TOPcast Episode #91: Intermodal 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)

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

Kelvin Thompson: And I'm Kelvin Thompson.

Tom: And you're listening to TOPcast: the Teaching Online Podcast. Greetings, Kelvin Thompson.

Kelvin: Greetings, Tom Cavanagh of Earth!

Tom: That's cool. So, those who may be listening didn't see that, but you did the Spock "live long and prosper" at me.

Kelvin: Yeah, I know. It was one immediately recognizable alien hand gesture that I knew and had confidence that you'd recognize as such.

Tom: There's really only two, right? There's that one, and then there's the Nanu-Nanu where didn't you do that *(makes hand gesture)*, and then you sort of shake hands, if I remember?

Kelvin: Yeah, that's right. Although I think Robin Williams did it kind of like like this. He was like doing a volume knob thing around his ears, too. *(emulating Robin Williams)* "Nanu-Nanu!" But then he would kind of handshake with the Spock.

Tom: There's probably half the audience who have no idea what Nanu-Nanu means.

Kelvin: That's true. Well, you know, that's a good opportunity to say that, you know, we do occasionally make these weird pop culture references, and on the show notes page, we throw a few of those down in there. We go look up something so that you've got some kind of frame of reference, so if you've ever wondered, "What in the world are those guys talking about?" You can figure it out.

Tom: That's a deep cut! You can go find a link to that deep cut if you need to. So, I imagine this one will have some Mork and Mindy in it, I'm sure.

Kelvin: Yeah, yeah, that's true. Pam Dawber's been guesting on NCIS.

Tom: Starring Mark Harmon, her husband.

Kelvin: Yeah, it's kind of weird. I'm like, I haven't seen her in stuff in a long time. That's kind of cool. Like, it's Mindy! It's Mindy!

Tom: And you thought this was going to be about online learning! *(laughing)*

Kelvin: Oh, I guess it could be. But first, it probably has to be about coffee. *(laughing)*

Tom: Yes, yeah. Or NCIS or Mork and Mindy or Star Trek or whatever. Sure. Yeah, I see you're sipping, and I have here something that you poured me just moments ago.

Kelvin: Yes. Something that I poured you

Tom: So, Kelvin, what's in the thermos?

Kelvin: In ye olde thermos today, Tom, is one I have been holding in reserve for a while waiting for a suitable connection opportunity, and in a moment, you get to be judged and see if it really was a suitable opportunity. This coffee comes to us by way of our UCF colleague, Dr. Francisca Yonekura, who is, as you know, originally from Latin America, and periodically, as you also know, she has had to travel to Miami through the years on consular business for her family or herself, and on one of those trips a while back, she brought us this coffee. Now initially, I was kind of excited because I thought the shrink-wrapped coffee brick was from her home country, but it turns out to be a product of Miami, which is fine, you know. Things can come from Miami. That's all right. That bustling international port city that I love.

Tom: I kind of come from Miami in some ways.

Kelvin: You do! I know! So, that's why I figured you wouldn't mind too much. But this coffee is called Cafe La Rica, and it's one of several brands from CLR Roasters, which also supplies coffee service to a variety of industries in Miami and beyond. In fact, their website includes a page all about their process, like from the farm and all that. But instead of stopping at like the roasting and here it is, it keeps on going with much more of an emphasis on commoditization including freight distribution to their industrial clients they serve. More of that than the coffees that we quite often talk about. So, I should say you were commenting that it's extra strong. I used the AeroPress on this because this coffee was ground like an espresso grind, which is really fine ground, and I don't have a brewing process at home other than the AeroPress, so it's a little espresso-esque.

Tom: Sí.

Kelvin: How's the coffee?

Tom: Yeah, well, it's growing on me. But it's also growing hair on my chest as I drink it. It's pretty strong. *(laughing)* But I like it. Thank you to Francisca. Gracias muchísimo. I'm enjoying it, but I need to find a connection now, right?

Kelvin: Well, you could look for one.

Tom: Yeah.

Kelvin: In the time that we have left.

Tom: Yeah. *(laughing)* ¿Que tiempo? So, I'm thinking it has to do with the commoditization and—what'd you say? Freight distribution? Something like that. Along those lines, there's a connection in there somewhere.

Kelvin: Yeah, I think that's kind of what I was looking for and then also, the international. There's an implication of great distances traveled. That was a thing in there, too. Yeah, because this episode, we're going to springboard from comments that we mentioned back in Episode 73 when we said that listener Jerry Dougherty had asked for an episode that focuses on modality, and we said, "Well, maybe we'll take him up on that," because Jerry has some real deep thoughts about modalities based on his past life in military logistics, and he was using shipping containers and transport as a metaphor for course modality. So that day has arrived. So, we're going to kind of talk about intermodal transport as a metaphor for use in digital teaching and learning, particularly what Jerry referred to as intermodal learning. So, how's that?

Tom: Yeah, thanks, Jerry. I mean, it's such an interesting framework. Not one that we would have come up with independently on our own, but it's a neat suggestion, and let that be a lesson to all you listeners that if you have a neat idea—

Kelvin: We listen to it.

Tom: —we're desperate for them. So, send them in. We might actually talk about it.

Kelvin: *(laughing)* It's possible. Yeah, top cast@ucf.edu. Send us your tired, your poor, your…

Tom: Your clever.

Kelvin: Yeah, your clever! Your deep and wide suggestions, and we'll get to them. So, Tom, I'm of the opinion that to really get into this discussion, we need to kind of have some kind of a bit of a level setting primmer for our listeners on some key terminology and concepts. So, you know, I've thrown some of those down and I was thinking maybe we could kind of kind of connect the dots, leapfrog from one to the other, maybe stop for a second and comment on it just to kind of lay some back stop to the conversation before we get into, you know, Jerry's assertions, and we can discuss around that. Does that sound kind of okay?

Tom: Yeah, probably a good idea, because probably not everybody is used to, you know, the ins and outs of military logistics.

Kelvin: Yes. So, some of these terminology things are digital teaching and learning, which I would think most of us, you know, kind of are conversant with and then

some are more intermodal transport related. So, how about we start with modes? That's like a shared term, which means different things, right? So, in transport—I had to look this up—modes in transport means container ships, railways, trucks, barges, airplanes. Those are all different modes. So, intermodal transport means moving from one to the other of those things.

Tom: Like a John Hughes Thanksgiving movie.

Kelvin: …Yes. *(laughing)*

Tom: *Planes, Trains, and Automobiles*.

Kelvin: I did not know that was John Hughes.

Tom: Yeah.

Kelvin: Is that right? Huh. Go figure, which I always get confused with *Throw Momma from the Train*, because they both have trains in the title.

Tom: Different movie, but also good.

Kelvin: Yeah, sure. Now, [in] teaching and learning, we have modes. You want to break that one down for us briefly?

Tom: Sure, and we've talked about these a lot in the past on this podcast, but we have, you know, fully online; blended or sometimes called hybrid learning; obviously, in person or what's called face to face; and then we have all different nuanced variations along that spectrum, especially since remote instruction, which includes synchronous, HyFlex, what we've called BlendFlex, and all of the above in various combinations we've seen in the past year or heard about.

Kelvin: Yeah, that's right. Now, kind of key as I understand it from Jerry's comments about intermodal transport are those containers, you know, and I gathered that those have kind of entered into pop culture more recently, as well. I guess some people actually make like, dwellings out of these containers and stuff, which is kind of cool. But I guess there's 20-foot containers and 40-foot containers. So, they're standardized, right? And they allow easy transfer between modes—modes being ships or trucks or trains and all that—easy transfer between modes without human handling of the freight inside. That's really kind of a key value proposition: decreasing the amount of human interaction with the freight.

Tom: Okay.

Kelvin: So, digital teaching and learning, I thought kind of the closest analog to shipping container is probably what we might call the content module or module.

Tom: Or maybe just content, but yeah. Yeah, and so I guess the crosswalk here is that the content is like the contents of the shipping container, and that can be delivered through multiple modes, whether it's online or face to face or blended.

Like it can be shipped that container on a ship somewhere in the Mediterranean or coming around the Gulf of Suez or on the flatbed train car or on the back of a truck going down the highway. It's the same thing being delivered in different ways for different purposes.

Kelvin: Now, an entire course could be shared and distributed via standards-based packaging like Common Cartridge, but I tend to think the module tends to be the kind of thing, and we say content module a lot, but I guess a module can include instructions for the human interactions like discussions or learning activities and all of that.

Tom: As well as the assessment, potentially.

Kelvin: Yes, that's right. But the interaction-dependent items require a real skillful instructor, right? You have to kind of make sure that person knows what they're doing. I kind of thought, Tom, related to this module thing, I think reusability is a key concept in making this metaphor kind of work, right? And it, you know, kind of seems more resonant with the standardized shipping containers and intermodal transport. And here, we maybe queue up the SCORM-era "-ilities" for people who go that far back: reusability, interoperability, durability, affordability, adaptability, accessibility. Adaptability, maybe, right? You move from one mode to another. That could be a thing.

Tom: Yeah. But I mean, as you were describing this, I can't help but flashback to my pre-higher ed. digital learning days when, you know, we did a lot of stuff for the military and others, and it was all SCORM-based, and we had SKOS, shareable content objects, and the idea was that they could be repurposed and reused in different ways, right? And it had that kind of portability to them.

Kelvin: Yeah, and I kind of think underlying this, as well. I mean, this is sort of like a little bit like open licensing like Creative Commons licensing. If you haven't addressed reuse—hence the reusability—you can't really address remixing. That is, the intermodal stuff, right? If you can't share it, then it's hard. So, here's another, going back to old days: learning object, right? That's kind of up there with the shareable content object, and for the folks who weren't along for that part of the ride, here's a circa 1997. It's the shortest definition I could find for learning object, because there's a million of them: "the smallest independent structural experience that contains an objective, a learning activity, and an assessment." That's L'Allier from 1997.

Tom: So, that construct of objective learning activity and assessment, that's the framework, the foundation of Obojobo learning object development platform.

Kelvin: Yeah. That's exactly right. That's exactly right. And maybe one final thing about kind of the reusability and learning object thing is Wayne Hodgins who actually arguably coined the phrase "learning object" had what I've always thought was really a helpful construct. He talked about reusability and contextualization being counterpoised. That is, the more highly contextualized an object or a module or a course is, the less reusable it is. The less contextualized, the more reusable it is. And we were doing this faculty development thing with some colleagues at a

state college down south in Florida some years ago, and a faculty member was getting his head around that, and he said…He kind of had a pop music culture background, and he said, “I think that makes sense. Singles are more reusable than albums, especially concept albums.” And I'm like, “Huh!” I always kinda liked that.

Tom: Yeah, I like that, too. That makes sense.

Kelvin: Yeah, yeah. And then maybe one final thing is like standards and standardization, right? And we used to talk a lot more about that maybe more around like the learning object and SCORM and stuff, but we still have standards in our field. You know, like Quality Matters design standards, and IMS Global Learning Consortium, technical standards, Common Cartridge standard: all that kind of underlies our ability to share our work. Alright, so with all of that as a preamble/primmer, you want to tell us what Jerry actually said to us so we can talk about it? *(laughing)*

Tom: Alright, so here's what here's what Jerry said. “At our university, we talk a lot about modality. Recognizing this term of art from my years as a logistician in the Army Reserve, I thought I’d share my observation about what every administrator wants but doesn’t dare say out loud. Intermodal learning. Think of a course as a shipping container. It can move around to its final destination in a multitude of ways. It can be on a ship with lots of other shipping containers such as a face to face lecture class, on a train (remote, synchronous), on a cargo plane (online, synchronous), or on a truck (online, asynchronous). All of these modalities have the ability to get your cargo along to their destination, and you can use them in combination or by themselves. Just like in [the] logistics world, the more often the container changes modalities, the more expensive it gets. But when you give yourself a required delivery date for your cargo, you need to be willing to pay for the additional handling. No one seems to want to plan for or pay for the additional handling for all their cargo. Once there's a crisis, we'll just hire expeditors to sort it out and get it done. I think the shipping container metaphor is a good one for the times we are in.” Really interesting!

Kelvin: Would that all TOPcast listeners should think so deeply about the subject area here

Tom: Yeah, I'm not sure I completely agree with Jerry's framing, but it's really interesting. I really like the way he's thinking. Where I think I depart, at least in the way I could understand it is I am thinking of the content as the thing that gets shipped, and in some ways, I think he's referring to the students. So like, when he says that it can be on a ship with lots of other shipping containers like a face to face lecture class, I'm kind of picturing all the students sitting next to each other, and that's the analogy. I'm not sure that's completely tracking with how I'm picturing it. Maybe I'm misunderstanding how he's framing it.

Kelvin: Yeah, I mean, I'm not sure either. And all metaphors break down, you know, the more closely you inspect them, but I was kind of just taking the fact that intermodal learning, the proposition there is, there's sort of a desire to be able to take an entire course and just move it easily quickly from one modality to

another. You know, sort of like we move shipping containers. So, in that sense, broadly, I'm kind of going back to thinking of the whole course, personally. But I do think there's interesting observations here, and there's clearly some parallels, as we've already kind of articulated a little bit, right? But there's some differences as well, like we said one already, right? Courses are less reusable or transferable to a new mode than parts of courses.

Tom: Right. Well, when you think about like a repository. So, we use Canvas as our LMS here, and Canvas Commons allows you to reuse and share at various levels of granularity, and the ones that are probably the most reusable are like the self-contained assets, whether it's a test or a module or something like that.

Kelvin: Yeah, absolutely. Absolutely. And I don't know, I kind of think that there's more "human handling" in course redesign than there is in moving a container from, say, a ship to a truck, and that human intervention is arguably part of what makes learning experiences human. And as Jerry eludes, human intervention to change modes is costly in terms of time and effort.

Tom: Yeah, but you know, it's funny this past year has really expanded my horizons a little bit and how I think about things. So, let's just take a course that is blended, but the online portion is synchronous. And [for] a faculty member, there's probably less heavy lifting design that they might need to do—I could be challenged on this because I know you have been working on this a lot with a lot of faculty recently—but as opposed to having the online portion be asynchronous where there's a lot of design that has to be done at least up front, a faculty member who's maybe teaching in a lecture format, even using active learning strategies in a classroom can translate that to a synchronous environment relatively easily with less cognitive load perhaps—this is my theorem—than if that online portion were asynchronous, where there would be a higher cost of transition, so to speak, to kind of, you know, use Jerry's metaphor.

Kelvin: Yeah, that's interesting, and certainly that was sort of, you know, the modus operandi for the great pivot of March 2020, right?

Tom: Yeah.

Kelvin: It's like, "Okay, what can we do synchronous online?" But, you know, we've certainly talked in these podcasts a lot about the value of design and assuring quality and consistency and reliability. And I'd say that's maybe one of the threats of kind of transferring in that synchronous venue. How do you ensure that you get consistency, like, you know, kind of moving across? It comes down to the individual faculty member, right? I mean, it's all kind of person-dependent. I do think that there are design practices that make changing course modes easier. For instance, we've talked before here a different kind of blended. We've talked about blended as online courses with strategic face to face workshops, and we really mean, asynchronous online courses with strategic face to face workshops. And if you follow that concept, a fully online course could be moved to a blended mode effectively. And if the blended course were designed in that manner—and they aren't always—the transition to fully online would be much more efficient if you started off with blended then went fully online. But the transition from blended to

fully online often involves creating new content or designing new activities, or at least redesigning face to face activities to be effective online. And so, those are some of the challenges. Like, if you really started thinking, “Oh, this thing that we're starting with is eventually going to have to be in a different mode,” that might change the way you go about designing it from the get-go.

Tom: Yeah, yeah, I think that's an interesting way of thinking about it. And, you know, even just going back to that example I gave of the blend where the online is synchronous, if I can just really kill Jerry's metaphor, maybe it's like the difference between having your shipping container on a train that's on a track that's going over ground, over land, but it's in a fixed direction and it can only go between two points, right? Because it's on a track, but it can go fast.

Kelvin: Ooh, I see where you’re going with this, I think.

Tom: But then when you move it off onto the truck, you're still over land, but you add an extra level of flexibility, because you can turn on the roads and do things. So, maybe that's the blended portion where you have some geographic flexibility, but not necessarily temporal flexibility like you would asynchronous.

Kelvin: Yeah, I like that. If you put it on a plane, then you leave the ground entirely. You can go anywhere.

Tom: Now you’re asynchronous, baby! Maybe on a ship, too. That would be asynchronous.

Kelvin: Ultimate flexibility. Maybe a submarine?

Tom: Maybe you put wheels on it and let the driver drive that just around where they want to go.

Kelvin: Yeah, yeah, yeah. Yeah! I think all that’s interesting. You know, real world, we really are, as you know, in our flagship faculty development program, we're thinking about how do you effectively prepare faculty for a greater variety and modalities, and so we're wrestling with this, right? You can't overwhelm faculty participants with like, you know, go through a series of learning activities that, you know, show us that you can design and teach in every single one of these permutations and combinations. That's not practical. And you can't just kind of say that you can be prepared for everything and only practice one thing. So, we're trying to kind of think like the Russian nesting dolls. We’re kind of thinking about, okay, if you design first, you know, kind of for the broadest flexibility, and then got more specific then that affords some, you know, logical kind of flow in the design process. And so, all that to say that remote instruction continues to force us to think differently. But so, what do you think about Jerry's core assertion that what every administrator wants but doesn't dare say out loud is intermodal learning?

Tom: Well, I don’t know. Why wouldn’t they say that out loud? I mean, but what they want is flexibility, right? I would think. I'm not sure the hesitancy to why that's kind of so verboten, but it may have something to do with his particular context. I

don't know what kind of institution he's at, where maybe it's much more of a traditional, I don't know, kind of like a liberal arts college kind of experience where maybe that's not the prevailing kind of sentiment for that kind of online learning. But I do think intermodal learning is an interesting term. You know, we'll add that to the list of blended, hybrid, intermodal, HyFlex. I like it. And I do think he's right in that the more transitions you have between modes, the more whether expensive is the right word or the more design has to be put in, you have to think about those transitions. They don't just happen naturally. I mean, I know that you've talked a lot like, particularly when you built out the Blendkit course, you know, this idea of the mix map. How do each of the modes complement and build upon each other? So, you know, you're taking best advantage of each one, and that they work together in concert? It's the same thing I think here. And, you know, if you looked at the actual logistics, you need a crane to lift your shipping container off the train [to] put it on the back of a truck, and you have to make sure that you build the crane or you have the crane ready. You can't just show up and expect the content to get from one to the other without any sort of transition.

Kelvin: Yeah, yeah. I think that's right. And I do think it's important to think about, you know, was it Cathy Davidson from HASTAC who said that, you know, if faculty can be replaced by a computer, they should be? You know, because there is sort of this thing of like, you know, robo-courses or that, you know, there's kind of this fear of everything's just going to be commoditized. And what's the value add of the faculty member or the faculty-student interaction? The reality is, you know, we've talked about this a lot. Our online courses are about people interactions, and they're not just robo-courses. And so, that's important in general, but then when we change modes, how do we amplify or reinforce that human role in there? And then it takes time and effort to make design choices.

Tom: I've been asked that question before about, you know, "Should we be afraid?" kind of questions. Yeah, the answer is always, "Of course not."

Kelvin: Add value, and you'll be fine. Yeah, that's true.

Tom: Yeah.

Kelvin: Well, you want to try to—ooh, watch this—land this cargo plane?

Tom: (laughing) Sure. Yes, this big, giant—what is it? A C-17? I don't know the military planes very well.

Kelvin: Yeah.

Tom: But alright. So, remote instruction caused a pretty sudden shift in course modalities for pretty much all of higher education this past year. Going forward, we need to think clearly and wisely about the nature of course modalities and human roles in them as we seek to redesign or reuse courses across modalities. As you have said, I will quote you once again, the future is blended.

Kelvin: Yeah. Now more than ever. Yeah, I think that's right. We're going to be just kind of staying attentive in the months and maybe years. *(laughing)*

Tom: Decades.

Kelvin: You know, just kind of figuring out the shock wave afterwards. Do you think we have a moment for a quick plug?

Tom: Sure. You want to do the plug?

Kelvin: Oh, sure. I'll give it a shot. If you sign up for free, dear listener, as a TOPcast Insider, you get emailed every time a new episode of TOPcast releases—right now that's twice a month—and you'll get show notes and bonus content right there in your inbox. TOPcast Insiders also get first notice of special events and connection opportunities. I don't know why you'd want to connect with me, but you might want to connect to Tom or maybe producer Tim. And we treat your contact info confidentially, and we don't spam you or anything. We take that seriously. So, you can sign up for free right now at bit.ly/topcastinsider. bit.ly/topcastinsider. Lowercase, no spaces. How's that?

Tom: That's good. I'm a TOPcast Insider.

Kelvin: Me too. I read them.

Tom: Yeah.

Kelvin: I write them, but I read them.

Tom: Alright. Well, thank you, Jerry, for the awesome topic suggestion.

Kelvin: Yeah!

Tom: We really chewed on this one, so that was fun. Thank you to Francisca for the café. Gracias machismo. And until next time, for TOPcast, I'm Tom.

Kelvin: I'm Kelvin.

Tom: See ya.

(musical outro)