school, very similar to the kids in Cleveland, very similar challenges as far as poverty, and a lot of the other issues go.

Dr. Jeff McClellan: [00:02:38] And when I was there, there was a push to break the school into three autonomous small schools. And so, I actually got to be part of the team that developed one-third of the school into a school based on Gardner's Theories of Multiple Intelligences. And I was the leader of one-third. So, basically, the principal of a small school inside of this big building.

Dr. Jeff McClellan: [00:03:00] And so, over four years in that role, I really worked with some great teachers, and kids, and parents, and community members to redesign an existing high school, and 35 existing teachers to create a type of education that was very different. And we played around with the schedule. We went to trimesters. It didn't really work very well, so we went back to a block schedule. We did lots of things with time, we did lots of things with assessment, and we did a lot of different things that kind of try to expose kids to education in a different way.

Dr. Jeff McClellan: [00:03:34] And as a result, kids were doing some great stuff there. And so, when the opportunity came along to go to Cleveland and start from scratch, I kind of saw it as an opportunity to take everything that I'd learned in this transformation environment and apply it in a bigger context with some more flexibility and the opportunity to start from scratch. So, that's kind of how we got there. It was it was about my 10th year in education when I was hired to go to Cleveland and start MC2.

Annalies Corbin: [00:04:07] And starting new endeavors takes a very particular mindset, and somebody willing to really, really go out on a limb. And, sort of, just to set some context for our listeners who may not be familiar with what's happened with MC2 and, in particular, some of the highlights. So, that's one of the State of Ohio's platform STEM schools that came along, a whole group of batch of them together about, at this point, what, 10 years ago, 10 to 12 years ago now.

Dr. Jeff McClellan: [00:04:37] Well, over 10 years.

Annalies Corbin: [00:04:38] Yeah, it's been a bit of a journey. But MC2 was a little bit unique in, sort of, the original set of these schools because MC2 was based on the notion that we did not necessarily have to envision all of our students going to school in the same place for four years. And I, actually, think that's one of the beautiful things about what you designed and developed with MC2. And I suspect that part of that came out of that experience at Lima, taking smaller groups of kids, moving them around, thinking about those different types of things. So, sort of walk us through the, sort of, journey that a student might have that was participating in that because I think that that journey translates directly back into STARTSOLE that we'll talk about in a minute.

Dr. Jeff McClellan: [00:05:21] Yeah. Well, I mean, one of the things that was in place when I was hired was there was a large team of people that already started to think about what the ideal STEM platform school in Cleveland would look like. I think there was something like 83 partners that had been engaged in some way or the other. And so, by design, the idea was to make the City of Cleveland the campus for the STEM high school and really leverage these partners in engaging ways. And so, by design, the idea of having kids in multiple campuses was to be able to give them a deeper experience with a partner.

Dr. Jeff McClellan: [00:05:56] If you just think and do the math, like, in this way, similar to small schools. Like a high school of a ninth grade of a hundred kids working with NASA Glenn Research Center and the Great Lakes Science Center that has X number of employees and people that can engage, the factor is different than if it was that number trying to reach 400 kids. And so, there was a depth of experience and, also, the ability for these partners to kind of engage in a more meaningful way with the smaller number of kids.

Dr. Jeff McClellan: [00:06:27] And so, what that looks like now, ninth graders attend school at the Great Lakes Science Center in Downtown Cleveland and work with NASA Glenn Research Center and several other partners. The 10th graders are at Nela Park, which until a few years ago was the headquarters for GE Lighting. And it's gone through some transitions there. It's no longer the headquarters for GE Lighting. And to be honest, I can't really tell you exactly what it is right now because I haven't been in the day-to-day for the past four years, but they're still engaging with the engineers that are there. The engineers just technically have a different line on their business card.

Dr. Jeff McClellan: [00:07:07] And then, in 11th and 12th grade, it kind of flips inside out where it becomes about the students having experiences that are more aligned to what their interests have developed to be. So, kids are doing internships. Kids are taking classes at lots of the local institutions. And then, there's a home base at Cleveland State where kids can go, and there's MC2 STEM teachers. There's an entire floor there.

Dr. Jeff McClellan: [00:07:29] And so, the idea is like in 9th grade, kids get very similar experiences because we want to give them exposure to one thing. 10th grade, again, the same with a different partner and a set of experiences. And then, 11th and 12th grade, it can become more individualized because they've had a chance to kind of experience some things together.

Annalies Corbin: [00:07:48] So, the entire city, by design, then, is really both the school, the classroom, and the experience for these students. And that is definitely one of the things that I think that lots of communities would aspire to, but that's a huge, huge foundational leap. We are pre-programmed almost to go back to one of the videos that you have on your website that really talks about that old factory mentality.

Annalies Corbin: [00:08:15] And the way that we really got to where we were producing quality workforce for the time that we had, that we needed it very manufacturing-based, where we needed everybody to be able to come out of that system, teaching, and learning, ready to do the exact same thing. That's not the world we live in anymore. And so, the notion of translating that at that very early phase out of a traditional high school setting into, imagine, an entire community is the place where you learn, that's pretty revolutionary.

Dr. Jeff McClellan: [00:08:47] Well, like I said, there are a lot of partners at the beginning that are kind of already had that big idea. I just had to try to figure out how to make it work.

Annalies Corbin: [00:08:55] You had to do the implementation. And I actually do remember a lot of those meetings. And I can't recall if I participated before you were hired or not, but it must have been roughly about the right time. I do remember many, many of those partnership meetings, and driving up to Cleveland, and sort of talking through the variety of ideas and the resources that people had to bring to the table. And, at the end of the day, that partnership piece is a critical component that, ultimately, then, allowed you to be able to formulate and think about the, sort of, next piece in all this. It's an awesome amazing experience for kids but that has to translate into your faculty and into your teachers.

Annalies Corbin: [00:09:36] And one of my favorite MC2 moments over the years has been the fact that we were fortunate to get to work with you and your teachers both at campus, at the time, at MC2, along with Rensselaer, and the variety of things that you helped teachers do. And I realized this will probably make you uncomfortable, but I have gone around the country, and multiple times said that the person that I have met, the principal who was most skilled hiring staff is Jeff McClellan. You have an uncanny ability to recognize what you needed out of people to be able to pull those teams together. And so, what does that look like when you were looking for a teacher who is going to be

completely comfortable immersing themselves in this new type of space? What's that decision making look like?

Dr. Jeff McClellan: [00:10:28] Yeah, that's a good question, and it's funny because if you're familiar with the whole history of our school, the staff was so important at the beginning of the school. And then, there's so many things that kind of happened as we're evolving that kind of chipped away and tested our ability to kind of maintain as things were happening in the city as a whole. But, I mean, that first group of people that we hired, I think it was six teachers, everyone had a pretty different background as far as both in terms of their formal education, their experiences. They all had this unwavering commitment to kids. And they were really good at their content in their different ways.

Dr. Jeff McClellan: [00:11:14] But, I mean, literally, any one of them would have done anything that they could for any of the kids in that school. And if you can create an environment where there's that level of commitment to the kids and the content, and then they bought into the vision, we were just really lucky in that regard.

Dr. Jeff McClellan: [00:11:36] And so, as far as hiring goes, I think, you got to have people who know their content. But, I think, you also need to have people who have the ability to connect with kids. I tend to kind of like people who've had different kinds of experiences too, not only always educators, but I think a blend of people who have some other experiences, especially when we're trying to really interface with the STEM community.

Dr. Jeff McClellan: [00:12:04] We had a professional engineer in our founding staff. We actually had two engineers in our founding staff. And their ability to not just talk about what engineering was but to actually live it and talk engineering with the other engineers that were there gave us the ability to kind of like Rich Rosen talks about boundaries spanners. We had people who span boundaries in different sectors that were really important to us. And then, we had some really kickass traditional teachers too that just really know how to get it done in the classroom. And because they were able to work together, we were able to do some really great things with kids.

Annalies Corbin: [00:12:42] Yeah. And I think that, at the end of the day, that's one of those keys that as you find that right mix of folks who are really comfortable in stretching and thinking about sort of what it might look like if I could do it different, and it's okay if I get it wrong, that's part of that journey along those paths.

Annalies Corbin: [00:13:02] So, as you did your work at MC2, and like so many principals who found new schools and new school sets, it's not uncommon for our founders to come and stay through a first class graduating or moving on. That's a pretty traditional trajectory for a very nontraditional group of folks. And so, as you also made that transition, what were the key things from your experience in starting a new school endeavor that you think translated into your work and your need to create STARTSOLE. I want to start there. And then, we're going to dive into exactly what that is.

Dr. Jeff McClellan: [00:13:47] Yeah. I actually made it through three graduating classes. So, it was after seven years. And by then, I think, what was clear to me was that there is somebody else in the school that could probably take us farther than where we were with me just because she had, I think, at the time, five or six years of experience in the school, had a very deep understanding of what the school was, what the vision was, and had a skill set that she was going to step into the head of school role. And I had no doubt that it was going to continue to grow and flourish under her. And I think it was a time for some new energy in that position.

Dr. Jeff McClellan: [00:14:30] But as far as STARTSOLE goes, one of the things that happened was we were building it as a platform school. And so, by design, we were supposed to be able to codify

and share things out with others. And early on, the things that people were most interested in were project-based learning, mastery-based grading. We had the first fab lab in a school in the country. And so, they wanted to see how the fab labs become instruments in schools. And that's exciting. It's kind of like a boost to your ego that people want to learn from you. But the reality was we were designing things, and people were sitting through them, and getting excited, and not having much success implementing them back in their environments.

Dr. Jeff McClellan: [00:15:16] And so, I started it kind of almost a little frustrated. It's like a couple of fronts. One, why are we spending our time working with people who are going to go into environments that can't implement the things that we were able to implement in our innovative startup environment with 83 partners and multiple campuses? And there's just so many layers of things that interfere with the implementation that it's hard for the teacher. And then, two, I'm thinking people are spending weeks of their time, they're spending money out of their budget, they're spending their own emotional investment to build something up. And then, when it doesn't work, it's actually like setting them back more.

Dr. Jeff McClellan: [00:16:00] And so, first, I did my dissertation on the first graduating class and tried to really understand like, "Okay. What's at the core of this?" or "What is it about this?" We're taking kids to Arizona for a week. We were doing internships. We were doing mastery-based grading and all these different things. I try to understand really where are these intersections and points that really had the greatest impact on the kids. It ended up being a study of the non-cognitive factors.

Dr. Jeff McClellan: [00:16:33] And that kind of led me to thinking about, "Okay, if this is what is at the key-" And part of my dissertation was a triangle. And the idea was that an equal lateral triangle is the strongest two-dimensional shape. And we wanted kids that were strong and resilient to these forces. So, if motivation, self-management, and social engagement are the three sides of that triangle, then we want to align them in a way that kids are set up to be successful when life hits them.

Dr. Jeff McClellan: [00:17:02] And so, I started to try to understand what was it in project-based learning? What was it what the Fab Lab? What was it with the internships that related to these three components? And are there other ways to boil this down to something that's easier to implement? Because the other thing that I've learned from day one as a teacher through my experiences at Lima Senior and at MC2 where it's one thing to talk about it, it's another thing to do it. And until you do it, you don't really know what's going to work and what's not going to work. And the longer you talk about it before you do it, the more buildup there is. And the longer the implementation of the doing it is, the harder it is to stop and do it again. And so, I wanted to try to find something where we get to the actual action part with the understanding that it's going to be bite size that's not going to go great, and then iterate off of that. So, STARTSOLE has become a way for teachers to actually engage in student-centered, inquiry-based learning in their classroom right away.

Annalies Corbin: [00:18:06] Right, which is really, really key because one of the things you said, and I want to be really mindful with our listeners that we bring into this program some really amazing innovations in teaching, and learning, and building that work for us. Well, we have to be really mindful that not every place can and will or even should start a brand new endeavor from scratch, that there is an awful lot of really amazing great work that's happening in our existing teaching and learning locations from folks who've been doing things for a number of years. But it is really, really critical to be able to demonstrate and to show folks how you can take smaller chunks of great stuff, and grow your own skill, grow the comfort level of students or your community to do things a little bit differently.

Annalies Corbin: [00:19:00] So, thank you for that because that's a really important thing because people can get overwhelmed. I often hear, "I can't even imagine what that would be like." And I'm sure you've heard that as well. And I think that one of the successes that you've had with

STARTSOLE is that you're talking about something that's very, very manageable. So, walk us through very quickly just sort of the essence of that program and why it has application, broad application for folks who are ready to go down a different journey.

Dr. Jeff McClellan: [00:19:26] Yeah. So, just to kind of give you how we started. The David and Barbara Jacobs Foundation in Cleveland approached me when I was at MC2 and said, "We want you to watch this TED Talk. We have an interest in funding this work in Cleveland. And we want to do it in a way that's unlike the way a lot of things are funded. Basically, we want to give you a budget. We want to give you flexibility with your budget. We want to support you with a coach that's going to help you set up goals and review those goals. We really want to start this like a kind of like a tech startup."

Dr. Jeff McClellan: [00:20:03] And the TED Talk was done by Sugata Mitra. And the idea was he posed this wish of a school in the cloud. And he won the first million dollar prize from TED for the work. And part of it was this concept of SOLE, which stands for self-organized learning environments. And in his context, he had taken a computer, and knocked a hole in the wall of his office in India, and put the computer in the street, and just monitored how these kids who were homeless and had never had access to technology, basically, taught themselves how to use a computer.

Dr. Jeff McClellan: [00:20:38] One of the great lines in his talk is he says he comes back a month later and not sure what he's going to get, and the kids are asking him for a faster processor and a better mouse for this computer. And so, the idea really is that with interest and access to technology, a lot of learning can take place in ways that aren't always the case in a more traditional like, "Here's the standard. We're going to lecture the standard to you. You're going to memorize it. And you're going to regurgitate it on a test."

Dr. Jeff McClellan: [00:21:10] So, when I started working on the concept, for the first six months, I just tried to do what a classroom-based SOLE would be in as many classrooms as I could. And the goal was a thousand SOLE sessions by the end of the first four months. And what I found really quickly was that there were lots of teachers who were willing to kind of let me come in and co-teach with them, and principals who I had known that were going to let me do it as well. And it was clear that there were a few things that were needed in order to make it really work.

Dr. Jeff McClellan: [00:21:41] (1), teachers needed help with big questions. And (2), these big questions needed to be directly aligned to their existing standards, so they didn't lose pace on what they needed to cover over the course of the year. And then, (3), teachers needed to feel supported in the implementation process. So, we developed a set of tools that gives them access to questions aligned to their standards. And teachers actually add questions in. So, now, we have about 7000 questions in the database, and it's growing all the time as teachers are using it. And then, we did the same thing with a set of resources that graphic organizers, and rubrics, and things that teachers can use to help with the process. And then, later on, we launched an app. And the app is really kind of just to be the teachers' coach in their hand and helps them with the process in real time, and then collect some data, and helps with things like that.

Annalies Corbin: [00:22:36] And it's been incredibly successful. At PAST Foundation, we've actually bumped up against STARTSOLE. And I always really, really love that, actually, that this sort of journey could come full circle because we did a lot of startup stuff with you way back when. And then, to see the success of your programming in the school, and then to move on to other things, and then to bump back up against that again.

Annalies Corbin: [00:22:58] And, for us, the thing that we find so remarkable about STARTSOLE and one the reason we wanted to have the opportunity to have a conversation with you about it is that, oftentimes, STARTSOLE works great because teachers are doing, to your point, the thing that

they're already doing. And it provides them with resources and mechanisms just to help enhance that. And as teachers start on a journey between problem, or project-based, or inquiry-based, sometimes there's a great hesitance about, "How do I do that? And what's the context? How do I wrap it around and have the supports?" So, that's really, really meaningful.

Annalies Corbin: [00:23:32] And so, at PAST, we advocate problem-based learning. We do a lot of training. And we can always tell when we've been in a classroom where the teacher who has already been through STARTSOLE because that teacher has a completely different appreciation for the context in which why-

Dr. Jeff McClellan: [00:23:46] That's great.

Annalies Corbin: [00:23:46] ... and how I can blow it out. And so, I can see where those natural-fit pieces sort of happen there. If you think about sort of the next iteration, not just for STARTSOLE but for where or what you see on time well spent and resources being lobbed at the big giant issue of what do we do about teaching, and learning, and the future work, where do you see the greatest benefit in terms of resources being allocated?

Dr. Jeff McClellan: [00:24:19] Yeah, that's a good question. And first, I just want to acknowledge that point that you made about STARTSOLE because it really makes me feel good to hear that teachers who are engaging with STARTSOLE actually are -- It sounds like you're saying more disposed to some of the deeper pedagogical shifts because that's really -- My goal is 250,000 teachers in the US by the end of 2021 because if we can reach that many teachers, then it's roughly 10 million kids who are at environments-

Annalies Corbin: [00:24:47] Exactly.

Dr. Jeff McClellan: [00:24:48] ... with STARTSOLE as part of what they're experiencing. What that means is that it's kind of like fertilizer-

Annalies Corbin: [00:24:54] It absolutely is, yeah.

Dr. Jeff McClellan: [00:24:56] ... because when teachers are able to do that with their kids, and there's a confidence that, "I'm a teacher. I can facilitate this kind of student-centered inquiry," and as a student, "I know how to get into a group, I know how to research, I know how to think critically, I know how to communicate, and I know how to use creativity to solve these problems," it's actually just making everybody more aligned with what's the direction that we need to go.

Dr. Jeff McClellan: [00:25:18] And I know that there is a big push and there should be for job-ready skills. And I know there's lots of different words associated with what that means. But if you break it down simply, to me, it's creativity, critical thinking, communication, and collaboration. And so, anything that we can do to make it easier for a teacher to create an environment that allows that to happen while also still stay focused on the standards that they need to cover is going to move us long ways.

Dr. Jeff McClellan: [00:25:53] And so, I mean, as far as STARTSOLE goes, on a budget of about \$500,000 a year, we're already impacting half a million students. And over the next three years, because of what we've learned, and because of the way we've been able to set ourselves up for growth, that can project to 10 million over the next three years.

Annalies Corbin: [00:26:13] Which is an awful lot of students entering the workplace, right?

Dr. Jeff McClellan: [00:26:19] Right.

Annalies Corbin: [00:26:19] And, at the end of the day, that's what we're all working on. We're trying to figure out, how do we move from these young, impressionable, completely creative, boundless beings into folks that can take all of those amazing passions and skills, build on those skills, and be ready to be part of society on so many different levels? And so, it's absolutely critical.

Annalies Corbin: [00:26:49] So, as you think about sort of the growth, if you will, of STARTSOLE and the implications, I guess, of that work space on education as a whole, what would your parting shots be? So, I've got a group of funders, a group of teachers, of students, and partners all standing around ready to say, "We want to embrace the work that you're doing," but these folks are asking you, "Tell us the one giant takeaway that we have to be prepared for to go on this journey with you," what's that parting shot that is both a point of caution but a point of hope? Because, I think, we often get tied up in these conversations with the joy of students' success or this is worked over here, this has worked over there, and we forget about the bigger, longer picture, the bigger journey that we all have to be able to stick with this on. So, what's that that piece for you that says, "Tomorrow, I'm going to do this again, and I'm going to do it bigger, and I'm going to do it better"?

Dr. Jeff McClellan: [00:28:01] And as far as the journey, whose journey are you referring to? The kids' journey? The adults' journey?

Annalies Corbin: [00:28:07] I'm talking about all of the above. But, at the end of the day, you, Jeff McClellan, have to be that pioneer willing to stand there or sit here, in this case, and say, "We need to do this work. We have to make it easier for schools, for teachers, for our students, and for our community." So, what's that driver for you? Why do you come back?

Dr. Jeff McClellan: [00:28:29] Well, for me, the driver is the kids. It always has been. And I think the thing that really just blows me away time and time again is when kids are given opportunities to really stretch, they go a lot farther. I mean, I'm always blown away. And so, that's the driver for me personally. But I think if you want to think about why is something like SOLE an interesting expressway for this, it's actually a couple of things.

Dr. Jeff McClellan: [00:29:00] One, in education today, most of the educators and all of the rules are built by people who [Dusky] calls digital immigrants. We've had a certain exposure to technology later in life. It hasn't necessarily created the way that we learn. It definitely hasn't created the way that we were taught. And the kids that are in the classrooms are digital immigrants. And so, there's this interesting divide. And with that comes a lot of fear sometimes about how to use technology, how to do those things that limits the ability of the teacher to really create the kind of atmosphere where the creativity, the communication, the critical thinking, and the collaboration can really thrive.

Dr. Jeff McClellan: [00:29:47] And so, what STARTSOLE kind of represents is this little hack that makes it really easy for the teacher to set something up that allows the students to show what they're capable of doing. It's not going to be perfect at first. It's going to go pretty poorly sometimes because kids are conditioned in those classrooms to turn that part off and to learn in the more traditional way.

Dr. Jeff McClellan: [00:30:11] So, when you say, "Here's the big question," like, for example, a second grade science question, "Could you hear if your ears were square?" that's something that a second grader outside is going to play around with and just think about. But in the classroom, they may not necessarily revert back to that type of process. And so, it takes a little bit to kind of put that process into this school environment that's set up differently. And so, having things like STARTSOLE that allow teachers to really enter that space easily.

Dr. Jeff McClellan: [00:30:46] And the other thing, by the way that we're using technology and leveraging those kinds of things to build this and scale it, we're creating pathways to teachers. And sometimes, my friend, Justin, who's part of the tech team, he describes what we're creating as a Swiss Army knife for STARTSOLE. So, these tools that we're building actually have applications in other ways. So, yeah, we're investing, and we're building something for STARTSOLE. We're going to reach teachers, and it's going to move the needle for kids and for teachers in a major way around student inquiry, but there's components of what we're building, that as we learn what else is needed, can be laid through the same dissemination pathways with some of the same tools.

Dr. Jeff McClellan: [00:31:29] And so, I think, the value proposition is on several layers. It's to get this to teachers right now, so that they can use it and learn from it. But then, the way we're getting it to them is different. And because of that, it's opening up these other pathways for other things to be disseminated and supported down the road.

Annalies Corbin: [00:31:52] And, ultimately, for these students to have amazing opportunities both at the moment of their learning but also for their futures.

Dr. Jeff McClellan: [00:31:59] Right.

Annalies Corbin: [00:32:00] Yeah. So, I want to thank you very much, Jeff, for taking time, and joining us, and to let our listeners know that we will have resources, including the link to the video that got you moving down that road, plus several others. And thank you for the work that you're doing. And I hope that you continue to do that. So, join us next time.

Dr. Jeff McClellan: [00:32:21] Thanks. Thank you.