TRANSCRIPT

Learning Unboxed

Episode #269
Jose Moreno:

Driven by Goals.
Guided by Strategy.
Powered by Intention.

Jose Moreno:
AI can help our educators understand this framework better, how to implement it a little bit better, to hopefully provide even more effective intervention strategies for our students.

Annalies Corbin:
Welcome to Learning Unboxed, a conversation about teaching, learning, and the future of work. I'm your host and chief goddess of the PAST Foundation, Annalies Corbin. We know the current model for education is obsolete. It was designed to create fleets of assembly line workers, not the thinkers and problem solvers needed today. We've seen the innovations that are possible within education and it's our goal to leave the box behind and reimagine what education can look like in your own backyard.

Welcome to today's episode of Learning Unboxed. As always, I'm excited to talk with another great innovator in the transformative education space. And today, we are going to be talking about leveraging AI as a positive disruptor and how we think about the concept of, what is school and why does it matter. And we're all talking about AI and we're all talking about AI in school. So, this is a very timely conversation. And joining us today is Jose Moreno, founder and CEO of Neulight. So, Jose, welcome to Learning Unboxed.

Jose Moreno:
Thank you. Thank you for having me. I'm really excited to be here.

Annalies Corbin:
Excellent. I am thrilled to be having this conversation with you today. But let's set just a little bit of context for our listeners as we get started here. Neulight focuses on transforming education through technology. And Neulight's product, IntelliTier, leverages AI to empower educators to provide personalized student support, aiming to make a positive impact in education. We're all on the same page that that is amazing and awesome. So, let's start at the, sort of, a hundred-thousand-foot view because the other thing is, correct me if I'm wrong, you are also founder of Neulight.

Jose Moreno:
I am the founder of Neulight, yeah.

Annalies Corbin:
Okay. So, if you've listened to this program, and even if you haven't, but my listeners know, I can't move on without asking you this, because as a founder myself, what the heck were you thinking?

Jose Moreno:
I think it was, I just didn't know. I didn't know what I was getting myself into.

Annalies Corbin:
Me too. Every founder I talk to, they always answer that way, "We had no idea."

Jose Moreno:
It's been an interesting road so far. Honestly, it's been pretty positive for us, which I think makes it a little bit easier, but I wasn't prepared for the mental challenge of it all. Like you, especially at the start, are the only one that truly believes in the vision, and you have to go in every single day, building, building, building, and getting to the point where you can finally get that validation from the market to be like, yes, actually this is something that is providing value and that people are getting excited about. And I think we're starting to see that more and more now. And so, it's an exciting moment for us.

Annalies Corbin:
And I completely agree with everything you just said. I have walked that journey. It's been 25 years for me that PAST Foundation has been around. And same sort of thing, I had no idea what I was doing. You know, let's just say yes to this crazy idea. It seems like a reasonable thing to do. And you have no idea how steep the learning curve is going to be.

Jose Moreno:
There's a lot of things you have to juggle.

Annalies Corbin:
There is, right? And there's just so much. And you don't know what you don't know until, suddenly, you stumble across it usually, so.

Jose Moreno:
Exactly.

Annalies Corbin:
But I would argue. I would argue though, that brings us sort of full circle into the conversation we're gonna have today because I would also argue that there's that mentality that says, "I'm gonna just jump into something," without really fully understanding or knowing that makes us really great at being innovators in whatever

sort of space we're trying to occupy. And you come from a tech background. So, it's not like this whole notion of, "Hey, let's work on some tech tools" is going to be new to you. However, the implementation, the market and the space you're trying to occupy, I can imagine that that was a really new space.

So, let's talk a little bit, then, about Neulight and why. Why this work in AI? It is really relevant, it is really right now. So, set some context for our listeners about where you think this all is.

Jose Moreno:
Yeah. So, before starting Neulight, I was at Netflix for about nine to ten years. And at the end of it, especially at the end, I just finished like a really large project. It was very successful. And I think anytime you finish a big project like that, you start to ask the question, like, what's next, right? I knew that when ChatGPT released in 2022 that it was a significant jump in technology.

I draw parallels to two other big movements in technology, and that was the internet. So, you saw the dot-com boom in the late '90s, early 2000s, how many companies started putting up websites. Of course, the market crash that ended up happening because a lot of companies weren't doing, actually, anything with value out of it, but there are some companies that come out of it that are super valuable like Amazon and Google. And so, I think that we're in a similar state now.

The other parallel that I draw is to apps. So, when the iPhone came out and everybody started creating apps, same thing, millions and millions of apps are generated, but only a few were actually providing value to people. So, I think that AI is taking us into the next level of technology where we're providing value now that wasn't available before or it was available but it was only available to companies that had a large amount of data and that could take the time to train these machine learning models to personalize experiences. But now, with these generative AI models, we can provide personalization without that requirement of large data before doing the personalization part of it.

Annalies Corbin:
Absolutely. The whole language model has been just really revolutionary in many ways. I absolutely agree with that. So, AI, as you are very well aware, has been a really, really hot topic in education, right? And I love the fact that you went right to, "Well, remember when the internet showed up."

Jose Moreno:
Yeah, exactly.

Annalies Corbin:
Because I have a lot of conversations with educators all over the world and a lot of administrators in particular, and there's a lot of angst around this. And I understand, anytime we bring on these new technological things, why that will be. And that conversation that I have with them is very similar. It's like, "Well, remember when you were worried about kids getting on the internet and being able to look stuff up and that was going to be all this cheating and all this sort of stuff?" And yes, there's a few instances of that. But the reality of it is it became this really powerful tool that accelerated learning.

And now, you can't imagine a day that goes by that your students aren't on the internet. So, what if we all take a pause and a step back and say, "We think this might be very similar." So, talk to me a little bit about the conversations that you're having both internally with your team as you're designing this set of tools that schools can use, but also the bigger conversation around education in general and its adoption and adaptations, if you will, of AI. Set some context for us.

Jose Moreno:
So, after deciding to start looking into an AI company, the question became, where do we go? And then, I started focusing a little bit on education. And honestly, a lot of it is because I heard from friends or family members. I have a cousin who is a vice principal at a school in LASD who just would complain about the software that they use on a day-to-day basis.

And so, that for me kind of provided an opportunity to bring in the skill sets that I have and the network or the employees that we now have within Neulight where we can build great software, just having that capability and being able to come into education and build great software for our educators who are honestly overwhelmed and need better solutions, I think was a pretty significant piece of excitement for us. Like, yeah, we can build something that's great for them.

But now with the technology of AI, the next question becomes, well, what are the problems that they're having? And is there a potential here for AI to not only make that software better, but to provide value that has never been provided before? And that really became the philosophy for Neulight.

So, we're bringing in a lot of tech talent, but we're not the ones that are coming in saying, like, "This is the solution that our educators need." We have a set of advisors with a very successful set of careers in education, and we're basically asking them like, what's your pain point? What could be better? Where's a lot of your time going? And so, we started learning a little bit more about the MTSS framework and how valuable that has been from an evidence-based perspective to increase student

performance. But we also learned about how little of an understanding there was generally of the MTSS framework.

And that is where we started zoning in and basically saying, hey, AI can help our educators understand this framework better, how to implement it a little bit better to hopefully provide even more effective intervention strategies for our students. And that kind of became our vision. Like, let's figure out what the problems are, how can a new piece of technology potentially help solve this for educators, and then let's build that for them and provide them with the value that they need.

Annalies Corbin:
Absolutely. And you're right. Lots of folks do struggle with that framework and figuring out how best to leverage all the possibility that that particular framework can have to benefit a particular student and a student's needs. So, for starters, I'd like to say bravo for even tackling that, because it's complex.

So, let's talk a little bit about that. Without getting too deep into the weeds of the secret sauce of the way you've been able to do this, help us understand some of the things that this technology can do, specifically in that use case scenario that you just laid out?

Jose Moreno:
Yeah, it's pretty simple. So, one, we're always gonna try to provide the best possible user experience for our users. Coming from Netflix, like when you think about Netflix, you go on there, you play something, you're watching something within like 10 to 15 seconds, it's fast, it's responsive, it gives you what you want. It doesn't make you really think about or fight the software very much to be able to get the value that you want out of it. And so, we have that big focus there. So, the secret sauce for us starts off with providing the best user experience that we could possibly provide.

Then, it becomes a question of like, okay, how can we actually help implement MTSS? So, we're simplifying data collection, making it as simple as possible for teachers who, once again, are overworked to go in there, record social emotional behavioral events or historical student assessments, and just put it into a central repository. By putting it in a central repository, everybody at the school or district now has, based off of permissions, our permission system, now have access to that student's information to be able to get a whole child view.

And then, the next kind of big part is having our personal AI model trained on these MTSS frameworks, combining that trained model with the historical contextual information about the school, about the student, the environments, to be able to then provide intervention recommendations that are actually personalized for that student.

So, it's not a huge secret. And the reason why I'm willing to speak about this so much is because we're pretty confident with our ability and the type of software that we can build. And so, we just think that it'll be hard for anybody to challenge us, even if they know exactly what we're doing.

Annalies Corbin:
Yeah, no, I understand that. I appreciate that. Yeah. So, one of the questions that we always get or that always pops up eventually as these conversations are unrolling, I have no doubt this is one that you've spent a lot of time, energy and effort as an organization and a company and as a group of designers thinking about, has to do with security around the data, the information. And people get super, super nervous, obviously, when we're talking about dealing with minors, for all the right reasons, we have to be super concerned about that and protecting privacy and data and all that sort of stuff.

And yet, at the same time, we have to be able to create technological tools that have the opportunity to not just gather internal data but to be reflective of external data that is thinking or influencing, I guess is the best way to put it, influencing the way that we think about the current data set that we have, because our understanding of data changes daily. How do you reconcile these two elements, the secure space for the data itself versus the outside world's influencing the way we think about data?

Jose Moreno:
Yeah. So, there's two big things that we're doing in order to make sure that we're securing all this data because it's super – and especially the type of data that we're collecting for this experience, we have to be very careful with it. So, we're leveraging Microsoft Azure's cloud compute system.

Annalies Corbin:
I was going to ask, is it Azure?

Jose Moreno:
There's so much – yeah, enterprise software built on it.

Annalies Corbin:
Help our listeners who don't know what that means. Why you and I understand the Azure cloud, but why that thing? Explain that piece.

Jose Moreno:
So, Microsoft essentially provides a service where they run the servers, where they're updating the servers and make that available to other companies to be able to come in and host their software on Microsoft's servers. Microsoft, of course, has decades of experience of running this type of hardware to make sure that they provide secure

solutions. Whenever you have to think about worst case scenarios, an entire data center going down, for example, Microsoft provides solutions for us to be able to just move our software into one of their other data centers. So, if one of their data centers is gone, we can still be up and running and providing that service. They allow for easily encrypting data, transfer of data from in and out of the servers, control over where the servers live. And so, all of our servers are within the US.

The second big part is around AI. Now, there was an outage that OpenAI or ChatGPT had a few weeks ago. And I was on LinkedIn and I was like, "Hey, if you're using AI at school, try logging into that system right now. And if that system is down, then you should be asking them questions about the security of that data," because what that essentially meant was that whenever they're doing any sort of AI evaluation, they're calling those OpenAI servers to try to get the results.

And as soon as you call a different third-party system, you're transferring that data over there and you're kind of giving up control of that data that's going to OpenAI. And so, if your systems were down during that period, I would check with them to ask basically, how are you ensuring that we're still FERPA-compliant or HIPAA-compliant if you're passing this over to OpenAI? Are they guaranteeing that compliance? It's worth digging into.

So, for us specifically, we can actually host those models within Azure ourselves. So, we're not calling a third-party vendor to have those evaluations for our AI model to make those recommendations. So, during that period, I'm happy to say IntelliTier was up and running without a hitch. And it's all because it's within the Azure ecosystem and within the US servers. And so, that's how we really ensure that we're not leaking out this data to anybody else.

Annalies Corbin:
And that's critically important. And so, then, my next question then is, let's just use the example, say you are working with a school district in the middle of Kansas somewhere, so an entire district, one of the questions that everybody always has is my school's district information ever intertwined or is the learning that's happening inside of this technology, is my stuff and my community here in Kansas somehow being linked with or learned from or whatever with a school in Oregon?

Jose Moreno:
Yeah. So, if you're using our service, the answer is no. Our data does not get trained on. If you're using another service, and this is kind of where I was going back to the websites and all the apps that were generated, it's pretty easy to introduce some of these AI components into pieces of software. And initially, we saw chatbots popping up on like, I think it was General Motors' website, and then somebody tricked it to sell

it a car for a dollar or something, and that's simply because they threw on a chatbot on top of their existing system without really like having control of that.

And so, for some of these providers, if they are just calling OpenAI or if they are just calling any of these other third-party services, it's possible that they haven't configured things correctly to ensure that they're not being trained on. And I think that these are legitimate questions that you should be asking your vendors that you're getting these services from, just to make sure that that data is not being trained on. You should ask everybody.

Annalies Corbin:
Absolutely, yeah. And ask it more than once, right?

Jose Moreno:
And ask it more than once.

Annalies Corbin:
Are you sure? Verify this for me.

Jose Moreno:
And if there's an OpenAI or a ChatGPT outage, go check to make sure to see that your system is running because that's how you really get good confirmation.

Annalies Corbin:
That's true. I hadn't thought of it that way, but you're absolutely correct. That would be an easy test to make. Okay. So, let's dig in a little bit of the weeds of the way IntelliTier then works. And so, schools then will deploy tools like this to be able then to really sort of empower those educators around the personalization of those student supports in particular. So, this is your use case.

So, help us understand a little bit about sort of the wow or the ahas that as you've been working in this space and you've been developing and working with schools in this, what have you learned as it relates to the way educators interface with the data that they're receiving and the suggestions that are being generated through sort of that AI empowerment, I guess, if you will, of this? I'm super curious because I have no doubt you've gone, "Wow, never would have seen that coming or thought about that," or "Hey, what if we then expand it to do this?" So, I'm really curious about the way you are thinking about the leveraging of this tool that's truly in that educational environment?

Jose Moreno:
That's pretty much how it's involved. Some of our initial users are districts who are curious to see the types of interventions that would be recommended for some

specific students. In some cases, one of our districts has been doing PBIS, I think, for like the last 15 years or something. So, they've been in it for a while. They know what they're doing but they were wondering if they were getting a little stagnant in terms of the interventions that they have been just going to. And so, they started using our software. All of a sudden, we started recommending different intervention strategies for them to try out on their students. And they were like, "Oh, yeah, that's a good idea. And I hadn't thought about that."

And I think that that's really where I get excited, because we may be providing strategies that are more effective than what has previously been applied, even if you are a super skilled MTSS, PBIS, RTI district, simply because I think that a lot of it historically has been relied on certain student support teams or a certain person kind of going out on Google and doing a search and looking for something. And then, if something worked once, then maybe they'll try that the next time. And then, you get stuck in that pattern a little bit. You might be missing out on some interventions that you just haven't thought about before.

Annalies Corbin:
Well, and that's the power of using tools, these tools. This goes right back to the conversation about, remember when the Internet showed up, right? The power of that is that what happens, again, to use my Kansas and Oregon example, what happens in Kansas could be really, really amazing and awesome but there are things going on in Oregon that they've never seen before. And so, the tools capable, even with harnessing and keeping data closed, that was back to my sort of external influences, these tools are capable of sharing best practices or new ideas, to your point, in some ways that we've just never thought of before.

Jose Moreno:
The other nice thing is one of our districts is a completely virtual district. And so, we provided that context to our software, to IntelliTier, and I said, "This is a completely virtual district, right? All recommendations should be based off of that fact." And it's been able to completely tailor those recommendations specifically for that virtual world, what to do in those specific situations, which is amazing to see.

And then in terms of like, well, starting to push the envelope, like, what else can we do? What else can we do? We have a lot of ideas coming, a lot of things coming. But immediately, they wanted to go to behavior intervention plan generation, EIP generation. One of the things I'm most excited about is tracking EIP implementations to make sure that you're not falling out of compliance and try to save money for some of these districts.

Like one of our advisors just told us that there's plenty of money that gets used to settle lawsuits because EIPs have fallen out of compliance. And this is something that

IntelliTier can start helping with. So, we're starting to look into exactly what we need to build to help you track your EIP implementations a little bit more. And for us to be able to start alerting or raising flags and starting to say like, "Hey, you're falling out of compliance here. Something needs to be done or else like you're gonna end up losing money." And once we get to that point, then the software starts to pay for itself, right? We save you money. We charge a little bit of that. And overall, it ends up being a netpositive for the schools and districts.

Annalies Corbin:
And so, I guess the other thing that I'm hearing from you is that in addition to being a technology solutions option, but you're really functioning as a partner with these districts. You're not like, this is not transactional. There is a transaction that takes place, but you are not working from a transactional perspective as your lead space.

Jose Moreno:
Not at all. I have plenty of options to go back into some of these technology companies, especially the next. You can imagine next Google or Facebook and make a decent amount of money. But really what I want to do is focus on something that I can continue to focus on and making a positive difference for our entire society.

And that's the motivation for a lot of the employees that we have within Neulight. They care more about having positive impact. I'll tell you that the last big project that I worked on Netflix was the account sharing initiative, the password crackdown. The reason that you can't share passwords, I'm a pretty big reason for that. And after that, I was like, "Okay, I may need to get back to good mode," to like doing some good stuff.

Annalies Corbin:
All the hate email you must have gotten.

Jose Moreno:
And the other part that I really like to say is like we're coming into this space from a humble perspective. We're not educators. We haven't experienced the day-to-day lives of teachers, of vice principals or principals and we had to go through every day. I don't know. So, I'm not coming in here saying like we have a solution that will make schools better. I'm more working with superintendents, with people on school boards, with vice principals, to learn more about what their issues are, and then working with them to find solutions that would be helpful for them. And then, we build a solution that's amazing and easy to use and becomes super valuable for them. That's our approach. And hopefully, yeah, it's kind of like the next generation of software builders in the future.

Annalies Corbin:
I love that. And thank you very much for that. So, as I know we're getting close to time,

but one of my other questions I really want to ask you is there's lots of use of AI that is finding its way into our schools in a variety of different sort of forms and formats and purposes and all of that, which is interesting and great, potentially.

But there's been some interesting pushback, maybe questions is a better way to think about this, is as the AI tools, whatever they happen to be and whatever the purpose happens to be, are starting to really gain traction at an implementation stage, how do we ensure that the recommendations, let's say, so in the case of the way IntelliTier works, ultimately it's helping to craft some alternative interventions, some other opportunities, how do we ensure that the things that it's suggesting are culturally relevant to the individual child or the community they live in, or that they're language appropriate?

You know what I'm saying? How do we get to that level because for me, as an anthropologist, recognizing that every kid's experience and their individual cultural identities, that's the best and highest way for us to actually get to interventions and learning that are relevant to that child. How do we do that?

Jose Moreno:
I 1000% love this question. And I had a huge smile on my face as you were asking it because this is one of I think my biggest goals and targets and things that I continue to think about. I will say it's tricky.

Annalies Corbin:
Of course.

Jose Moreno:
And one that we've slightly punted right now because as we all know, the data that's been used to train these AI models are biased. They have bias within them. And because of that, some of the initial results that you end up getting, if you don't do anything to try to adjust the way that it answers ends up providing bias recommendations as well.

And so, the way that we're starting off is by focusing on trying to remove that bias and focusing more on the equity side of things, like don't make any assumptions based off of protective characteristics or anything. Like actually provide consistent interventions that you would believe would work.

Now, that's kind of like moving into the equity side where you're taking away the cultural aspect of it, like the real kind of personalization point to say, like, "Yeah, this is a student that's learned English as a second language over the last couple of years after moving from a certain part of the world." And so, you can personalize recommendations even more for them, like provide a sheet both in English and

Spanish, so that they can understand, work on their English understanding as well, comprehension at that point, but still be able to effectively move things forward.

I love that idea and concept, and we will introduce it into IntelliTier as well. We just want to make sure that when we do that, we don't get back to the world where biased interventions are being done because it now has more access to those protected characteristics. I think a lot of it, though, kind of comes down to having – and this is where I'll pat myself a little bit on the back, having somebody from some of these minority cultures in the room, as you're thinking about this, as you're pushing about it, as you're asking these questions, like how do we ensure that we still stay fair to everybody because as you have those discussions, you can at least be aware of it and take some action to try to improve those recommendations a certain way.

If you're not thinking about it at all and you just like say like, "Yeah, we want to make recommendations for this student that's learning English as a second language," but you haven't done anything to fight off some of the bias that's been put into these models by default, then you're going to get some biased recommendations as well. I think there are many, like, PhDs that can write their thesis on this area, but it's something that we continue to focus on and be really careful about how we approach it.

Annalies Corbin:
Absolutely. I am so thrilled, so thrilled that you're thinking about that because you're 100 percent correct and that's exactly what I see. We're working with educators all the time. How do you just even take lessons that textbook companies have crafted, and with all the best intentions and the best brain science and educational research, and yet they are so painfully sometimes culturally biased.

Jose Moreno:
The unfortunate reason for the most part, it's not any sort of negative motivation behind it

Annalies Corbin:
Correct.

Jose Moreno:
It's simply that you don't have people that have been thinking about it, because if you're not introducing diversity into the workplace and you have a lot of like-minded people around you and you're all kind of on the same wavelength that you're thinking about the same problems and answers, but you're not thinking about this other problem that you've never experienced. Once again, it's not malintent. It's just the fact that you've never experienced it. It just doesn't pop up into your mind as you're going through this entire exercise.

And that's where we feel like having different perspectives from different walks of life, being able to provide things that I've never thought about, that they've never thought about. That's how we start bringing it up and being more aware and working towards solutions for those problems.

Annalies Corbin:
Yeah, absolutely. Well, and I am so grateful that you are thinking about it that way. So, that's awesome. So, last question as we wrap this up, for those educators that have been listening to us have this conversation and they're like, "Oh, my gosh. This sounds amazing. How do I go about this?" and yes, we can send folks and we will send folks on to the website, but if they're just sitting there thinking about, "Okay, we're not really utilizing these types of technology tools to help us be better at crafting or thinking about even some of these interventions," is there a thing or two that you would tell that educator that's sitting there listening to us and you're like, "Try this, do this, or think about this as you move forward into the next bit of work you're going to do"?

Jose Moreno:
I think if you're interested in this and seeing if it can be relevant to you at all, and you're not at the point where you want to reach out to us or actually you can try out IntelliTier for free. We provide a free product, so you can start testing it out. You can actually try it out in ChatGPT. I would say, ChatGPT has been trained on MTSS frameworks. It does know about it. But what I will say is, don't provide any personal information about students to ChatGPT. Keep it anonymous. I don't even make it specific to one student because it can get trained on. But just go through an exercise and ask ChatGPT what recommendations they would make for that specific scenario.

If that starts to show some of the value that you might not be getting today, then IntelliTier, which is a lot more focused on these MTSS framework, we want to make sure that it's not hallucinating and actually sticking to evidence-based practices where you can centralize the data collection aspect of it. If you're a teacher that's tired of collecting data that nothing ever happens to it because it gets lost somewhere in that pipeline, then this is a product that can actually help turn data into action and help students.

And so, I would say start off with ChatGPT, ask it questions. If you start to see some value, then that's when you start digging into NeuLight, and specifically IntelliTier, which is our product, and how that can help out. I'm always happy to have a chat. You could book some time with me through our website, and that's neulight.io. I'm happy to show you a demo of IntelliTier, happy to talk just philosophically about AI and education. I think these conversations are always great, and it always provides me with additional information for how to steer this company moving forward because,

once again, how we impact education or what we end up building for education, ultimately it just depends on what educators are feeling on their day to day.

Annalies Corbin:
Absolutely, 100%. And we will make sure that all those links are in the show notes for folks as well. So, please, if you're interested, reach out. Jose, thank you so much for taking time out of your day. Really, really grateful for the conversation.

Jose Moreno:
Thank you for the invite. This was fun.

Annalies Corbin:
Thank you for joining us for Learning Unboxed, a 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 reimagine education.