

122: Safer Screens: Using VR to Help Students Confront Cyberbullying

LINDSEY WHISSEL FENTON: Welcome to 12 degrees. I'm Lindsey Whissel Fenton. When we talk about digital wellness, we often think about things like screen time, social media habits, maybe even blue light and sleep. But digital wellness is also about safety, empathy, and how we treat each other in virtual spaces. In this episode, I'm talking with Joseph Squillace, an associate teaching professor of cyber security at Penn State. He's leading a team that just received a \$1.78 million grant from the Department of Justice to tackle school based cyber bullying using virtual reality. Joseph, thanks for being here.

JOSEPH SQUILLACE: Thank you.

LINDSEY WHISSEL FENTON: You and your team recently received a grant from the Department of Justice's Stop School Violence program. What will this funding allow you to do?

JOSEPH SQUILLACE: The idea behind the grant is to address the ongoing problem of cyber bullying within the high school and the adolescent age children. We're trying to combat that problem in a way that hasn't been done before. So, we're looking at this from an approach using augmented reality and virtual reality. And what we're going to do is create virtual simulations of cyber bullying events and attacks using a meta quest headset and provide this training to students in a safe space where they can be exposed to bullying behavior in a virtual environment so they can learn to deal with it before it happens in real life.

LINDSEY WHISSEL FENTON: When you say they're being exposed to it, is it like a first-person simulation where they themselves are being bullied? Or are they witnessing bullying of other people to sort of as a bystander?

JOSEPH SQUILLACE: you mentioned. Are they going to get bullied? Yes, 100%. When they come to the lab, they're going to put on the headset, and we're going to run this scenario in this virtual space without actually having to do that trauma in real life. And so, one of the things that's challenging as an adult in this space is we don't know what kids are exposed to. So, we're going to use statistical data that is provided through the State Department through the PA system. So, the PACE system or the PACE data system is basically a survey that goes out to every school, and every kid takes it in grades six, eight, ten, 12. And they take that that says, are you being bullied? Behavioral problems? How is your home life, etc. so whatever they are telling us through the survey data, we're going to be able to assess how best to recreate that in a virtual environment. And so, they may see bullying as another scenario. Or they may be part of, let's say, someone being extremely racist or homophobic or something similar, or making fun of somebody because of how they dress or how they look. If you've never been exposed to that, that's quite traumatic. And a lot of times we get caught up in this behavioral response where we just freeze and we don't know what to do. So that way, not only can they feel what it's like to be bullied. Now they can have the tools and abilities to help that student that's getting bullied and learn how to do it safely and properly.

LINDSEY WHISSEL FENTON: I love this dual perspective idea, and it sounds like from both perspectives, students will be gaining skills and strategies and that exposure. So, as you said,

122: Safer Screens: Using VR to Help Students Confront Cyberbullying

they're not freezing the first time they encounter this. I would also think nurturing empathy would be an important part of this project.

JOSEPH SQUILLACE: 100%. And the thing is, it's not just with the students. We're also going to be involved in school administration, the teaching staff, as well as local police and security resource officers. And the reason is they're all tied together with this problem. If you have teachers that are witnessing this behavior but don't know it's bullying, they're not going to empathize with the student getting bullied because they can't even recognize the pattern of behavior as a bullying situation.

LINDSEY WHISSEL FENTON: Can you give an example of a behavior that often gets written off as like a kid's being kids thing that does actually qualify meet the criteria of cyber bullying?

JOSEPH SQUILLACE: Of course. So as silly as it sounds, let's say you do your homework early. You show up early for class, and you ask questions during class. So now you're a nerd. You know you're not a cool kid. Nobody does their homework on time. You're making the rest of us look bad. Another example is a student that may be from a less fortunate family. Financially gets the benefit of maybe mom or dad or grandma or somebody buying them in, let's say a sports jersey, you know, come off the rack at Target or Marshall's. That would be a leftover. And maybe that player isn't LeBron James. And so now they get made fun of because they have a jersey of a guy that rides the bench where they're just trying to wear a jersey like all the other cool kids at school show up in sports jerseys. Now they get made fun of because the guy that they're wearing isn't as cool as the other athletes. And so those are examples that happen all the time where the teachers, for whatever reason, just kind of blow it off, right? Because the teachers don't know it's bullying. They don't understand the seriousness of it. They're not looking long term at the science and the data and the research that shows what that person's going through, repeatedly getting made fun of, repeatedly told they're a loser. Time after time after time after time. At 15 years old, that trauma builds exponentially to the point where their self-esteem is zero. They lash out, or they just stop coming to school, they withdraw. They become isolated. All because of the name on the back of their jersey. And a lot of times, the bullies don't even know the damage they're doing as well. Right? They're making fun of somebody because they're trying to fit in. So, the bullies don't know the behavior they're doing is causing harm. The teachers can't recognize it. The students can't stick up for themselves. And this entire complex situation after years of occurring, ends up, unfortunately, sometimes with either self-harm, suicide, violence within the community, or school shootings where a lot of people get hurt over nothing that started with something so silly and trivial as a person's jersey.

LINDSEY WHISSEL FENTON: There are two things that came up for me that I want to ask you about, and what you just shared. The first being, what do we know about who is engaging in cyberbullying or why they're engaging in cyberbullying?

JOSEPH SQUILLACE: I think part of the reason this continues to get funding as a problem is because we don't really know right now. Right. We're still trying to figure it out. For a long time, science thought that if you were a child and you witnessed your parents abusing each other,

122: Safer Screens: Using VR to Help Students Confront Cyberbullying

that you figured, okay, that was normal, and then that person would grow up and go abuse their partner? That's not true science is that has nothing to do with it. So, we're kind of relearning and going back to the data that says, okay, why are they becoming a bully? So, part of the research and part of the research team that I'm linked up with is we're looking at the end of students that are causing the bullying behavior from the start. A couple of things that we're realizing is one, it's hard to predict who's going to be a bully, because sometimes we find that a student that's a straight-A student that's going to get 15, 1600s and SATs and go to Harvard, let's say, or Penn State for or benefit. They are highly likely to go home and be a bully as a stress reliever because they're so tightly wound trying to impress mom and school and teachers and the coach that they have to vent somewhere. So, they create this personality online and be everything they can't be in real life. Another person that becomes a bully is, let's say, like an athlete that has all that pressure to compete, to succeed, to excel. They have to vent somewhere. They can't pick on somebody in real life because then they lose their scholarship. Then the community looks down on them. We also find people that just never fit in. These are students that never really find their way, and so they can find a collective one line. Being somebody that they want to be, that they can't be in real life. In the same token. The other part of it is we have to get more community engaged, and these are identifiable antecedents that are leading to behaviors that tend to push people in line. So, for example, if a student doesn't have anything to do after school, this student either goes and does something on their own within the community, or they go home. So, if this student is sitting at home alone, what are they going to do with their time? And most likely they're going to go online in some capacity, even if it's just to waste time. Go on YouTube, go on Reddit or whatever. They're going to slowly start spending more and more time just because there's nothing to do. And so, within the community, we have to have more things set up for students to do. We have to have afterschool programs when parents are working. There's no place is a lot of times for these students to go, and especially within a rural community, there's certainly no infrastructure for them to get there. So, these kids, they have nothing to do. That's a lot of time for kids to find trouble.

LINDSEY WHISSEL FENTON: A couple times you've mentioned rural settings, different socioeconomic status and how that can play into this. It has me wondering tech like VR or augmented reality can sometimes feel out of reach for under-resourced schools. How are you thinking about access and equity and potential to scale this program?

JOSEPH SQUILLACE: Yeah, and that's a great question. And so, one of the things we do find challenging, even within the cyber space, is that equity access, one of the big things we're pushing with the augmentation of AI into different parts of what we're doing. There's a lot of funding from federal resources, state, local and government funding to where you can request grants and you can have more consistent funding to supply some of this equipment training. The main goal from our grant is to create a turnkey system of cyberbullying, training and preventive measures, and what we'd like to do as we progress. Like I said, when we do these scenarios and these different measures in training, we get feedback. We're going to change it, give it again, get feedback, change it, give it again. And we're going to work with the resource officer, the local police. When all of this kind of comes together, what we hope to develop is

122: Safer Screens: Using VR to Help Students Confront Cyberbullying

this training program that provides the resources that students need, provides anonymous outlets for them to reach out to people. So, if they are getting bullied, they can feel comfortable and confident and safely reach out to somebody in real time. We're going to provide the resources for the SROs, the teaching, the administrators and the students that exist. Even when the grant's done, we're going to provide physical resources. So, they have pamphlets. They have papers also digitally. So, they have a website where they can go and keep up to date, and maybe even have a chat type system to where they can talk with other people that have maybe been bullied or in real time, they can talk about it in this way. And lastly, we hope to have the equipment set up to where even if they get maybe 4 or 5 headsets with a computer, that the students can go pop in on their own with a teacher that's trained and give them a scenario that's been developed because we know that scenario works. The idea being, of course, that this is all ready, almost turnkey. So, to give to the school and the idea being at the end of this, we're going to then request further funding to implement it in another school district to find similar success. Once we can show it successfully that way, then we're hoping to do a policy change at the state level and say, this is how the state of Pennsylvania is going to combat cyber bullying with this system. At that point, we do a rollout throughout the state. That's an initiative from Harrisburg that gives the schools that are underserved that money, not through a grant that they have to apply for. The state would just give it to them. So, I do think there's a path. Of getting funding for an entire state roll out of this nature.

LINDSEY WHISSEL FENTON: When we hear the term cyber bullying, it often is something we think of as a kid problem. But the reality is this does happen to adults too. We just have different names for it, you know, trolling, online harassment. Do you see this project being something that could be adapted for use beyond middle school or high school? You know, for example, in workplaces or other online communities?

JOSEPH SQUILLACE: Yeah. And so that's a that's a good question. And you're right, it absolutely continues into adult life. Like you said, it's just a different name of what we're calling it. If we have a successful program, the nice thing about the scenario development is all you have to do is change the scenario. The pedagogy behind what we're doing will be able to be replicated at the adult age, as it is at the adolescent age. The foundation of what we're learning is the same. You just have to curate that specific scenario based on your individual needs.

LINDSEY WHISSEL FENTON: For educators or parents or anybody concerned about cyber bullying or online cruelty. What's one action you'd encourage them to take today?

JOSEPH SQUILLACE: Monitor their online activity and not be like Snoop. But I mean, just talk to them about what they're doing. Rapid cases. They're using what's on Reddit, what's on TikTok, things like this. Let them know the dangers that exist, because most of the time they don't know. Then trust your child saying, hey, we'll give you the tools, do the right thing, and be careful when you're online to follow up on what I thought was going to be my last question.

LINDSEY WHISSEL FENTON: What advice would you give to adults with a child or teen in their life who they think or know may be the one doing the cyberbullying?

122: Safer Screens: Using VR to Help Students Confront Cyberbullying

JOSEPH SQUILLACE: That's a great question, because part of this training and the realization that hits a lot of people, is that we are bullies. And most people, it's because we didn't realize and nobody taught us or be trained us. And so, you're kind of giving an out to say, you know what? Sometimes we don't realize that these behaviors nowadays can have long term effects, right. So, we have to be careful about how we talk to people, because eventually these people either cause violence within the community, because violence within the school system, or best case, they don't do either of those things, but they become sheltered from society for the rest of their life. They don't go on to get good jobs. They don't interact with community. They just isolate. They withdraw for the rest of their existence because of a bullying exposure in high school that never got fixed. And so, when you explain it, I think without yelling at them and having them come to their own realization that this is harmful to people, they're able to adjust their actions because they want to, not because you told them to. Because as parents, all we can hope for is that when you give them the tools, when it's time, they'll do the right thing. So, the goal is not only to be able to teach them and give them the tools if they become bullied, but also the ability to stop bullying and the perspective to see bullying and the confidence to step in and say, you know what? This is bullying. Let's knock it off.

LINDSEY WHISSEL FENTON: Joseph, thank you so much for this conversation.

JOSEPH SQUILLACE: Yes, of course, it's my pleasure.

LINDSEY WHISSEL FENTON: That was Joseph's Squillace, an associate teaching professor of cybersecurity at Penn State, talking about research that uses VR to address school based cyber bullying. I'm Lindsay Whissel Fenton. *12 Degrees* is produced by WPSU in collaboration with the Penn State Ross and Carol Nese College of Nursing. This podcast is intended for informational purposes only and is not intended to be a substitute for medical advice, diagnosis or treatment. Always seek the advice of your physician or other qualified health care provider with any questions you may have regarding a medical or mental health condition. Please consult your physician or other qualified health care provider immediately if you are experiencing any suicidal thoughts. If you're in crisis, help is available for free 24 over seven in the US by calling or texting The Suicide and Crisis Lifeline at 988. More information is available at 988. Lifeline.org.

[END OF TRANSCRIPT]