

Shrink Rap Radio #600 Psychotherapeutic Apps

David Van Nuys: Silja Litven, welcome to Shrink Wrap Radio.

Silja: Thank you so much I having me.

David Van Nuys: I am so very happy to have this opportunity to speak to you because I think you are doing such exciting work. Your kind of one of the spearheads I'd say of developing apps that are related to the whole realm of psychology, particularly psychotherapy. So very cutting edge. you've been attending conferences all the time. You're at a conference right now in Berlin called the Noah conference. I'm not familiar with that. Is Noah an acronym? What is the Noah?

Silja: I don't think so. I think it means it is bringing everybody on board like in the ark. It's all about tech but all the areas of the tech world. Like AI Gore is going to be there, the CEO of Uber, you have transport, you have artificial intelligence, you have mental health. So it's everything in a two-day conference.

David Van Nuys: Noah is probably the appropriate destination because we do seem to be in a flood of change. Our lives are being taken over in some ways by the whole digital revolution if you will. We knew it was coming, we knew it was going to change things but in some way it has come so much faster than we had prepared for. Particularly in terms of legal issues also that the digital world is confronting us with. And also, it's amazing. I was thinking maybe I should have you say it, are you currently enrolled in your doctoral program. You were in a doctoral program in clinical psychology or some other branch?

Silja: Yes, exactly. I am still doing my PhD. If everything goes well by the end of this year, the beginning of next year, I'll finally have it. It's a very bad idea to do your PhD and start a startup at the same time. There's not enough time in the world.

David Van Nuys: I would say so. I am amazed by how much in fact you're doing. And somehow you have created a company called Psych apps. Tell us about Psych Apps and what your vision for the company is down the road?

Silja: Well actually Psych Apps started as my PhD thesis. I wanted to do something a little bit outside of the box. In Germany where I did my Masters, usually when you do your thesis you go to your professor and then you say I would like to do my thesis and he gives to you a project from this pile of projects and then you go into that project.

David Van Nuys: On his research, to carry out his research further, yeah. you're a slave.

Silja: Yes, a slave. You learn a lot what you have to do a lot about an idea that is very interesting but might not be your first choice. I have a bit of a diverse background with my past and so I have this idea that I wanted to do something a little bit outside the box. I know that psychology is very slow and a lot of areas. And I think it is important because it comes with a lot of responsibility. So it's a good to be conservative. But I wanted, like you said, to spearhead it, I wanted to go ahead and try something new. This was about three years ago and at that time the iPhones were getting really big and everyone was on smart phones and apps were becoming a thing. So I thought for the first time in the history of mankind we have a platform that 60% of the population uses and that would be the space that we should offer therapy. And I mean, even three years ago people went to sleep with their phones by their bed. They took the phone with them to the loo. It's like they are always there, it's the ultimate comfort zone. And so I pitched the idea to my professor and said I would like to do an application. I believe that if you do CBT are positive psychology therapy and translated to the digital form you can actually help a lot of people for a lot less money. And he said go for it. I was very lucky to have an open-minded professor.

David Van Nuys: Yeah, really. Here's open-minded professors. I was a professor for 35 years and I tried to be open-minded.

Silja: Yeah, I mean, you're doing this radio show, you're reaching out, you're interested and opened and that's a gift for psychology because that's the whole point. We want to know how people work and the behaviors and everything. So I started out the app and I kept on talking to people and they said I wish I would have had that half a year ago or I would need something like that for my mom. And I looked at the market and at that time there were two or three programs out there; there was the Super Venter, there was The Big White Wall, is web-based. I think there was one more, True Colors in Oxford University college. And so I thought three apps that are basically unknown, people have never heard of Got It, the market is there, mental health or mental illness is on the rise, people are starting to be open for that this is a time to do that. So we did the application and we did it post and pre-evaluation, we did proper testing of a test group and a control group and we proved that using the app on a certain amount of times significantly lowers depression levels. But when I started fundraising and I started speaking to investors we had the problem that we could improve that people stuck to the app. And you can't sell a product or you can't develop a product that people don't stick to. And I thought that I developed an application that just 'sucks'.

David Van Nuys: Is the app that you're talking about EQUOO? Is that how it's pronounced.

Silja: No, that is the new app. And yes you pronounce it perfectly.

David Van Nuys: I just want the audience to know why I wanted the pronunciation because I heard one of your presentations on YouTube and I thought that's interesting. That's easy to say. I was trying to say equoo or something like that. It is spelled equoo.

Silja: We spent a lot of time trying to figure out how to spell it so that it was easy but we didn't really have success with that. When people hear it for the first time they're like yeah of course but sometimes when we see it, what is it supposed to be.

David Van Nuys: Well equoo, that's a concept now psychology and so that's a great name for it. And probably it would have been a problem for you to use exactly the letters EQUOO, it probably would have conflicted with something so I think you came up with a good solution. So I kind of interrupted you, you are talking about the development and that you're moving towards the current app equoo.

Silja: Exactly. And so we have this app and we could prove that it was helping people but people weren't sticking to it. But the best app in the world isn't going to help anyone if people don't stick to it. And so I thought it was my fault, I designed something that was boring or just doesn't do any good. And I went back to the books and I saw that most of all of the digital health products all have a problem with attrition. People don't stick to it. I don't know how many times you have downloaded an app for healthy eating are counting steps and did use it for maybe three or four days and then you kind of forget it. And that is because the brain is wired for social interaction, for novelty, for fun and that's not given with these applications. So to be absolutely honest, the end of 2016, beginning of 2017 I thought we were going to go bust. We wasted a year, we had a product. And then I met Philk Irwin who is head of collision studios. There are proper gaming company in Los Angeles. They have made games like walking dead, game of thrones, scrabble. They have this huge portfolio of games and proper console games.

David Van Nuys: What was the name of the gaming company again?

Silja: It's called collision studios. It's a game development company. And he had been looking for a psychological game for quite a while but none ever matched up. And so we got to talking and within a couple of weeks we had signed a contract, I had to raise 2000 pounds and we were off to making EQUOO, emotional fitness game. And so what we were kind of doing in that startup world is called the pivot. You pivot away from the path you are on and go a different direction. And what I like to say right now is that we are doing a detour because the gaming industry's kind of hacking the brain's reward system to get people addicted to games, right? They want people to come back. And my idea was that you can use all those evil little tricks to actually get people to stick to therapy, digital therapy. And so EQUOO now is a sub clinical game. And that is where we are disruptive because usually disruption begins when you bring to unlikely fields together; digital mental health and gaming which

you would think that actually appointments because gaming isn't really for mental health. But actually if you bring these together you have a new product. And were not just translating face-to-face therapy onto a digital platform. We're creating a new form of therapy that is using games to get people to stick to it.

David Van Nuys: And fortunately you sent me a code that let me go and be a bit of a beta tester clicking all the way through. But I did get to the first level or the second level, I can't recall, and you use a lot of techniques that I know something about. Not in terms of executing them but I'm familiar with the concepts. I should let you know that one of the many hats I wear is a market researcher. And I was particularly interested in getting into technical products. And so I started back in the early 80s doing market research. In one of the companies that I did some work for was electronic arts and also Apple Computer at that time. So I really got my feet wet in a lot of stuff. I was originally going to be an engineer and I saw all the exciting stuff that was beginning to happen our own Digital Products and I thought how could I get into that field. Well a long story, somewhat shorter I did some networking and that led me to somebody who is a market researcher and said hey I want to steer your business towards a technical end and so it has been quite a ride because it gave me kind of a front row toilet of the technology that was developing. And so I just wanted to share that to become background with you.

And so I see that you're using, one of the evil techniques that you're using is what's called a gamification. And right now people are trying to game if I everything. And in the market research world and they are developing products to get people's opinions etc. online and they add gamification to it. People can earn points and levels in little badges and things like that. And I have mixed feelings about that, maybe it is because of my age. But I had to thought out more of what my objection was.

Silja: Maybe that is short-lived and for the moment and it's all about short attention spans.

David Van Nuys: I can see why, it's particularly effective probably and very young people, teenagers and young adults. And I don't know what the literature shows about gamification across a wide variety of products. But for me it feels manipulative, I'm not interested in earning points, I'm not interested in earning little electronic badges and things like that. So for me, I don't think it works although it might work more than am consciously willing to admit.

Silja: I mean, it's interesting to see what works for who and where you get certain people types hope to something that I wouldn't have anticipated. When we designed the app we thought that our target audience would be between 18 and 28 and that was because most of the mobile game players were in that age range and because that is where a lot of the mental in this manifest. But in our beta testers we have about 3500 beta testers in Australia and New Zealand, about 70% of them are men 35+.

David Van Nuys: 35+, so it is older than you were expecting.

Silja: Much older than I expected and we wanted to step away from the blue branding because all of the mental or all of the medical apps are blue. And we said we were going to go into the purple and it turns out that the game looks a little bit more feminine, classically feminine than I had anticipated. So I thought it might be repellents to men but not at all.

David Van Nuys: One of the elements that is being used a lot in various areas as well as your game is storytelling. And I'm doing that in market research as well. But I found it very effective what you're doing. I have not seen that approach used in psychological at before. And so yes, you've got some interesting stories. There is a story of the prince, the kingdom and in the process of this story one is challenged as you move through levels. The levels for your learning have some psychological content. For example, you drew on the work of John Guttman; very important work. I interviewed his wife but couldn't get through to him. But interesting work.

And so I remember the lesson on an emotional bid. And so then you move along to the story of the prince and his kingdom and he needs to rid it of trolls. And somewhere in there you have to recognize that one of the statements that you can choose between is an emotional bid. So that is a psychological concept. I was familiar with that concept but I had kind of forgotten about it and so I didn't mind having that sort of reactivated and maybe I'll learn more at my age. No promises.

Silja: One of the things that I see the app does, the first part of the app is that you learn a skill. So in a way what is therapy, you earn new skill set to be able to deal with adverse mental or emotional situations. So you learn two skill sets and it is in a fun gamified way with little peoples and drawings and stuff like that and multiple-choice. And then you have to use it in choose your own adventure. Your implementing what you've just learned in a situation and we have five different genres. So the first one is Dungeons & Dragons, the next one is sci-fi, then there is an office story and so on and so forth. But the most important part of the game is actually when you put the game down, you go into real life and then a partner for example places an emotional bid, you either go 'I know what my partner is doing, I know exactly how to react to that' and that is when the skill set becomes a part of your toolset, your psychological toolset.

David Van Nuys: Well I think it is very interesting what you're doing and the way that you got training in systems and family therapy I gather?

Silja: Yes.

David Van Nuys: And it also sounds like you got a strong background in cognitive behavior therapy, is that right?

Silja: Yeah, you can't use skirt to outskirt CVT. It's like everywhere.

David Van Nuys: I know. My therapeutic interests really go across the board. So CBT is what is known as manual as to therapy which is basically that it has been laid out in such an objective way that is almost like you can follow a manual, at least at the most basic level. And a lot of people, myself somewhat included with thing that is somewhat limited to have to do such a roped thing. One of the things I wanted to ask you about that might be a challenge for you is how do you get beyond that, beyond a manualized approach for something that would fit into the category of say depth psychology?

Silja: Well I think that would really be something for the long run, the long picture because right now where we are at, where subclinical. So I'm starting a study to show that the app is preventative because you would get these skill sets to deal with stress. The next version, the reason why I am here in Berlin at the Noah conference is because I want to raise \$1.4 million to be able to add therapeutic features for depression and anxiety because these are often co-mingled. And then after that were going to go a bit deeper but I would state with what I have seen so far with what digital therapy can do and what I have seen my apps do. I think that we would be pretty much scratching the surface of low-level depression and a low level anxiety. And to be honest, I do believe that face-to-face therapy is the best. In one of the things I want to do in the application is kind of lowered the stigma and educate people that going to see a therapist is a good thing. It's positive. It's empowering. It's a part of a journey that can change your life in a very very good way. And so I don't actually want to take away from face-to-face therapy. I mean if one day we are able to treat the depression with an app that was wonderful, right, because, then of people who don't have the money or are on a waiting list or are too afraid to speak to someone, could be treated; those are all good things. But at the moment I think it would pretty much still be scratching the surface.

David Van Nuys: You have made some great points there. Of course I'm wondering, one of the things that is becoming very big now is tele-mental health. And in an environment like we are in right now that is really exploding. I am amazed to see how that has caught on. And for many, the reasons that you are spelling out is that it's more convenient, less scary and a whole bunch of things that. I have done a bunch of interviews are on that and there might be ways to have a hybrid to where it is going of what you are doing and teaching and having the person, that could be homework for somebody who is good to meet in this kind of modality.

Silja: As soon as we have the depression features in the game it would actually be depression treatment. A therapist could say I would like you to play with this app for the next week and you can come back or when you're at a level II or something like that. I can very well see that.

David Van Nuys: Me too. You raised 200,000 British pounds already and now you're going for 1.4 million. You are really go-getter I have to say. Not only are you psychologically adopt but also in this world of technology and marketing. How do you combine all of these skill talent and you look like a model. I have to say, your beautiful young woman. I have a feeling that playing a role in all this in terms of going to conferences and so on.

Silja: If you go in my LinkedIn, it is pretty much on the bottom of my CV but I did 17 years of modeling. And I think that is a source of strength because for 17 years I lived more or less day-to-day, I was self-sufficient, I was traveling by myself, I was living in cultures I didn't know and I was very good at dealing with rejection. When you are modeling you get constant rejection. Maybe 5% of the castings that you go on with actually turn into jobs. With fundraising it is the same thing, it can get very disheartening after the fifth investor says no I don't think it is going to work. And then you get one investor that would say I love that idea, I love your team and I trust you and here is some money. So it is worth going out there and getting it.

And I think also the idea came from that because I come from this very commercial background of modeling where it is all about selling and marketing and superficial, getting people, not healthy at all. And then you have the academic side which is research and trying to help people and trying to get to the bottom of things. And that app actually has to be like that because apps that don't attract people and aren't entertaining aren't going to be able to actually help. And I think that mindset is quite unique amongst mental health because big mental health apps aren't actually done by a psychologist or done by people who have depression themselves and thought they would have needed something like that and so they went and developed it.

David Van Nuys: Well you're sort of a perfect storm of experiences and capabilities I think.

Silja: That sounds wonderful. I'll take it.

David Van Nuys: Good good. And you know, I've seen some TV series about modeling and that feature models and it can be a terribly dispiriting thing because the model is treated as an object, and so I don't need to tell you about that. So it's wonderful the way you have transform that experience and blended it with other experiences. And I have to ask you, have you studied acting at all?

Silja: No, I haven't. I always thought it would be interesting, but I get terrible stage fright. And so after one or two plays, I'm already dying a little bit inside for tomorrow.

David Van Nuys: Well you've done one or two plays. The thing that triggered that was that you have this alter ego, avatar, Dr. Joy. And on some of your YouTube Dr Joy shows up as a cartoon figure and EQUOO in the APP. But then in your actual body, you personify Dr. Joy, the Avatar, and you're using a TV technique that's, I don't know how you do it, if it's green screen or what, but where would you see you both in this persona and Dr. Joy with her glasses and her lab coat at all. And that's just a very clever piece of marketing.

Silja: Yeah, that was actually my CTO. So he's a bit of a camera person and he said, you know, let's do this thing, we need to be more out there. We need to do little bits that are interesting and get people curious about the product. So that goes to him.

David Van Nuys: Yeah. Well it was a great idea I think. now one of the things that you will be integrating more into EQUOO, which by the way you refer to as an emotional fitness game for smart phones. So maybe I shouldn't have you expand a little bit on what do you mean by emotional fitness.

Silja: Yeah. So because at the moment, it's still subclinical, it's not actually a mental health application per se, even though it does go into the mental health space. we could have called it a mental health application, but there is still a lot of stigma and fear out there and treatment resistant. and a lot of people that are not willing to reflect upon their own mental health but it could use emotional fitness. So with this kind of branding, I thought long and hard about it. with this kind of branding I think fitness has kind of this strength, positivity, health aspect to it. It helps people access the game and reap the benefits of the game without having, jumping off because of the fear of mental illness or mental health.

David Van Nuys: Yeah. And you've also drawn from positive psychology, which is another movement that I've kind of been following with great interest. And they've kind of carved out that space of making it less stigmatized.

Silja: Yes. Yes, exactly. And so when we're out spreading a lot of the problems that mental health applications have and trying to get a wider target audience to come and try it out.

David Van Nuys: Sure, sure. Because we all face life challenges. We all could use resilience, for example. and probably benefit from some kind of resilience education and training and that's maybe just one area and there are lots more.

Silja: And I mean it's fun. I mean maybe I'm projecting too much because I love psychology, but learning something psychological that you can actually use in everyday life. Usually when you tell people, when I tell people about emotional bits, and I put this first because it's the easy one, People go, Whoa, really? That's amazing. They even go out and they practice it with someone. Then I get a text two days later that said 'I just reacted to an emotional fit. so it's intriguing. It's inspiring. It's motivating to learn psychological skills.

David Van Nuys: Yeah. I would agree as a psychologist. L

Let's talk a little bit about AI. in one place, you said that AI is a buzzword and I think in the context that you said it, you were making as a good thing. In other words, that people are hearing it so much that they could enter into something that professes to be AI. There's another take I have on AI though, that it's too much of a buzzword that people are going to claim that they're using AI as a selling point. It'd be like New X-47 in our toothpaste. You must have X-47. And AI, it seems to me there's a big risk that it's going to be like that as it's a good selling point; We have AI in our APP.

Silja: Yeah. I think that a lot of people get carried away with the coolness of artificial intelligence and then they get drawn towards it. and actually it's still in its baby shoes. you know, proper deep learning doesn't really happen maybe in two companies or three companies worldwide. it's more machine learning and natural language programming and things like that, but they sound less sexy than artificial intelligence. And I think I am using it to also attract investors, but then it's solid. We have a solid AI base and I think this is an opportunity to discover patterns that we haven't known yet in psychology that you can only do if you use artificial intelligence on a digital platform.

David Van Nuys: Yeah. I saw some of your discussion on that, I think again on YouTube and it kind of piqued my interest. One thing that you said is that machines now, AI deep learning, are performing diagnosis more accurately on schizophrenia and depression than humans. Now I haven't heard of that research.

Silja: I'm happy to send you a few links with it. It's quite mind blowing. actually in areas that I would never have thought of. Right. I think I've learned the typical inventory questionnaire style that you do with patients as diagnostic tools. And one thing that, for example, IBM Watson uses is at voice recognition. and they can actually tell by just having a conversation over a fairly short period of time, I don't want to say something wrong but under five minutes, if that person's clinically depressed or not, or as having a schizophrenic bout.

David Van Nuys: That's very interesting. It reminds me of Guttman's work where with five minutes of observing a couple, you could predict whether or not they'd still be married in five years.

Silja: Yes, exactly. With an accuracy of 85 percent.

David Van Nuys: And the research that I am familiar with was the ability to detect certain cancers by their look. But this part about detecting emotional issues, I hadn't heard of it. I am now remembering, I meant to go and Google it before talking to you. So I appreciate any links that you send me.

Silja: And it goes into a realm of questionable ethics and a lot of data and privacy questions that I am very keen on pushing the discourse towards. because for example, there was a research in Stanford or Yale, I'm not quite sure, where they detected if someone was suffering from depression by their Instagram profile, by how many people were in the picture, what kind of captures, what kind of colors, what kind of filters; up to the point that they could predict if someone was developing a depression that hadn't actually manifested yet. and then you come to the question like, do people want to know, are we allowed to invade their privacy and point out that they are going to be suffering from depression? Are we supposed to? What do we do with this power? Who actually manages this information? All these questions are monumental.

David Van Nuys: And it drives us into the world of science fiction where people have explored a lot of these issues. science fiction writers and I'm thinking of Minority Report and it seems like you could use the same technology to predict criminal behavior.

Silja: There was an algorithm that can show on profile pictures if someone is I'm homosexual or not. For us it doesn't really matter. Even though we can be outing people who don't want to be outed. That is against the law. But in countries where it's forbidden to be homosexual, it can be death threatening. So a lot of the algorithms out there, it's a little bit like Jurassic Park, like you know, they were so high on being able to do it that they didn't ask themselves if they should do it. There's a lot of responsibility.

David Van Nuys: Yeah. That's a conversation that a lot of people are trying to stimulate now; just because we can do it, does that mean we should do it? And of course it's still an open question of can the genie be stuffed either back into the bottle or kept in the bottle? Particularly given such a range of values that people have different values, different goals etc.

Silja: Each culture has different values and different privacy settings and management and everything. I think there would have to be some kind of global artificial intelligence committee, Ethics Committee that put down the law of how data is used, how the algorithms are used, who's programming the algorithms because a lot of the algorithms that are being developed are being developed by, white men, young white men. and I'm not saying that young white men are bad people but sometimes they have biases and they program their biases into the algorithms. and then the people that are being targeted by those biases will have issues in their lives; be it banking or finding a home or being mental health, anything.

David Van Nuys: Yeah. Well, all of this suggests that you may have some hurdles down the road, right, with some of the things that you want to do that are well intentioned and potentially might be very helpful, but you'll have to bend over backwards to justify it. So I don't need to tell you that. I'm sure you already are hearing about that kind of thing. Yeah.

Let's see. I wanted to ask you about some other things. You're doing so many presentations that was hard for us to set this up because you were doing a presentation every time that we talked...oh, I'm going to Berlin now to do this presentation and then I'm going to London to do a presentation and so on. And so you're having a very exciting life in that way. Probably meeting a lot of people. Probably getting a lot of stimulation. If I go to a conference, boy sometimes I get so amped up, you know, it takes a while to settle down and for reason to come in and realize like, whoa, I'm way over excited about this. It's not really that big a deal. I don't know if you're going through any of that.

You gave a presentation on ethical tech; How can we design better humans? What can you tell us about that presentation though?

Silja: That was a lovely panel put together by a committee that was interested in seeing how the tech world is self-managing their ethics. And it was a great panel. We had a company that does big data that was working with weapons for example. Then there was a guy who was working for a Fintech company that was using artificial intelligence. There was a dancer and a body sensory researcher was there and I was there. And it was kind of just about like trying to map out a future where we have products that actually make people better and not worse. And I think one of the reasons why I was invited is because psych apps Are you using technology to try to make better humans. and we're not trying to suck the person into the game and keep them there because it would keep it running and show advertise it to them. But we actually want to give them something that they go out into the world and have better relationships and healthier relationships and are more successful in life. And I think what is happening, for example, with Facebook is a good thing right now because people are becoming aware that they are the product and they're not happy with that. And the GDPR that is happening in Europe and the UK, it was bad news for us because we lost all of our lists because we had old lists and people weren't filling out the consent forms that we were allowed to contact them again. But I think it's a very good thing because people are taking over the responsibility for their own data and becoming more aware of what's happening with it.

So I think it's our responsibility now that we have this possibility, like you said at the beginning of the marketing tricks and everything, we have that, but how can we actually add value to people's lives instead of just sucking them dry.

David Van Nuys: Yeah. Where's your money going to come from? You're doing the fundraising but the product's going to have to generate income.

Silja: Yes. So we have about three revenue streams. The first stream that is in the APP or is implemented right now. the next time you go on your app and you do an update, you'll see that you can actually buy exercises for the different skills. So if you liked a skill specifically and you want to practice them a little more, then You can buy as a skillset for \$0.99. and then in that skill set you get to practice it for parenting, at the workplace and for relationships. So it's like an in-depth practicing of what you've just learned.

David Van Nuys: Great. That's a good idea. So that's one stream. You said there are two more?

Silja: Yes, exactly. Another stream is corporate mental health. We want to work with big corporations and being able to offer that to their employees. because absenteeism and presenteeism is a big big problem for the economy. And of course for the families of the people that aren't going to work or aren't being promoted and having a bad time at work. And then the third one is working with insurance companies. and that one is a bit of a tricky one because I know a lot of people think insurance companies are trying to manipulate people. But in the game when you play it, you get coins and with these coins you can use them. like have you heard of sweat coin?

David Van Nuys: No, I don't think I have.

Silja: Okay. So sweat coin is an application that counts your steps and after a certain amount of steps and after a certain amount of steps, that's like 10,000 or 20,000, you get coins. and you can actually buy things from them. like Nike shoes or headphones or a yoga mat or something like that. That's why it says sweat coins; it is trying to animate people to actually workout and move and be aware of how much they are moving and how much they are not moving. And we think we could do something like that as well. If you play the game and you have a certain amount of coins, why not deduct that from your premium? Because it's a win win situation for everyone. If you are mentally stable and healthy, it's good for you because you're healthy. If you're healthy, it's good for the insurance companies because you're not putting in a claim for mental health care or you're not having accidents or not going to work or something like that.

And it's good for us because we're making money at the same time. So there is positive capitalism or something like that, where you do make money, but at the same time you're adding value to people's lives. So it's everybody's winning.

David Van Nuys: Yeah, that sounds great. That sounds really good. Let's see. You gave a presentation on artificial intelligence and mental health at a conference. anything in there that we haven't talked about yet?

Silja: I think at the moment we talked about the dangers, we've talked about the good parts of it. I think that a lot of people think artificial intelligence is going to take jobs away from therapists maybe, or it's going to be too cold. but as I see it for at least the next 10 to 15 years, artificial intelligence is gonna help and compliment therapy. So the time that you're spending doing a diagnosis and you're not sure if you might have a false positive, false negative, you could actually be already treatment or establishing a therapeutic alliance with your client. So I think at the moment artificial intelligence is an intelligent that is so alien to the brain that it will add dimensions that we wouldn't have thought of on our own, which is a good thing.

David Van Nuys: Okay. Yeah. we should let people know, as you said earlier, we're at the baby steps era of artificial intelligence that a lot of people, when they hear artificial intelligence, they go right away to what's known as general intelligence. In other words, that would have an intelligence equoo or superior to us in terms of general intelligence. Artificial intelligence can be superior in very narrow domains currently. And so it'll be interesting to follow this. I think most experts...well, there's a real division among experts as to whether we will ever achieve general artificial intelligence or other people will say, oh, it's only 20 years away or 30 years away...that's too close in.

Silja: I think it's too close in. And I read a very interesting article about how we need to go into tissues and soft silicones and have a brain like environment to be able to even have anything close to general artificial intelligence.

David Van Nuys: Another big science fiction theme. the science fiction movies and books, They've already been there. And we see some of the problems associated with that.

Silja: It usually doesn't go well.

David Van Nuys: At the Cognition X conference, you used a phrase that you used earlier in our interview today, trying to hack the brain's reward system so that people will stick to therapy.

hack the brain's reward system sounds a little spooky, but helping people stick to therapy, that sounds very positive. So It'll be interesting to see what kind of progress you can make in that domain effort.

Silja: I think that's one of the big things that artificial intelligence is going to help us do because what we're going to use at the beginning is I'm classification algorithms where we can say, okay, we have these classifications of gender, age, what kind of level and gaming they have been playing, how long they have been playing, how many coins? Those are like clusters of information that are classified and then it leads to new information. and we might not understand. I mean we know very little about how the brain works. We know a lot, but in total we still know very little. and by using artificial intelligence to find patterns in the information, that data and all the information there, we're going to classify it in a way that makes sense to us at this point. And then we're going to kind of let the algorithm find new patterns. And that might be something that would be almost classified as hacking because it's using technology to be able to get deeper into a subject.

But I also have to say that in the tech world, hacking is usually, it can be as very bad or very good. So there are hackathons, for example, where people come together in groups and they all sit and try to develop a program for like a traveling app or health app or something like that. Hacking has gotten a positive vibe as well, saying like using skills to get down to the bottom of something really fast, not going classical roots and taking shortcuts and just being more efficient.

David Van Nuys: Yeah. So I'm understanding that you're interested in using big data sets as they talk about now, so much data that a person who would be overwhelmed by it using traditional approaches, but that AI can be used and machine learning can be used for pattern recognition. And of course one of the issues that I'm sure you're aware of is that many times the AI has been a non-transparent black box and people scratching their heads and saying, okay, well how did we get there? You know. And if we follow those instructions, maybe in the financial world or in the military, the thing is saying go do this...And so people are saying, hey, we need to make it transparent. We need to know how the machine reaches those conclusions so that we can better judge whether or not that is going to be a good process or not.

Silja: Yeah. So the way that we're going to outskirt this problem or solve this problem for us is as long as we're sub-clinical and we're very very small, 3500 participants. For me it's huge but actually for a game, it's nothing. and it's beta testing. We're going to actually use Microsoft or IBM or what if its other products that already exists as an artificial intelligence because it's much cheaper. But the moment that we're starting to use actual mental health data and treatment, we're going to use the algorithms that were written for us with us and that can be reversed. Every step can be reversed engineered so that we can say we know what happened when and why. And also that it is our IP and all the data is in our hands.

David Van Nuys: Well you mentioned the beta testing. Is there any way that my listeners, viewers could, uh, get involved in the Beta testing?

Silja: Yes, of course. I mean you could send him my email. Anyone who sends me an email will get an invite to the beta. All I need to know is their email and what kind of phone they have, if they have Apple, android or if they use Amazon apps.

David Van Nuys: Okay. So did you say I could give them your email address.

Silja: My email address. and I have an intern and if it's too many people then she's going to have a very unhappy week. We will give everyone a beta.

David Van Nuys: Okay. Well that's a good offer. I think that people who have been listening to this discussion hopefully will feel very curious and motivated and want to get a taste of this EQUOO game that is emerging right now.

Silja: Yeah. If you go into the APP store in Australia and New Zealand, we have over a hundred five star reviews with people writing wonderful things and sometimes... of course my contact detail is on the website, so sometimes I get beautiful emails of people saying that they learned something or that it already had an impact on their lives and those are one of those moments where I know like I'm on the right path and I'm actually adding value and people are better for it as am I.

David Van Nuys: Yeah. That's got to be so gratifying.

Silja: Oh my gosh. Yes.

David Van Nuys: With all the work that you've put into this, fundraising and everything. So you're getting a go signals and green lights. Maybe you should say that email address. I'll also put it, but maybe somebody want to get it right this moment.

Silja: It's my name, silja@equoouoogame.com

David Van Nuys: Okay. Well, clearly I think you're doing wonderful work, it's very intriguing. I'm going to want to talk to you a little bit after we sign off. Is there anything more that you want to say before we officially close this off?

Silja: Well, once we go live, maybe you could do a shout out for us. saying that the APP is actually in the APP stores and that they can download it without having to write me an email. That would be lovely. And if anybody has questions or if there any of your listeners who are researchers and want to become part of the equoo team, once the money is raised, I'm going to put together a team of therapists, accredited therapists that will help design the next level game.

David Van Nuys: Oh, that's fascinating to know. Yeah. Well, okay, Silja Litven, I really want to thank you for being my guest today on shrink wrap radio.

Silja: Thank you very much for having me. This was fun.