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People Skills: Making Change in the Community



Presenter: Veronica Valeros Saracho

Summary

Some form of modern technology can be found in almost every part of the world now, but some areas that lag behind may not have the resources needed to implement necessary security tools. Having grown up in the Argentinian mountains where there are few computers, Veronica Valero Sarachos, researcher at Czech Technical University, recognizes these issues and strives to give back to communities like hers by working with them to help detect threats.

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Transcript

Brian Contos:

Welcome to the Cybersecurity Effectiveness Podcast, sponsored by Verodin. The Verodin Security Instrumentation Platform is the only business platform for security that helps you manage, measure, improve, and communicate security effectiveness. I'm your host, Brian Contos, and we've got a really special guest today. Joining me is Veronica Valeros. Welcome to the podcast, Veronica.

Veronica Valeros Saracho:

Hi, nice to meet you.

Brian Contos:

Veronica, where are you dialing in from right now?

Veronica Valeros Saracho:

Right now, I'm in the beautiful city of Prague, Czech Republic, and it's been an amazing weather these last two days, so it's awesome.

Brian Contos:

Great. But that doesn't sound like accent I expect to hear from somebody in Prague.

Veronica Valeros Saracho:

No. I am actually from Argentina, from the Patagonia, Argentina. So, I have a mixed accent between the normal Neotraditional Patagonian plus one of Buenos Aires accent. So, I have a mix right now.

Brian Contos:

Well, very cool. Well thank you again for joining our Podcast. And before we get into some of the questions that I have for you, perhaps you could give our audience a little bit of background on you and the path that you took that led to a cybersecurity and what it is that you do today.

Veronica Valeros Saracho:

Yeah. So, I have been in the security industry for the last six to eight years. I grew up in the South of Argentina in the mountain. So, my childhood was not like the typical people that you hear that they were having computers since very young. So, actually I wanted to... when I grew up, I wanted to be a civil engineer. I was a bit different, didn't turn out that way. Mostly because when I went studying the career that I wanted was not close to where my parents were living. So, I choose Computer Science instead just to get started into studying something and I like it. So, I studied that for a good portion of my adult life. My career was more oriented to software development and project management and for a big portion of the career I did like it, but it was not something that I would like to choose to focus on.

Veronica Valeros Saracho:

Developing so far was not just my thing and I was a bit lost in that area but I happened to go to a couple of conferences and met some people and I found this security area and he was so fascinating and that was like eight, nine years ago and it shifted my career completely. And since then I'm focusing on security in general, but mostly on network traffic analysis, malware analysis and in problems of privacy and surveillance because these areas not so many people are focusing on and it's really important. So that is kind of the shift I took. I really like the potential in this area to grow personally and the impact to the community as well.

Brian Contos:

I love it. Well, I think the industry is glad that you went cyber instead of civil engineering. You've added a lot.

Veronica Valeros Saracho:

You too.

Brian Contos:

We were talking earlier and you had an interesting story about your first computer. Everybody has an interesting first computer story, but I was wondering if you could share yours.

Veronica Valeros Saracho:

Yeah. So, I was eight or nine years old and as I mentioned before we were living in the mountains, like literally in the mountains and we didn't have any computers. We were playing outside with my brother all the time. And then suddenly one day a couple of salesmen stopped by. We were surprised because they were selling computers and we were like, "Wow, really? What are you doing here in the middle of the mountain." So, they travel like three, four hours to increase their sales in the unknown areas of the Patagonia. They were operating computers, to pay in installments. And my mom, she saw our eyes with my brother and she was like, "Okay, we need to do this." And I'm really grateful that she agreed to. So they gave us a computer and we were like, "What can we do with this?"

Veronica Valeros Saracho:

So, that was the big chaotic moment, but it was there for us to play with it. And the funny thing was that as I mentioned before, we didn't have the money for that. So, they were coming every month and we were paying the computer in parts. And for doing that, my brother and I we wanted to help my mom pay for it. So, we were selling flower seedlings and growing them in our garden and then going to the school, selling the flowers plants to our teachers and friends. And then collecting the money and then every month we were paying a little bit. So, it was for me an experience that it really changed my life because at the moment I didn't even consider that I would really like computers even though I'd heard of them, right? And for me it was a complete change. I could do stuff with it. It was fantastic.

Brian Contos:

You know what I love about that story is that it was a door to door computer salesman in Patagonia. So whether it's Argentina or Chile and Patagonia, I mean they basically told the sales rep, "We're going to give you the Andes mountains and that's going to be your territory. You're going to go sell computers there." That's awesome.

Veronica Valeros Saracho:

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Yeah. And it was so unheard of, like, there was no one going over those roads because there was no asphalt or anything. The first question my mom asked was, "What are you doing here?" But it was for good and I really appreciate that they took the adventure because otherwise I couldn't be here.

Brian Contos:

Yeah. They could have fallen into a glacier hole. Who knows.

Veronica Valeros Saracho:

Who knows.

Brian Contos:

But they made it. Well, so that's a great backstory there. So, tell us about your current job and what are some of the cool things that you're working on.

Veronica Valeros Saracho:

Right now, I've spend the last six years or so working for Cisco systems in a local start-up company that was doing malware detection in the cloud network analytics and that was my first job and it really helped me to grow professionally. But I was feeling unfulfilled, the things that I was doing were not really having the impact that I wanted and there was this opportunity in the university to actually join a project that is called a Civil Sphere. Right now, I'm the director of this project and the goal was so compelling that the minute I found about this I was like, "Yes, I don't know how but I want in." The project goal is to help the civil society to help them protect or early detect targeted digital threats.

Veronica Valeros Saracho:

So, right now there is an increase usage of spyware and surveillance technologies against human rights defenders, activists, journalists. If you think of it, there is no easy way on how to detect this if you are targeted, if you're not, most people travel with their mobile phones and there is no really a clear solution of what to do. So, what we do is to try to fill this gap. So, I do work with them saying, "Okay, let's take a look what you have and see if you are being targeted right now or if you are at risk." And the impact is so nice because I do what I good at doing, which is traffic analysis and malware analysis and they are a little safer. So, the rewarding that sense of fulfillment, it's so good. At the end of the day you're making a change and I was missing that. I'm so happy to have it right now.

Brian Contos:

Yeah. I'm wondering, so for people that do this type of research, I'm always wondering, what are some of the challenges that you face when you're doing this as a ... Do you have all the right tools? Getting the data as a communication with peers? Is it just the pace that the bad guys are moving at? What are your core challenges that you're working on?

Veronica Valeros Saracho:

Yeah. The biggest challenge that we face, I started working on this project last year, so I've been here for a little while and the biggest challenge was that we have a big number of people who wanted to help with technical skills, with the knowledge, with expertise. And on the other hand you have people that actually need the help but somehow it's very hard to find each other. So, it's not really easy for them to

find that we are here for us to find who to help. So that was the first challenge that we are trying to overcome constantly.

Veronica Valeros Saracho:

I would say the second challenge is that, because I've been working in the industry previously and there are so many tools and resources and options for companies, small, medium and large companies to solve the cyber world, right? And for these people that don't have a budget or they actually don't have a computer in point to protect, they just have their phone, is not really straight forward. There are not so many solutions that you can use say, "Oh install this," there isn't really anything.

Veronica Valeros Saracho:

So right now we are trying to be working in the intersection between them and the industry to try to find out how these two worlds going to actually help each other a little more because the products I see and they are working, they are so awesome that it should be simpler to have also some low end solution that people, normal users can use to protect themselves." But it's not really there. So right now these are the two main areas that we need to work on and we're still not sure what is the answer, what is the proper solution to this.

Brian Contos:

Yeah. I've spoken to some people that work on the research end and having teams from the academia side and having teams from the industry side and do they work together? Do they work separate? Could you talk a little bit about the challenges there of managing these types of disparate teams?

Veronica Valeros Saracho:

Yeah, so I think all the ways goes by the fact that why people are doing that. In the industry one of the reasons that I left was that I didn't really have the time to do anything. We were always running, again, the bad guys doing something and there was, "Oh there's this cool new malware that we need to investigate." And you have one week because next week there is something else and you never can go deep into something. Except with academia, you have a lot of time and you can go deep. But that comes with the risk of being completely disconnected with what is happening.

Veronica Valeros Saracho:

So, right now from the managing perspective, I was managing teams both in the industry and now here in academia and the focus is different because you cannot be rushing in the academia or you cannot be rushing and you need to give your people more time and at the same time keep them focus like, "Okay, remember why you're doing this. If you want to have an impact you cannot take five years to polish something because the people that need it are not going to be really using the results of your research so fast."

Veronica Valeros Saracho:

So, right now this balancing, it's really important and also in the academia we have things that, the research sometimes takes so long that is really frustrating sometimes and you think you are getting results but then you are not. And you have more feelings about what you're doing in a sense. So for me as a manager the main challenge is to keep people focus on the goal, try to have these industry perspective on approach on a call, "Okay, let's have small chunks of goals, things we can polish in the meantime that can give you feedback from the community." It's something that sometimes in academia

they forget to do. So, I'm in the middle trying to mesh the two things and so far it's working well. We will see in the future how this goes.

Brian Contos:

No, I think... and I always love it when we can bring academia and industry together. I know it's not always a smooth transition, it's a different approach in different mindsets. So people like you doing the hard work helps move those things forward. One of the reasons that actually we connected was some of the work that you do in the community in terms of giving back, volunteering and some of the initiatives that you've helped out with. Maybe you can share a little bit about what you do there?

Veronica Valeros Saracho:

Yeah. So, one of the reasons that I am trying to always in my goals is to try to give back to community is because I couldn't be here without it. As I mentioned before I got into security because a teacher took me to a conference and it was, "Wow, what is this world?" And if I didn't have that, I couldn't be here. So, I try to keep in touch and try to help security event, whether raising, I do review for call for papers for small conferences, mostly the BSides that are small and that need more support. I'm also reviewing in bigger conferences because it's nice and it impacts more people. But the most rewarding thing that I'm doing right now is we co-founded with a group of friends initiative that is called The Independent Fund for Women in Tech.

Veronica Valeros Saracho:

And this was from the perspective that when we go to conferences, there are some few of us, which is you can wonder why. Right now there are more opportunities but a couple of years ago there weren't. And one of the things we found each other doing is that sometimes because you are speaking in a conference, they give you an extra ticket to bring a friend or a coworker. So, we were like, "Okay, why don't we take this extra ticket and give it to someone from underrepresented groups so they can have the opportunity to attend." So, we started doing this, receiving tickets from people that wanted to donate and passing them on to women that would like to go.

Veronica Valeros Saracho:

And this was such a success that actually traded a delegation of service to ourselves. It was so overwhelming, the amount of donations and tickets and things that we were like, "Okay, we're going to have to handle this." And that was very nice. I think we moved forward a lot at the end of last year as a community. So there are more opportunities and initiatives in that area. But it was very nice to see how open the community was to solve this problem. Right.

Veronica Valeros Saracho:

And another thing that I'm spending a little of my time right now is doing a lot of mentoring. It sounds easy but it's actually really challenging and I'm trying to do it because I never had a proper mentor and so many things would have been much easier if I had. I see it with other people and it's so nice, the results. So, I'm having like three, four people that I'm mentoring in their careers, what they want to do, they want to speak at conference, getting better and it's nice to see how they've done. You have to develop other people with not so much of your time. So, it's an activity that I totally recommend other people to do and there are so many people in need of these. So, if you have time, please do it, mentor someone. It's nice. It's enriching in both ways.

Brian Contos:

Yeah. Sage words, Veronica and really appreciate you sharing all that. As we wrap up here, there is a question that I'd like to ask everybody that's on the show and that's who is your favorite superhero or super villain and why?

Veronica Valeros Saracho:

I will go with Doctor Strange and my "why" is because he's, like, a normal person. He doesn't have any special things. He's just learning his powers that anyone could eventually use. So, I think this is quite a nice, and it resonates a little with me because I didn't have a lot of opportunities and you can still fight it and be there, you can still do your best. So, I will go with him.

Brian Contos:

Very cool. I love it. Well, thanks so much, Veronica, and thanks to our listeners for joining and be sure to check out other Cybersecurity Effectiveness Podcasts, sponsored by Verodin.