Ms. Hudson: Welcome to the Digital Chalk Talk podcast, and we are delighted to have you, Mr. Snyder. Thank you for joining us today. Mr. Snyder is the technology director with the Red Clay School District. Mr. Snyder has worked in various roles and responsibilities within the school systems of Milford as well as Red Clay. He is now the technology director who works with AI, library tools, and professional developments and training to all staff within his district.

To start us off, could you please tell us a little bit about yourself and a little bit about your expertise in AI integration and technologies of all sectors in education?

Mr. Snyder: I mean, I was an English teacher a long time ago, so I started in education in Delaware in 2001, and after that kind of moved over to be a librarian after I finished my degree at the University of Delaware and from there became a curriculum specialist, then an assistant principal and a principal in the Milford School District and then five six years ago I took a position at Red Clay supervising the Unified Arts. I then did some data analysis for the school district in different positions as manager of assessment instruction and then last year I was a successful candidate to be the director of technology. All of this can be traced back to the library for me because I'm a reader. And I read tons of things that are kind of, you know, in a bunch of different areas outside of where my degree is from, because I have an English degree and a library degree, not a technology or, you know, a computer science degree. But I've been reading about artificial intelligence, probably large language models.

I stumbled upon that information in 2017, 2018

Ms. Hudson: Wow, okay!

Mr. Snyder: And that was really kind of the birth point of that technology. I read some academic journals and I came across the original one of the original white papers about that kind of accidental discovery and I was really interested in this idea and I kind of figured out a way to leverage you know computation to produce really unexpected results would be the best way to put that was not what they set out to do, but that was the result and then by good luck or bad luck during the pandemic I kind of really dove down that hole a lot with the free time that was generated by that activity and yes podcasts took a couple of online kind of like survey courses through different universities that were starting to touch on that.

There were free courses, I think Harvard at that time had one you could take online for free and and through that just became really fascinated my wife would probably say I became obsessed with some of this technology through that because it was really new I kind of accidentally became one of the experts in Delaware. I helped write the state guidance. My name's all over that thing. People that really did the majority of the work while my name is on it, there were other people that put a lot more time into it, but it really was born out of just being interested in this really unique technology. And it really is, the more you learn about it, the stranger the technology really seems.

Ms. Hudson: That's amazing. And it seemed like COVID was like the birth of so much technology push in education. It really woke us up to a lot of different things. So, my first question for you is, from your perspective, how has AI already started to show up in our K-12 classrooms?

Mr. Snyder: Well, it's in everything. So, whether you wanted it or not, every company's kind of in the same race, the first ones to have this product, some of them do it more successfully than others. Obviously, I kind of think back to when Common Core Standards came along, and that was near the beginning of my career. And they just started throwing those Common Core Standards stickers on the front of books, and they didn't change anything inside to sell more textbooks. But this is not like that. I mean, they are definitely changing stuff and they're changing it through just an update. So one day, this product doesn't have artificial intelligence in it. They run an update overnight. The next day, suddenly, there's a little window where you can type in questions and it starts answering them for you. We've run into that with several programs like No Red Ink. And I'm trying to think of another program off the top of my head recently where suddenly there were AI tools in it that could literally answer the questions of quizzes that teachers put in that tool. Awesome. So that was a challenge right away.

They're like, oh, my gosh, the answer key is built in. What should I do? That's pretty awesome. In everything, every content area, everything that we do, it's kind of, you know, infested and invaded, that I would say. And I'm a little disappointed there hasn't been more deliberate and there hasn't been warning. Yeah. The incentives are all to go fast and get it out there for the companies.

Ms. Hudson: Absolutely. Absolutely. Absolutely. So, what do you see as the biggest opportunity that AI in K-12 settings have when looking at access, teachers readiness and student engagement? What are some of the biggest opportunities?

Mr. Snyder: I think the low hanging fruit right now is translation. The first ones, you know, we have this, you know, tower, we have this Rosetta Stone to every language. And that's actually the best thing that an LLM does. And when we talk about artificial intelligence, it's important to clarify that I'm going to speak mostly about large language models, which you've had artificial intelligence in your life, your whole adult life, your Amazon Alexa in your house has a version that is not an LLM until very recently. Those were all tables in the background where programmers got together and they were like, here's the most likely response from this question or this phrase. And it wasn't doing any kind of cognition at all. It wasn't doing anything fancy. Just calling up that answer, putting together a response, came out the same way. Real clunky.

LLMs, they allow for unique responses every single time. Sometimes unexpected responses, but responses that for the most part, if you train it properly, work. So that's been kind of the fascinating difference between the two. Remind me what your base question was on that again. I kind of got off on a little bit of a tangent. there.

Ms. Hudson: Oh, that's okay. So what were the biggest opportunities that AI in K-12 settings have when looking at access, teacher readiness, and student engagement?

Mr. Snyder: I think, number one, it's definitely language translation. Can't beat that. It really is a leveler. Obviously, human translation is the gold standard. Yes. I'm involved with that, but not everybody has the money or the time and the resources to use that. So it's certainly a heck of a lot

better than, I just don't know what you're saying or maybe you speak a language that is not commonly spoken and wherever you're at you know we can we can use this to leverage translation of um you know like mall which is a guatemalan tribal language that isn't written it's a spoken language um and there were zero resources for that language prior to this um haitian creole can be very difficult to find resources for yes but this does a really nice job of providing very good translation of things in haitian creole So that's, that's number one. I think another model for it, if we can leverage this to its probably natural conclusion, a personal tutor for every kid, specifically in things like math, you know, where it can, and you can train these models. And I've trained a couple of these to do some of these in a limited way, where it won't answer your question. It'll keep asking you questions, it'll poke, it'll prod, and eventually it will tell you, sounds like you need more instruction, watch these videos, go to these links or see your feature. That is the promise of the technology, I think, if we do it right. Every single student has a personal tutor, and rich people have been doing this for their kids forever. Well, this doesn't require wealth. It requires high-speed internet access. So that's what Khan Academy is trying to sell. They think that they want to be first in that, and they're making some progress.

I think the other thing that it really leverages for teachers is that there's a way we can automate some of the annoying tasks that they have to do, you know, lesson plan creation, where we're really used to be concerned about format, like understanding it's a very format driven lesson plan, or you could use natural language, type out what you think, and it will spit it out in the format that you want. I think that's for a school counselor that has to write maybe 200 recommendation letters a year. They can use this tool to just spit out recommendation letters that they can customize a couple of sentences that are relevant to the kid, but they can really do, it really does a sophisticated, nice job with that activity. The funny part about that example is we've now reached a point where AI is generating the letter and it's being read by AI at the college. So the human's not even involved in that activity at all anymore which then begs the question is this activity necessary. I don't know what the answer to that is but what are we achieving with it, where a human never gets involved. I don't know, those are questions we're going to wrestle with over the next couple of years.

We even use our help desk at the technology office. There are certain things like password resets and stuff, and we have a little bot that can help you out. So that's the real life ways we're using it right now. I even trained one to call the cable company and just keep calling, calling Comcast until it got the right answer and got to a person and negotiated my build-up.

Ms Hudson: Wow! We are on the grow. We are. Not go, but grow. We're just growing in technology. I'm loving it.

Mr. Snyder: These are all things it can do right now with no new inventions, no new breakthroughs. It's just sitting there. It's about having the time to learn that and then implement. And there is some investment of time up front in that. That's the challenge, right? Teachers don't have time. Right.

Ms Hudson: Absolutely. Absolutely. So what are the challenges or barriers that you see when it comes to using AI integration in like K through 12 schools? Is it equitable? Are training sessions being conducted for teachers? And are we in a good place or are we behind?

Mr. Snyder: Nationally, we're not at a good place um I think I perceive that Red Clay is in a better place than a lot of places but that's probably bias on my part as one of the people that runs that shop so I'm gonna think yeah I'm doing great, but I mean, I'm sure there's lots of room for improvement on that I know we were the first district in Delaware, one of the first in the country to have a policy on this. Our policy is like four years old for artificial intelligence . I went around looking for one before we put one in place and couldn't find one because people weren't there yet. It was super new. ChatGPT was like three months old and our policy needs to be revisited now because it's not as it doesn't really address current problems because technology is moving fast as we would, the current challenges are and it's the wages of this are really, really high stakes because this could absolutely collapse public education in the next five years in the whole country. Or it could be this miraculous savior that fixes all of the ills in education and levels the playing field for communities that have never gotten a fair shot in public education.

There are neighborhoods in Wilmington that we've never done a good job supporting and being successful with. Perhaps this is finally that magic sauce that we can use to help create the equity that we really, really have a desire to create but haven't really successfully done. But we're in a dangerous moment right now because what I do think is probably going to be the short-term use of this technology, it is to streamline and save money in the system. And I think that could be done in some states regardless of quality. Just, oh, well, I can replace all these staff with this tool. People are 97 percent of the budget of school districts. School districts are just, so every person I cannot hire saves me money and the taxpayers money. That's a very appealing political speech and probably a fairly dystopian result so I don't advocate for that. This is really great, you know. It's a tool, so the wheel is a tool but you would never replace a person with a wheel. It's more efficient and that's it's an efficiency tool, and it's how we should use it. There's analogy that Steve Jobs used to use that the least efficient mammal on earth to transform energy into motion is a person like human beings are the worst at that we have two legs we have giant heads we walk kind of weird compared to every other animal a condor is the most efficient, because it just glides along uses very few calories to move, as soon as you add a bicycle into a person, they're the most efficient. A bicycle for the mind. That's what AI should be if we use it right.

Ms. Hudson: I love it. That is so well said. So well said. So how are our schools dealing with ethical issues of AI, like fake news, plagiarism, and AI inaccuracies?

Mr. Snyder: That's a huge one. It's incredibly challenging. And I would say nationally we're losing that battle, you know. My wife is a teacher and she comes home and she's like my students think that… what they don't think is that we landed on the moon you know they don't think Helen Keller was a real person there's like a medium about that or whatever like how could somebody be deaf and blind and have all these problems and do all these things they don't believe it and then they have sources now that can confirm that because you know you can make an AI say whatever you

want with the right absolutely, but I would say that's a problem the more insidious problem that's starting to hit right now and you can even see our own president falling victim to that where he the idea that we can spoof a video and a voice and all these types of things in a very sophisticated way that unless you are really really skeptical and with skepticism comes other problems like you don't believe in the moon landing or you don't believe it, it's really a dangerous time for facts and knowledge. You know, never has it been at your fingertips so easily and never has it been so difficult to determine what truth is. Alan Huxley talked about that a lot in Brave New World because a lot of folks compare right now to 1984. I think 1984 talked about the controlling of information and huxley thought that we would just be overwhelmed by it. They would flood so much information into the zone that you just wouldn't be able to tell what's true and what's false and that feels more like what we're in right now.

How do you train kids on that? I mean curated sources to start off. I don't think any kids should have artificial intelligence until they're 13. UNESCO, the UN guidance that's been in existence for about four years now says that they also feel that way about social media and we've failed as a country epically. I definitely see kindergartners with instagram accounts. It is difficult to overcome because that is the wrong choice. I don't see two sides. Kindergartners should not have their own instagram account. Nothing good can happen there. So, I'm saying how you deal with these tools… I don't think we should at all until middle school. I would reduce screen time at the elementary level. I would have kids have a more authentic paper -based experience for a number of reasons. And you leverage the technology to help a special education and stuff like that, but you don't make it the core resource. That is not what Red Clay is doing. Not everybody agrees with me on that.

But, the reading I've done indicates that eventually there's going to be consensus that that is the way you should probably handle education for the brains that are really still forming at the middle school level. At the high school level, I think you got to really spend some time teaching kids about the tools they're using, so as annoying as snapchat and things like that are almost at a point we better start teaching kids about it, not to use it, you know. Use case studies with them like you would with smoking and vaping and things like that about here's the bad stuff that can happen like snapchat they think is gone in a second it's not like internet's written in ink that's that snap is on a server somewhere that somebody can get, never, and now that you have AI tools you can use that to just skim and skim and work and find those types of things much more easily than it required a person that could script and could code a little bit.

Ms. Hudson: So, it sounds like with digital citizenship, which are lessons that librarians and technology teachers… It sounds like there's another step that needs to be implemented somewhere along the way where we're including things like that so we're teaching the proper things that kids need to be learning when they're on social media going a little deeper diving a little deeper into it I think.

Mr. Snyder: I think it's HP… I think it's House Bill 98, and don't quote me on the number, I could be incorrect about that. But two years ago, the state did pass those curriculum and standards for teachers about all this stuff. And our delivery system in Red Clay is the libraries. So that is in their content. It's in their curriculum. They are, in some ways, teaching some of this. I would argue that

it's probably not enough. It probably needs to be in more areas because of the complexity of it. But it's very difficult to talk elementary schools out of doing anything but teaching literacy. Because it's such a crisis with literacy that it's taken all the air out of the room to talk about anything else. And that's, you know, I hope that pays off. I think literacy is very important, obviously. I think we can chew bubblegum and walk at the same time. I think there are also other things we need to do at the same time, but we'll see if we get there. Right now it is literacy and like a little bit of math until third grade.

Ms. Hudson: Absolutely. So, do you think that schools are doing enough to help students become future tech and AI leaders?

Mr. Snyder: No, I don't think the United States is doing a good job with that k -12, and I don't think that… I mean I don't think that we have been given the instruction and the training, like this is all happening to us just like everybody else and you know we can't wait for politicians because it'll take them five years to come up with some sort of bill and by that time like entire generations of kids are already lost you know. We have this, you know, and I'm trying to think of what scholar I was reading about but he said you know we have an 18th century political system that's trying to address 21st century god-like technology. This match of a political system with the moment we're in, I don't see it here. I don't see that changing so we're, that's just the way it's just glacially slow, to pass a business, pass a law and to change the way things operate so states are going to do it first.

Delaware's obviously done some, we have some guidance on AI. It's better than nothing, and I don't want to disparage any of the work anybody's done . It's been great work, you know. It's just world, it's probably all we'd be talking about in PD years and it's tough because we want to talk about literacy we want to talk about math instruction we want to talk about this and there's a million other initiatives, but because this is in everything, you know more than one PD session that's 90 minutes long feels necessary ongoing training, every PD everyday till you know for years three or four hours where we have to talk about hey the philosophy associated, with the ethics associated with, like do teachers know you never put personal student information in that tool and the answer to that is 'no'. It's right I've trained people on it, I talk to people all the time in the district where I have to kind of chastise them, or occasionally even we do disciplinary things because they violate that rule.

Ms. Hudson: Is this magic school you're more so referring to, or you're referring to other technologies where they're inputting data

Mr. Snyder: Some input their entire grade book last year into chatGPT. The names, their ID numbers, all their grades because she wanted to do data analysis for which it does a great job with but you can't do that you don't know where that data goes that it makes. It doesn't know where the data goes. They say it's… you know, they obviously say well it's not housed in whole pieces it's broken up but it becomes part of the training set and here's how you know it does. I was using this in the very beginning years ago. I think my chatGPT account that was linked to my google account

and I would demo things and live training and I started to realize it was using names of people that I had written recommendation letters to in the story. It'd write a poem and read a poem about. You know, my friend Veronica who I wrote a letter for a scholarship or another person who was looking for a job. They started showing up as the characters. So that was not expected but I mean that was in 2021. I think when that happened and that led me on the path of telling everybody not to put anything personal in this, it's going to remember.

Ms. Hudson: Wow, and yeah unlike us we'll forget but AI computer technologies they don't forget it's just a part, it becomes a part of their system.

Mr. Snyder: Yeah, it just gets more, you know, complicated and complex every second.

Ms. Hudson: Absolutely. So that leads us into something you were kind of already talking about. Are trainings being conducted to try to keep teachers and technology specialists ready for AI and the growth ahead of us.

Mr. Snyder: We have some on the 10th in Red Clay in different buildings, and I think the 10th of October is a building-based professional development so it isn't district themed so I'll be going to a couple of buildings there'll be a couple other buildings doing them on their own I've provided them with some resources and then hopefully one of the ones in the spring we were so focused on infinite campus this year. I didn't have an opportunity to train anybody in the beginning but in the spring I've already told Dr Bond that I would like to hopefully have a 90 -minute to two-hour session that people could sign up for. If they want to come, great. If not, no worries. Or I can just give them the update on the trainings I've done previously about here's where the cutting edge is right now, here are the tools that we think you can use for these different areas. Give them my warning.

Those slides haven't changed much about ethics and concerns about AI. I do have some more things to go over with them about, you know, the way this can be leveraged for bullying and stuff like that. You've got to be, I mean, it takes about 15 seconds of audio or not. It used to be a video clip. Now it's just an image that you can turn into a video. So you can, if I have a photo of you and a few seconds of audio, I can make you say and do things that you didn't do.

Some texting that around…this girl talking a mess about somebody else, but she didn't do it. That isn't much in Delaware but it has happened around the country and it's been. There's a famous example last year in Maryland an athletic director got mad at his principal and sent a whole message out with all kinds of crazy stuff in it with that guy's voice in his face to the whole school using the auto call system said like terrible like racially like insensitive thing I mean the principal got suspended they were gonna hire him and then they finally figured out like a month in, oh no he actually didn't do any of this and so the director got fired and is now his charges too…

Ms. Hudson: …For slander and everything else, yeah that's… wow!

Mr. Snyder: You know that almost ruined a person's life who didn't do anything.

Ms. Hudson: That's it, the power of AI and it's not even AI that does it. It's people. So eventually, AI will be the thing that we're teaching to be as smart as we want it or as cruel and insensitive as we want it to be, just as that person did. So that's really unbelievable. So do you think we are behind or in a good place with AI and technologies within the K -12 educational system? You said… we talked about it. You said that we're probably a lot behind. And it's hard to keep up with technology and AI and everything because it's just bursting at the seams. I mean, it's just so far ahead of us, it feels.

Mr. Snyder: Yeah, and it's going to go one of two ways in the next couple of years. I mean, obviously, I don't work at Google or DeepMind or any of those places, but from what I read, there's this podcast called Your Undivided Attention with Tristan Harris, he's a really great scholar and an early thinker about this.

He's most famous right now for working on the Human Animal Project, which is trying to decipher animal language using AI. And they've actually made some breakthroughs. There are now warning beacons on ships that communicate in whale language, like, when whales say, "Hey, get out of the way," the ship actually understands and adjusts its path. So they're hitting fewer whales with ships because of that.

And that's a perfect use for a large language model. Like I said, it treats everything as a symbol. So if you can give it just a few phrases that you know the meaning of, like a Rosetta Stone, it can start to decipher an entire language set. It does that by transforming shapes and symbols to find meaning.

That's basically how these models work, deep down at their core. They predict, they predict the next letter in a word, then the next word in a sentence, and then the next sentence in a paragraph. That's the foundation. Of course, the infrastructure has been built upon so many times that it now does much more sophisticated things.

But the base, base, base of that technology, that's what those first white papers were about. They trained it on Amazon reviews and basically asked, "Figure out how the reviewer felt — what was their emotional response?" To do that, the program, which wasn't even that long — maybe three or four lines of code, started doing unpredictable things to reach that point. It didn't really figure out how anyone felt, but it figured out something else that turned out to be useful. And we've now leveraged that into a whole bunch of other applications.

That's often how scientific discovery works, like Viagra, for example. It was meant to be a heart medication. It didn't really treat the heart, but it turned into something completely different. That's kind of the same thing with AI — we were looking for one thing, and we found something else.

Now, we could be at a dead end, too. Four years from now, we might be saying, "Remember LLMs?" The theory right now is that if you pump enough electricity and computing power into these models, they'll eventually achieve AGI, something that can think by itself and is superior to

humans. But that's just a theory; it's not confirmed. It could be that we reach a point where that's all these models can do. We'll find out in the next few years.

Ms. Hudson: I think you're right. I found an article that really, I mean, it really has been, I've been trying to wrap my brain around it where we're getting ready to get to the point where the government is throwing a whole bunch of money into these infrastructures where it's for AI. So, I mean, I think within the next few years, we're going to take off with AI and all of these other technologies. And I just, I'm hoping we can keep up. That's what I hope.

Mr. Snyder: The trick is, how do you make an AGI, an artificial general intelligence that doesn't kill everybody immediately, like every movie you've ever seen? And the best thing I've heard about that is there's only one example that people can think of, of something that is more powerful than another thing, but generally doesn't do any harm. And that's a mother. Moms don't. So the thinking now is from the big scholars, the big thinkers, these guys that are employed by Google just to think about AI. Ray Kurzweil is probably the most famous example of that. Their idea is how can we program this and make it feel like it is our mother, like that it has a responsibility for our care and well-being? If they can do that, they can probably prevent the really negative outcomes. But I don't know how you do that. I don't know.

Ms. Hudson: Right? Because that's unpredictability, you can't predict the unpredictable or the unknown.

Mr. Snyder: I mean obviously it's very rare that moms go crazy on kids, you know, like that's the thing, and they are more powerful, clearly than a little child that's what those scholars think we should do. I hope they achieve it. I tend to think this is probably ultimately a bad idea.

Ms. Hudson: I agree. So here we are. Well, we'll have…We'll see. We're riding a wave with everybody else. So are there any final points that you would like to address at this time before we conclude? I've enjoyed this very, very much.

Mr. Snyder: Yeah, I like talking about it, obviously. I'm with you on that standpoint. Once again, I think we have to encourage them to learn, to be curious, and to be flexible, because we now have this job market in the future that I can't possibly predict. If you can automate thought and white-collar jobs, then that makes all the guidance I've given students as an administrator over the last twenty years kind of irrelevant. You can make a case that the trades have suddenly become even more important, because AI is probably not going to be a plumber or an electrician right away.

There might be leaps in robotics technology coming, I don't see them yet, but I'm sure people are working on them. Still, you can only have so many plumbers and electricians. There's a shortage right now; we could definitely use a few more. But we don't need, say, ten million more, that would be too many. That part concerns me greatly, as the parent of a fourteen-year-old. What do I tell him to pursue in high school? I was really sure about that maybe ten years ago. Right now, not so much. That's something I think about a lot. We're in the business of guiding kids toward a

productive future, and we want to give them good advice so they can make wise choices. I just think that's harder than ever now.

Ms. Hudson: Agreed. And how are we, this is just a thought, how are we preparing kids, just as you said, to go out if they choose not to go to college and just want to go into technology jobs? If that's the path they choose to take… Are there AI classes in high schools? I just don't think we're there yet. And I think, um, it's hard to find experts, you know.

Mr. Snyder: It's so new.

Ms. Hudson: Yes, it is. It is so new but it's needed it's almost like as these kids are growing up or graduating from high school and even going into colleges and stuff like that Are they prepared to say, okay, I want to be an AI expert, and I learned X, Y, and Z while I was in high school, and now I want to further that when I get to college? Is it that those programs don't even exist at this point?

Mr. Snyder: Not yet. I know we partnered with the…, and Conrad has a technology pathway where they go through the CTE pathway for, I think that one is a Cisco networking pathway. Those kids starting this year are going to do work-based learning in my office. They're going to come for a paid internship. We're going to pay them $15 an hour. I love it. Five hours a week. And that's really so we can get our mitts on them and kind of show them what the options are in the field. Because the majority of the guys that work for me and ladies who work for me don't have college degrees. You can be a building technician, make a fine living, get a pension, have full benefits, all that kind of stuff. You're not going to get rich, but you ain't going to be super poor and just have a high school diploma.

And I got other people that work for me that master's degrees, depending on like the network engineers and, and those folks, I got a programmer that works for us that, you know, they, they actually have, they have, you know, sophisticated advanced degrees, but there are lots of paths into that field. And, you know, we want to make sure we give people that. And I think that's the next step, work-based learning and internships. Like a taste of that before college, you got to do a lot of that, frankly, so they can make a wise decision about where they want to invest their time and money. College is expensive.

Ms. Hudson: Absolutely, because I can say as a librarian we're teaching coding in the lower elementary grades and I'm sure that continues on all the way through so that's comforting to know.

Mr. Snyder: So, you know, a buddy of mine works for Lockheed Martin. He's written missile software for the Tomahawk missile and stuff like that. We graduated from college together, he's been there forever, in the Philadelphia area. They're not hiring programmers anymore; they're just using AI. The AI is there, and they're telling their senior engineers, "You do it. Use that AI tool." So, like, if you want to debug a script or write something in Python , and you know even a little bit, that thing can do all of it for you. You just debug a few lines, and it works.

I use it all the time, and I don't have any programming training. I just watch videos and then use these tools to fill in some of the gaps, and it works. I've got scripts that automate all kinds of tasks for me. Like, I've got one that sends me an email every day showing where all my employees badged on that day. It reads the badge reader, processes it, goes into my Outlook, and sends me an email: "Here's when everybody badged in today." I do the same thing at the end of the day. It's just a program I run. So that's where we're at with coding. The coding teaching we're doing, we should probably be doing it with an AI buddy beside it, because that's how those kids are going to use it. Awesome.

Ms. Hudson: I love it. So, I would like to thank you, and my team would like to thank you, who I'm working with, who's doing this podcast with me, Mr. Snyder, for joining us. So, on behalf of the Digital Chalk Talk Podcast, thank you, Mr. Snyder, for sharing with our listeners and other educators the exciting ways you are using learning technologies in education.

Mr. Snyder: Thank you. Take care.

Ms. Hudson: Thank you. You too.