
Announcer

This is the Detroit Mercy Cybersecurity 313 podcast.

00:00:01

Tamara Shoemaker

Hello my name is Tamara Shoemaker and I'm the director of the Center

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for Cyber Security and Intelligence Studies at the University of Detroit

Mercy and the founder of the Michigan Cyber Patriot Program and I'm

honored to have Allen Stubblefield join me today. Alan, can you give us a

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little bit of background.

Allen Stubblefield

First of all good afternoon guess Tamara. It's great to be with you again. I

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think we first met in Arizona a couple of years ago. I was a naval officer,

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surface warfare which, meant ship driver for 21 years. After my wife and I

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decided it was time to stop the Navy active duty job, we moved back to

her home here in sunny southern California in 2005, where I taught Navy

Junior ROTC at the local high schools for eleven years. 2016 — my

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school, Troy High School, decided to add a cyber defense pathway to our

academic magnet program. And I was the closest thing to a cybersecurity

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teacher on staff. So I've been learning as I've been teaching. I've been a

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cyber patriot coach since 2010. I proudly run the largest cyber patriot

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program in the country. I had 335 Troy high schoolers and about five 75

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middle schoolers this past year. I've got four teams that were supposed to

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have gone to nationals, but nationals has been canceled for the in-person

and the remote competition. I don't think that's going to happen. So we'll

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see how that goes. I'm a past the national champion in the open division

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2019 or Cyber Patriot 11, and then all service national champion 2018 or

Cyber Patriot 10. My teams have made national appearances in six of the

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past seven years and I was a cyber patriot coach of the year of 2016. I've

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Allen Stubblefield (continued)

been recognized by the SANS Institute as a cyber security difference maker in 2017. So my passion is cybersecurity education. We need more and more young folks of all genders, colors, backgrounds, to find their passion as a cyber security expert because the digital world just got smaller with the current pandemic. 00:02:06

Tamara Shoemaker

It certainly did — this pandemic... how has it changed your perspective about teaching cyber security education? 00:02:25

Allen Stubblefield

Well I think that the pandemic has certainly made information technology more important. We're much more reliable and over the past couple of weeks here in California — We are on week three of being asked to stay at home. And yet as a teacher my entire high school has shifted to an online teaching model. And yet we still find that there is what we call a digital divide. Not every child has access to online technology at home. And so I'm trying to trying to bridge those things at the same time still trying to teach and engage teenagers without being in the room with them. And that's not as easy as it sounds. You just can't throw up a video. But I would also say that because we are more online that makes us more prone to different types of cyber security threats that are out there because cyber criminals have never had to go outside. So they're very happy to stay indoors and still do their mischief. 00:02:33
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Tamara Shoemaker

But they find much more of us now are online and are doing meetings and things. So this morning I read about a thing called Zoom bomb right. So folks that are not used to having meetings on Zoom are creating zoom 00:03:36
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Tamara Shoemaker (continued)

meetings to either conduct business or do personal things and apparently this zoom bomb is if you haven't put in a password for your meeting they're able to bomb into your meeting and put out you know explicit photos and say bad things and do stuff on while you're on, online with your grandkids or could be your classroom. And so that's a problem right now. And so, is it your opinion that some of this cyber security stuff is actually going to be a little bit more widely than it has been in the past.

Allen Stubblefield

Well more and more people will be aware that cyber security is important to Zooms credit, they have changed their default meeting settings so that when you set up a meeting there everybody goes into the waiting room and then the meeting moderator gets to pick and choose who actually gets to come into the meeting. So that's when one way of keeping mischievous people out but the cyber criminals they haven't gone away.

Tamara Shoemaker

In fact obviously they've got just a little bit more things to work with now. Right. So fake things that are supposed to help. I had an alert from my neighborhood saying that there are people going door to door saying that they're doing testing and they're getting themselves into your house to rip you off. So there's an awful lot of stuff going on out there. You know the bad guys like you said they they've been used to this kind of thing, we're just giving them a little bit more place to get in touch with us now.

Allen Stubblefield

Well I think one of the primary approaches to cybersecurity is think before you click, and we are just so used to clicking on links on email and that's what tends to get people into trouble. So as somebody sends you

Allen Stubblefield (continued)

an invitation for a meeting. Are you sure that that's really their address? 00:05:34

Have you talked to them over the phone have you texted separately? Are 00:05:36

you expecting this meeting?

Tamara Shoemaker

So basically what you're saying then is some of the sound practices of 00:05:41

cyber security are coming into play a lot more with everyday life. Now, 00:05:49

now that we're all stay at home and stay safe kind of the situation.

Allen Stubblefield

Exactly. 00:05:53

Tamara Shoemaker

So you've been in Cyber Patriot since 2010 and that has been a way for 00:05:54

you to supplement the teaching piece at high school. Correct? 00:06:04

Allen Stubblefield

Right. I knew that we had students that would at least be interested in 00:06:05

trying to figure out what the heck cyber security was in 2010 and we

started off and started with five students. Fortunately for me, they were 00:06:15

sophomores and freshmen and the first year wasn't exactly stellar. There 00:06:22

was a lot we didn't know and very little that we knew. But those five kids 00:06:25

stuck with it, and the next year they brought friends and then they

brought friends, and along the way they learned as we went. And what I 00:06:33

found is that I have sixth graders now that come in through our practices

and are able to sit down and learn and understand what the basics are. As 00:06:43

far as making a Windows system or a Linux system more secure, or even

trying to understand some of the details about how a network works and

for a lot of people that I run into there like there's no way the sixth grader

can understand that I'm like, Well... I sit there and I watch them during a

Allen Stubblefield (continued)

competition and you hear their vocabularies are talking, and they get it, they understand it. And they're fearless. They're like, we want to learn this. And so who am I to tell them no, you shouldn't learn it? So. It's really amazing stuff. And for some of them, this becomes their thing, their passion which is what teachers are all about is trying to get kids excited about learning.

Tamara Shoemaker

Wonderful. So this after school program has blossomed at Troy high school. You've gone from, you said what, five kids to now over what 400 students?

Allen Stubblefield

400 students. Yeah.

Tamara Shoemaker

In one high school...

Allen Stubblefield

Well I've got 335 at one high school, then I've got about eight or nine middle schools that feed in, and I pretty much take any middle school student that is able to come to practices one day a week. And you know we're just kind of planning to see we use our summer camps as as a chance to let kids experience what cyber security is firsthand from the aspect of just trying to make a Windows 10 PC more secure or a Linux PC more secure. We're not not getting to the hacking stuff not getting into any of that kind of stuff. Really, just, you know setting up firewalls, making sure passwords are good. Disabling guest accounts, making sure that all the software is patched. It's stuff that everybody should know about to do but unfortunately a lot of us don't.

Yeah I talk about that all the time when I describe what this competition is like and I sometimes tried to explain it sort of make it sure so that they understand it's like if you just bought your computer and you pulled it out of the box you know what would you do now to make yourself safe when you went online with that new computer for the first time? Whether it be a Linux operating system or Microsoft operating system. That the basics, the beginning and sort of a nice level that would be good for everybody. I mean I love the idea that you're working in the middle schools and I know that we have discussed before that your camps are starting even earlier than that. I know as a grandma I realize that you know before 4 years old my grandson could shoulder surface grandpa for his password. Not knowing that was a wrong thing to do. Right. He's sitting there playing with grandpa, and you know they're playing angry birds together and then later he you know he's playing by himself and he wants to buy some kind of crazy feathers or something. I'm not sure what it is with the angry birds thing and he knows what the password is. And so he uses it. You know we train him and teach him that hey that's not cool. You need to ask first before you buy a bag of jewels or whatever it is that you're doing. But it just came natural to him because he was using it and like you said a lot of these things are coming natural to students much younger than what we think of because they're natural users right. They're using it. So young starts out with phones in pads and things like that to just be playing with. But eventually they become middle school and high school kids and their whole lives around this boat. And so teaching them how to protect them is really important.

Well what I was seeing is that several of our local elementary schools	00:10:04
kindergarden and first graders have two hours of school tablet time per	
week and they all have their own password. Now at that age the password	00:10:17
is I believe a sequence of pictures that they pick out but they have a	
unique way of getting onto their device and they've certainly been around	
their their parents. And if they've got older siblings and so they know how	00:10:30
to swipe right and then swipe left. So for my first second and third grader	00:10:35
camp. Yes I teach that young in the summertime. It's really about cyber	00:10:38
hygiene. It's like OK because one of the first things that I'll do when they	00:10:43
when they come in the room is hi Mr. Stubblefield what's your password.	00:10:48
And some of them like you're a stranger, I don't know, I don't share them	00:10:49
like you know high five. Good job because that's the right answer. But	00:10:54
some of them just can't wait to share how great their password is. And I'm	00:11:00
like No no. And so we get into some activities about who you can share	00:11:02
your personal information with. Along with passwords, your phone	00:11:07
number or your address and you know what can you share with your	
annoying brother or sister and your grandparents and the policeman and	
a stranger just so that they're able to make better decisions. That's the	00:11:22
limit to the cyber security. And there's two really good elementary reading	00:11:25
books on cyber security that I use in my camp. Just again to help	00:11:31
reinforce after the camp so they can go home and read with Mom and	
Dad on you know hey here's Sarah the cyber hero and here's Ben the	
cyber defender and you know what are they doing and how are they	
doing it. And gee mom, dad are we doing that here with our computers?	00:11:44
And then I've got a fourth and fifth grade camp. It's a little bit more	00:11:49
involved they get into a game that's mining cryptocurrency with the	

Allen Stubblefield (continued)

intention of that's how they get their daily money, but they have to buy things like antivirus software or they have to buy a firewall. There are hackers that try to steal their money, and so it kind of gives them graphically an idea of how a network set up, and what hackers do? So that they're more aware.

Tamara Shoemaker

You're reaching them where they live right. I mean what they're doing currently and what they know currently and showing them how to be safe. Correct me if I'm not your cyber hygiene way of looking at this.

Allen Stubblefield

Exactly.

Tamara Shoemaker

So as the ages progressed you progressed with what you're teaching them.

Allen Stubblefield

Right. And then sixth grade through 12th grade. If you've never really done any kind of Cyber Patriot you've got a weeklong camp for them and you know we'll we'll sit the sixth grader next to the 12th grader because they all had the same amount of knowledge there. I have other high school students that are there teaching it. So what I find is that's instant respect because here's somebody close to my age they obviously just learn this in the past couple of years and they talk a different language, a different verbiage than what I would say. But it gets the point across and my high school teachers. They love the responsibility. They love the challenge of coming up with some engaging activities plus as being a teacher they understand some of my challenges like how to keep

Allen Stubblefield (continued)

everybody on task, because the draw that phone right there if you're not
engaging 24/7, they're like you know here's my phone. Let me go play 00:13:33
there, and so it worked out really well. It's a win win all the way around. 00:13:36

Tamara Shoemaker

I like the idea that you have high school kids teaching your Cyber Patriot 00:13:38
camp and some of your other camps. Right. So you said even even the 00:13:44
lower ones you have people who are involved in that because when you
think that all my volunteers tell me all the time is. Boy, it's amazing, I do 00:13:51
this for a living? And but when I'm teaching it and I'm breaking it down to 00:13:54
a smaller degree and explaining it I actually get more out of it, than I had
before I started trying to teach it. And so, you've got your students doing 00:14:05
that. That's just amazing. 00:14:08

Allen Stubblefield

Well what happened for me four years ago I had gone through four 00:14:10
mentors. Those are the cyber security professionals that have come in to 00:14:14
try to help teach us when we got started. But you know mentors are hard 00:14:19
to find and the hard to keep. And so four years ago I didn't have a mentor 00:14:23
and I had a really good all service team. And Joseph was the team captain 00:14:31
and I went to Joseph and I said we don't have a mentor, I need you to split
up your team for practices, and I need you to teach all of the other teams
that we had. I think we had a total of 10 teams that year, and I said you 00:14:42
know someone's gonna teach Windows every week so there's gonna be
teach Linux. Someone's gonna need to teach Cisco. And so we did a 00:14:48
great job, and it was like the week before round one, and I said Joseph,
you guys have done an awesome job for everybody. How is your team 00:14:57
being prepared because you really have had the opportunity to practice

Allen Stubblefield (continued)

on your own. He said no. By us teaching, w're getting smarter and this 00:15:02
team then rolled off a perfect score for round one, round two, or three,
the semifinals and up second at nationals by teaching they themselves
were able — when they when they would say All right so let's talk about
Windows Defender and they would give it their way. And there are a 00:15:24
couple of kids in the class who didn't understand it. And they'd have to 00:15:26
kind of reteach it from a different perspective. And they learn little tips 00:15:29
and tricks that they weren't even aware of. And so that's how they got 00:15:33
smarter by trying to teach. So.... 00:15:37

Tamara Shoemaker

It must be I mean all of my volunteers that I'm trying to wrangle for all of 00:15:37
my Michigan teams here they always thank me for letting them be a
volunteer. And I always ask why do you say that. And that's because they 00:15:46
say they get way more out of this than they put in. At least they feel like 00:15:51
they did. So — 00:15:53

Allen Stubblefield

Well when you pay it forward and use the excitement and enthusiasm that 00:15:53
middle school on teenagers have. You're like this is awesome. 00:16:00

Tamara Shoemaker

Well I often when I'm talking across the state about this with teachers into 00:16:01
the high schools and stuff. I mean one of the things that I'm pretty aware 00:16:06
of and I'm sure you are as well is that... this next generation — these kids
that we're talking to, will be the innovators of the future. And so having 00:16:15
this background with cybersecurity already baked in. Right it's already a 00:16:20
part of who they are when they go out there and are successful in all of
the different places that they are in some of our innovation at least they'll

Tamara Shoemaker (continued)

have, they'll know these things, and it will be baked in rather than added on. It's something that they'll be thinking about. And so I'm always very excited to get kids excited about this because again I'm aware that they're the next generation and the ones that are going to be protecting our infrastructure and taking care of us. Right.

Allen Stubblefield

Exactly. Well I used to refer to our up and coming generation as the digital generation but they have corrected me and said we're the digital users generation. We know how to use technology. We don't understand how it works. We don't we don't understand how to make it safe. So that's why I have kids taking my classes and are on my teams because they want to have a better understanding of how all of that fits in there. Plus every company today every industry day needs some kind of cyber security. So even if my students don't get into a true cyber security profession they're aware of that wherever they work because everybody has digital information that needs to be protected.

Tamara Shoemaker

Right. Or I'm one of the things that the university level at both undergrad and grad level and one of the main chief complaints whenever our grads come back and we talk to them about how's your new job. How are things going. It's always we're the bad guys, the cyber security people are the bad guys in the firm. You know we're the ones who are telling everybody no. And we need to keep things secure and we have these protocols that you need to follow and all that kind of good stuff. And so that's in the beginning. So you know 15 years ago when we first started doing it that was the message that we kept getting. Now it's not so much. Now

Tamara Shoemaker (continued)

everyone knows that it's something that they need to be paying attention to and that these people that are coming to them are the experts that they can lean on and trust to tell them what to do. But it certainly will make their jobs a whole lot easier going forward if the entire workforce understands it has at least a minimum awareness of what you know good hygiene is. These kinds of programs in the school are real important. People ask me all the time when are you going to slow down? When are you going to stop? As far as pushing the Cyber Patriot thing in the state of Michigan and I said not until every school teaches it on a regular basis in the classroom. Not just as an after school program, but in the classroom. I know that's something that you do now at Troy high school. It's not just an after school program anymore is it.

Allen Stubblefield

Right. Well what was really amazing was so it was spring of 2016 as an academic magnet school we have to find ways to innovate what we teach to attract families to make the drive 30 to 45 minutes each way. So we have to offer stuff at the local high school doesn't. And I just made the observation I said I've got a local middle school that I've been working with and I'm honestly trying to recruit those students to come to Troy High School not to a rival high school three miles down the road. And when I said recruit everybody's eyes kind of perked up like could you do that for other places. And I just hadn't thought about it. I said sure I guess. And so we looked into it and we made the decision that we're going to start teaching this. And one of the questions was as well. How do you know that our students will be able to access the information? I said we already teach advanced placement courses. What is that? That's

Allen Stubblefield (continued)

a college freshman course. There are colleges today that are teaching 00:19:48
this to college freshmen. So yes I will go to local junior college and I'll 00:19:51
figure out what they're teaching and we'll bring it down to the high school
level. And that's what we've done. And the students do very very well. 00:19:57

Tamara Shoemaker

And that goes to show California in general is dominating the competition. 00:20:01
But you guys are doing an amazing job. The growth right. So 400 people. 00:20:04
I mean that's half the amount of people I have in the entire state playing 00:20:09
Cyber Patriot. So I feel so happy that I went from five kids plan to 900 00:20:13
kids playing. But you have 400 just here in your own high school, so it's 00:20:17
obvious that they are hungry for the information and the competition.
What inspired you to first start in the Cyber Patriot competition, and why 00:20:25
do you feel like many of us that are involved — that this isn't just an
academic exercise but more on par with an athletic and venture?

Allen Stubblefield

So my personal interest goes back to college. PC's were just coming out 00:20:41
in the early 1980s. And while I was a math major college math gets way 00:20:48
too theoretical and I love the concept of being able to write a program
and it will do something. And so I I don't have a bachelor's in computers 00:20:59
but I have a concentration in computers with a mathematic bachelor's.
And then, later on, I went to night school and got my master's in 00:21:06
computer resources management in 1990 which is pre-Windows. So I 00:21:14
have a personal interest and passion for it, and when in the Navy, I was a
combat systems officer responsible for all the weapons systems on the
ship and a lot of — there's a lot of technical stuff and so I enjoy that. I 00:21:27
enjoy learning about it. I'm not intimidated by it. And so when the Cyber 00:21:28

Allen Stubblefield (continued)

Patriot competition showed up, I'm like you know this sounds really interesting to me personally. I don't know anything about it, but I can probably figure it out. And if not my students can tell me how to do it. So my role really as a coach is really I am a provider of resources a good practice room doors open. I count all the kids noses and make sure that they're all on task. I make sure they have snacks and I have a booster club so I run it like a sport. We have vastly letters I haven't had students by varsity letter jacket yet. But yes. So you know, why not.

Tamara Shoemaker

Yeah I've got one of my teams doing that too downriver where they've got they get they get a varsity letter for playing as well and I'd like to. I'm hoping that we can get that across Michigan to do that too. So one of the things that I think about all the time is that the natural piece about sort of getting kids as we've been talking about even earlier in the conversation about sort of coming at this where kids already are. And I really feel like they love gaming so much and they naturally love to compete at this age that this just is one of those things that gets them exactly where they already are. And also Dan teaches them some things they can make themselves say together. Both of those things. I mean if nothing else that would be good. What do you feel about sort of... why do you feel like this is a competition and on par with athletics?

Allen Stubblefield

You're exactly right. Kids love competitions. They love the chance to solve a challenge and get rewarded with points to see a team who's worked for five or 10 minutes on on a challenge and they know what they're trying to achieve. And so the working at it working at it then

Allen Stubblefield (continued)

suddenly the they get points — the Mario Brothers theme song kind of goes off in the background — and they're giving each other high fives and all they scored was three points. But they're proud of those three points they're in those three points. At nationals last year my open team that became the national champions during during the Cisco competition. There was a challenge that was super super hard and my best Cisco person was was working on it working on to working on it. And when he solved it he left this big loop in this deadly silent room and everybody was like, what's just happened!? But that's what we're looking for us kids that love challenges. They love the chance to work at something... they know that it can be fixed. And then when they solve it they're just so excited.

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Tamara Shoemaker

You know any other part that I find it's really really cool about this is that so many times gamers are playing by themselves and they're doing whatever kind of obstacle course or whatever kind of thing that's going on in that game. But this thing — the cyber patriot peace requires them to work as a team a lot, individually and as a team, so we all have different strengths obviously. But they sort of have to communicate and talk to each other and work on a level that's different than just if they're individually playing a game. I think that's another really important part that makes a difference for our future workforce.

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Allen Stubblefield

Yeah exactly. I mean my kids form their own teams. I don't even try to pretend to get involved with trying to manage that, but you know they're torn between hey I want to play with my friends but I also want to win. I'm like well they need to have friends with talent, you know so, you take your

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00:24:49

Allen Stubblefield (continued)

friends and teach them or make new friends. And a lot of times kids will start off when they're just with us and they don't have a lot of great social skills but they're intrigued by the tech, they're intrigued by this whole thing called cyber security. And so then that's a way that they overcome some of their shyness and they've got to advocate for themselves and they and they have to talk. Last year a really really funny story and it was probably two weeks prior to round one and all my teams have been formed and they were there over the last probably like 15 or 20 students that I had to just say alright, you five are on a team you six are on a team, because they just lacked the social skills to go out and find others. And so once those orphaned teams have been formed — that's not a phrase that I normally use with them — during class when the students come up with a hey I'm having a really hard time getting a hold of Ryan. He won't answer my texts, he won't answer my e-mails and I'm like, Ryan Mm hmm. Well let's see he's in class right now on the inside the room, let's go over and talk to Ryan.

Tamara Shoemaker

So that's part of the problem is that we find out all the different ways that kids are communicating with each other and how they may not be on par with each other and this sort of forces them to have to work together on it.

Allen Stubblefield

Exactly. And I've had some players in the past that personally were very very good, but we're very abrasive, and other people did not want to play with them and their parent would get with me and said You know what can my child do. And I gave some recommendations. And now this year as

Allen Stubblefield (continued)

a senior his team did really really well. And he has matured as a person 00:26:29
and he's able to work with people. So it was great to see. 00:26:33

Tamara Shoemaker

It always is. I mean when, you watch, like I said I mean when I'm doing 00:26:35
that even just the summer camps you can see the difference between the
beginning of the week and the end of the week. So I can't imagine what it 00:26:43
must be like to do an entire season and to watch those kinds of progress.
And then like you said in the four years that you've got them in school 00:26:49
must make a huge difference between when they first started and when
they ended up. I know that we're talking with Dan Manson and some of 00:26:56
the other people that have been involved in this for years and years too.
They said that many of the parents have truly appreciated the change in 00:27:01
the student not having a community and having liked the technology but
didn't really know how to connect with others. And then at the end of this 00:27:13
then they then can connect very well and end up becoming leaders.

Allen Stubblefield

Yeah. Every student needs something to be part of. And even if you're a 00:27:18
go it alone techie, you still need people to talk to others. So one of them 00:27:27
one of my favorite students all time, her name was Kyra. She came into 00:27:32
Troy High School. She was schooled at home did not like being around 00:27:34
large groups but she loved technology and that's what drew her to Troy
High School. Then she joined Junior ROTC. Well there's 300 students 00:27:43
right there in a room and like OK you're gonna put up with that. Amazing. 00:27:49
But she joined Cyber Patriot. She was one of only two females out of 60 00:27:50
who tried out but you like I'm gonna do this. And then fast forward as a 00:27:58
junior and senior she was a leader in my Cyber Patriot Program was a

Allen Stubblefield (continued)

national drug runners up once a Nationals twice. So she was able to 00:28:08
overcome all those social things plus become a leader at the end. And 00:28:12
she loves teaching. She's going to be a teacher when she graduates from 00:28:13
college in two years.

Tamara Shoemaker

Talk about seeing the pipeline right. So now you're gonna have another 00:28:17
educator there that's gonna hit the ground running with this kind of
background that maybe wouldn't have if they hadn't had this experience. I 00:28:27
mean I think that that's one of the things that athletics does for students
is it gives them that community it gives them that thing that they're all
fighting towards. That's not about just... You know my own personal 00:28:35
problems and you know how life is treating me but sort of above and
beyond what what your normal everyday ordinary stuff is. It gives them 00:28:44
that thing. And I feel like that Cyber Patriot does that exact same thing 00:28:46
just for a different kind of get. And you can't blow out your knee doing it. 00:28:50

Allen Stubblefield

You know it's really neat because they will come back and check to see 00:28:53
how we're doing we hold a cyber banquet every spring and someone
come back for the banquets. First of all they walk in the door and they 00:29:03
see 300 people at the bank what they go oh my gosh.

Tamara Shoemaker

That's so wonderful yeah. I had just started you know that because you I 00:29:07
you attended my... one last year that had over 300 kids. Unfortunately 00:29:16
this year we had to cancel because of the virus. But we will continue to 00:29:19
pick that up. Hopefully we'll still get all their trophies and all that other 00:29:21
kind of good stuff. But we will just keep on keeping on. But the nice part 00:29:25

Tamara Shoemaker (continued)

about that is we're already used to living in the virtual world. You know it's	00:29:31
not been quite as big uplift for all of us. Now what kind of background	00:29:35
does a person that coaches Cyber Patriot have to have. You've alluded to	00:29:41
the fact that when you started out you didn't have quite the kind of	
background that you do now. How does one get started and this is a	00:29:48
question that I get all the time from teachers across Michigan. What do	00:29:54
they need to know?	

Allen Stubblefield

Well really we're looking for two different people. They can be the same	00:29:56
person but they don't have to be. So you have a coach and you have a	00:30:04
mentor. A coaches job is very different from the mentor. Your job is you're	00:30:06
responsible for your group of students and you're gonna find a place for	
them to meet. If that's on campus. That means you have to go talk to	00:30:16
them to the principal and the assistant principal and you have to organize	
the time for them to meet and get permission from parents. You have to	00:30:25
sign up with Cyber Patriot and respond to their emails and then learn how	
to do things like download competition virtual images and unzip them and	
some of the programatics, and yet you haven't even talked to a child	
about what cyber security is. So anybody can be a coach. A parent can	00:30:42
be a coach, an English teacher can be a coach, my assistant coach is a	
3D art teacher. So but he just loves... he gets the fact that technology is	00:30:51
the future cybersecurity is the future of tech. And he's just willing to	00:30:59
learn. And so that's really the coach's role I jokingly refer to myself as the	00:31:01
chief cat herder because you know my job for practices is literally to	
unlock doors locked doors when they're when they're all done. Make sure	00:31:13
the bathrooms are open. Take attendance, put out announcements, and	00:31:15

Allen Stubblefield (continued)

yet I'm not even talking to them about what their cyber cybersecurity stuff is. Now as a coach I will then go and challenge them with what is a coach do? They try to get people motivated for the competition. They try to get them organized for the competition. So I do some of that but I am not the Cisco expert, the Windows expert or the Linux expert. So that other person is the mentor. And you can have a team without a mentor which can have a team without a coach. So you've got to have a coach first and then along the way if you don't know stuff you will pick up and learn stuff. But there is so much available online that if you can't find somebody who is an expert to help you out as a mentor you can honestly you just let the kids go and try to learn about windows. Windows 10 security and there is more resources out there and than you will ever need. Mentors are people who this is what they do for a living and they're here to share their knowledge. And if you've got a mentor separate from from a coach — they're just there to educate whereas the coach is just there to organize, and you've done a tremendous job in finding mentors there in Michigan. I have I have a mentor at Troy for probably four or five years. But I'm to the point now where we're so much self taught that we're OK, obviously, from from all of that. But for those starting out it can be very daunting. You understand. I mean my practice is our first year lasted 15 minutes and then we were out of material.

Tamara Shoemaker

I mean they have some materials on the FAA Web site for folks that are starting out but that's clearly the basics and that's just the starting out point. And then you have to kind of poke around and I think one of the things that you mentioned was that the students themselves... they're

already inquisitive about all this stuff. And once given the challenges and ones sort of going through that first round and getting their arms around that they start to realize what they don't know, and where they need to go, and sort of start poking around in those kinds of things and helping each other and discovering some of them. Like you said there's a ton of stuff online about all of this kind of stuff... and they start finding it and sharing it with each other just sort of naturally. You are right we are very privileged, honored, to be able to work with as many professionals as we are in Michigan it's where I started working in this program which was to go to all of the ice hockey meetings all of the association meetings and sort of talk to the folks that do this for a living, and asked them to put a little skin in the game and volunteer to become mentors so that it wasn't such a heavy lift for my teachers, because quite frankly like you said they could be the social studies teacher, or you know it is also the IT teacher because there wasn't anyone else that had any kind of knowledge in that area and so they do definitely need the help but I guess the part that's cool about it is. It's OK to start out with not any understanding of any of this — that that's actually set up to be an inclusive kind of a competition, not an exclusive one. Right. Because of those three levels of play, silver, gold and platinum, there's something there for everyone. Right. So if you've got kids that can reverse engineer the game those are those platinum kids. Right. And then if you've got folks that the only thing they've ever done is use their phone and they really don't have a PC at home to mess with their first opportunity is the Cyber Patriot stuff and they can come in at that silver level and participate and get a lot out of it. So the beauty and the way this is designed is definitely something that

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Tamara Shoemaker (continued)

can be easily transported from school to school and grow as it is.

Allen Stubblefield

Yes. And then I would also say that coaches determine what the success look like. If this is your first year. Remind your kids every week that nobody's ever ever done this at our high school. You guys are the very first. Make him a T-shirt that says first ever Troy High School cyber team. And they set a school record every time that they show up for a competition and the next time for year two you know they should try to do better than the year before, but also try to see a Hey is there a team starting up at our rival high school? Are we doing better than them. Are we the district champs or the league champs. You know, hey celebrate that, they certainly celebrate that for the football team and the basketball team. So you know why not for the Cyber Team?

Tamara Shoemaker

Absolutely. I mean I love the way you said that you're sort of defining what your success looks like in this journey we call education. And so if you are participating in this you're definitely more than you were yesterday. And so yes it really does make a difference if you celebrate that which is also why I sort of picked up on making sure that we had a state level event so that we can celebrate at the state level and then also give out nods for regional and for those folks — eventually when we get a Michigan team to nationals — we're working on. We're doing the best we can that way. What would be your parting words here to anybody who is thinking about taking the next steps?

Allen Stubblefield

Realize that the students are just amazing to be around. They give me so much energy and so much knowledge. You know I am not afraid to not be the smartest person in the room and the kids understand that but they love to see me when I try to get engaged and when I participate in a end of practice cahoots review session or I try to do the National Cyber league and you know because they're like wow you know he's doing it just like me and I'm beating them and I have no personal problem with that. The students realize that while there is a lot to learn. It's kind of like you know how do you eat the elephant? One bite at a time, and all we're trying to do is take that first bite and we'll see where it goes. I mean I've had parents who said nobody in our school wants to do this. And my son my daughter wants to do it and they have a couple friends I'm like great go for it! Then if nothing else you can go shame the principal later, you know.

Tamara Shoemaker

I like it. I like that thought. Yeah. Absolutely right. Like you said that that you're gonna get so much more out of this than what you've put into it by working with these kids. You know so for a long time I was working with graduate students and, while they're amazing you know we have an awful lot of graduate students that are retooling and it's a really exciting thing to see them come in and completely change careers and go that way to watch what these kids can do and how they change so fast. And like you said the energy that they share. It's just amazing! Yeah. You know I've never had anyone so far knock on wood anyone who said I don't know why you convinced me to do this Tamara. It was horrible. Now they've said Oh that first year was pretty scary. And you know we didn't do all that great as far as levels and all that kind of stuff. But we hung in there

Tamara Shoemaker (continued)

and next year we're going to give it our go. You know give it a an extra try 00:37:52

and we're gonna do better. So I mean I've never had anybody say gosh I 00:37:55

you know stop talking to me you you ruined my life.

Allen Stubblefield

Exactly. And one of my approaches has been even back from my days in 00:38:01

the Navy is: I try to enable people to do stuff for themselves.

Tamara Shoemaker

I want to thank you for doing this Allen. This is wonderful it's always really 00:38:10

really good to talk to you. It's always good to have your feedback on the 00:38:15

growth in Michigan here and ideas and tips and all that kind of good stuff.

And you know it even though we've having difficulties with the time 00:38:23

differences in all the bandwidth being used right now. I appreciate you 00:38:31

taking the time to share this with us.

Allen Stubblefield

You're very welcome. It was fun. 00:38:34

Tamara Shoemaker

I hope you enjoyed this talk with Allen Stubblefield one of the top 00:38:35

coaches in the country as much as I did. It was a great discussion and I 00:38:42

hope you'll return again for me when I cast. Thank you. 00:38:46