Michael Eure Show – Episode 29: Fourth Industrial Revolution

INTRODUCTION: Hello, this is Michael Eure, and I'd like to invite you to the Michael Eure Show, featuring student hosts and very special guests talking about variety of interesting topics. You can find us on the Eagle Stream YouTube channel.

MICHAEL EURE: Good afternoon, and welcome to the Michael Eure Show. Our very, very special guest today is Rene Daughtry from Cisco Systems and, and Asymmetry LLC. He'll talk about that. His topic for the day is the Fourth Industrial Revolution, and this is the second time I've had the honor of having Rene on the show. The last time was in the fall of 2018, at his topic, I think, was the Internet of Things.

So, I'm very interested, so we're gonna start off, Rene, with you just giving us a little bit of information about yourself.

RENE DAUGHTRY: Sure, sure. And Michael, once again, thank you for having me on the show. I've morphed into now Coach Renee Daughtry. People go, "Who is this coach? What are you a coach of?" I go, "I'm a coach of my students. I'm a coach of you. I coach you to be the best that you can be in your mind and your spirit." And I'd like to say my title is "Th.D." So, Coach Rene Daughtry, Th.D. I'm a doctor of "thinkology." And Mike, if you ever want to take that, anybody in the audience, that's fine.

But I've been at Cisco 25 years. I started a company called Asymmetry LLC, and we are STEM-focused and STEM-oriented on our community and our young men and women.

EURE: Well, I've been working with you for many, many years, of course. And you do so many things in the community. And I remember when we bought some students from South Africa, and you gave them the tour, and you've also done that with students from Wake Tech and St. Aug's and Central. And just tell us a little bit about integrate that, make it so much fun for these young people.

DAUGHTRY: Well, thank you for that. In fact, I've been very fortunate with Cisco to be able to bring students to the campus going from Lowe's Grove Middle School, Neil Middle School, all the way to the ECPI, NCCU, St. Aug's to bring this plethora and breadth of students to the campus so, number one, they can see what is in their own neighborhood – to see the Cisco campus, to actually take a tour of the labs and see all the technology. So, the things they're doing – Snapchat, LinkedIn, Instagram – so they can kind of see what this

technology is and how it's driven. And the most important thing, I make sure that my demographics of my students are represented with Cisco employees when they come. So, I've got Asian, Latino, African American, African American students, and I do the same thing with the Cisco employees that come in to speak to them. Very important they see people who look like them in this technology world, be it men, be it women, be whoever. But I think that's very, very important for my young ones to see.

EURE: Yeah, good job with that. And also, you're involved with the National Society of Black Engineers, Engineers RTP Chapter, right?

DAUGHTRY: Yes, I am. I'm part of NSBE RTP. I'm like an honorary member of NSBE RTP. I'm also part of the 100 Black Men Triangle East to make sure we're exposing our kids, especially our, our youth, to everything that they could be because there's a saying that the 100 have, and I fell in love with it. "They will be what they see."

EURE: Yes, we know them very well. And also, to the audience, if you have more questions about NSBE, you can ask Rene or myself. But when, later on, you'll get our contact information, and we can refer you to the president. They have scholarships, they have internships, they have all kinds of things.

Speaking of that, tell us a quick little bit about your shadowing program for high school students and what you do, internship-wise for college students.

DAUGHTRY: Sure, sure. And unfortunately, because of COVID-19, this was the first year in 15 years that I did not have my high school job-shadowing program for students. I normally select about four or five students in the local high, from the local high schools. They have to give me a resume and a 45-second video clip on why should I hire them. They come in, just a volunteer, it's not a paid job-shadowing opportunity at all. Did three weeks in the Cisco lab, working alongside of college co-ops, Cisco engines and Cisco lab operation engineers. So, they can see everything firsthand, get hands-on, and one of the requirements that they have to do, they have to build their LinkedIn profile, and as they're interacting with all these different people, get recommendations.

So, we start really early with them with this three-week program. It's very important to get them [indecipherable] to see technology, more important to touch it and to start to build their personal network.

EURE: I'm also, I'm gonna let you go because I know you got to do your presentation. But I

wanted to briefly, because, you know, I'm very, and you are, too, involved with the Urban Rural Interchange, and together we were part of the North Carolina Leadership Immersion Program, an Urban Rural Interchange collaborative – all these long words. But through all of that, you got to kind of meet the students from Princeville. And you've done a lot of things in eastern North Carolina, and you do things with Raleigh and Durham. But you also do things in the rural areas. Can you talk about that a little bit?

DAUGHTRY: Oh, yeah, very quickly. Rocky Mount, Tarboro, Scotland Neck, we went out to different areas of rural North Carolina to try to expose the kids to technology, again, and for them to see us. In fact, I'm just now working with NCCU, with Central, on a new, a new grant that Central has gotten to put together the STEM initiative for 2021, to go back out again to, I like to say to the other side of I-95, and [indecipherable] expose our kids to some of this STEM technology.

You can see behind me my LEGO robots and my, and some of my, some, some of the things that I use in our workshops. And I've got a whole army of other gentlemen, we're gonna go out, and we're gonna get together and go expose these kids to some technology: coding, LEGO robotics, game design, design thinking. So, you're gonna see us in 2021.

EURE: OK, Sarah, you can take me on the side, and let's let Rene take it over and just give us the Fourth Industrial Revolution.

DAUGHTRY Well, thank you. Thank you. Once again, thank you, Mike, for allowing me to come up to your, on your radio show and talk to some students about what's going on around them.

Very briefly, as Coach Rene Daughtry, I just want to let you see that I've worked with, 2019 with the NCCU Cheatham-White Scholars, starting to expose them to technology and opportunity. Next slide. Next slide, please.

And, as you see, that's some of my workshops that we did in 2019 with the North Carolina STEM Summer Camp and Saturday Academy, where I actually had sixth-, seventh- and eighth-graders building and coding robots. We did coding workshops with them. We did design workshops with them. I had a gentleman, Coach Saleem, [indecipherable] Saleem, who did principle, principles of electricity. So, we did all type of workshops with these young men, and we had a real good time with them, and they learned a lot. But more important, we learned a lot from our youth. Next slide, please.

So, the Fourth Industrial Revolution. Now, when I say that and I give you a quick overview, and I'm gonna repeat it again after. The First Industrial Revolution was basically people coming out of the farmlands and coming into cities, early 1700s, 1800s. Second Industrial Revolution, well, it started, you know, the early '20s, 1920s, '30s, '40s, '50, the cars, the electricity or electric lights, things of that nature. Third Industrial Revolution, 1970, the internet. The Fourth Industrial Revolution is where we are now. COVID-19 is pushed us into this. And I'll repeat this again at the end, it's the merger of the biomedical, the biophysical, the digital worlds, all colliding together and coming together, creating this virtual world and virtual opportunity that COVID-19 pushed us into. Next slide.

Now, very briefly, networks. Networks have been around for thousands of years, thousands of years. Ancient history, Roman times. In Rome, they had to deliver a message from one end of Rome to the other by a runner or by a bird. Ladies and gentlemen and children of all ages, that was email. In Africa, we communicated by drums – mobile phones. American Indians communicated by smoke signals – text messaging. So, as you see, technology and networks have been here for thousands of years. Just got more sophisticated. Next slide.

In 1984, Cisco. Two individuals at Stanford University in California wanted to communicate across the network in 1984. In 1984, the internet was here. It was for the military and universities. In their garage, they created the first router in San Francisco, the birth of Cisco Systems. And from 1984 to now, this company that I work for, as you can see, in 30 years, email e-commerce, we have moved drastically through because of the Third Industrial Revolution. And where we are now, things are all connected. This is what the world is, where we are now, and, as I said, COVID-19 has pushed us well into this. Next slide, please.

And when I talk about the Fourth Industrial Revolution and the things that were in, look how we use technology. We use technology in our everyday life: web browsing, as we're doing now, gaming. Gaming is huge, and the opportunity that I like to talk about my gamers is even hacking, ethical hacking. Some of my gamers are the best ethical hackers in the world, and we're gonna talk a little bit more about that. But look at technology – music, Instagram, TikTok, gaming, like I said, and the things that we do now. And we don't even realize what we do every day and how dependent we are on technology. Next slide.

The device you hold, the main connection to the network. I don't know about you, but I know I have left home without it, and I had to come all the way back home to come and go get this thing because we are so connected with email, FaceTime, the things that we do in our mobile phones. I've got a son, I've got three sons, but my last son, the baby, he was,

two years ago, applying for college. So, as a parent, you know, we talked to the ceiling. “Get your, get your college application done.” He comes downstairs. “Dad, I did it. I got the, I got the, the college app on my phone.” And I went, “Excuse me?” He applied to college on his mobile device. This is what we’re doing now. It is the main connection to the network, and look again how COID-19 has pushed us to rely on these mobile devices. Next slide.

And I’d like to just encourage everyone on the phone. I’m sorry, on the, on the, on the, on the, on the screen and on the internet not to say IT and because now it’s information, communications and technology. It’s all ICT. It’s everywhere: Television, smart televisions. Entertainment. Through COVID-19, before COVID-19, my wife and I used to go out on date nights. We used to go to, you know, go to concerts, go to DPAC, go to little jazz venues. Can’t do that anymore. So guess what? We have date night online streaming jazz. That’s, that’s, again, the, the, the beauty of technology. Education. Gaming.

You know, we talk about technology, and I’m gonna talk about just things in this, in your own backyard, here in North Carolina. One of the largest gamers is right here in North Carolina: Epic Games is in, right in Cary, North Carolina. Fortnite, $1 billion in sales and still growing, right here. I mean, take a look at the things that we’re doing, I mean, in our own backyard.

I mean, health. My wife just finished talking to her doctor by way of Zoom and telehealth. It’s where we are, and, you know, when I talk about this and the job opportunities that is created is immense. I mean, if you’re online talking to your doctor, that network has to be secure. That network and that conversation, all those records, because of HIPAA laws has to be secured. So, I have up here network security. Huge, all because of where we are today. Wonderful opportunity to get into.

So, keep that in mind as you’re looking for a new opportunity, looking at maybe what to take in school or, you know, what courses to take, look at this network opportunity and ethical hacking. Huge. And even our banking is all in the cloud and all online. Again, how this Fourth Industrial Revolution is around us, and the things that we’re doing every day and we’re really taking all for granted right now. My next slide, please.

Every 60 seconds, ladies and gentlemen, this is what happens on the network every 60 seconds: 168 million emails, including spam and phishing, are sent every 60 seconds, 14,000 Pandora downloads every 60 seconds. So, we can kind of understand now the traffic that’s flowing across the internet and what’s going on around us. And again, what we

take for granted, but all the opportunity that this has opened up for all of us. Next slide, please.

Digital smart mirror. I remember I've been speaking about this for years, and, at first, I got laughed at, and now it's reality. In fact, I just saw the commercial for the new workout mirror that actually connects to the network, and you've got your workout person looking back at you on your mirror as you work out at home. So, now, think about going to the store. You go to the clothing store. You don't have to change clothes anymore. You wave your hand, and your image changes outfits or color. You know, I asked my students, "When do you think it's gonna happen?" "Ah, Coach, sometime in late 2023 or ..." I go, "Oh, no, no, no. Digital smart mirror, Neiman Marcus, New York, LA, Chicago. The digital smart mirror exists now." What's the opportunity from this? Data management, data security. Looking at, "What did this individual just look at? What did, what did this individual purchase?" All that information is being collected in the background. As an individual, I'm gonna have to look at that information and see, maybe, how do we, what do we order now? Is there a different type of apparel that we order for a certain store because somebody looked at something using this digital mirror? So, again, ladies and gentlemen, it's opened up a whole new opportunity in data management, data analytics. Please be aware of that. Next slide.

Wearable technology. Now, Coach just has a plain, old watch. I just want to know the time. Now, my wife, on the other hand, she needed a smart watch so she can tell how many steps she is taking, how, how many hours she has slept, what her heart rate is. A lot of people have this now. It's something you demanded. A lot of this information, again, goes to the cloud. It's stored, you know. And what does it do for you? What's the opportunity? Network security, data management, data analytics. See, I'm going back at this again, and I keep repeating those because that's the opportunity that is brought. A lot of our sports figures now, they have wearable technology under their uniforms. NC State has a whole school and curriculum on wearable technology. So, our sports figures are wearing these devices to kind of monitor their heart rate, monitor their muscle tone, all in real time. Their trainers are on the sidelines with their tablets analyzing this data. So, once again, as you can see, this is happening around us. And again, all this opportunity is happening, in all of these new fields. Next slide, please.

I'm heavily into robots, and to Coach Daughtry, anything that I've gotta tell it to do something for me is a robot. And I know I've had people go, you know, we talk about UPS and FedEx, I'm sorry, Amazon delivering packages by drone. UPS as well. People tell me, "We're gonna be out of a job." Not really, because to deliver a package, I've gotta have people coding the drones. I've gotta have people control, controlling the drones. I've gotta

build a data center where I can see where the drones are going, collect all that information as well. So, ladies and gentlemen, jobs are just really shifting. They're shifting to coders and people who can, people who can analyze data and try to keep track of all that information. So, again, this is creating a, a plethora and wealth of opportunity. Next slide.

I took these pictures because I've looked at pizza deliveries by a robot, and I went, "These are the things that's happening again right around us." And to me, I just think it's just wonderful. In fact, to show how, how my, my young ones are, I was doing a STEM workshop with Dr. Eric Saleem and NCCU. I think it was last year or two years ago, and I was doing the presentation to my elementary kids about technology, and I said to the audience, I said, "How can these robots better our lives? What can they do for us?" And I had a, a fourth-grader, a young lady, come to me and stand up and go, "Coach, why can't the robots deliver food to the homeless?" Yeah. I went to myself, "Wow, there's that imagination moving." That developed that, that development in her mind, where she went, "Wow, why can't, why can't these bots do this?" So, once again, but they're gonna be here, they're here, and they're creating a lot of opportunity for us in the background. So, please be aware of that. My next slide, please.

Artificial arms and legs. A program I used to look at years ago when I was younger and we laughed at, was called "The $6 Million Man." Google a company called Open Bionics. Smart artificial limbs. Smart artificial limbs, that's when the limbs are attached to your body, they kind of connect to your body, in a way act like real limbs. This is real, and they're, they're, they're here now. I think they're looking how to get to the United States, but google it: Open Bionics. Smart limbs are coming to your world as we speak. Next slide.

Now, I've got up there Amazon, UNC Rex Healthcare and education, and I'll speak quickly about this. Amazon.com fulfillment centers, especially here in this Triangle area. TJ Alexander, there's a fulfillment center. There is a huge fulfillment center in Garner, North Carolina, 7,000 square feet, four floors, fit for robotics. What's around in our own backyard, once again? A flat roof with a skyline view of Raleigh, Garner and the surrounding area. That flat roof, think about it, could be where drones are launched to deliver packages in Garner, North Carolina.

See, this is why I'm here today. So, to open your eyes and open your mind and spirit to go, "Well, wait a minute. There are things that's happening right here." You know, as you go through school and you get your degree or your certifications, my goal is try to try to keep you here, so this intellectual capital will stay in this area and help more develop a lot of what's happening here.

UNC Healthcare and UPS have gotten together. UPS has the exclusive contract to deliver blood samples for UNC Healthcare. Right here in North Carolina once again. So, just be aware, again, of what's happening here.

Education. We've been forced into virtual, virtual education. There's an application that's a school that I work with called a Raleigh Technical High school, and they have an, a platform called Moodle where the teachers – and they've had this for years, so they were all prepared for COVID-19 – where the teachers have their day-to-day curriculums and day-to-day lectures for students on campus and also recording everything. So, when the course is, that curriculum and the course is finished for that day, the student could go back home – maybe they missed something, maybe they were absent – they can go back online, look at that class all over again, do their homework and upload it online. The platform is called Moodle. And I think now I've been talking to more and more schools about, maybe, hopefully, implementing this in their schools. But down the road, we're gonna be doing more virtual schooling, and we may get to the point where your instructor will be a 3D hologram standing in front of you. Trust me, MIT and a few other schools are working on this, where that instructive will be in your, on your location as the 3D hologram. So, if you like videos and art, it may be something to think about, some new field to go into. Next slide, please.

Now, this is something I like to speak about very, especially to my students, to my, to my, well, people reinventing themselves, and I do a lot of recruiting. I do a lot of recruiting. What companies are looking for, I call it your life skills. Your life skills, or soft skills, is a big percentage of what they're looking. Your hard skills are about 30% – what you learned in school, your degree, your certification, your job, your job opportunities and your job experience. Ten percent, social media. Gotta, gotta know how to get around on social media. The biggest thing though, and 93% of the companies are looking about the, I call them life skills. Your written and verbal communications. When I say written, I don't meet emojis, I mean written skills. How do you collaborate with other people? People from different genders? People from different ethnic groups, different age groups? Because, remember, the world now is total. You gotta know how to communicate and collaborate with everybody. But that's very important. That's my clue to you to take a really look at that. So, your technical skills and what you've learned is very good, but how do you communicate? How do you, how do you write and how do you communicate and, you know, with your written skills? But more and more and more important, how do you collaborate with each other? Just keep that in mind as you're going for, looking for jobs,

looking for internships, and as you're gaining and building your professional network. Next slide, please.

Now, that word engineering, and you can go to the next slide as well because I put another little description under there, I look at it, that word, as a diverse way of thinking. I don't care if it's electrical engineering, chemical engineering. It doesn't matter to me. All engineering is problem-solving, and I make sure I speak to my elementary kids and my high school students and my college students that that's what that word really means. But I've been very fortunate. I'm a problem-solver, and that's another thing that companies are looking for. How do you solve problem? How do you mythology, think your way through a problem and come up with a solution. So, that's what engineering is, and that's what engineering will prepare you for. And all these complicated maths and sciences – I'll say those bad words, Mr. Eure, you know, physics, chemistry, algebra, statistics – very, very important subjects to have your mind geared toward problem-solving. Next slide, please.

Now, I never, ever ask students, "What do you wanna be when you grow up?" Because Coach Daughtry is still trying to figure that one out. What do I wanna be when I grow up? What I wanna know is what you want to change. I knew that I wanted to change my community. I wanted to bring more opportunity to my community, so I looked at myself and my engineering background at Cisco. How can I take my engineering knowledge and the things that I like and the things that I'm passionate about and develop that into a way to give back? And because of that, we developed this LEGO robotics and coding and other things for our community. That's what I wanted to change, wanted to, wanted the young, the young students – middle, elementary, college students – to see us, see who we are, and that they can be like we are. You can be an engineer, or you can be a data, you know, analyst, or you can be a manager, or you can be whatever. As long as you have the, the ability and, more important, the passion to do it, that's what, that's what this is all about. So, think about that. What do you want to change? Next slide, please.

Students always ask me to what, what's a good career to pursue or what are we preparing students to be? Long ago, I was called a troublemaker. I had a way of stirring the pot, coming up with new invent, inventive ideas. But now I'm called a disruptive innovator, and that's what we're looking for: creative, disruptive innovation. The day to day, how can that be altered to change, to be a little bit better, to be faster, more cost-effective? So, that's the thing that you think about I'll bring. And I've seen a lot of disruption in the world now. I'm not talking about COVID-19, but I'm talking about positive disruption to make things do better and go better and go more cost-effective. And you are the ones who are driving this.

So, you know, there's a lot of things I, I may say, and I believe this. I'll leave you with this word that I don't think you're the leaders of tomorrow; I think you're the leaders of today. That's how I look at you. You're leaders, and you're leading this disruptiveness in our world now to make it better. Next slide, please.

The Fourth Industrial Revolution, again, and especially, I would repeat it, I'm not gonna go over the first three, but this one is the most important as you see where we are, because we have so much going on with technology and this 5G is gonna unleash the internet of everything with everything and anything is connected to the internet. Smart refrigerators, smart stoves, smart ranges, smart households, smart doorbells, Alexa. All these things that we have are now gonna be even amplified. Smart cars, you know, autonomous, driving themselves. Trains, planes, it's all coming down. But what that creates is a whole new opportunity in security because, again – and I'm gonna repeat this again and please forgive me – that once we start connecting everything to the network, now I've gotta secure it. If you don't know, this country is hacked every minute of the day. Our financial institutions, our power grids, everything, and we need people there to be able to secure our networks. So, cyber op, you know, cyber operations, cyber knowledge, ethical hacking are so, so, so important right now. Next slide, please.

And this is interesting. A lot of people ask me why did I work with students so much. And you, my students, are about, roughly, I could be wrong, about 20% of today's population. But you're 100% of my future. And that's what I'm thankful to Mike Eure for inviting me here today because this is my investment in the future, to have you realize and understand what's going on around you. Yes, you're going to school for a purpose, and there's a boatload of opportunity out here.

And I'll give you a quick for instance. A young lady contacted me. She went to the University of Missouri, I think it was, or Wisconsin. And she majored in statistics and, you know, and data, and she calls me, she goes, "Oh, I just wanna let you know that Twitter hired me so I could analyze the retweets of disasters to see the patterns." And I was like, "Excuse me?" And they're paying, the, the starting salary, it was like $70,000, $75,000 a year. So again, you know, this data analytics, this statistics, these things and what you're doing is so important. It's creating new jobs and new opportunity, so just be aware of that. And my next slide, please.

Now, what I've got up here, and hopefully, Mr. Eure, you'll send this out to them. I've got intern opportunities. I work closely with Fidelity and a few other companies in Cisco, and

this is the thing that's happening now. So, let's make sure that the students get some of this information, Mike. All right?

EURE: And, and, and also, I'm not gonna interrupt you, but you do have two questions.

DAUGHTRY: Oh. Oh, sure. I'm almost done, believe it or not.

EURE: OK.

DAUGHTRY: Just wanna make sure that they see that there's plenty of opportunity out here. I'm gonna give you a coaching point, very, very important. Please, please, please don't wait till your last year in college to go, "I need an internship." You start in your second year, in your third year. You start applying, getting into these companies and this opportunity so you can kind of see the layout of the company, you kind of see how they operate, and so they get to know you. I want you to remember, my, my, you know, my parents always told me it's who you know, it's who knows you. I want you to remember that. All right, next slide, and I think I'm ready for questions.

And there's Aisymmetry. You can see us on "the Book of Face" is the way I like to call it. Some of the workshops that we've done, some of the videos of my, the boys coding and having fun while they're learning. So, next slide, and thank you.

EURE: Thank you, Rene. So, we're gonna start with a question then. Sarah, if you don't mind. OK. Chris O'Riordan-Adjah, Dr. Adjah is the head of our Engineering Department at Wake Tech. He likes "the Coach of Students. Do we have the Coach's permission to use," use that term?

DAUGHTRY: Yes, you do.

EURE: Coach of students. OK, they got that answer. Next question. All right, this is thanks for the shout-out. Dr. Tony from the National Society of Black Engineers, RTP Professionals Chapter. And we're gonna put that, NSBE, yes, NSBE.org for any students or people that want to get in touch with them. And you could put in the RTP Chapter and get to them and get to some very important things. I know they're doing a collegiate chapter for all the area students whose schools do not have NSBE chapters. So, I think they're gonna have a meeting right after we have this meeting. But nonetheless, you have the website.

So, next question. Thank you. Brian McLean, this is one of those North Carolina A&T

graduates. He came from the School of Technology. He says, “Awesome. Great information. How can you enroll current youth in the STEM and robotics?”

DAUGHTRY: Oh, take a look at our Facebook Aisymmetry. I should have an enrollment up there. I’ve been working with the Hayti Center to, once we start to get kind of back on-site and get a, get around this COVID-19. So, we’re working with the Hayti Center, the Durham Boys & Girls Club and Durham Parks and Rec. So, you’ll be seeing at the some of those facilities, some of those, you know, locations right here in, right here in Durham, hosting some of our workshops. So, we do have some things for virtual, but we like that, you know, we’re prepared for COVID-19. You got the social distancing. I got the wipes. I got the masks. We’re all excited to be back on site.

EURE: So, Rene, what, we’re gonna, we’re gonna ask you, you to be prepared to do this, to give your contact information. I see we have a question coming up. So, we’ll go ahead and do that first. OK, Chris. “Coach Rene, thanks for taking the time. As a big fun of innovative, a big fan of innovation and technology, I am very concerned with the durability and quality of our new inventions. What are your thoughts?”

DAUGHTRY: Now, you know, that’s a, a quality that is so big right now because I notice a lot of devices, the things are being pushed out, and I worry about that. When I was growing up, we had quality control. So, I went, well, you know, it’s all about, please forgive me, right? And it’s all about trying to make those dollars and get these things out there. I’m going to come back to my students. This is the reason why we’re working with so many students, to go, “I need you to be quality-minded.” So, as new things are starting to come out, we’re starting to be, be disruptive and being in there, just to be able to go, “Is this really good quality that we’re pushing out to the public?” Because we have to make sure of that, you know. We don’t want people spending their money and devices are breaking, you know, after six to eight months. So, we’re gonna start to hold companies accountable to this. I think it’s time to do that as a public. Let’s start to put it to my young one's minds. Let’s make sure we have quality control and think about this as we’re pushing out new technology.

EURE: “Additionally, I’m also concerned about the effects of our innovations on our youths, whom I don’t see applying themselves mentally and analytically as these new inventions make them lazy.” These are another, Chris has got the big questions. Your thoughts on that one, go ahead.

DAUGHTRY: Well, this is something we do in our workshops. We, we have those boys and, and young ladies, we have them think. A lot in our workshops, especially my LEGO

workshop and my coding, equates a lot of the things they're learning in school mathematics, or a lot of their, their math now. Their equations, perfect for instance, to encode the robot behind me to follow a line, you actually have to use the equation X plus Y divided by 2 equals Z. I've got a video with a seventh-grader explaining how he used that equation to figure it out. So, a lot of our workshops, we take the math that they're learning now. That's why we're kind of conscious of the age, and we equate a lot of their math to our workshops, so they can see a real application. And I think that's why I'm gonna start working more and more closely with the Durham Public Schools system because I think I just need more real-time applications, not just imaginary things and looking, "Here's this equation, how does it apply to what they're doing right now?" So, if you take a look at some of our workshops, you'll see those boys thinking and working through some programs because a lot of my instructions are verbal. I don't put anything on the boards. I speak to them and go, "Here's what I need this to do," and they gotta go figure it out. It's a wonderful thing. I hope more and more schools do that.

EURE: Brian McLean again. "Great information. Thank you. Are you all currently set up to partner with the early college youth to help bridge the gap from school to corporate or other possible mentor shadowing?" And you may have answered this earlier, but go ahead.

DAUGHTRY: I know, but I'm gonna do this. If you take a look at my LinkedIn profile, I am the chairman of the, of the Central School of Business CIS Advisory Council, and I put a Cisco Network Academy there. I also adopted the Josephine Dobbs Early College, which is on the campus of Central. So, now, those students in that early college, guess what? They're taking some of those courses. We also introduced a first robotic competition to that school. So, three years ago, it was the Josephine Dobbs Early College with Aisymmetry, and Duke University and Dr. Saleem from the Biology Department. We encouraged our kids to be into the first robotic competition, and they actually competed. So, yes, I've adopted the Josephine Dobbs Early College, and there's an, there's another early college that I'm looking at to work with. I think it's Mr. Brasca Williams at N.C. State.

EURE: Yeah, Brasca.

DAUGHTRY: I can do some things with his high school students and looking, hopefully for 2021, gonna get a little bit more involved with N.C. State's early college as well.

EURE: I need to also say that the community college system also has early colleges on many of the community college campuses. And Wake Tech has at least three. We have two what we call collegiate academies, which are separate schools, and then we also have

three early colleges, one focused on health, and I can't remember all the details, but I'll share it with you.

But do you? OK, Al Leaston, he is, and I think you talked to him recently, he's our program director for Networking Technology. Great, great guy. Thank you for tuning in, Al.

NSBE, good. Please, y'all take a snapshot of this. Thank you so much, Tony, or whoever sent this in. This is very good. So, they have a meeting that is right after this. So, go ahead and do that. And I think she's gonna be sharing scholarships, internships and all kinds of opportunities for students. But you need to apply in December and early January, so students please take advantage of that. And Rene, please give us your contact information if anybody wants to follow up with you right now before we, if we have more questions, we'll take them, but let's do that first.

DAUGHTRY: Coach Rene Daughty. Please call me Coach. I love that name. Oh, there it is, rdaughtr@cisco.com and also look for me on LinkedIn. So, I expect you college student to have a LinkedIn profile. It's very, very important. And please hit me up on LinkedIn.

EURE: And Sarah, could you put my contact information up just in case anybody wants to catch up as well. and I will connect you. Rene Daughtry will answer your emails, I'll tell you that. He's a very good guy, and I'm so glad I had the opportunity to meet you and to bring you into the Wake Tech cybersphere. And our first interview was on the Research Triangle campus, and now we're doing it online, virtually. But I'm, I'm glad, and, as you say, this gives many opportunities. There are some handy, handicaps and drawbacks, but we might use this moment to really engage our young people. And this is the story I want you to tell them about, the young man in Durham that didn't wanna participate, but you got him doing feats with his robot, and now he's doing great in his math and just a little bit about that for parents.

DAUGHTRY: Oh, that was, that was, that was a fun one. There was a, I can't remember the, I also work with the Durham County Library. Two things I've done with the library, work at the small branches and they actually had me go to the Durham Youth Detention Center. I went last year. My middle schoolers are locked up in this detention center, which blew me away, but we had a really good coding session with them. I was supposed to go back in May, but COVID-19 stopped me.

But at one of the, the branches up in the Durham County Library in Durham, I came up with my LEGO robots, and one young man told me outright he didn't wanna be bothered. Excuse

me? And see, I don't, I don't discourage anyone. No problem. He didn't wanna be bothered by robots – I was gonna go back and get one – so I said, "Young man, what do you like?" And you know how my young, my young men are, right? "Coach, I like beats." "You like beats? Can you create beats?" He goes, "Sure." So, I said, "You create beats, and my robot has sound sensors. Let's see what happens." Next session, I had to make sure my sound sensors were all set up. He came in. He played his beats, and the robot started to move. So, he kind of coordinated that with music. STEAMM, you know, science, technology, engineering, art, music and math. That math was important; math is part of music. And now, through that session, he wound up being my lead in the robotic workshops. He wound up going to, you know, continuing in school, and he wound up really getting a love of math because he started to realize that beats and sounds, quarter-beats, it's all math. So, once we made that connection with that young man, oh, he was good to go. And he hit me up, and I was in college and totally blew me away, and just hit me up on LinkedIn and let me know how he's doing. And he thanked me for showing him that correlation between music and math.

EURE: So, let me make a quick announcement. The third Thursday in December, we will be having Dr. Arwin Smallwood, who is the chair and a professor at the North Carolina Agricultural & Technical State University Department of History and Political Science. His topic is gonna be the triracial identity of Tuscarora, Meherrin and other Native Americans. And he's talking about in North Carolina, Virginia and east to west. But he's gonna talk about all the Native Americans and how they're connected with Africans and Europeans from the 1500s, not since 1865. So, that's gonna be a very good, good, good, good, upcoming.

Do we have any more questions, Sarah, or are we ready to say goodbye? I know we went over, but it was interesting. All right, I think that this is the end. So, thank you, audience, for participating. You have any last words, Rene?

DAUGHTRY: Just do well. 2020 was a very challenging and interesting year. We got a new year coming up, 2021. COVID-19 had us rethink, repurpose some things. So, you know, people ask me, "How did you feel through this?" And I describe everything in three words – and it's just me, the way I am – no matter what goes on in this world, faith, no fear. So, that's kind of my encouragement to all of you there. That's what I live by. And let's keep on doing what you do. All right? Be positive.

EURE: Thank you for joining us for the Michael Eure Show, and we look forward to seeing you on the third Thursday of December. It's, the time is going by so quick. Bye-bye.