

Inside Stories: Virtual Healing Transcript

Scott Simmie: Hey there. I am so happy to see you again. I'd say we have to stop meeting like this, but let's face it, this is the only way that we meet. Plus I've become quite fond of these weekly get togethers. I'm Scott Simmie and today on Inside Stories, something a little unusual. Something that could give you a little escape, perhaps even a little mental vacation without ever leaving home. Joining me today is Sarah Hill. Now Sarah lives in Columbia, Missouri, which is also known as the Silicon Prairie, which I just learned a minute ago. Sarah, thanks so much for joining me today.

Sarah Hill: Absolutely, it's great to be here. We're located in between St. Louis and Kansas City, and some people even call it the Silicorn Prairie.

Scott Simmie: Aha, I get it. Listen, I am really curious to have you tell everyone what it is you do because you have a really fascinating job, I think.

Sarah Hill: Well, thank you. We certainly think so. I'm the CEO of Healium. It's a virtual and augmented reality product that's powered by your wearable data, the data that comes from your wearables for stress management. And essentially we are harnessing the power of the body's electricity in order to heal virtual worlds.

Scott Simmie: Now that sounds really interesting, but I'm sure there are a lot of people out there who heard that and they would think, "Well, what does that mean? How does it work? What do you do?"

Sarah Hill: Yeah, essentially it's stress management and I'm a storyteller. My background is as a television journalist. Spent more than 20 years in broadcast journalist, telling stories all the way around the world in different countries. We covered a lot of trauma and ultimately the media diet that I had chosen to consume then made me sick and so I developed Healium for me, as well as the millions of other people who struggle with anxiety. But at our core we're storytellers, a game designer, developers, neurofeedback specialists, clinicians, and sales, marketing, all of the great talent that goes into building a company, we have right here at Healium.

Scott Simmie: How does it work? If I want to try Healium, what do I do?

Sarah Hill: You can use it either with virtual reality goggles or without, and you can go to our website at tryhealium.com. You can get a free trial or you can purchase a subscription. And essentially either with your mobile device or with your virtual reality goggles, you can use your Apple watch for heart rate, or you can use a BrainLink Lite EEG headband for brain patterns, and you can use that biometric data in order to transform some of these virtual worlds. Healium is also in a variety of enterprises all around the world from workplaces and some hospitals for compassion fatigue for nurses and physician burnout. Specifically now in the wake of COVID, we're in a mental health emergency. And this is a drugless solution, a non-harmful coping mechanism that takes you somewhere else instantly. It also is a mental fitness tool so that you can train those feelings, so that when you do get in a stressful situation, you're better able to respond. And much like riding a bike or training with a dumbbell, you might think of Healium like a weight training in a way. Your brain is definitely a muscle and you can strengthen it. And these are self-awareness tools that allows the user to become more self-aware of their own mind-body connection and their ability to control it.

Scott Simmie: Let's imagine that I have a headband on that is measuring some of my brainwaves and I have my goggles on, what might I see? Just walk me through what this experience would be like.

Sarah Hill: Right, there are 30 different experiences on our platform and every 60 days we add a new piece of content. These are beautiful picturesque and nature-based landscapes, either in 360 degree

stereoscopic video or built inside a game engine. A waterfall, a nebula in space, a snow globe, a cabin in the woods, a fractal animation. It's all meant to be beautiful and take you someplace else for the moment and also too, to personify what has historically been unseen in the body. With all of the wearables that we have on our bodies tracking data on a 2D data dashboard, Healium is something that allows you to see that data and have a relationship with it. So in augmented reality just on your mobile device, you'll see holograms. These are like 3D objects, much like on a Snapchat or Pokémon Go, through your phone it's 3D objects superimposed over the real world, that you then have the ability to control with the data that comes from your wearable anywhere. But we don't make the wearables by the way, it's B-Y-O-W, bring your own wearable, and you can control the screen. Then in virtual reality, you can get an Oculus Go, an Oculus Quest. In the future we'll be on Pico Goblin, Vive, HP, PlayStation, all of those headsets. And you get a Healium subscription, or you subscribe to our free trial and then you're able to learn a little bit more about your thoughts and feelings. You can use it not only just for yourself, but for your family as well. So you get a subscription and you can use it for your son or your daughter, things like that.

Scott Simmie: My understanding here, and this is based also on watching some videos of your products in the past. My understanding is that if I am able to train myself to relax, for example, that I might see a difference in what is being displayed in front of me, based on my brainwave, or my breathing, or my pulse. Is that an accurate way of describing this? The one that I keep seeing pop up is butterflies, so what might happen with that if I'm seeing butterflies in my goggles?

Sarah Hill: Yeah. The butterfly experience is actually in augmented reality on your phone, but it's the same concept. If you lower your heart rate and you see your heart rate displayed as a wave form on the screen, or it's a glowing light inside virtual reality. But if you lower your heart rate, or if you quiet your mind, another protocol that you can use is increasing your focus. But if you do that, then the environment responds and so butterflies will hatch out of a chrysalis. The planets will illuminate, the screen, the color, the texture, the sound on the screen will change in some way and that's your feedback. If you're not meeting that mark via the threshold that you've set for yourself, then the screen will turn red, or it will slowly dim as a gentle nudge that, "Hey, you dipped below that threshold that was set as your baseline."

So yeah, just basically gentle nudges and that's the feedback that you get from using Healium. Unlike a traditional Headspace or Calm or any other meditation app that you might use, instead of being in the back seat and passively watching those experiences pass by you, you're actually in the front seat, powering those experiences. You have agency, you have control over those worlds and you are learning very quickly what you need to think about in order to make that vehicle go forward. So you might think about it, Healium is kind of a combined flight simulator, half meditation platform, half media channel.

Scott Simmie: Now I'm someone who has traditionally a busy mind and I have tried taking meditation classes, I think probably about three times. I'm the guy that's always sitting there in the circle when everyone else is looking zenned out and blissful, the guy who's going, "Why can't I make my brain shut up? Why aren't I looking and feeling relaxed like everyone else?" Is this a difficult thing to do? Can anyone learn how to do this?

Sarah Hill: I wouldn't say everyone has the ability to learn because I'm not familiar with all of their abilities or also limitations, or certainly disabilities as well. It is a learning process and I'm the same way in that sometimes when I close my eyes, I see nothing. They're like, "Close your eyes and imagine a beautiful stream," well I see nothing. Some people are like that and some people have a really excellent mind-body connection. When they were handing that out, they didn't give it to me either and a lot of people are that. And you will find on Healium, this is not a traditional meditation platform. It's almost

anti-meditation. We call it neuro meditation in a way, because you are using different brain patterns, but it goes against the norm of what you might experience in a traditional meditative platform.

For instance, there's EDM, there's dance music on there and there's some cross training where you have to try to quiet your mind amongst some of this chaos. That training is helpful because the situations that you might encounter in your life aren't all going to be rainbows and beautiful streams, right? Especially now, when we've all been through the pandemic, our worlds are rocked and that cross training can be helpful for people. Not everyone wants to have the same kinds of calming music with soothing voices and all of that, and this is an alternative.

Scott Simmie: I have kind of kept an eye from a distance here in Canada, on Healium for probably about three years. And I know from watching your development into a business really, that there was a phase when often Healium was involved with going, for example, and meeting with veterans, and sharing some scenes that would help them maybe trigger memories, or take them back to specific places. Can you tell me about what you were doing there and what the results were like?

Sarah Hill: Yeah, absolutely. So Honor Everywhere is still alive today. It's a free virtual and augmented reality app that takes aging and terminally ill veterans and their families to virtually visit their memorials. So Honor Flight is a wonderful program that everyone should know about. If you go to honorflight.org, you can learn more about the hub in your area, but it flies veterans on free physical flights to see their memorials. Sadly in the wake of the pandemic, and sadly even before the pandemic a lot of these men and women weren't physically able to travel. Their bodies were too weak, they were on too much oxygen, or their physician told them that they might pass away if they were to go on some of these flights. So as a technologist, we started asking ourselves, "What can we do on our end to simulate those experiences of an Honor Flight, if they're not able to physically travel?"

And the answer to that was Honor Everywhere and in the early stages of our company, that's how we discovered that VR and AR had therapeutic use cases, was through looking at the reactions of these thousands of veterans who went through Honor Everywhere. There's two ways that you can consume it. Much like Healium is AR and VR, Honor Everywhere is AR and VR. So inside virtual reality goggles, you can go to the World War II, Vietnam, Women's Memorial, the USS Nimitz out on the middle of the Pacific Ocean and be inside some of those environments. You also have the ability to open up a magic portal in your living room, just with your mobile device and augmented reality. And then with your phone, or you can teleport through these magic portals and then on your phone or your tablet, you can move it around the room without goggles and get the sensation that you're in some of these places.

These are virtual tours for people who aren't able to physically travel. So that's our company's social purpose. It is the origins of our company. We didn't want to make a product out of that obviously, these are their memorials, those experiences and stories should absolutely be free forever. No one should have to pay to see the memorials that were built in their honor. So our company adopted Honor Everywhere and so we create the content. We love to collaborate with other content creators. If there's a piece of content that you have that you would like to see on the platform or a place that you would like to visit, we just added the Korean Memorial on the apps as well. But if you'd like more information about that, you can go to honoreverywhere.com, and would encourage you to support your local Honor Flights. Certainly in the pandemic, they are likely struggling for donations and hopefully once we get through this, those vets will be flying again.

Scott Simmie: Now there will be some people listening today who have experienced putting on a VR headset and many people who will not have had that experience. So when you talk about this, taking a person to a Memorial, could you explain what happens when they put that headset on and what they might see?

Sarah Hill: Right, so they're essentially in a bubble of video. They have the ability to look left, right, up and down, and it's as if their point of view is transformed into this particular video. There might be people walking towards them. They're experiencing applause. They're hearing the Rainbow Pool behind them at the World War II Memorial. They're hearing the wind rustle through some of the trees by the Vietnam Memorial. It's essentially a walk in the park for those individuals who can't take a physical walk in the park.

Scott Simmie: Now, veterans in particular, one might think they tend to be older people who might not be as enmeshed with technology as younger people are. Can you tell us what the experience is for some of the people you've witnessed when they put this on and are transported somewhere else?

Sarah Hill: Yeah. If you have a virtual reality headset, you have a powerful tool to share the memorials with a veteran. A lot of family members or siblings, or sons or daughters, they assist the veteran with the headset. Obviously working with a VR headset for an 80 or 90 year old is difficult, so certainly want to get a mentor, an assistant, a nurse, a caregiver, somebody to assist that veteran with the headset. And also too, that you're reading the appropriate safety guidelines for how to use virtual reality with an individual who's aging. So there are on our blog, we have a blog called tryhealium.com/blog. You'll find all of those hygiene and safety recommendations about how to properly give an individual a virtual reality tour.

Scott Simmie: Now you've met lots of people, lots of veterans, and some of those people probably nearing the end of their lives or immobile. I'm wondering if there is a particular experience or moment that has really stuck with you that you could share with us about one person or a couple of people who have experienced this, and what it was like for them?

Sarah Hill: Yeah, absolutely. There are dozens and dozens. Sadly, all of the veterans that we featured in our [inaudible 00:18:03] films passed away, some of them months after we shot that. And I remember one particular veteran who was featured in the film and is no longer with us. His family was able to put on the goggles when we finished the film and see him again for the first time, since he passed away. See him in live 3D inside the goggles and that was a neat moment for us, and also a unique reminder of how powerful this medium can be to allow people to see people in a way that they haven't seen in a long time, and feel certain things. So that was particularly poignant for me.

Also, there was a veteran who, his caretaker, it was his daughter, told us that he wasn't able to lift his arms above his head, and that we would have to put the goggles on his head, which we did. Halfway through that experience though, this veteran had his arms above his head, trying to reach out for the other people who he saw in the video, and that for us was a wonderful moment. It enabled an individual to have some kind of super powers that he and his caretaker didn't know that he had, but he was so motivated to try to reach out for some of the people that he saw. It was also an interesting data point for us of what is it about this medium that is allowing users to do things that they normally, historically haven't been able to do?

Scott Simmie: Part of the reason I wanted to get you on the show is because I've been interested historically in what you're doing. And I certainly see the value of VR and AR being used in this sort of technique. In a world where there are hundreds of thousands, if not millions of apps that are out there all competing for people's dollars, how do you convince people that this is something that's actually serious? This is a real therapeutic tool. This is not just a gimmick.

Sarah Hill: I think you do that with science. Every piece of content that we create, we do biometric testing to see how it affects the brain and the heart, right? Does it quiet their mind? Does it reduce a theta/beta ratio? Does it somehow lower their heart rate? That's data that informs us, but then beyond that, you have external and IRB institutional review board studies that's looking in hundreds of individuals, okay what's happening to those brain patterns and heart rate when you're actually using it?

I think that has value for people. And two, also just telling our stories. Healium is built by a group of people who struggle with anxiety ourselves.

Scott Simmie: I have seen stories where audio, particularly old familiar songs, have helped people with dementia and have brought them right back into the moment. Have you seen any breakthroughs like that or experienced some moments like that with VR?

Sarah Hill: Yeah, not with music and we're not really doing any kind of work at the moment with Alzheimer's patients or something like that. We have no data about Healium's impact on Alzheimer's patients. Although anxiety is a layer in a lot. But media is powerful, audio is powerful and compared to 2D media, virtual and augmented reality are more memorable. It's more emotionally engaging, and this has been documented in a lot of research. For a variety of ways, it makes sense you would put on the goggles, your brain believes what it sees, ultimately. And a lot of us are visual learners.

So the ability to have a story-based narrative that people can remember, they can remember moving out of a dark cave and into the light. They can remember using their feelings to part the clouds and bring on a rainbow. Those are very tangible tools that even when you don't have the goggles, or a wearable, or an Apple watch, or a BrainLink headband, you have created a unique stored memory that you can then go back to.

Scott Simmie: Now those headbands, those Apple watches, other wearables, phones, all of these technologies continue to grow at a really rapid pace in terms of what they're able to do. The question is, do you see this now as kind of a mature technology, what you're doing or do you see all sorts of other potentials around the corner?

Sarah Hill: There are 250 million wearables in the market, right? That's a lot. With Healium, we have 81 million compatible wearables that those wearable users could be using Healium. That's only going to increase, but not just in the form of hardwired wearables. I mean, the technology exists now that you don't even have to have a sensor on you, which is really fascinating, and we're doing some work in that space. Wearable fabrics are upon us and our underwear is going to be lined. These products are already coming out, that it senses your biometric information from your undergarments. So the day is here when wearables are kind of used in quotes because we won't always be having to strap a physical watch to our hand in order to capture our heart rate.

Scott Simmie: Wow, this sound indicates that we are hitting the end of our conversation, and we're going into this rapid fire round where I'm just going to ask you a few short questions and I'm just looking for a few really short answers. Number one, what is the best part about living in Missouri?

Sarah Hill: The best part about living in Missouri is that it has four beautiful seasons.

Scott Simmie: Where would you like to travel via VR that you have not been to yet?

Sarah Hill: I would love to go to Israel.

Scott Simmie: What is the most memorable location where you have filmed VR content?

Sarah Hill: That would be in the Amazon with the Munduruku tribe.

Scott Simmie: Wow.

Sarah Hill: We spent 10 days with the Munduruku tribe in the Amazon. It was amazing, scary, and beautiful all at the same time.

Scott Simmie: Why should someone who has never tried this before give it a shot?

Sarah Hill: Because your thoughts have power to control things, not only in the virtual world, but the real world as well. When it comes to stress, how are you supposed to control what you can't see?

Scott Simmie: What are you really looking forward to doing when this is all over that you cannot currently do?

Sarah Hill: When this podcast is over or when what is over? When my life is over?

Scott Simmie: When the pandemic is over?

Sarah Hill: I will look forward... Oh my gosh, I cannot wait till the pandemic is over because I just want to hug people, right? Just to have some human contact with my friends. I mean, I'm able to hug my husband, but my mother-in-law lives with us and she's in her 80s and right? I mean, it's like you just want to open your arms and have some human contact and not have to worry if we're infecting a person. I know we'll get there, but that will be just a great day when we're able to hug each other again.

Scott Simmie: I think there will be quite a celebration when that finally happens for everyone. Sarah Hill, thank you so much for joining us and sharing your inside story today. It's been fantastic.

Sarah Hill: Well, thank you so much. I appreciate the opportunity to share and keep going in your work too. It's always great to catch up with you, Scott.

Scott Simmie: Thank you so much. In some ways, the pandemic is a great time for virtual reality experiences, especially those that make it feel as if you've been transported to another part of the world. Now, I can't speak for you, but I do not plan on boarding a jet until this thing is over. Of course we don't know when it will be over, but I will tell you this, I can't wait. I'm Scott Simmie and this has been Inside Stories presented by BMO.

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