Karl Rectanus: [00:00:00] The reality is all of those massive inventions that you think about - the light bulb, indoor plumbing - all these different things are the product of incremental continuous improvement.

Annalies Corbin: [00:00:17] 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.

Annalies Corbin: [00:00:27] 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 reimagine, rethink, and redesign our educational system.

Annalies Corbin: [00:00:51] So, welcome to the next episode of Learning Unboxed, a conversation about teaching, learning, and the future of work. We are excited as always about our next episode because we have a very special guest with us today coming all the way to us from North Carolina, somebody that I have had the pleasure and the privilege to have known for a number of years, heavily in the work around transformative education.

Annalies Corbin: [00:01:19] And so, joining us today is Karl Rectanus. And Karl is an educator, and entrepreneur, and advisor, and co-founder, and CEO of something called the LearnPlatform, which we will talk about as we go through. And he spends a lot of time thinking, and planning, and working with teams of educators, researchers, technologists committed to delivering dynamic solutions around transforming education and a lot of work in STEM.

Annalies Corbin: [00:01:47] The other thing that I love about Karl is he brings to every conversation, every project, an entire ethos of knowledge and experience. And whether that is his life and his family, his work, and his courageous willingness to try and to fail, and do it all with grace, and picking back up, and running again. So, Karl, how is that? Welcome to Learning Unboxed.

Karl Rectanus: [00:02:10] That is fantastically kind. Thank you very much, Annalies. I'm excited to join today. Big fan of the work that you've been doing for a number of years and a lot of the folks you've got on the show. Honored to be here.

Annalies Corbin: [00:02:25] Yeah. Well, it's certainly our pleasure and our privilege. So, we're going to just roll up our sleeves and dig right in. As you know, many of our listeners who join us on this program are anxious, hopeful, excited, terrified of a lot of the aspects of what it's going to take to turn around our education system. And whether you're an advocate that the system is broken, that the system just needs tweaking, that the system needs to be fully imploded, that the system is just fine,

the reality is that we've got a lot of obligations around what we do for kids and for the future of workforce.

Annalies Corbin: [00:03:04] So, Karl, when we first met, you were heavily involved in the work of starting STEM transformation, in particular, in North Carolina. So, why don't we start with just a bit of an overview of how you got involved because your background wasn't specifically in education. So, how did you get in that mess?

Karl Rectanus: [00:03:24] Yes. So, that's right. Well, I should say I have been around education for a while. My family, mostly educators. I was a teacher and administrator here and overseas, but had joined and been supporting work in the private sector and from foundations. But this was, gosh, over a decade ago in North Carolina when STEM was part of a tree or a stem cell. It wasn't science, technology, engineering, and math or even strategies that engage the mind, as our chairman like to equip.

Karl Rectanus: [00:04:09] The idea was quite nascent, but there was a recognition that these are key skills that students and educators in the workforce wanted to highlight, not at the expense of other things, but as a way of infusing the type of design thinking and systems thinking that is, basically, required of all adults now in ways that it never has been before. Our systems have gotten so complex that you have to be knowledgeable and understand how systems work just to be a high-functioning adult today.

Karl Rectanus: [00:04:58] And so, I came to this work as the type of hopeless optimist that talk about, as your listeners, that there is a better way or there are ways to engage

systems that have traditionally been siloed to help facilitate. It was going to take a village. And there had to be systemic ways to help what are different institution silos and parts of the system to improve, not only themselves, but to do so with each other in a meaningful way.

Karl Rectanus: [00:05:40] So, the work in North Carolina was really around, how do we leverage a great experience in the education sector? How do we work with, and support, and engage the private sector in a meaningful way? And in which situations can we either get rid of or provide policies that can celebrate the type of engagement across sectors that we all knew we wanted?

Annalies Corbin: [00:06:12] And then, that's a really hard piece of the work. I mean, lots of folks will talk about how hard it is to make the change in the implementation at the classroom level, at the actual school, in the district. But the reality of it is having done this many times, certainly, for myself, a bit of a serial -- I don't know that entrepreneur is the right word in this case. Maybe just a glutton for punishment, but the-

Karl Rectanus: [00:06:39] Those are synonymous, I think.

Annalies Corbin: [00:06:40] I think so. But the reality of it is the really, really big piece of the work and the biggest lift is the bringing together of those stakeholders in a meaningful, tangible way, breaking down those silos. That's the hardest part. Once the players, the stakeholders, the team agrees, the implementation, don't get me wrong, not easy, not by any stretch of the imagination.

Karl Rectanus: [00:07:08] No, hard work. Yes, of course.

Annalies Corbin: [00:07:08] It is incredibly hard work, but we can work really, really hard day in, day out in that classroom or even with that individual student. And if the ecosystem around us isn't supportive of that work, it's almost impossible to be sustainable or successful. So, could you touch

just a little bit about the forming of the ecosystem, as you talked about that piece of the work? Because the forming of that ecosystem actually lead you to the work that you're doing right now?

Karl Rectanus: [00:07:42] Yeah, absolutely. So, it's funny you mentioned how critical and difficult the implementation, right, the instructional practices. That is where the rubber hits the road. But if the rest of the car and the entire transfer station system are set up to be inefficient or to make it impossible for the rubber to hit the road, it's not going to work.

Karl Rectanus: [00:08:04] And so, that's, I think, where these well-meaning systems, like the private sectors' corporate social responsibility efforts, where educational practice and the institutions of school districts to figure out how to personalize learning at scale for all students, those are the things that everybody wanted, but the systems themselves were, at the time, not incentivized to support the connectivity of that effort, right.

Karl Rectanus: [00:08:38] So, what do I mean by that? I mean, so, for the private sector, very supportive of things that they can look at and show, and specific programmatic implementation - after-school programs, reading programs, STEM robotics. Absolutely great programs, but if we're thinking about systemic change towards design thinking, that's not going to move the needle for all the kids. It's going to highlight a few things, but the foundations and corporate social responsibility weren't necessarily incentivized to think that way.

Karl Rectanus: [00:09:15] Similarly, education, and districts, or local leadership was not necessarily incentivized to think about, for example, what's already been created. As entrepreneurs, we tend to -- and I refer to teachers as the first entrepreneurs because they are solving problems every day for disparate needs with minimal resources to help students achieve a goal. And that is, ultimately, what entrepreneurs are trying to do is solve problems for a specific targeted audience with minimal and growing resources.

Karl Rectanus: [00:09:57] And so, one of the things that we looked at, which I know you in Ohio, folks who have been on your show, like Rich Rosen, Marcy Raymond, and others have done great, really, the nascent work around Ohio's STEM learning network, and we looked at Texas and some of the work that was going on there. And what we

realized is North Carolina, of course, is a slightly different system, and we have been blessed for decades with a strong policy ethos around education, a strong corporate social responsibility engagement around engineering and STEM, and strong school systems across the state. but those things were disconnected.

Karl Rectanus: [00:10:50] And so, a lot of the activity was happening, but it was not connected to each other. And so, there was a ton of either rebuilding the same wheel in different communities or, at the very least, those being inefficient.

Karl Rectanus: [00:11:09] So, when we started, we approached the work by saying, look, the first thing we did in the first 90 days, we talked to 600 different leaders, and we basically asked them two questions. What is your X? What are you really good at when it comes to STEM education? Tell us what do you feel like you bring to the table in a meaningful way?" And two, if you could connect with Y, what would Y be? What do you need that could be helpful to you?

Karl Rectanus: [00:11:43] And by mapping in a meaningful way across these communities, rural districts, suburban districts across the state to these 600 education, business, policy, nonprofit, foundation leaders, we were able to very quickly understand that it actually turned out that there was

some overlap in the Xs. There were some overlaps. But more importantly, there was a lot of X that was everybody else's Y.

Annalies Corbin: [00:12:14] Exactly, exactly, yes.

Karl Rectanus: [00:12:16] And that was, in some ways, just taking a little bit of time to say, "You know, if you were looking for Y, and I could help you connect to Y, would you be interested in playing along?"

Annalies Corbin: [00:12:29] Would you be our X, right? Yeah.

Karl Rectanus: [00:12:30] Yeah, yeah.
Annalies Corbin: [00:12:31] Yeah, yeah.

Karl Rectanus: [00:12:32] "Can I tell people that you're really good at X?" And in most cases, most folks are not looking to keep that a secret.

Annalies Corbin: [00:12:41] Right, no.

Karl Rectanus: [00:12:43] And so, by mapping that, we realized that there were resources. We could take what has, traditionally, been called sort of a theory of abundance that is out there. We just need to connect that. Start to use engineering and design processes to say, "Okay, how would we help this system become more efficient?"

Annalies Corbin: [00:13:08] And I think -- sorry to interrupt, but I think that as folks are listening, that 600 folks in 90 days is key, right. And we've seen this over and over again. And that's not possible for everybody to do that, but we spent -- at PAST, we talk about, and we do in every local community, we ask folks to start with some asset mapping for that very reason that what you did at the state level is completely tangible and doable at the local level, starting, quite frankly, right inside your own school building.

Karl Rectanus: [00:13:37] Yes.
Annalies Corbin: [00:13:38] Right?
Karl Rectanus: [00:13:38] That [crosstalk].

Annalies Corbin: [00:13:38] And that sets you up coming back to the notion of what is it we are collecting and connecting, channeling a little Seth Godin there. In his Akimbo Podcast, he actually has an entire piece about, what is school and what's it supposed to do? And there's a conversation that he, sort of, runs with it's all about the fact that traditional education has spent a lot of time collecting dots, that thing that we're going to measure just for the sake of gathering it. Just for the sake of doing. No tangible meaning, right, instead of connecting dots.

Annalies Corbin: [00:14:21] And that same exact premise translates into exactly what you're talking about. And I just want our listeners to understand that 600 and statewide is not the lift you have to make, but there's a local lift that you can easily make that's as equally important.

Karl Rectanus: [00:14:38] I would love to speak to that because we recognize -- the next thing we learned and realized because we also sort of mapped where those folks were, and what their backgrounds were, and a few other details, we also acknowledged and found that the traditional infrastructure, the people we were talking to were not necessarily the ones who would be around a decade from now when we wanted the change to happen.

Annalies Corbin: [00:15:08] Exactly.

Karl Rectanus: [00:15:09] And so, we actually engaged. Then, we engaged in this local mapping. This local mapping is really interesting. And we did a set of -- we provided a set of really basic questions. Who in your community do you trust? Who do you admire? Who do you admire that you've never worked with that you would-

Annalies Corbin: [00:15:34] That's a great one. That's a fabulous question.

Karl Rectanus: [00:15:36] Who is somebody who gets stuff done in your community? And what we found in that is by mapping that within a local community, these communities like Kinston, North Carolina and Davie County, which are rural communities, very different, have different backgrounds, and populations, and things like that that actually the traditional leaders in those communities, the head of the Chamber of Commerce, the chair of the hospital board, and things like that, the people who are holding up the paper checks or what have you were not actually the people who are going to lead.

Karl Rectanus: [00:16:22] But by asking the questions, they identified and invited those types of people. They found that, "Hey, you know what, it looks like the pastor at this

church, who also ends up running an after school program, everybody trust that guy." It looks like this leader, the community programmer, everybody wants to work with her.

Karl Rectanus: [00:16:50] And by engaging those people in that next level and inviting them to take that leadership role in whatever that change was going to be, they actually set themselves up for long-term systemic impact in a meaningful way. And that was a totally different approach than what the system was set up for, which was, "Hey, we'd like you to write a grant application," which is how it had traditionally worked.

Annalies Corbin: [00:17:19] Right. And which is slow, cumbersome, doesn't build or foster partnership, and is definitely not about relationships.

Karl Rectanus: [00:17:27] That's exactly right. It is a traditional structure, which I -- I believe, there are smart folks and there are good ways. I have nothing wrong -- like there's nothing necessarily wrong with foundation, or corporate grants, or what have you.

Annalies Corbin: [00:17:45] We all have to do it. Yeah, yeah.

Karl Rectanus: [00:17:47] But as a business model and as an approach, but is it designed to get the outcome that you want? Not always if your issue is an ongoing, and owned, locally-owned change.

Annalies Corbin: [00:18:06] So, let's follow up just a little bit on that because one of the things you said there, I think, is absolutely key. So, you've done this great work. You've connected all of these entities, these various dots, so to speak. And you have them now engaged. So, I've seen a number of endeavors over the years get that far. You know exactly where I'm going with this.

Karl Rectanus: [00:18:29] Sure.

Annalies Corbin: [00:18:29] So, how do you keep the engagement long enough and with sustainability in mind to truly, truly make transformative change? And we're talking

about culture shift here, and that does not happen overnight, no matter how great an immediate test score might be or how splashy in your local newspaper the buzz might be. The reality is 3, 5, 7 years, 10 years down the road is really how long it's going to take multiple siloed systems and change them. So, how do you go from this awesome flurry of engagement to "Now, I'm staying connected," because, I think, that's the bridge, ultimately, that you've then catalyzed from there?

Karl Rectanus: [00:19:19] Yes. It was a real -- so, it's always a struggle to talk about transformation and to engage. And it goes through cycles, of course. But one of the things that we realized that we did was that traditional grant. So, we found this next stage of leaders, and we could have written an RFP and said, "We would like to fund something that looks exactly like a flurry of exits, a flurry of those different initiatives." But we didn't think that would sustain us.

Karl Rectanus: [00:19:59] I mean, one of the challenges that people talk about with grant funding, and I don't think I'm saying anything wildly new, but when the money runs out, the people go away-

Annalies Corbin: [00:20:13] Yeah, always.

Karl Rectanus: [00:20:13] ...the results are ex post facto, and this is a challenge of that line. So, we took what was a very new idea at the time, and approached this in what we refer to as venture philanthropy approach, and said, "We are interested in supporting an initiative that is yours, and we will help you go through a design process to help you support and drive something in your community that you, as emerging leaders, want to have happen in your community. That one zone. And to be very clear, we will not be here forever."

Annalies Corbin: [00:20:59] Right, upfront.
Karl Rectanus: [00:21:00] This is not a brand program. Yeah.

Annalies Corbin: [00:21:02] Yeah, upfront.

Karl Rectanus: [00:21:02] We were wildly straightforward to say like, "This is not a grant program. We are not going to -- like you're not going to come back for more later," what have you. So, really, you have to build in that sustainability, that model. I like you - the educators, or foundation members, or others - to engage in this. This feels like an entrepreneurial endeavor.

Karl Rectanus: [00:21:28] For business leaders, I want you to think about this as a foundational shift to how you engage with your community. And let's go through this design process and see what happens. And we basically said -- and there was a lot of handholding, there was a lot of hand wringing around the fact that, "Hey, so what do you want exactly?" And we said, "I don't know. What do you want? What do you want this to be?"

Karl Rectanus: [00:21:56] And what that turned into -- and I mentioned Davie and Kinston. Davie County outside of Winston-Salem, traditionally rural area, has grown significantly, and have some good local support, but bedroom community, one high school, had had for years political challenges. I think anywhere in the country that is considering and at that spot that they're going from a single high school to potentially having multiple high schools can appreciate the fact that there would be two football teams and other things. It has a huge impact on the community. And it's been a real political challenge.

Karl Rectanus: [00:22:45] In that community, they really wanted to go after like, "What would this look like? What do we need? And how do we use and infuse STEM?" And they actually were asking how they're going to build their second high school. And what they wanted to support was this idea of, how do we get architects in our community around the idea that this is not a second high school that

was built in the '50s. How do we build this high school and get the community around the idea that this is a high school for the future?

Karl Rectanus: [00:23:24] And in that case, we went through design threads, and they wanted to bring in -- we brought in international architects. And that high school,

ultimately, was built without lockers, and with STEM studios, and areas that look much more modern a place that hasn't had that opportunity, and that the community owns and grows. It looked totally different in Kinston. Let's talk about that, but it was that type of approach.

Annalies Corbin: [00:23:55] Yeah. And so, that's a whole another episode that we've got on her our horizon, which is all around let's rethink the whole idea of high school. And as you know, that's one of my favorite soapboxes.

Karl Rectanus: [00:24:07] Sure.

Annalies Corbin: [00:24:09] So, we won't go there. But the reality is that you're talking about in this case, the community endeavored and actually was able to accomplish the building of something that is more akin to a startup entrepreneur innovation lab type of approach, right?

Karl Rectanus: [00:24:27] Yeah.

Annalies Corbin: [00:24:27] And then stuck a label on and said, "We're going to call this a high school, but everything that happens here is intended to be very different." And that's part of it is that intentionality. And so, on that same intentionality across the whole scope and spectrum of what's happened in North Carolina, sort of, led to the creation of something else yet new again. And so, tell us about LearnPlatform, Karl, and why it matters.

Karl Rectanus: [00:24:54] Yes. So, we learned so much through this process, and trying to think about, with the STEM work, and working with good folks like Battelle, and had some learning network, folks at PAST and Metro, the work that was going on in Davie and others. And the real question for a lot of folks was, does this stuff work? Does it help kids learn?

Annalies Corbin: [00:25:27] How do we actually know it's the right choice?

Karl Rectanus: [00:25:29] Right. And which of these -- so, we had collected -- I mean, we have lists and data on all these different interventions in STEM education. And people, the next question, which was logical, was, which one do we choose? Hey, in Kinston or Davie, what's the best for us? And we started to understand and think about when we looked at, like, how do you decide that. And right now and at the time, there was really very little data. It was really little. So, as somebody who's worked with educators, and foundations, and all these people who advised on policy and all sorts of stuff, they would say, "What do you think of X?" That X-

Annalies Corbin: [00:26:11] That X came back.

Karl Rectanus: [00:26:13] If I asked the superintendent, in most cases, they would say, "My teachers aren't revolting. So, I guess it's good. We have some data, but if I really dig into it, I'm not sure," or "We have these anecdotes." Alternatively, a three-year, randomized, controlled trial that is functionally out of date before it's even printed because that software, or ed tech tool, or intervention have gone through so many iterations already. It's not even the same thing that it was when it started.

Karl Rectanus: [00:26:51] And so, we started to go after this idea of, what do we think about it? How do we approach and help schools districts and their communities figure out what's actually working? And we saw a great analogue in clinical trials. So, we don't stick. We don't drop medicine into a middle of a bunch sick people and say, "If it doesn't work, we'll fix it next quarter." That's basically how software and ed tech is built or these other things.

Annalies Corbin: [00:27:23] And it's also in many ways how education has managed to find its way there. Not by design, but in many cases, that's exactly what's happened, right?

Karl Rectanus: [00:27:35] Yeah, yeah. And not for any fault of the system-

Annalies Corbin: [00:27:40] Correct, right.

Karl Rectanus: [00:27:40] ... but to respect academic freedom, and to make sure that people are making their own choices, et cetera. But there are all these pilots and evaluations going on all the time. When I taught, or our teachers, are testing things. They're making decisions for the next period based on what happened in first period.

Karl Rectanus: [00:28:00] And so, what if we could capture that? Those insights go off into the ether when teachers run pilot. When I was a school administrator, I knew teachers that would say, "Hey, would you test this thing out and see what you think? And if you like it, say something, have a staff meeting. If you don't, okay, well, we won't play ball."

Karl Rectanus: [00:28:22] But that insight sort of goes away into the ether. We're focused on doing the thing. So, we launched something after about a year of due diligence talking with -- as you can tell, I like to talk to a lot of people before to figure out and trying to find somewhere else that this was happening or it wasn't. So, we launched in 2014. It's called Learn Trials.

Karl Rectanus: [00:28:49] The idea was the clinical trials for education technology the help school districts and their partners do these phase staged evaluations. So, streamline the structure and provide a little more structure behind the pilot that were already going on, but start to do sort of phase two and phase three in more rapid cycle evaluation.

Karl Rectanus: [00:29:14] What we found was so interesting. It turns out if you set out to figure out -- if you want to know what you're using that works, it turns out you need to know what you're using.

Annalies Corbin: [00:29:26] Exactly. Back to that asset map we started with.

Karl Rectanus: [00:29:29] Exactly.

Annalies Corbin: [00:29:29] Because the asset map not only includes what's going on in your community but, darn it, what's happening in your school.

Karl Rectanus: [00:29:36] Already.

Annalies Corbin: [00:29:39] Yes, right, right.

Karl Rectanus: [00:29:40] So, we actually expanded very quickly to what is now LearnPlatform. It is an ed tech management and rapid cycle evaluation system. It's used by school districts, educators, and their partners to organize all this stuff, to streamline processes, like inventorying, like procurement, like contract management.

Karl Rectanus: [00:30:05] And then, we're a research-based organization. Our research and analytics team has created a lot of our stuff that's free, but we also do paid services. But we have a rapid cycle evaluation technology that's called Impact that, essentially, our system does the equivalent of a third-party evaluation in a matter of minutes instead of months, that equip those districts to figure out, "Hey, what are we using? What are we paying for? When we pay for it, do we use it?" And in which situations is it having the best impact?"

Karl Rectanus: [00:30:41] And having that information quickly enough allows districts to make decisions about what they should be doing more of, or whether those are instructional decisions, or operational, or budget decisions. That's where we've come now, and that has been -- it's been a wild ride. It's super useful information, but we're really excited about what's going on there.

Annalies Corbin: [00:31:04] And so, what's the -- so, that the next natural iteration, of course, having been in that space and in that space with you, Karl, I think that one of the next concerns or needs, really, I guess, is what it is, is school folks often have not lived inside of data, truly lived inside of data in the same way that business and industry, back to your case at this point.

Annalies Corbin: [00:31:34] And it's one of the reasons why I think this clinical trials and case studies approach is so critically important to help, again, shifting the siloing of these independent ecosystems into a larger, broader, cooperative ecosystem. But we

don't do a very good job of helping our local school and community leaders understand data, the power of data, and how that tool data itself becomes part of our transformative lead.

Annalies Corbin: [00:32:08] And so, what are you going to do with that? I mean, that's a big lift, right? And part of that is administrative prep broadly, but it's also experience. And so, you know, my interaction with LearnPlatform, you can't help but learn how to get better at data by using that tool.

Karl Rectanus: [00:32:26] Yeah. If there's one thing we've learned over the last four years that this is about building capacity-

Annalies Corbin: [00:32:33] Absolutely.

Karl Rectanus: [00:32:34] ... within an organization. While we set off and are deeply committed to a mission of expanding equitable access, the way we do that is by supporting districts, and administrative leaders, and educators to engage and understand the information and data they have and to translate that into decision making-

Annalies Corbin: [00:32:59] Exactly.

Karl Rectanus: [00:33:00] ... that has an impact for kids today. And I can give you a couple examples. One of our districts -- not one of ours. A district using our system was looking at their math intervention. They wanted to understand what's going on. And over the holidays, they had one of their, sort of, gung-ho folks is really excited about the work and data, started to analyze their math intervention and usage, along with first semester achievement data in our system. They ran a set of analysis quite quickly. They found they were having an out-size positive effect for their English language learners. Fantastic result. Good to know, they would have never been able to find this out because their in-size was not something that a third-party analysis would have -- it would have been two years before anybody looked at it.

Karl Rectanus: [00:33:50] They also found that they weren't having quite the same impact for their high-achieving students for this particular intervention. And they sized it a bunch of different ways,

and they started looking at it. And so, as they came back for the second semester, they shared this information with the curriculum instruction folks. They shared it with the technology folks. They talked a little bit with their Title I folks. And they decided collectively, "Hey, we're going to shift a little bit of our implementation to the students that we're getting about impact. We're going to shift interventions for our highest-achieving students as well."

Karl Rectanus: [00:34:27] By the way, they were like, "Well, we don't need as many licenses as we got last year because the focus that it starts to impact budget decisions." So, in many ways -- and by the way, what I love about this is they were not changing decisions for kids that look like those kids. They were changing decisions for those kids.

Annalies Corbin: [00:34:49] Exactly, exactly.

Karl Rectanus: [00:34:50] And making decisions for those kids. And the way we see that is by making that data more accessible, easy to understand. We do a lot of investment and visualizations. We've provided a lot of this data for free on our site to see what's going on in the market. So, we do infographics and other ways that people can engage and understand what's going on across the market. Like our EdTech Top 40. We analyzed five billion data points last year and found the 40 most accessed tools with the free infographics. And it's actually meaningful.

Karl Rectanus: [00:35:31] And that one of the other things we mentioned there is on average -- I ask you a question, how many ed tech tools do you think most districts access every month, and those districts with more than a thousand students? How many different digital ed tech tools do you think they access?

Annalies Corbin: [00:35:51] Are you including individual teachers in the classroom?

Karl Rectanus: [00:35:54] Yes. So, individual teachers and students. So, if a thousand access Khan Academy, or one accesses Khan Academy, Khan Academy counts as one, right? So, that's-

Annalies Corbin: [00:36:09] So, I'm going to launch what I think is going to be high because I believe that we're constantly turning trying to find the golden key that's going to help with X, Y, or Z. So, I'll say 1500. 1500 times.

Karl Rectanus: [00:36:28] Yes. So, definitely a high number. There are 7000 -- we have the largest product library in the country, 7000 different products.

Annalies Corbin: [00:36:36] Okay.

Karl Rectanus: [00:36:37] I think there are definitely districts who are in this situation. Funny thing is when you talk to most ed tech directors or CTOs, they'll say, "Well, we we pay for about 50 centrally." We might have 50 to 80. I know our teachers are probably buying some other stuff, but maybe a hundred." So, the answer is 548.

Annalies Corbin: [00:36:58] A month?
Karl Rectanus: [00:36:58] Every month in every district. **Annalies Corbin:** [00:37:02] Wow.

Karl Rectanus: [00:37:04] And we share this data. And so, that's something that just by putting it out there and say, "Hey, what does that mean for student data privacy? What does that mean for accessibility?"

Annalies Corbin: [00:37:18] It means it is just shot to smithereens. That's what it means. And I did filter that before it came out of my mouth, but the thought bubble was going so many different directions. Holy moly. I mean, that explains a lot though, doesn't it?

Karl Rectanus: [00:37:34] It does. And this is not -- this is just data, right. This is not a statement of something's wrong here or something's wrong there. I don't think this is just about product companies pushing something that doesn't work for people.

Annalies Corbin: [00:37:49] Sure, sure.

Karl Rectanus: [00:37:49] People, I fundamentally believe. And we have actually -- we have something, a self-assessment for school districts on the personalizing of scale framework. We're going through a validity test with this right now. Folks like Chan Zuckerberg and others are supporting this work. But what we've found is districts go through something very similar to the Tuckman Model for team development - forming, storming, norming, and performing. And I know your audience is familiar with that.

Annalies Corbin: [00:38:21] Yes.

Karl Rectanus: [00:38:22] Right? So, what happens with school districts is we've found that over the last decade, they start in a phase called exploring, where they're just trying stuff out, right? They're-

Annalies Corbin: [00:38:32] It's the shotgun approach. Let me just try everything I can get my hands on. Yeah.

Karl Rectanus: [00:38:36] Well, and this is a stage when there's no policy. They're just like, "Hey, we're not going to tell you..." It's just don't ask, don't tell, right?

Annalies Corbin: [00:38:43] Right.

Karl Rectanus: [00:38:44] If I could be, I guess, incorrect. The second stage we call the hacking phase. And if any district has ever described their ed tech environment as the Wild, Wild West, they're in the hacking phase, right. Everybody is trying to do the right thing, but shareable spreadsheets, it's craziness, right. They feel like they don't know what's going on. They're trying to do the best, but they don't have systems, or policies, or structures in place.

Karl Rectanus: [00:39:20] And then, they start to optimize. They go into this optimizing phase. That's when they're looking at, are we getting a good price? We've organized all our stuff now, and we start to look at our processes, our oversight, our student data privacy. We streamline processes. And then, they get to personalizing at scale because if you don't even know what you're using, you don't have processes to make a good thing happen after you learn it, it's hard to personalize.

Karl Rectanus: [00:39:51] So, they move through this phase, and we've been able to start to map like, "Here are the best practices that districts go through when they're in the hacking phase. Here's where you should focus." And then, move forward. I'm super excited about that work, but it does start with, sort of, the asset mapping, and then figuring out what your local contacts' needs are.

Annalies Corbin: [00:40:12] Well, and I think that I would add to that, and this is kudos to you and your team, is really recognizing that no matter what the intentions are that the districts are going to go through all of those phases as they sort and solve. So, rather than trying to to short circuit a process that is innate and natural, and it seems paramount that we can't undo it, so let's stop trying, and

recognize instead that we can help them through the process the most efficient course possible to get to the outcome they're trying to find.

Karl Rectanus: [00:40:49] Yeah, failure is inevitable.
Annalies Corbin: [00:40:51] It is.
Karl Rectanus: [00:40:51] Right? It is-
Annalies Corbin: [00:40:51] And it's beautiful in so many ways.

Karl Rectanus: [00:40:55] The reality is the type of step change and systemic change that we want, the things -- we've actually done a bunch of research around utilities and infrastructure. And the reality is all of those massive inventions that you think about - the

light bulb, indoor plumbing, all these different things - are the product of incremental continuous improvement.

Annalies Corbin: [00:41:21] Exactly, that's a beautiful way to put that.

Karl Rectanus: [00:41:22] They are the products of those failures that have led to those things. And so, embracing and saying, "Our commitment is to learn continuously and to adapt," is one of our core values here at the organization, and how we engage with -- a lot of times, people come and say, "So, which ed tech is best?" They say, "You guys ..."

Annalies Corbin: [00:41:44] They want the short circuit.
Karl Rectanus: [00:41:45] It is. Like, "Could you just point me to the silver bullet?" And

the reality is the answer is like, "I don't know what your situation is."

Annalies Corbin: [00:41:55] Correct.
Karl Rectanus: [00:41:55] Right?
Annalies Corbin: [00:41:55] Right.

Karl Rectanus: [00:41:56] Let's help you figure out what's best for you, or for your students, or for your student, for your set of students. Those are the real challenging questions. And so, it does take incremental improvement, and the idea that that this is going to be an overnight change, but we have seen that that -- we see people go through that process consistently. They come in. They say like, "We don't know what's going on." If I'm honest with you, it's the Wild West.

Karl Rectanus: [00:42:32] But what we really want to do is I should be able to evaluate every intervention we're doing and know which of my students should go to which intervention. And I would tell you absolutely, you should be able to do that, and you will be, but not tomorrow. The reality is where you are defines how you're going to get there. And so, let's map it, let's figure it out, and let's go there as quickly as possible. And with technology, and research, and data, and a lot of honesty, and humility, we get to go do that.

Annalies Corbin: [00:43:09] Right. And at the end of the day, you get to be part of helping these folks identify the Xs and understand the Ys. So, absolutely.

Karl Rectanus: [00:43:17] It's awesome, yeah.

Annalies Corbin: [00:43:19] So, it has been a true joy, Karl. Thank you so much for taking time out of your day to have this conversation with us around transformative ecosystem. This is so incredibly important. And we truly appreciate the work that you do.

Karl Rectanus: [00:43:36] Likewise. Thank you so much for -- I think, learning from each other is how we do this. And I have loved listening and hearing from the podcast you've been doing so far. Keep it up. Honored to be a part of it.

Annalies Corbin: [00:43:50] Thank you for that so much. Spread the word.

Karl Rectanus: [00:43:54] Absolutely. Cheers. Thank you, Annalies.

Annalies Corbin: [00:43:56] Yeah, thank you.

Annalies Corbin: [00:44:00] Thank you for joining us for Learning Unboxed, a conversation about teaching, learning, and the future of work. I want to thank my guest 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 reimagine education.