



### 135. Accelerating Innovation Within Your Community with Michael Dennis of CAS

**Annalies Corbin:** [00:00:10] Welcome to Learning Unboxed, a conversation about teaching, learning, and the future of work. This is Annalies Corbin, Chief Goddess of the PAST Foundation and your host. We hear frequently that the global education system is broken. In fact, we spend billions of dollars trying to fix something that's actually not broken at all, but rather irrelevant. It's obsolete. A hundred years ago, it functioned fine. So, let's talk about how we reimagine, rethink, and redesign our educational system.

**Annalies Corbin:** [00:00:45] So, in today's episode of Learning Unboxed, we are excited because we're going to talk about what it means to be community partners. And joining us today is Dr. Michael Dennis, who wears multiple hats inside of our community, but most important and impressive, I would like to point out, is the fact that Dr. Dennis has a PhD in biochemistry, I believe it is, and he's a JD, which makes his sort of role in space at a company called CAS make total sense. So, welcome, Michael, to the program.

**Dr. Michael Dennis:** [00:01:19] Thank you, Dr. Corbin. Hi, everyone. Thank you.

**Annalies Corbin:** [00:01:22] So, set the stage just a little bit, because our listeners come to us from all over the world from a variety of different backgrounds. Michael, you're also the vice president legal, something called PMO in Innovation at a company called CAS. So, let's start with what the heck is CAS? What does it do, and why does it matter for all of us today?

**Dr. Michael Dennis:** [00:01:42] Well, thanks. So, CAS, we're a science and technology-based organization. So, we've been around for over 114 years. We're part of something called the American Chemical Society or ACS, and that's one of the world's largest scientific associations. But what do we do at CAS?

**Annalies Corbin:** [00:02:00] Mm-hmm. It's complex.

**Dr. Michael Dennis:** [00:02:01] Yeah. We bring together all the world's science, so we aggregate it, whether it's from books, dissertations, journals, patents, go figure, comes to Columbus, Ohio, then we normalize it and we curate in a way to make it more discoverable for our customers. And our customers are out there doing some amazing innovation. So, these are organizations like Pfizer, like Johnson & Johnson, or NASA, or Intel. So, if you're doing research and you're touching science and chemistry, you're probably interacting with CAS and some of our solutions. So, it's all about data.

**Annalies Corbin:** [00:02:39] Because I do want to set the stage, so we're going to dig into a little bit about the way that CAS and PAST Foundation had partnered, but one of the things that's really intriguing to me is it's not just about science and about the data, but it's about protecting it, and keeping it, and curating it, and just really thinking globally about the data itself and the implications of data, correct?

**Dr. Michael Dennis:** [00:03:01] Yes, that's it. Thank you for that segue. So, the data, the science that's happening for us transcends geographical boundaries. So, our customers are about a third are in the United States, about a third are in Europe, and about a third are in Asia. So, we're truly global, and the types of research that's happening, in some cases, incredibly proprietary, incredibly complex. So, we have an on-prem data center and the protection of that information. So, yes, we invest heavily in cybersecurity and all sorts of other data privacy models.

**Annalies Corbin:** [00:03:35] Yeah. So, a lot of stuff going on around the world, if that involves formulas somehow or another, CAS is likely to be involved.

**Dr. Michael Dennis:** [00:03:44] That's correct. We have the ability to see some things that are coming that I can forecast, I wish I could tell you about them, I can't.

**Annalies Corbin:** [00:03:48] Yeah. I wish that, too. It would be fun.

**Dr. Michael Dennis:** [00:03:51] But there are some really amazing innovations that are out there on the horizon.

**Annalies Corbin:** [00:03:55] Yeah, and it's that innovation, I guess, and that innovation space that is sort of the perfect sort of partnership and segue with an organization like the PAST Foundation. And just for our listeners, we got involved together because this question sort of came up about CAS is this amazing entity inside of our community, but what and how does this organization, this company, if you will, then interact with that community in some type of meaningful way?

**Annalies Corbin:** [00:04:23] And that was sort of the beginnings of some of our conversation together. But that really gets me to the crux of the conversation that I want to have with you today, because we do hear all the time in our own work with communities, with schools, with individual teachers, lots of works with families and communities around how does what happens in sort of that K-12 ecosystem, if you will, from a US perspective, how does that ecosystem and the ecosystem tied to business and industry, how do they truly meaningfully intersect? And that gets me sort of thinking about, what's the community partnership opportunity?

**Annalies Corbin:** [00:05:00] And schools struggle to figure out, how do I do something meaningful with industry? And oftentimes, we hear from industry the exact same thing. Well, we want to be more meaningful and more strategic in our community, but we don't really know how to do that, we don't know how to have that conversation. So, I want to start this with, how does CAS think about community partnerships or community stewards as it relates to sort of the role and impact that you can play in a community like Columbus that has a lot of big industries here? So, it's not unique in that sense. So, how does CAS sort of wade through all the noise that is our community?

**Dr. Michael Dennis:** [00:05:35] So, great question. So, I'll speak for CAS, I can't speak for all-

**Annalies Corbin:** [00:05:38] Absolutely. Yeah.

**Dr. Michael Dennis:** [00:05:39] ... in Columbus. But if I didn't mention, we're also a not for profit. So, for our community involvement, we're not doing it for some benefit on a financial balance sheet. We do it in part because it's just the right—it's sort of in our DNA. And as we grow and become more successful, we want to give back to our community, which is Columbus, Ohio, where we've been for, as I said, over 100 years. So, in

addition to doing it for the right thing, we do it for pride in all our staff. And so, strategically, we've added three pillars, and one is STEM or STEAM. Second one is wellness. And the third is diversity.

**Dr. Michael Dennis:** [00:06:19] So, if you're in one of those three spaces, not to say there's always an exception that we can't do something outside of that, but if you're in one of those three, you're in our sweet spot. And so, at PAST, you are, you covered several of those actually, and that's why we're so attracted to what you're doing, Dr. Corbin, at the PAST Foundation. Plus, we just love that you're kind of blowing up STEM education. We just think it needs an overhaul. And these are the next generation of employees for CAS, customers for CAS just love science and tech. So, we like that hands-on learning and we just want to be more a part of that.

**Annalies Corbin:** [00:06:56] So, digging into that just a little bit. So, how is an organization then, as you're sort of setting about sort of thinking about the opportunity in any given community, and there's a lot of stuff going on in a community of this size here in Columbus, and there's a lot of need, and there are a lot of competing factors, so separate from the sort of—I guess, the heart of what I'm trying to get at is how does an organization sort of say, these are the pillars, these are the things that are going to be important to us?

**Annalies Corbin:** [00:07:24] Because that is one of the things that as schools or communities are trying to wrestle with, how do we best think about partnership? Because the conversation I have with schools all the time is you don't necessarily want to have partners just because you need to have a name or a list on the piece of paper or on the plaque outside of the school, you want partners that roll up their sleeves and invest in you, live with you, have that sort of mutual sort of peace? And you said that it's important to sort of the heart and soul of CAS, it's meaningful to you. How does an organization craft what's meaningful and what's not? Does that make any sense?

**Dr. Michael Dennis:** [00:08:05] It does. So, we have a group that helps in manning, sort of select, we can't do it right at CAS, unfortunately, and one of the criteria that we use is impact. And if CAS is going to do something, collaborate with an organization, we want to be impactful and want to do it the right way. And then, for us, we're not fly by night. So, we want to do this for many, many, many years, and grow with you. And the assets that we bring to bear, it's not just about cash for us.

**Dr. Michael Dennis:** [00:08:38] Yes, we can—but for us, as you said, we want to roll up our sleeves and be part of it. So, we have a large group of volunteers, whether they're technologists, scientists, whatever, across the board, we get involved. So, I'll give you one example. There's a program we like called WOW. And we started this with, her name is Dr. Olesik at the Ohio State University.

**Dr. Michael Dennis:** [00:09:04] She's the Dean of the College of Biological Sciences and Chemistry, along with Mattel, where we go in to Columbus inner city schools, our scientists, and we try to inspire those K through five kiddos to the wonders of science, and they don't know that many of them are roaming scientists. And for those watching, I encourage you to get involved, volunteer, and while you will get more out of it, I think kids do, but it's that kind of activation that we really, really, really like.

**Annalies Corbin:** [00:09:35] Yeah, absolutely. Just to remind our listeners, and I don't remember what episode it is, but we interviewed the folks from WOW. They were one of the programs that we've done. So, look back, and if you want to hear more about this, it's a fabulous program. And I think that that sort of gets to the heart of sort of the way that we think about community partnerships. And so, I want to dig in just a little bit.

**Annalies Corbin:** [00:09:57] So, the relationship that PAST, for example, has with CAS, we met you right on the cusp, if you will, of this crazy global thing that's happening to us all, this pandemic. And one of the things

that we found that we needed pretty desperately as we got ready to sort of roll on the flip side of a piece of this and get back in touch, physically in touch, if you will, with kids, was that we can't do all that great STEM program that we love in the community in the same way, because it wasn't safe. And yet, we knew kids desperately needed to be with each other, and they needed to meet with instructors, and they needed to be able to have experiences again because it had been a really tough, long year at that point, thinking about getting back on track for the summer of 2021.

**Annalies Corbin:** [00:10:40] And what was wonderful about working with CAS is we had a need, and you said, "Well, we've got all this acreage, we have this land, how about you come and run your programs, but you do it here, and you do it outside, and we make all of these resources available to be able to make that happen?" And that's exactly how we were able to do summer programming last summer, was incredibly meaningful. But the best part of that, and all of that is wonderful, but truly the best part was that folks from CAS came out and actually engaged in the programming because it was right there. And I loved that community involvement piece.

**Dr. Michael Dennis:** [00:11:13] Well, that energy from those kids was infectious, right? And I'm so glad for our partnership, but also that we do that in such a fun and safe way right in the middle of the pandemic.

**Annalies Corbin:** [00:11:24] Right. And that's not an easy thing to do. So, I want to transition a little bit to sort of thinking about—because the reality is the involvement, the list of things that CAS is doing in the community, it is pretty diverse. Like you said, there's a whole host of things that you're doing. And I'm also really curious—

**Dr. Michael Dennis:** [00:11:42] Just to that point, although we paused it today because of the weather, in a partnership with OSU Wexner Medical, we're a COVID test site, the National Guard. So, if anybody needs COVID testing, it's a drive through, it's safe—vehicle. But yes, those are the kinds of things that we like to—

**Annalies Corbin:** [00:12:00] Yeah, and those are the kinds of things, when you think about the variety and the pieces, I'm really, really curious then about how less about the decision making around the kinds of things that you do, but once a decision is made, hey, we're going to be this testing site, how do you, as an organization, then, how are you able to deploy the resources?

**Annalies Corbin:** [00:12:24] So, some of these things don't necessarily take a lot of staff time from CAS, but some of them are going to take a tremendous amount of staff time. And I've been to a number of different things that have gone on, on the ground to see us, and I can tell you that some of them, I look around and it's like ants crawling everywhere, trying to get things done effectively. And how do you balance that amazing community engagement piece, and then the actual work that you do? How does your organization do that?

**Dr. Michael Dennis:** [00:12:49] So, it starts with the leadership team and our leader, Manuel Guzman. So—with his heart and soul when it comes to community, and that's infectious, that's just trickled down to the thousand of us at CAS. So, when we put a call out for volunteers, it's easy to get many, many, many hands. Now, yes, you still have to get your day job done at CAS, but from there, we've got an amazing facilities team, an amazing project management team. Our muse, Stephanie Lieurance, I mean, she is just phenomenal when it comes to community. So, when we embark on any initiative with a community partner, as I mentioned before, we want to do it right. So, we like to sweat the details, just how we're wired, again, at CAS. And then, once we engage, we're all in.

**Annalies Corbin:** [00:13:40] Yeah. Yeah, you all are all in, and there's no question about that, and I really love that piece of it. So, I'm also curious about then, as you sort of structure and think about community, I'm sort of curious from a philosophical standpoint, so as we're having these conversations in communities and a variety

of different places, both urban, rural, in Ohio, outside of Ohio, other parts of the world, even, one of the things that I hear frequently is we don't know how to get started, right?

**Annalies Corbin:** [00:14:11] And then, once we get started, then how do we sustain partnerships or endeavors, especially partnerships or endeavors that rely on community organizations or industry partners to literally help us be the lift to bridge the gap for kids? And so I'm really curious because you're involved in a number of different things in the community, but I also have a feeling that you get to be part of a lot of conversations around these types of endeavors, whether CAS ultimately opts in or not. And so, I'm super, super curious about sort of the thinking that you might have if a school says, I don't know what to do next.

**Dr. Michael Dennis:** [00:14:50] Well, first, I think it starts with just ask. I mean, don't be bashful people, be courageous. We get asked for lots of things. Again, as I mentioned, we can't do them all. We'll engage with you, and then sometimes, we'll get asked to do X, and by the time we get done, we've shaped it into something very, very, very, very different, but still very, very meaningful. I remember, you're giving me a good memory, Dr. Corbin, we're asked to hold a music festival on our lawn, something that turned out to be called WonderBus.

**Dr. Michael Dennis:** [00:15:21] And when we first were asked, it was sort of like, why would we want to have a music festival on the lawn? But we got to the point about, let's support mental health with the proceeds from that music festival, then it became—it's those kinds of conversations. So, I encourage folks to also just be flexible, adapt, and then go out and ask for those other community partners out there. And for those listening or watching, if you've got an idea where CAS can help, either with land, printing, cash, volunteers, we're here, ask.

**Annalies Corbin:** [00:15:55] Absolutely. Can we talk a little bit about the sort of community garden project that you guys have been thinking about? Because I think that that's something that resonates lots and lots of places, and the approach and the thinking behind it. So, even if you can't give me specific details about some of the components, and maybe you can, but you and I have had this conversation, so we know what we're talking about here. And the reason I'm asking about is because this idea around community gardens and thinking about health and wellness in particular for families, for immigrant families coming from a new place, not connected and struggling with understanding how to feed and be healthy at a place that is new to you.

**Annalies Corbin:** [00:16:36] This is happening all over the country and around the world with different populations. And so, there's a tremendous call, if you will, but I'm also seeing and all the watching that we're doing with all the STEM education stuff that this idea around gardens, community gardens, health and wellness, whole foods, as opposed to process pieces, is at the heart and soul of a lot of communities. And they're struggling with figuring out creative ways to do this that don't look the same everywhere. And I think that what's going on in our community is super impactful.

**Dr. Michael Dennis:** [00:17:08] This is an exciting one. Thank you for asking about it. So, it's an urban farm, urban garden is the concept. And we're neighbors, you and I, in Olentangy River Road. Down the street are the NBC4 folks, and the GM there, Ken Freedman, amazing individual. They've got seven to 10 acres in the back that you can't see from Olentangy River Road and it's just sitting there, and next to the station are thousands of new Americans from the Middle East and Africa, or they want a garden, they want fresh food, hard to do, hard to get. And so, the idea is let's create this urban farm or urban garden.

**Dr. Michael Dennis:** [00:17:52] And so, we were asked, would you, and we immediately said yes, volunteers and other support. And we were able to help bring in some of our colleagues. So, we're big on building a network. You just never know how this data points will connect. And so, Scotts is leading in the fertilizer and

company, and other partners, including the OSU ag folks are waiting. And this spring, I hope you'll be out with us, Dr. Corbin, picking the first vegetables from that garden, but it will activate here in the next couple of months. In the beginning, it'll be pretty simple, just—but I think over time, it'll go high tech, with vertical and many, many, many other pretty amazing things for those families in need in that community.

**Annalies Corbin:** [00:18:43] And I love the network component of it, and yes, we're all in. I had told you that previously before. In fact, we're hoping that we can do some summer programming with the students or the kiddos of the families that are right there that are utilizing that space. That's still my hope that that all comes together and works out. But I'm really curious about the way you've crafted or think about the network for that, because that's another piece that I hear schools and communities really struggle with. And so, when you think about that project and the different entities that got called in, if you will, to be part of that, that's a really diverse group of partners as well. Can you share a little bit about what some of those are, because they're not necessarily coming from the places that people would assume?

**Dr. Michael Dennis:** [00:19:25] No. I mean, some were in the area, us, and OSU, and Ohio Health, others were not. And I neglected to mention that Habash in the Mid-Ohio Food Collective, because they're leaning in big time with this as well. And the thought there with Matt is they have expertise in this space, so we needed that experiential knowledge, and so happy that that group is leaning in as well. But in terms of how we connected all of those folks, that gets back to Ken Freedman, and his leadership, and a little bit of Stephanie as well. Folks don't know our role with access, but-

**Annalies Corbin:** [00:20:05] Pull that thing off, roles are that, yeah.

**Dr. Michael Dennis:** [00:20:08] And we just went through it, and do, do, do, do, do. And we're pleasantly surprised that everybody we asked said yes.

**Annalies Corbin:** [00:20:18] Yeah, I'm not surprised by that. Actually, I'm thrilled that that's going on in our community. But the Columbus community is often a roll up your sleeves and get work done, I appreciate that about our community very much. I also want to talk a little bit about the project that you're working on with PAST in particular, because I want to use that sort of as a catalyst for a conversation around the way organizations, nonprofits in particular that are working with the community can take ideas, and then take them to scale, right?

**Annalies Corbin:** [00:20:51] So, I'm talking about our cybersecurity pathway program that we are in the process of building out. And it was one of the early conversations that we had with CAS and was one of the things that I leaned into when I realized fully sort of that CAS was so much more than—I just thought it was based on the label outside of the building, right? And when you go there and you fully understand the work that you're doing as an organization and how critically important it is, it ties directly for us to how we could think about prepping workforce.

**Annalies Corbin:** [00:21:20] You mentioned earlier that the students that are going through our programs, they're part of the community, they might be put into workforce for CAS, so on and so forth. So, it's really, really critically important. But I think that, oftentimes, whether they be our school partners or communities and other organizations, this idea of taking concepts or pilot ideas, and then truly taking them to scale is one that's really, really hard for non-profits to do.

**Annalies Corbin:** [00:21:45] And we rely on our community assets and community partners to help us do that. And in the case of what we're talking about at PAST with cybersecurity was an interest, just to sort of set the stage for our listeners, an interest that students have around all things that have to do with the internet, quite

frankly, right? And watching kids not really know how to navigate that, and a real push nationally and globally for more students in computer science, which then translates into more issues, students, and opportunity folks, and the cybersecurity components of all of that.

**Annalies Corbin:** [00:22:16] So, it all rolls together, and yet we take a small pilot program, where we're running students through summer experiences just to give them to exposure, and wanting to then be able to turn that into a full pathway for high school and early high school graduation for the State of Ohio, and yet we're a bunch of anthropologists that play at creating programs.

**Annalies Corbin:** [00:22:35] And so, very quickly, and we do this with every single one of our programs is recognized, we have no idea what we're doing in that particular industry or that particular space. But if we could lean in to our partners who do this stuff, then we have the potential to build something pretty magical together. So, how does the CAS then say, sure, yeah, that sounds great, let's do this crazy thing? Because it's kind of crazy, you have to admit, on some levels.

**Dr. Michael Dennis:** [00:23:04] We love it, and I think it's part of our passion as well in that space. But when you asked, I think we immediately said yes. And when you use the safe word, I mean, just call it a pilot or just call it an experiment. And you know what, if we fail, we'll learn from it, we'll get back up and we'll just try again, right? That's kind of the philosophy, if you will, at CAS. And then, we try to also sort of chunk things up. Sometimes, so big that you just can't get it off the ground, right?

**Dr. Michael Dennis:** [00:23:31] So, just start small, and then let it grow from there. And that's why we're so excited about that cybersecurity program. Talent, if we have an Achilles' heel at CAS, it would be talent. Strategy is sound. We've got many, many, many, many resources. But getting the right talent, it's tough. And in that cybersecurity space, that's one area. Scientists, that's another area. So, many of the tech spaces. And that's why we're so, again, proud to partner with you, because you're creating the next generation of talent in those spaces.

**Annalies Corbin:** [00:24:06] Yeah. I appreciate that very much. And we hear that repeatedly from our industry partners that talent is the thing, more than anything else, we're trying to figure that out, and it's a global issue across many, many different industries. We hear that a lot.

**Dr. Michael Dennis:** [00:24:21] And that would be exciting, the ribbon-cutting some of the new Intel plants, just even more of a demand, I think, in Central Ohio for that type of talent. A good thing.

**Annalies Corbin:** [00:24:32] Oh, it is a good thing. Yeah, absolutely. And I think that, yeah, we are going to see more and more of this need. And so, I'm super, super excited about late May, early June ribbon cutting, if you will, at PAST on opening that new cyber and digital lab is pretty, pretty exciting for us as well, and certainly for the students, because we have been actively piloting in that space and we did a lot of testing last summer in sort of the fruits of that labor, if you will, which I do think goes back to how we tie into those sort of community partnership components is that, now, we've got staff who've been certified to instruct in that space.

**Annalies Corbin:** [00:25:11] We never had that before. That's really, really exciting for us. We have the first students and the first classes on the verge of earning collegiate credit in cybersecurity because we consciously said, let's do this thing, right? And in that conscious let's do this thing component for us is not possible without partners. We don't do anything on our own.

**Annalies Corbin:** [00:25:36] And so, not only do I appreciate the fact that CAS leaned in for us in the space of continuing to do so, but that more broadly, I think that our industry partners recognize that to be able to make

those shifts and those transitions, you have to invest in the workforce of the future. At the end of the day, I often will talk about, this is not philanthropy, right? This is your development of your workforce, your talent, and your pipeline. It just happens to come in the form, often, from our industry partners as philanthropy, but it's so much more than that.

**Dr. Michael Dennis:** [00:26:08] I completely agree, right? It's giving to the future, for sure.

**Annalies Corbin:** [00:26:12] It is. Absolutely. Well, I always like to sort of think about rounding out the conversation with asking a question that sometimes puts folks on the spot, but it's super, super meaningful as it relates to, what is next? So, when CAS thinks about community and community impact, and you're really thinking about not necessarily the specifics of, hey, we're getting ready to do this thing, but more importantly, what does those internal ongoing conversations look like that says, hey, if we're going to think about paths forward for our community, how do we meaningfully do that?

**Dr. Michael Dennis:** [00:26:47] For us, so we want to do so much more in the diversity space. That, you're going to see a lot more over the next coming months and years from CAS there, for sure. There's still a lot more in the STEM, STEAM space that we've got in our hands. We kind of have a pipeline, if you will, of what we're planning. I'd probably get in trouble with Stephanie if I tell you.

**Annalies Corbin:** [00:27:10] Yeah, it's okay.

**Dr. Michael Dennis:** [00:27:11] But it's coming and we definitely want to make more of an impact in Central Ohio, but I mentioned that we're also a global organization. Also, trying to figure out how do we sail or expand this to outside of Columbus as well? So, that's in the works also.

**Annalies Corbin:** [00:27:30] And you've already started that. I mean, your water pump project. One of the first conversations we had in Africa is a bit of that footprint in other places. And so, I assume that it's one of those things that will just sort of roll in. Yeah, exactly. Absolutely. Very good. Very good. Well, Michael, thank you so much for making time out of your day to join us in the conversation.

**Dr. Michael Dennis:** [00:27:56] Thank you, Dr. Corbin. We're honored and humbled, seriously, to be a partner with the PAST Foundation. And again, thank you for being such a role model and the leader that you are at PAST.

**Annalies Corbin:** [00:28:03] Well, we appreciate that, but I really, really appreciate you making time to sort of talk about this, because this is so hard for so many of the communities that PAST works with and engage in to really sort of figure out and navigate this whole concept of industry, and community, and organizational partners in K-12 coming together to figure out how to solve problems for our students and for workforce of the future. So, thank you for what you do.

**Annalies Corbin:** [00:28:28] 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.