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## EPISODE 122: JENNIFER ENGELHARDT & SCOTT TROXELL - VIRTUAL REALITY AT WORK

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Ken White

From William & Mary in Williamsburg, Virginia, this is Leadership & Business. The podcast that brings you the latest and best thinking from today's business leaders from across the world. We share the strategies, tactics, and information that can make you a more effective leader, communicator, and professional. I'm your host Ken White. Thanks for listening. Virtual reality. While many of us think of video games when we hear the term. VR has evolved, especially in terms of its use in the workplace, where its impact on productivity is significant. Organizations and sectors employ virtual reality to, among other things, improve people's mental, physical, and financial health. While VR is helping employees, it's having a positive effect on the bottom line too. Two professionals on the leading edge of virtual reality join us on the podcast today. Jennifer Engelhardt is a principal with EY, and Scott Troxell is CEO of Virtuuous Reality. They're with us today to talk about the ways virtual reality is becoming commonplace at work and beyond. Here's our discussion with EY's Jennifer Engelhardt and Virtuuous Reality's Scott Troxell.

Ken White

Jennifer, Scott, thank you very much for being here. It's great to have you here.

Jennifer Engelhardt

Absolutely.

Scott Troxell

Thanks, so glad to be here.

Ken White

And Jennifer, you're a two-timer now. Right.

Jennifer Engelhardt

I am. I am indeed.

Ken White

This is the second time, yeah. It's great to have you here. We'll start with you, virtual reality, when you're at cocktail parties in the neighborhood, and people ask you what it is. How do you define it?

Jennifer Engelhardt

You know at its most simplest form I think it's a computer-generated environment and it can be used. I mean I think when people think about it, they think about their kids down in the basement you know playing video games which in fact it does quite well. But when we think about in the context of improving patient outcomes or improving even your financial results, it really can help with everything from helping soldiers and veterans with PTSD and suicide prevention. You know 22 veterans kill themselves every day. So how can we use virtual reality as a means to help them cope with those traumatic you know those traumatic memories all the way to the corporate side. When we look at financial wellness, physical wellness, and emotional wellness and how those wellness factors can contribute to financial results.

Ken White

Scott, what do you do in this space? You and your company, what do you, what's your role?

Scott Troxell

Well, I would just add to what Jennifer saying. Like one of the neat things that virtual reality for me is the immersive nature of it. So with virtual reality, you are actually in the scene. So you know you watch TV, or you go to a play there is either a frame or a proscenium arch. When you go into virtual reality, you put on this headset, and you can look up, look down, left, right, all around, spin around in your chair, and you are in a completely new environment. You are no longer in whatever room you were in when you donned that headset, and you are now on a moonlit hillside or on a beach somewhere in Tahiti.

Ken White

It's a great way to describe it for someone who hasn't experienced it because of the headset that you put on you are really there.

Scott Troxell

That is, and that's the magic of it for me.

Ken White

Yeah.

Scott Troxell

And it's, and it's an auditory experience as well. You're surrounded you're if you're on that moonlit hillside you're hearing the crickets chirping all around you, you hear an owl off in the distance hooting in a while. And interestingly, you turn in your chair that owl stays in that same space. There's ambisonic sound, and I won't go too technical, but that segue way is to your question about what we're doing with breathr. The company is called Virtuous Reality cause we're using virtual reality to help people live a more virtuous reality and be stronger and more resilient. Breathr is just what it sounds like. It gives you an opportunity to take a breather go into VR, slip on this headset in the midst of your busy day and be whisked away to a serene, tranquil environment where you can sit and just take a breather, or meditate, practice mindfulness, prayer, whatever you want to bring to it. You're in this immersive environment, and it becomes a mini-vacation in the middle of your busy day.

Ken White

Yeah, and it's I think you almost have to try it to really get it, right.

Scott Troxell

Yes.

Ken White

Because it is truly immersive when you have the headset on.

Scott Troxell

Yeah.

Ken White

I mean, you're there.

Scott Troxell

You can talk about it till you're blue in the face. It's one of these new technologies that until you do it, I'll tell you all about it, and then when you put it on and try it the first time people say wow oh look over there, look down here, I can oh this is amazing.

Ken White

Yeah. So it is so new. How do you get into this?

Scott Troxell

It's well interestingly I've always been into meditation and mindfulness, and it's something that I wanted to be able to bring and share with the world. I feel like there's just so much stress and anxiety in the world today, in business, in the military, veterans, students here at William & Mary, and elsewhere there's a lot of anxiety and pressure. And I wanted people to be able to experience what I experience and how can I get to it. My partner and co-founder, John Harrington, was doing work with the National Library of Medicine and doing work in virtual reality. Where he was creating genome strings so that they could actually go down into ultimate subatomic levels and play with the human genome. And he said, have you tried virtual reality? You've got to try it. I did it. I've found myself attracted to this one app where it took me to a mountain top in the Cascades somewhere and Ken as soon as I was there, and I'm looking around having that experience I just described, and I said I just want to sit down and meditate. And in fact, I sent him away, and I did I spent like 15 minutes meditating, and I was able to go deeper faster by virtue of just blocking out my environment and being in that space. And I came out of that, and that was the epiphany moment, I went to John and said we've got to bring this to the world. My hypothesis was that it helped me go deeper faster, but I really thought people who didn't meditate and who hadn't done it before and maybe having a hard time getting into that. This was going to help them be able to experience real meditation the first time out, and so we built it. It took a year, and the hypothesis bore out. People love it. It's working for them, and they want more.

Ken White

And it's a heck of an alternative to a 10-minute walk right outside the office or down the hall, isn't it?

Scott Troxell

Yes, it is.

Ken White

Wow.

Scott Troxell

And it's like the equivalent of you know you ever go on. When's the last time you had a vacation?

Ken White

Yeah. Right exactly.

Scott Troxell

Where did you go? How did you feel afterwards? Come back feeling recharged and refocused?

Ken White

Absolutely.

Scott Troxell

Well yeah, do that in five minutes at the office.

Ken White

Jennifer, what are you doing in this space at work?

Jennifer Engelhardt

So we are looking at wellness from those few perspectives that I mentioned before. I think, historically, companies have really focused on physical wellness.

Ken White

Right.

Jennifer Engelhardt

So you've seen the rise. Like if you look at HR, you see the rise in pay gym memberships and things like that. Financial wellness so people who are financially stressed, you know any sort of stress or anxiety can limit productivity and creativity. So for example, when I joined EY, I was given a financial advisor that helps me not only with my own professional needs, being in a privately held company partnership, but also with my other financial needs. And then the one that's the newest one that's out there is around emotional wellness, and that's exactly what Scott's company brings to the table. It's really about helping people to get to anywhere wherever they are on that on that spectrum of mental health. So it could be all the way down with like veterans all the way to students to people who just need to recharge. If you think about everybody knows where they were on 9/11. I don't think I had like a normal workday for at least four weeks after that. So how can we quickly get people back to a mental place where they're not just getting by but they're really functioning, and they're being creative, you can not be creative and innovative if you're stressed and anxious.

Ken White

Right.

Jennifer Engelhardt

And so the research has shown us that when we have wellness and all in all three categories, we are more creative, more productive, we're more innovative. And so that's what I'm helping companies with.

Ken White

Yeah, that's so key that you said stress limits creativity and productivity. I don't think we think much about that.

Jennifer Engelhardt

Yes.

Ken White

You know we push on through. Just get her done. Right. I don't think we think a whole lot about that. Give us an example of an organization doing something in the space that you think is just terrific.

Jennifer Engelhardt

So it runs the gamut, so I have one client who's using VR for onboarding. And so when you go into their New York office, they're a global pharmaceutical company, when you go into the New York office, they allow you depending on which office you are to do a virtual tour of that office. They allow people to explore different career paths using virtual reality. So it's almost like a mixture of the VR and then the gaming component, so you make certain decisions. It's actually a very simple decision tree, and based on those decisions, you can go into different departments and meet some of the mentors, all virtually, and then all the way to things like business resiliency. So working with another client to they're preparing for things like you know God forbid an active shooter. How do we quickly get the EMT teams back to the place where they can function again after a traumatic event? How can we also simulate to a new employee? These are the I was talking to a business resiliency officer. They did a study about how many people walked past the closest exit for a fire. You don't really think about that until it actually happens.

Ken White

Right.

Jennifer Engelhardt

And we need to be prepared for those things. So there's so many different applications. I mean, in my own personal life, my daughter was my daughter's a teenager she was having an existential crisis the other night. Over I don't know Lululemon shorts or something. And John had let me borrow the breathr, and I said go upstairs take a bath I'll make you some

tea put the breathr on. She goes, Mom; I'm not gonna do that, I said, try it. So she sits and sits down five minutes later she's just you know she doesn't want to give it back. So it can really help people you know just relax, and then also there's so many different applications you can have people who are afraid of public speaking. A lot of people. You can be in a simulated environment where you have 200 avatars staring at you. Some of them are sleeping, some of them are bored, checking their watches, some are listening intently. You know so that you can practice that and overcome those anxieties to get you to a better place to be more productive, innovative, creative.

### Ken White

We'll continue our discussion with Jennifer Engelhardt and Scott Troxell in just a minute. Our podcast is brought to you by the Center for Corporate Education at William & Mary's School of Business. If you are looking to raise your game and give your career a boost. The Center for Corporate Education is hosting the Certificate in Business Management program from October 21st to the 25th here at William & Mary. In the five day program, each day is devoted to one important business topic, including communication, managerial accounting, business strategy, operational effectiveness, and leadership. The program is taught by William & Mary's MBA faculty. The faculty ranked number one in the nation by Bloomberg Businessweek. To learn more, visit our website at [wmleadership.com](http://wmleadership.com). Now back to our conversation on virtual reality in the workplace with Jennifer Engelhardt and Scott Troxell.

### Ken White

Scott, we're seeing a lot in the military space as well. What can you tell us about some of the things that how military are using and veterans and first responders?

### Scott Troxell

Yeah, and the well military, it's interesting you say because they are largely responsible for virtual reality being where it is today. Because they were the early adopters, and they had the big bucks to throw at it 30 40 years ago. I mean, it really started with flight simulators in World War 2. Where the very first sort of virtual reality machines when they had to train thousands of people to be able to fly the planes and continuing throughout. They use it for training so that you can go into different scenarios without having to have live ordnance and big spaces and teamwork and that sort of thing. And now they're using it for things like treating PTSD, TBI, Post-Traumatic Stress. One of the things they use for immersion therapy so they will recreate the scene where you had your trauma. And so by its one thing that therapists do that help you imagine being back in that scenario and knowing that you're safe and nothing's going to happen so that you don't keep replaying that video in your head.

Ken White

Right.

Scott Troxell

Is what's happening. So they'll recreate that in, put you actually in the Humvee in VR so they can experience and know you're going to come out okay. There's interestingly there's a study that's been done where they compared that with mindfulness training and meditation because for a lot of military they don't want to go and do that reversion therapy.

Ken White

Sure.

Scott Troxell

Go back and experience that again for understandable reasons. They found meditation and mindfulness techniques was to be equally beneficial. And so what we're doing with the VR and that goes to post-traumatic stress. But it also affects stress, anxiety, all of that. A lot of these things you have probably heard this the answer or an answer tends to be meditation and mindfulness can really help with that. Problem with that is not everyone; a lot of people feel like I can't just sit and meditate for five. I can't close my eyes and stop my mind and think about nothing, which is not really what it is. You're just not engaging with your thoughts. But that's another whole story. But so what VR does and what I'm bringing to it is that by blocking out those distractions and giving you a cool new environment to focus on helps people go in and experience and get to that mindfulness and meditation and let it do its work in the workplace, in the military, veterans, students.

Jennifer Engelhardt

And to level that point on the veterans, there's a company that's made a simulator that includes VR, and it also includes the smells like after an IED exploded and the vibrations. So they created this environment called Virtual Iraq, and it is very real, and it's actually pretty controversial. I mean the immersion therapy. You're right. Every patient has a different needs a different therapy. But the idea is when they are in that environment, and it's very very real then they're sometimes they're walking on a treadmill with you know with the VR set on you know the idea is that when they're immersed in that and walking through that with a therapist in the room. They are desensitizing themselves to that stressor. So there are so many fantastic applications to human health outcomes to you know just corporate outcomes you know the bottom line just there are so many possibilities out there that VR will bring us as a society and as you know as corporate citizens as well.



Scott Troxell

And you make me think of an interesting point about VR that we haven't touched on yet. And just when you're talking about haptics and that's the other sensations besides video and audio. Feeling it and it feels very real when Jennifer says that you can't like overstate that. It's a neat thing about VR when you recall your experience in virtual reality. You recall it as if you were actually there. So, in other words, your brain does not distinguish between virtual reality and actual reality.

Ken White

Right.

Scott Troxell

So you're actually creating those memories, and from the early days of people, you know they put on the VR headset, and you stand them up on the edge of a cliff. They know they're in a room, and there's a floor in front of them, but they will not step off that cliff in VR.

Ken White

Yeah, there is something about the headset. Like you said early five minutes, what can possibly happen to me in five minutes come on.

Scott Troxell

Yeah.

Ken White

Until you try it. I think you have to try it.

Jennifer Engelhardt

Yes.

Ken White

Actually, to truly experience it cause it is hard to just put into words, so it is you are somewhere else. You know when you have that on what you mentioned bottom line Jennifer, what are companies and organizations seeing, or are they? What kind of benefits?

Jennifer Engelhardt

Well, the benefits are so significant that there are companies out there that are paying their employees or offering different incentives to get them to get to have better physical,

financial, and emotional wellness. The insurance company Aetna for example. I'm wearing a Fitbit and tells me how much I sleep every night, which is sometimes depressing.

Ken White

Right.

Jennifer Engelhardt

But Aetna pays their employees for getting a certain amount of sleep every work night. And the idea being that better-rested employees are more productive employees and so they can earn up to I think 300 dollars a year if they are recording seven hours of sleep per night. So that's I find that very fascinating, and then they're investing a lot more in things like we have a program at EY called EY assist and if you have any sort of crisis or need some medical, mental health assistance that is all there. But companies are investing in that very very heavily, and it's becoming an area that we're spending a lot of time in our consulting world.

Ken White

Scott, a manager a leader who's not, does not have VR in the organization. What advice do you have for that leader that manager at this point?

Scott Troxell

I'd say it's time to get up with the times and you may have when you hear about VR, you may hear that it's the next big thing. And then it's not, and then it's the next big thing, and then it's not. People are referring to the consumer market, and as Jennifer mentioned earlier, it hasn't taken off with the gamers and the gaming, which is what the first thing I think a lot of people think of in terms of VR. But the real power of it and the real applications are in some of the things that Jennifer mentioned with training and treatment. And then especially also in mindfulness and meditation and the things we're bringing to it. It is the way of for future. It's not going away, and it's time to get on board.

Ken White

That's our conversation with Jennifer Engelhardt of EY and Scott Troxell of Virtuous Reality. And that's our podcast for this week. Leadership & Business is brought to you by the Center for Corporate Education at the William & Mary School of Business. The Center for Corporate Education is offering its Certificate in Business Management program later this month. It's taught by the William & Mary MBA faculty ranked number one in the nation by Bloomberg Businessweek. For information regarding that and our other programs, visit our website at [wmleadership.com](http://wmleadership.com). Finally, we'd love to hear from you regarding the podcast. We invite you to share your ideas, questions, and thoughts with us by emailing us at [podcast@wm.edu](mailto:podcast@wm.edu). Thanks to our guests this week, Jennifer Engelhardt and Scott

Troxell, thanks to you for joining us. I'm Ken White. Till next time have a safe, happy, and productive week.