TOPcast Episode 66: Curricular Innovation, Engineering, and Adaptive Learning

Narrator: What will your future look like? The job you do today could be different than the jobs of tomorrow. Some see this as a challenge. At UCF, we see opportunity, a chance for you to grow your knowledge, and strengthen your skills from anywhere life might take you. With in-demand degree programs and resources for your success, UCF Online can help you prepare for the future and all the possibilities that come with it.

(musical transition)

Kelvin Thompson: From the University of Central Florida's Center for Distributed Learning, I'm Kelvin Thompson.

Tom Cavanagh: And I'm Tom Cavanagh.

Kelvin: And you are listening to TOPcast: the Teaching Online Podcast. Hey Tom.

Tom: Hey Kelvin.

Kelvin: How's it going?

Tom: It's going well. It's another spring day in Central Florida.

Kelvin: In lockdown.

Tom: In lockdown. Yes. I get to experience it briefly during the day when I go outside and eat my lunch or in the evening if I take a little walk. I'll walk down to the mailbox and try to enjoy the beautiful weather we have. But yeah, I'm ready to be outside more than I am.

Kelvin: Yeah, I mean, this whole remote work thing's interesting, but I gotta say, I'm kind of looking forward to the day that we'll be back in the office, I think. That's a weird thing to say, but I think so.

Tom: Me, too. Yeah, definitely. Yeah. Well, we are social creatures, right? Isn't that what they say?

Kelvin: That's what they say. Yep. So, I think right before we hit record, Tom, you said that you got new coffee?

Tom: I did.

Kelvin: What are you drinking?

Tom: Well, it is new. You know that I've been drinking some of the same stuff since we've been in lockdown, but today is a Brazilian Arabica 100% medium roast,

and it's from a company called Sea Bean Coffee Company. It's in West Palm Beach, Florida. This was a gift from my brother in law and cracked it out for a special occasion. So, it's good.

Kelvin: I'm impressed that sounds like some legit coffee you got going on there.

Tom: *(laughing)* Yeah, it's brewed down in West Palm. I think they got bought by another local shop or distributor or something, but I think they do their roasting there.

Kelvin: Cool. Well, I hope you don't mind again, but I have also this episode as well thematically selected my cup of coffee today. It is very tasty. It is recently roasted, single origin Guatemala just right for the poor over brewing method that I used a little while ago to make this cup of coffee. This coffee comes to me from Equator Coffee in San Rafael, California, and it was actually recommended to me by an online service called Trade Coffee, which is kind of cool because they match you up with coffees based on your preferences and your coffee behaviors. And they guarantee that you'll like your first coffee. So, this is my first coffee and I like it. So, I really wish I could be sharing it with you Tom despite our coronavirus remote work, but I'll just ask can you find a connection between my coffee selection and today's episode?

Tom: Wow. I was thinking the same connection I had and I'm sure this is not it, but that they're both not American.

Kelvin: Ah.

Tom: *(laughing)*

Kelvin: They are both not American. That's right. *(laughing)*

Tom: Yeah, that is something to do with our episode today.

Kelvin: That's true.

Tom: I don't know why don't you elucidate me, Dr. Thompson?

Kelvin: So, I'll give you one more shot at it, right? So this is—

Tom: Oh wait. I think I may get it.

Kelvin: This coffee comes from Equator Coffee, and they also have this matchup system that kind of is based on your own unique preferences and coffee behaviors.

Tom: Gotcha. Yes. I should have been attending to that portion of the description.

Kelvin: That’s alright. That’s okay.

Tom: All right. So yes, I do get it. All right, equator. So, our guest this episode is from, you know, *(Australian accent)* down under.

Kelvin: *(Australian accent)* Down under.

Tom: And he's going to talk to us about some really interesting online practices that use adaptive learning and match needs with instructional content. So, I get it. You are sort of the Amazon recommendation engine of coffee or the Stitch Fix where you put in your preferences and you get the shirts that you like, or however that works.

Kelvin: There you go. That's right. That's right. That's right! That's a good connection. So before we get into the specifics, I'll just say that a little preamble here, back during episode 56 which was "The Last Mile: Getting STEM Online," we spoke about some of the challenges at UCF and elsewhere of STEM faculty embracing online and blended design and teaching. We spoke from our vantage point as online education people, but we promised some follow up from actual STEM faculty. Now, today's interview episode is related to curricular innovations in one of the STEM fields—engineering—but it is certainly not a direct response to episode 56. However, it does help us as online educators better understand some of the priorities and challenges of the STEM community. So, just a little preamble there.

Tom: Yeah, and if I can make one comment on that. What we've experienced in this remote teaching transition, it has—at least at our institution, probably the same elsewhere—inordinately affected the STEM community, because they are most often teaching face to face, and we've done talked about that before. But I think what you are about to hear in this interview—and we'll get to who I talked to in a moment—is a really great example of the difference between the kind of immediate remote teaching of STEM content as contrasted against the kind of well thought out, rigorous designed online STEM content that could be done with, you know, intentionality and planning and support. So that's the difference between maybe online learning and remote instruction. I think this is this is one example of that.

Kelvin: Yep. So, Tom, you interviewed Dr. Euan Lindsay during his visit to UCF during 2019. So, do you want to tell us about our guest?

Tom: Yeah, absolutely. I've very much enjoyed the conversation and the visit that Euan and his colleagues made to UCF. So, Dr. Euan Lindsay is Director of Engineering for Charles Sturt University in Australia, down under. Euan visited UCF to compare notes on an adaptive learning system that each of our institutions uses. But we were quite taken by the innovative approach to engineering that Charles Sturt University uses and we'll link to his professional bio in the show notes if you want to know more. But it's probably worth noting that Euan Lindsay's PhD is in engineering education, and his dissertation research involves studying how students learn when controlling physical equipment remotely via the internet. I think that is very relevant. As you can see, he's a thoughtful guy. He's passionate about what they're doing, and they're doing

some really cool innovative things that I think a lot of us could learn from down there at Charles Sturt.

Kelvin: So, Tom, any comments you want to make in addition to that before we cut to the interview?

Tom: No, let's talk about it on the other side, and maybe reflect a bit. So, through the magic of time of podcast time travel, as we usually say, right? Here is the interview with Dr. Euan Lindsey.

(musical transition)

Tom: Euan, thank you for being TOPcast.

Euan Lindsay: Thank you, Tom. It's a pleasure to be here.

Tom: So, you are here in muggy Orlando, Florida, from Charles Sturt University in Australia. Why don't maybe you start by telling us a little about Charles Sturt and where it is in Australia, maybe a little bit about the size of the institution, maybe if there's a particular focus or mission?

Euan: Yeah, absolutely. So, Charles Sturt University is in regional New South Wales. So, Sydney's the capital of New South Wales. It's a large city. It's surrounded by a mountain range. But if you go west of the Blue Mountains into regional New South Wales, you've got an area of Texas. Same size as Texas. Not the same. Weather is very cold there right now, so I wouldn't say muggy. I'd say beautiful Florida, but we are the regional university once you get west of the Blue Mountains. Charles Sturt is a multi-campus institution with seven different physical locations. We were formed by the Merger of College of Advanced Education, the Teachers Colleges, and things like that back in 1989. And so, we have a very strong community engagement mission. We're at 45,000 students, I think, but the majority of those are part-time students. A lot of them study online, or they study at the local campus, because that's the only place that they can get access to education. And so, it's very much Charles Sturt University or not going to university.

Tom: Right.

Euan: And that changes the tone of where you are. Now in my hometown of Bathurst, which is the first town past the Blue Mountains. It's about a three-hour drive from Sydney. We're about 16% of the economy there, and so a lot of universities talk about engaging with our communities. We are our community. We are the people that are affected by the decisions that we do. And so, there's a very different social license to operate when you work there. And at Charles Sturt, one of the things that we realized—and we *had* to realize—the industry was poking us for all the size that we have and for all of the mining stone in our physical footprint, all the food that is grown in our physical footprint, all of the people who live out there in the country and have roads and whatever else that need to be built. There was no engineering school. So, Charles Sturt Engineering, which is the school that I'm the head of, has only been open for four years, and it's been in response

to a shortage of civil engineers in country New South Wales, that they haven't been able to get those graduates to come out and work there. Experienced engineers, it just never occurs to them to cross the sandstone curtain and go out where the wildlings are and get a career, and it's beautiful place to work. Regional Australia is a beautiful environment to raise your kids. But if it never occurs to you that there is a career out there to be had, you don't think to go and work there.

Tom: You had a blank slate then, basically, to create an engineering school and an engineering curriculum, which is an opportunity I think, not a lot of people in in that field would have had.

Euan: Absolutely and I thought when they approached me and said, “Would you be interested in this opportunity?” I thought it was an opportunity. What an amazing chance. I can build this without any of the baggage. What you discover when you get the blank page is it's actually an obligation because everybody else is looking at you going, “Well, if I had a blank page, I could do all this stuff.” And so, there's a real need to not just build what everybody else does. And smart kids who want to grow up to be engineers from regional New South Wales, there's already some well-established grooves of they go into Sydney, and they study at Sydney universities, and that's a great path. So, if our degree was going to be the same as the ones they were already used to leaving the country to go and study, there'd be no reason for them to actually come and study with us. And if you look at the higher education future—the horizon issues of where we're at—there's so much disruption coming into our industry at the moment that if you're just going to build a generic product, it's gonna be dead in 15 years. It's not a sustainable model to say, “Let's just take this blank page and run it through a photocopier.” And so, you think it's a great opportunity of, “Ooh, I could do it without all this baggage.” But what you've actually got is an obligation to do something that nobody else is able to do because the big places that have the resources are too big to turn around.

Tom: Right?

Euan: UCF excepted, of course.

Tom: Of course. *(laughing)*

Euan: And the small places that have that flexibility and the agility don't have the spare people. They're too small. They're too busy running on the hamster wheel to keep it all going, but they don't have the time to reinvent themselves. And so I had the precious luxury of being given a blank page, but also an organization that realized it needed to reinvent itself and to look to that horizon and was willing to invest in a new engineering school that did things differently as a sandbox for what the rest of the organization could be.

Tom: So that's what so intrigued me and why we're so thrilled to have you on the show because the curriculum that you have developed is really innovative, and it uses adaptive learning and experiential learning and internships and you know, you

name it, it kind of has a little bit of everything but in a very cohesive, intentional design. So, I wonder if you can in a few minutes—

Euan: Twenty-five words or less?

Tom: *(laughing)* Yeah, exactly.

Euan: Absolutely.

Tom: 100 characters, maybe. Just sort of describe what is different about it.

Euan: So, this Charles Sturt University engineering degree is a five-and-a-half-year degree. So, entry point is the standard school leaver, and the exit point they exit with a Master of Engineering. They spend three semesters working face to face for me as student engineers. And so, I give them authentic, realistic problems and I pay them in marks. They do good work, I give them bonuses. After they've completed three semesters with us, we then put them in industry for four one-year industry placements. So, they go out and work as cadet engineers in real engineering organizations. They do real work for real people with real jeopardy attached. They get paid real dollars. And then they build portfolios of those experiences and bring them back to us. So, we're not looking at can they solve our third-year statics and structures equation? We're looking at them to bring us a structure they have designed, and it's actually been built and it's actually been certified and that jeopardy really focuses the mind because they're actually doing work. Actually is the word I use. It's not authentic. It's not realistic. It's actual work. If you do it wrong, there's ripples and consequences. The underpinning technical content, we deliver online on demand, you know—I'll use air quotes, sorry, guys—a "Netflix-style" curriculum, because what we found is that traditional curricular organized into three credit hour subjects of stuff that mostly fits together. And that's fine if it happens to be a three credit hour granularity, but if it's two and a half, then you've got two weeks at the end of the sort of related and the other two weeks that should have been in the three and a half credit hour subject that followed it. And so, a lot of that sorting is artificial for the sake of our timetables. It's artificial for the sake of trying to work out who should teach it or which semester it needs to go in. But when you're in industry looking to understand if this trust is going to buckle, you don't want to say, "Ah, well, I'm gonna leave that a year because buckling's in third year." You want to say, "Oh, I need to learn about buckling. What do I need to know to be able to learn buckling?" And so, we built our topic tree where we unpacked…It's pretty much the same as everybody else's civil engineering curriculum, but its granularity is the three hour topic. And so the idea is that you progress your way along the branches of our tree, you binge in the Netflix style at the point at which you need it, or you're told you need it, or you realize you need it, or you're just inspired to go and do some water treatment right now.

Tom: So, you don't have to follow the prescribed path. As long as you have the prerequisites, you can kind of follow your area of interest or need or requirement until that sort of runs out.

Euan: Yeah, so we don't have full force prerequisites. It's all soft prerequisite. So, the way we built the tree was I asked my team of faculty, “What order should students do these topics in?” What we find is that if they go in the right order, the order we recommend, the median self-reported completion time for a three hour topic is three hours and five minutes. If you skip one, surprisingly enough, it's closer to six. If you skip two, somehow the next topic takes you nine, and it's amazing how they want to skip ahead, and that's all cool.

Tom: But they quickly learn, I bet.

Euan: So, it's weird. I mean, do they have that freedom when you say, “This is the right answer, and this is where you should learn it.” And people with lots of expertise have said, “Go this way.” Do they have the opportunity? Do they have to take that advice? The main reason we didn't force the prerequisites is that if you need to learn that because you're actually doing it in practice, you don't want to have to do an online quiz to prove that you get Part A, and then an online quiz to prove the next one—and we do a lot of automated assessment, online quizzes, and so on—you want to get through the understanding because you don't need our quiz to reinforce what you're learning. You have a real example in front of you that needs to go out the door under the principal engineer signature on Thursday. That's the demonstration in your mind. So, the learning materials need to be accessible. We don't want to firewall them because you haven't got around to doing this pace of assessment. So, we wanted it to be a learning resource that enabled you to progress, not sort of a sequence of quests that you had to unlock the next one.

Tom: Right.

Euan: So, we thought hard prerequisites would block people. That if you do need to jump ahead, because this is what you're doing, you're not being stopped because you haven't gone back and done the assessment piece in the topic. So, you can do the one and a half hours of learning, and then use the practical piece as the exercise.

Tom: It probably gives you more flexibility for the kinds of corporate placements that you put them in, because it could be almost anything that they would encounter.

Euan: Well, it’s civil engineering, but certainly the range of whether you're in local government or consulting or you're working on a mine site or so on. And so, what we've got, essentially there are core topics on the tree that everyone must have before we we’ll place them with a host. You can't go out unless you understand continuity or equilibrium. There's some core concepts that they would throw the cadets back. There's core concepts that every civil engineer must know. And then there's concepts that the structural engineers must know, concepts that the geotechnical engineers must know. And so, it's much like a normal course, right? There is three-point subjects so that everyone must do. There is a core civil, there's core by discipline, but for us, we've broken it down to what would you actually deny them graduation for if they didn't know, and while Structures 3 may be the three credit hour answer, not all of that is essential for every civil engineer. Some of it is and you can't get out without it. But then you have to do

the other four weeks of that subject because that content's in there. So by unpacking it, we've been able to build that on demand process, and what we're finding is they don't want one episode of design, one episode of circuits, one episode of materials, two episodes of maths every week. They want to binge their way up, however many topics that are in the content area that they're working on. And it's that realization that this is more how they consume media. It's how they engage with every other learning experience. If they want to learn how to make a cake, they look it up on YouTube, they have a crack, they taste it, they call their mom and go, "What did I do wrong?" They don't go to BKG 201 Cakes in Modern Society and sit through twelve weeks of lectures with some thermodynamics and the ethics of free-range eggs.

Tom: Yeah.

Euan: They get into it. They do it. That's how people learn everywhere but at university, and so we looked and said, "This is this model, and talking at people thing isn't working anymore." It's never who we've really been as Charles Sturt University, but it's an increasingly untenable model. And so, we need to get to something that is built around that practitioner identity but also gives you that flexibility to add that bit of extra learning when you need it.

Tom: So, are you different at Charles Sturt University, your curriculum? Or are there other disciplinary areas, other faculties or colleges that that are doing similar kinds of innovation?

Euan: So, we are different because we were set up to go and be different. We were set up to be on the front here. What we're finding is that it is having an impact on the rest of the institution. If you know the concept of the Overton window.

Tom: Yes.

Euan: The range of acceptable thoughts, well, we've just made that wider. And so, the people who were near the middle of the old one, are pointing out at engineering saying, "Look what they do!" What we want to do is actually very simple. And so, I think our accounting degrees were cut back from 32 exams in 32 subjects to 28 exams in 32 subjects because engineering has no formal exams. So, 28? Eh, that's nothing. Whatever. Approved. Off you go. We're finding that that idea that everything has to be a standardized size subject is now weaker. People are looking at other opportunities. The new workplace learning policy has evolved in light of the way in which we place our cadet engineers on whole yearlong placements that aren't just 12 weeks for the sake of the subject, and so that there's sort of ripples starting to form. The challenge is that again, even within the institution, we've got some very large colleges, and they have some very large programs. And you want to be sure that you're not about to destroy it as you change it. You want a constructive evolution, but they're looking at us and cheering us on because they can see things that they want to do. They can see dimensions of our program that will help enhance what they do in their context.

Tom: Gotcha. So, one of the things that seems to me that is required to kind of facilitate this innovative curriculum that you've designed—and frankly, how we were

introduced to each other because we're both using the same adaptive learning platform.

Euan: Yeah, absolutely.

Tom: So, how critical is the use of adaptive learning in order to make this vision come true?

Euan: It's essential. But there's many layers of adaptive learning. So I mean, there's the Big Brother is watching you tracking every key click and changes everything you see in response to that. We're not quite at that. We're adaptive in the sense of you can change whichever pathway that you need through your curriculum. And we're certainly—

Tom: It's also nonlinear.

Euan: Yes, it's nonlinear. But it is still a perpetually forward moment. I mean, you can go back and loop. But we don't…At this stage, we haven't evolved our topics to the point where if you make this particular mistake, it'll give you different feedback and things like that. So, those kinds of tools are things that we're looking to embed, and we're constantly overhauling the tree. But at the moment, our main goal is growing the tree fast enough to stay in front of our student engineers. But the analytics that we get out of understanding where our student engineers are going, that if you've been traditionally on a path of doing five topics a week and suddenly, you're down to two, there's something changed in your life. And so, we can just nudge whoever it is that's mentoring your team and go, "Is Tom okay? Is he all good? He's just stopped doing topics. What's happened?" "It's all good. Tom's happy. He's just been on holidays."

Tom: *(laughing)*

Euan: You've been fishing for a week. It's great. So that ability to collect the data, I think you said, we've got the groundwork for it, but we haven't got as much of that proactive piece. We've got the very passive responsive stuff. We've got that here's a parameterized question with a beam and there's loads, type in the correct number, and every student gets a different version of that, and they can get feedback if they used a cos instead of a sin. But we haven't got the…I get the Netflix recommended piece in it that you know, "You seem to be enjoying water quality. You should try flocculation as the next subject." Flocculation. Look it up guys. You can Google it.

Tom: *(laughing)* We'll put a link in the show notes.

Euan: Thank you. So, I think there is a lot of room to grow there. And what we've…This is part of why we're here at UCF. You guys are very good at that: providing alternative pathways through the content, but you're doing it at that traditional three-point course.

Tom: Right.

Euan: So, you've got three-point courses that are bundled together that are very responsive to what the student needs today whereas we've got that unpacked curriculum, which is very responsive to what the student needs this month.

Tom: You've got a much more of a—I don't know if you would describe it like this—but it's much more of a competency-based sort of design. The curricular tree that you showed yesterday, as we were talking, covered about two years' worth of content, but it wasn't…I couldn't tell by looking at that tree. "Okay, here's course one. Here's course two." It was sort of the student could kind of make of it what they needed to.

Euan: Yeah, so, one of the challenges is the disciplines don't always map to courses neatly.

Tom: Right.

Euan: Like when does statics end and dynamics begin? And I can't get a great answer from even from my team. We all have different backgrounds. We think it's slightly different. And so the course is a convenient label that we needed to be able to scale up from just the monks reading at books to non-monks to the higher ed. system that we've had for the last 50 years, but it's not the right answer going forwards. You can have different sizes. The standardization is what you need to get to massification, but it's not what you need to get to universal access. And so, I mean, we do color code it of where we say this is where this branch changes to this branch. But the student engineers are more, "What are the concepts that I need? What's the piece?" Or "what has my mentor said? You know, is that going to bring me the buckling calculations?" And it doesn't matter what you call buckling: structural analysis or physics or whatever you call it. It's called buckling on the tree.

Tom: Is this thing going to break?

Euan: Yeah, is this going to break? But you know why you need it at the time and so we've, I guess, had the luxury of being able to do away with those artificial boundaries between courses. Another phenomenon that's amazing is how often something that you teach in week twelve of year two, you then have to teach again in week two of year three.

Tom: Right.

Euan: Because they need to go again. And so, by saying, let's put on the train once, let's do a mastery base model of we will credit you that topic. When you actually show you understand it, when you are competent, then we can do it once and we can move on. You can always refer back to it, but we're not in that, "Well, I talked to you about it in week twelve, so I'm gonna assume you knew it."

Tom: Right.

Euan: And then discover the next time we try and use it that you didn't remember a thing.

Tom: Great. Well, it's a fascinating curricular redesign. I think it's cutting edge. And I agree with you that it is probably the future. And so, you're living in the future. The rest of us are on our way. Thank you for taking a few minutes to talk to us today on TOPcast about what you're doing down under.

Euan: It's been an absolute pleasure to be here, Tom. Thanks for having me.

Tom: Sure.

(musical transition)

Kelvin: Well, that was your interview with Euan Lindsey, and Tom, that Euan's a pro. That's not the first time he's talked about this stuff.

Tom: No, no, obviously not. But I still very much enjoyed the conversation. Learned a lot during their visit, as well as during that conversation. And what they're doing there I just think is so innovative from a curricular standpoint, but also from just a pedagogical standpoint, this idea of what he was calling the "Netflix style" curriculum. We've been hearing for years, "Well, why can't education be more like Amazon where they kind of know what you want or games or other kinds of predictive kind of engines?" And it seems like they're getting closer to that than anybody else that I've talked to in recent memory, where you can offer just in time, on demand educational nuggets that meet a particular educational purpose, and it's nonlinear, but by the time you're all done, you have everything that you need, and it's been applied in practice. I just think it's really interesting.

Kelvin: No, I agree with that. But I appreciate his depth of reflection on that too, right? That you binge at your point of need, and that point of need could be you're told you need it or you realize you need it or you're just—I love his word—inspired. Right?

Tom: Yeah.

Kelvin: But yeah, the idea of the soft prerequisites that you might be inspired, but if you don't follow the soft prerequisite pathway, you might spend a lot more time on it than if you did. So, I thought that was really, really interesting.

Tom: Yeah, agreed. They're doing some, as you say, interesting things down there and in Australia, and again, good for them. The idea of having that blank page, what he calls that obligation to try something different instead of just being another one of the crowd in a typical sort of engineering program—not that there's anything wrong with that. We have that at our institution, and it works well. But to have the total freedom of movement to come up with something completely new and design it from the ground up as a completely new model. What an opportunity. How often do you get that? And they seem to be taking full advantage of it.

Kelvin: Yeah. Yeah, I totally agree. And can I just say that this stuck out to me when we talk to them on site, and it's stuck out again, listening to the interview? I love that

phrase with real jeopardy attached, you know. That job placement with real jeopardy attached? There's learning for you right there.

Tom: Right. Yeah, if you're at risk of having your bridge fall down, that's real jeopardy. But he was quick to point out that there would be a senior certified engineer that would sign off on the work. But even so, that's a real practical application. That's not some textbook, abstract assignment. If you're sitting there and you have to solve this problem, and then there are consequences if you don't get it right. Wow, that's the crucible of real-world education, isn't it?

Kelvin: Yeah. And you know, I just can't…I'm find this very compelling as well, though. The comparison that he made of the students using YouTube to find out how to make a cake and then giving it a try and then calling mom for backup. "Where did I go wrong?" Versus, you know, universities structures where he made up these academic sounding coursework titles like the ethics of free-range eggs and cakes in modern society. *(laughing)* I love that.

Tom: *(laughing)* Makes me think it wasn't the first time he trotted that out. That was hilarious.

Kelvin: I laughed. I laughed. I thought it was funny.

Tom: Well, and if you want to know what flocculation means, you're gonna have to come to the website and look it up, because I know Kelvin has included it in the show notes.

Kelvin: *(laughing)* I had to know. I had to know what it was. So, there's a nice little MIT explainer video there that tells you more than you wanted to know about flocculation.

Tom: Cool. All right. So, probably all we have time for to dig into the world of Charles Sturt, but in the show notes, there are some links that go a little deeper into some of the stuff that they're doing, and I strongly encourage you to check them out.

Kelvin: Yep, I totally agree. Uh, shall I take a shot at the bottom line?

Tom: Please do.

Kelvin: So, we might act like it at times, but educational innovations are not the exclusive domain of online or digital learning professionals. Curricular advancements and new approaches to teaching often originate within academic programs. Understanding more about the unique needs of individual STEM programs might help us online folks identify ways that our online and blended approaches could help. Would you agree with that?

Tom: I would agree with that. It's a question I often ask deans and other stakeholders on campus here, like what problems do you have and how can we help?

Kelvin: Mm hmm. What do you think, Tom? Do you think we got a moment for a plug before we sign off?

Tom: Let's do it. I think we have a couple a couple of seconds left.

Kelvin: You wanted to give this plug?

Tom: Sure. So TOPcast listener, Lisa Beach, who is Director of Distance Education at Santa Rosa Junior College, posted the following recommendation on the Apple Podcast platform regarding our lovely TOPcast. She said, “Many thanks to Kelvin and Tom for helping those of us who are in the field feel a little less alone in our work. It's lovely to know that they are there, and so helpful to get their advice as well as connections to useful resources. Keep up the great work.” Thank you, Lisa. That is very nice to hear. We feel a little less alone podcasting, knowing that you're out there feeling a little less alone.

Kelvin: Yeah, for sure. It's a community. We use that word, right? But it really is. So that's awesome. That's awesome. Yeah. And if you, dear listener, have comments about TOPcast that potential listeners would find useful, please consider leaving a one or two sentence review on Apple Podcasts or whatever platform you use to listen to these episodes. It's a great help. We might even read your review on a future episode. But if you have something to say that warrants a direct response, please email us at topcast@ucf.edu, and I should say the show notes you can find at topcast.online@ucf.edu. Well, until next time for TOPcast, I'm Kelvin.

Tom: And I'm Tom.

Kelvin: See ya.