TOPcast Episode #146: Get Hands-On with AI

Narrator: When you know what you want for the future, you need the present to line up with your goals. UCF Online offers more than a hundred fully online programs in healthcare, engineering, criminal justice, and more so you can get to your future and beyond.

(Intro Music)

Kelvin: From the University of Louisville's Delphi Center for Teaching and Learning...

Tom: And the University of Central Florida's Center for Distributed Learning...

Kelvin: I am Kelvin Thompson.

Tom: And I am Tom Cavanagh.

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

Tom: Everyone's favorite podcast. Hello, Kelvin.

Kelvin: Well, I mean if it isn't, it probably should be.

Tom: That's right. Look, I'll put it right up there on the list of favorites. My list. [Laughter]

Kelvin: Sure.

Tom: Maybe my mom's list, if she ever listened to a podcast, she knew what a podcast was.

Kelvin: Sure. Yeah. I mean, yeah, I listened to it, but I kind of have to because... [Laughter]

Tom: We have to... What did we say?

Kelvin: That's right. But I mean, I'll be honest here. I've heard worse. [Laughter]

Tom: Well, true, if that's our standard. [Laughter] Yes, me, too. Me, too.

Kelvin: There's worse stuff out there that you all could be listening to. So, we're sparing you, aren't you glad you're listening to this one instead? Yes, and
speaking of listening to this podcast and helping us out, not that we don't already appreciate you dear listener, just listening, but we want to ask you to do a little bit more. If you would just insert a dollar bill into your... No, that's not, that's not... Not that kind of helping us out. We really would appreciate you helping us crowdsource the topic for our upcoming recorded live episode of TOPcast that will be at the Online Learning Consortium’s Accelerate 2023 conference in fall 2023. So now, right now, as you're listening to this, that would be the time to do this. So, I'm going to give you just a little brief URL and just pause the recording, write this thing down, go fill out the little... It'll take you like 10 seconds or something, poll, and then come right back and hit play again. It'd be easy. So, here comes the URL, it's bit.ly/vote_topcastlive2023. That's Bit.ly, B-I-T-dot-L-Y, slash vote, V-O-T-E underscores TOPcast live 2023, all lowercase, no spaces, we'd appreciate it.

Tom: Yeah, we look forward to seeing you out there. All right, so Kevin, I see you sipping, I've got a cup of Gorilla Decaf here in my Embry-Riddle Aeronautical University mug, my former institution.

Kelvin: Gorilla Decaf.

Tom: Gorilla Decaf. Yeah.

Kelvin: When you started saying gorilla, I was worried what was going to follow that, in the mug there, but I'm glad its gorilla decaf. [Chuckle] I've already been judged and harassed on this prior to our recording, but I'm holding in my hand, Tom, as you might be able to see a cup of... I don't know, do I call it out by name? I guess so. A cup of Starbucks.

Tom: Yeah. Well, if somebody's watching, it's obvious because of the logo.

Kelvin: Yes. So, here's why, and my attempt at a connection to today's topic. Awfully hard to be critical of something from the sidelines without getting involved at all. So, I could make my comments about Starbucks all day long, and possibly have at times, but can I really in good conscience do that if I don't periodically actually sample their brew? No, I shouldn't be doing that. But now that I've had a cup, I feel like I can make comments, which I won't in this particular episode, but if you're interested, send me a note, I'll be happy to tell you what I think. But so, this is a cup of Pike's Place Starbucks, and that's my attempt at a connection. Do you have a connection to today's episode topic?

Tom: I do not, but I think I get your connection.

Kelvin: Okay, do tell. [Sips coffee]
Tom: So, you cannot criticize from the sidelines. I think there's like a Teddy Roosevelt quote somewhere that you have to be a man in the fray or something like that.

Kelvin: In the arena, he says. In the arena.

Tom: In the arena, that's it. Yep. Yeah, man in the arena. And so, if you're going to throw stones, you might as well get in there and...

Kelvin: Get hit.

Tom: ...get a few rocks in the face yourself. And for what it's worth, I like Starbucks, but I don't have your refined coffee palette.

Kelvin: I don't know that I have my refined coffee palette. [Laughter]

Tom: But yeah, I think that's relevant to today's discussion because we are back at it again, talking about everyone's favorite subject of artificial intelligence, which is something of a mini theme for us this month.

Kelvin: We had the top of the month, we had you and me talking about current updates around AI, especially generative AI in higher education. And here we are at the middle of the month with our guest interview-based episode, picking up that theme again. So, Tom, you recently interviewed our colleague, Dr. Rohan Jowallah. Dr. Jowallah is currently a Senior Instructional Designer at UCF's Center for Distributed Learning. And relevant to your conversation, I think, and you kind of make a passing oblique mention of this once or twice, he maintains an active YouTube channel, where he shares his research interests and educational insights with over 2,500 subscribers and more than 200 plus videos. Dr. Jowallah holds an Ed.D. in Language and Literacy in Education from the University of Sheffield, you'll notice he'll talk about language a little bit, and he holds an M.Ed. in Special Needs and Inclusion Studies from The Open University, and a Bachelor of Science in Psychology from The Open University as well. Is there anything you might like to say about the interview before we cut to it?

Tom: Just that I always enjoy talking to Rohan, although I see him in the office all the time, I don't often take the opportunity to sit down at some length and have just a conversation like this. So, I really appreciated the opportunity. He's a super thoughtful guy, and he's been thinking about AI long before ChatGPT hit the scenes last fall. So, he's got a depth of knowledge that I think probably exceeds that of a lot of people who are just really recent to this new phenomenon, which I think gives him an interesting perspective that's informed by more than just yesterday's or today's headlines.
Kelvin: Yeah, well said. Through the modern technological marvel that is podcast time travel, here is your interview with Dr. Rohan Jowallah.

(Transition Music)

Tom: So, Rohan, thank you so much for being on TOPcast.

Rohan Jowallah: Thank you for having me, Sir Tom.

Tom: Yeah, it's a pleasure. [Chuckle] It's kind of an odd context because you and I have conversations in the office all the time, but you are someone that I've been wanting to get on the show for a while because you've been so deeply embedded in artificial intelligence even well before ChatGPT sort of broke publicly onto the scene not quite a year ago, but back in last fall. This was something that I don't think surprised you at all because you had been researching, and exploring, experimenting with some of these various tools for a while before that. So, really that leads into my first question, which is, what got you interested in artificial intelligence as a subject of inquiry?

Rohan: I think it's a diversion of so many points. As a matter of fact, I go back to UK, when I was in the UK, roughly in 2001, I came across a program they called SuccessMaker. SuccessMaker was geared at providing computerized based instruction for students. And I was fascinated because these students were put in at a level, the computer made the adjustments, the computer was able to print sheets out for students to practice, and students actually gain reading age... Increased rather over a period of time, substantially. And SuccessMaker was very expensive. Fast forward back to 2014, so I've been tracking the development. Fast forward to 2014, 2015, I was working at UCF. You were my boss then and still is, I came across... [Chuckle] We were looking at adaptive learning at that point in time, and I saw the emergence of greater algorithm coming into the system.

It was not there yet, it was like promises were made, but people saw the future. And if people start making promises about the future, it's time to really pay attention to that. So, I think my love for technology started way back before even going to UK, but I've always loved to see technology advancing, and I saw the landscape kind of shift roughly 2016, 2017, with VR and AI emerging together, powerful algorithms being developed, powerful enough to sway how people think, to sway how people learn, and also to influence our teaching and learning process as it relates online.

Tom: So, that's kind of the next place I want to dig into, this idea of how people learn. I know you've been thinking deeply about the application of AI into
pedagogy, or andragogy even, and I wonder what do you think... What excites you most about the possibilities of AI for impacting instruction?

Rohan: I think when you look at it, the possibilities are endless. You're looking at transformation of learning, transformation of teaching as it relates to students can now have personalized pathways, if the AI system is developed. And when I talk about personalized pathways, I'm talking about using data to future plan for students. Understanding that learning starts when the child is able to speak, and tracking that child using data to personalize the learning pathway rather than for the system to predict and see what the child is doing, we can actually have data to use in the system to make projections.

I like the concept because it promises that our pathway to teaching, and learning, and developing of content will be enhanced tremendously. I can say to you at this point in time, we are at a stage in higher education where a person can write a course in less than a week providing they have the background information, they have the critical prompts, they understand the readings that's necessary, they could really push out a quality course that has interaction. It has that sort of need for that industry, specific industry. So, we are going to generate content much quicker. And my issue for saying this is that there's also the issue of democratization of education.

Education in United States has been somewhat very expensive. And I want to say that having studied in UK, I was able to pay off all my bill based on the cost back then. I don't know how it is now. But when you look at democratization, it means lowering the cost for education, individuals who would have this extensive student loan... Because the content is going to be there, so the production of the content will somewhat be lowered in cost, hopefully. And I say the word, “hopefully,” because it all depends on who controls the content that is being scraped at this point in time. So, when I think about that, it's going to be transformative for teaching and learning, and it's going to... We are not even seeing the start of it because there's more to come with ChatGPT 5 and other apps coming on, it's going to be more powerful. But I think it has a way to ensure that learners are not excluded anymore, but a pathway is planned, and the use of data in ensuring this is going to be optimal. So, universities going to be seeing data as gold mines as they go forward.

Tom: Democratization and personalization, those are two key bullets in what you just said. I think those are really, really interesting points that are going to be worth watching as time goes on relative to the impact of AI. So, those are all good things, but with every new development, there's good and risk. So, what concerns you? What fears do you have, whether
they're ethical, or technical, or however you're looking at it, what keeps you up at night when you're thinking about AI?

Rohan: When I think about AI, I think about the stages of AI. Right now, I would say that we are in the second or third stage, we are just inputting data, we are able to get information out, it's a big recording, so we are able to pick from one recording, and put them together, and make a sequence. And I think at this point, that's where we are. But what gets me having sleepless nights is the inability for our lawmakers and policy makers to really consider the ethical implications if checks and balances are not placed within the framework. So, for example, we can have misinformation as it relates to the content that is being produced. We can have the exclusion of individual voices. As I recently found out when I asked ChatGPT to analyze a text, it stated it could not analyze the text because it was not right. But that was a historical text based on something that needed to be taught and be transferred to the next generation.

So, it goes both ways. There's a risk of losing quality information based on the boundaries set by these organizations, the barriers that they set, you can't ask certain questions, and there's an ethical implications because if left not being controlled, then we have a slippery slope where people can use it to create harm. As I stated in a recent conversation with some individuals, language has the power to shape culture, education, religion, and everything. So, if we allow the AI system to control the language base, then we have lost it totally. So, the human element is going to be important. So, what gets me having sleepless nights is that we have not addressed the ethical issues, and that could be a detriment as it relates to education and other areas in our society.

Tom: That's something that... I've been fascinated by AI, particularly ChatGPT, and maybe Midjourney, and DALL-E, and some of those other tools. But it does feel like, to your point, we're just on the first chapter of a very long book in the evolution of AI. But there are, to your point also about the ethical concerns, the bias and misinformation that seemed to be baked in, even in some of the just experimental prompts I put in there. I've had it come back and tell me I can't comment on that. And it was political, I've purposely put in some provocative things about politics. But yet on the other side, I'll put in both sides of a debate and on one side it's perfectly happy to make a comment, and on the other it's not. And then of course, the infamous hallucinations that AI has, and it'll just make stuff up. And so, until it becomes reliable, it's going to be hard to see it having kind of broader impact. But I don't think we're far away from that. And I guess the question that's begged from that is how far out do you think we are in the evolution of some of those issues being addressed, especially the issue of hallucinations, because once those get fixed, then the lid is off, and the possibilities are endless.
Rohan: I think when you think about that, you're thinking about language models, and I think based on how it's being developed now, where you have people contributing to the model, there's always going to be bias. So, we have to think about that. I suspect as things emerge, companies and organizations will need to have their own little language model so they can interact with the content they want, or they choose, fit within the organizational context. Because it's going to be ongoing, because the system right now takes in everything and is trying to sort it out at the expense of eliminating even truthfulness within the context. So, we have to see there's going to be the need for greater human observation, supervision, and coordination of the data that is placed into these elements. Because without the human element, then we can't address certain things. Because remember in our conversation regarding AI, it has no moral judgment. It's always based on what is put in.

Tom: So, you mentioned the human element, and you also mentioned you can build a course basically in a couple of days now, and it'll be good. And you can even illustrate it with images that are AI generated, and have it taught by an AI avatar potentially even. I've seen a lot of your videos online with these AI avatars, and they're pretty good. So, how do we ensure that the human still remains kind of at the center of the educational process? I imagine faculty, who have no shortage of paranoia at times, are going to be concerned that they're going to be replaced by some sort of AI professor.

Rohan: I think the fear is always worth it, it's always necessary to think about, and you can't deny that fear. But I think they have the capacity to even... Using the content, they have produced to create even a better course. Because you can find out elements that are missing and improve that area. I think when you generate content using AI resources, you must identify these resources. If you use an avatar, as it relates to my thoughts, as it relates to ethics, you need to say that this is an avatar, not a real person. And in my videos, many times I'll say, Dr. Jowallah is talking about X or Y because I want that content to be owned by me, not that avatar. So, always personalize it within the course section that you are leading the content.

As you develop that course, you have to ensure that... There are issues that AI will not pick up on. I did something the other day when I talked about bullying online as it relates to early childhood education. And the avatar did not write this, but I made sure to put it in, that if you are going through this content and you feel uncomfortable in any way, please stop because you must stop, and seek help because there might be someone traumatized in that event. So, we have to remember, the human element cannot be excluded from this because we need that because it's just an artificial way, but we need a human element to socialize that sort of course that you're doing.
Tom: And it seems like the development and delivery of AI generated content has its place, but it doesn't, at least yet seem to have any sort of foothold in this sort of social aspect of education, whether that's online or face-to-face. It doesn't seem to be able to facilitate that, and you need to have a human being in the professor position.

Rohan: I strongly believe in that because I was doing the avatars, and I reached roughly session six, and I couldn't be bothered with it because I'm saying to myself, it doesn't feel like me. It was having my voice, so I stopped, and I started recording some videos, and I'm going to do that until they decide to be more realistic, and more physical, and more expressive, then I'll do that. But at the same time, we must say that this is an AI content positioned there, rather than saying it's just an AI. We must say that this is not human. It's important to acknowledge that.

Tom: Right, and maybe one other risk, too, that I'll maybe ask you to comment on is that, say a bunch of universities start using tools, I don't know Synesthesia is one, but there are a lot of them out there that can very easily create sort of transactional knowledge delivery, then we're just commoditizing a lot of education. And then what makes a UCF education unique in comparison to other universities' education, if say we're all at some future point using these tools and generating AI content, it seems like there ought to be something unique and special about a UCF education that you can't get anywhere else.

Rohan: I would like to say that I think we're thinking on the same line because I go back to the process of saying that teaching is a social construct, it's a social engagement, and you can get... It's human, and you can't separate that because you want that human connection. And I strongly believe that without that human connection that talks about, the construction of knowledge, then we are moving away from it. We have to think about the future because if we think that we are going to present AI avatars as professors down the road, let's just think about implication for humanity, for interaction, for communication, and also for the social engagement in our society. That has great impact if we continue down the road. So, we need to really balance it, but at the same time understand that human element is going to be a key factor for us to push equality and engagement in higher education.

Tom: Cool. Well, we're just about out of time, and I wonder maybe before we go, if you had any advice for somebody who is just getting started with AI, what should they focus on? Maybe what should they avoid? Any sort of pro tip from somebody who's been doing it for years actually now?

Rohan: I would say that you have to start by understanding what it is all about, understanding the definition of what AI is. As you go further, you have to
play around with a lot of tools. There are going to be some tools that are
easy to use, some are complex. You might have to spend a few bucks like
myself to really follow along with it. [Chuckle] But I think understanding
the fundamentals of what AI is, understand the ethical principles of what
AI should be, and engaging with content is important. Always follow
individuals who are leaders in the field, I think it's so important. I
subscribe to so many, for example, BBC Virtual Reality, AI. I follow a lot
of people around. I read content on that I follow. I have a lot of
audiobooks, so I've embedded myself in it, but more than ever, you have
to be using it. If you're not using AI, and you're saying you want to know
more about it, you're going to be left behind. So, I'm saying to everyone
listening, don't be left behind, jump on the ship, because the bottom line is
education takes a long time to turn, and we need to be on this vessel. So,
when it turns, we are ready for the next movement, and I think the next
movement is going to even be greater than this one.

Tom: Great. Well, that's good advice. Rohan, thank you so much for being on TOPcast.

(Transition Music)

Kelvin: Well, Tom, that was your interview with Dr. Rohan Jowallah.

Tom: It was, yeah. Like I said, he's a thoughtful guy. I enjoy talking to him, and
he's up to his armpits in his AI stuff. He's really, really into it.

Kelvin: It's true. I've had many a thoughtful standing in the doorway, hanging out
in the hallway, conversations with Rohan through the years, and he is,
thoughtful is probably the best word, deep. There's nothing ever surface-y
about Rohan's takes on anything. So, this was obviously well prepared.
Lots of ground covered because of that, I think in that brief interview. I
could go all kinds of different directions, but I can't not mention that he
said the same words that we said in the prior episode, he talked about the
human element, and its importance in this whole consideration.

Tom: I think as much as we are turning AI into an occasional theme, I think the
human element is becoming a sub theme of that theme. It keeps coming
up, as it should. I think anytime we're talking about automation and
artificial intelligence, how do we ensure that it's still humane in its design
and presentation? I talked about this sort of transactional commoditization
potentially, and obviously Rohan's thinking about things like that, but we
want to make sure that whatever we do with AI, it doesn't replace the
humanity of it. It can be a tool, it can be a prosthetic to make us more
efficient, or create more things faster. But at the end of the day, it can't
replace the human.
Kelvin: That's right. And I noticed that when you put that phrase out there, his immediate response was... He didn't elaborate too much, education is social. And the implication isn't just... I thought that's an interesting word. He didn't say interactive because you could interact with a technology-based entity. It could be interactive at the individual level, but he said social, which to me implies a group of humans. [Chuckle] That's maybe a deep philosophical construct, but I think “education is social” is an interesting value statement.

Tom: We've mentioned that before over the years on this podcast, it's come up, and I think it will come up again because it's one of those universal truths. Not to go down a rabbit hole, but that's challenged a little bit by competency-based ed and other kinds of things that I'm sort of interested in. But you could make an argument that there are social elements to that too, it's just a different kind of social design, it's with a mentor, and a faculty member, and not necessarily with other students in real time.

But that aside, back to Rohan and his thoughts, beyond just the human element, he did sort of correct me a little bit. When I started talking about AI, because he's got so much knowledge, he's like, “You're talking about large language models, and there are other kinds of AI, Tom.” I'm like, “Okay. Yes, you are correct.” But we have all been so immersed in this ChatGPT moment that when you say “AI,” people often kind of conflate it with that. But he's right, there's all kinds of other things, and I'm starting to follow now on social media, I even saw something on Twitter, or X, or whatever it's called now, this image that outlined all of these different AI tools. [Chuckle] I've bookmarked a page that's sort of tracking on almost a daily basis new AI tools that are coming in, and they're not all large language models.

Kelvin: Right. No, no, that's right. That's right. I mean, certainly you two talked about even some of the image generation stuff. I mean that would be maybe a very clear example of something that's not a large language model.

Tom: If you haven't seen it, you should see the art that Rohan creates with Midjourney. He does, in particular Caribbean art, as you could tell from his accent, he's from Jamaica. It's spectacular the art that he creates using AI. It's beautiful.

Kelvin: Yeah, I was kind of fascinated by this whole line in your conversation about content generation, and particularly content generation for online course content, and this kind of thought of, well, you could put a course together rather quickly. But I think the insinuation, there were a couple of things that I heard, I think, but not mindlessly, not just hit “Generate course.” and then walk away or something, back to your commoditization
kind of comment, but starting point, and then refine. But Rohan was very
careful, one, to say, yes, there should be human involved in that. And two,
to say that there should be some disclaiming that this was... And I think
that's an interesting... I think we're still in the early stages of identifying
effective practices and that kind of disclaiming, like when do you do that?
How often do you do that? I did a thing, and I asked for some refined
ideas, do I disclaim? I took a raw nugget, and I completely rewrote from
there, do I disclaim? I think those are big questions, but I thought all that
was interesting.

Tom:

It is, and I think that's probably worth another conversation because as you
said, we don't have the rules around that, the standards, and practices
around that. And one could make the argument that AI is just a kind of
much more extreme example of Grammarly, or spellchecker in Microsoft
Word, or grammar checker in Microsoft... Even within Word, it predicts
what you're going to type next within that sentence, and you can choose to
accept that. And so, in some ways, it's assisting you in writing, and we
don't disclaim that, and give credit to Grammarly for helping us. [Chuckles]
I think about... Because I have sort of a hobby of writing, and I know that
people use... Fiction writing, and people use these tools, these software
platforms that help them plot, and outline novels, and things. I don't, for
what it's worth, but they don't claim that and give them co-author. So, at what point does it cross some threshold where it's only
ethical to state this thing helped me, but below that threshold, it's just
Microsoft Word, or Grammarly, or something. I don't know if that's a clear
line, yet.

Kelvin:

So, I'm fascinated. So, this little last moment or two that we've been
talking, that's definitely the realm of morality and ethics, very human
stuff, important for us to wrestle through, and get to some kind of a
resolution, but it puts me in mind of maybe my favorite statement that
Rohan made in the whole interview. He just kind of does this mic drop
kind of thing, he says, “Remember, AI has no moral judgment.”

Tom:

Yeah, amen, brother. [Chuckles] That's true. And in some cases,
questionable moral judgment, depending upon how the prompt was
phrased, or what data sources it's using, or what bias it may have. So yeah,
that's an interesting... Maybe that's a good place to wrap up because it's
juicy and thought provoking, and maybe can lead to some further
discussions down the line.

Kelvin:

Well, you want to get us on the runway, and we'll get out of here. [Sips
coffee].

Tom:

Yes. I've been using my Embry-Riddle mug, I will extend the aviation
metaphors, put the landing gear down. [Chuckles] So, get on board, or be
left behind. We should all stay actively engaged in AI so that we can better understand the educational implications of the tool, and adapt to it, or maybe even shape new developments as they come down the pike. I think if we don't lean into it, we're going to... to use a cliche, if we don't ride this wave, we're going to get washed away.

Kelvin: Yeah, I think that's right. I think that's right. And you can't criticize it if you're not going to get involved.

Tom: That's right, man in the arena.

Kelvin: That's right. Well, Tom, as always, I enjoyed the conversation. Thank you, Dr. Rohan Jowallah, for joining us. And until next time, for TOPcast, I'm Kelvin.

(Outro Music)

Tom: And I'm Tom.

Kelvin: See you.