

Dinah Davis, VP of R&D, Arctic Wolf

Battling Cybersecurity's Bias

Dinah talks about the bias faced by women, the gradual increase of women in tech, motivating a team, encouraging risk, and her own personal journey.

- 03:20 How the bias and bullying faced by women in tech turned into a blog and a community: Code Like a Girl.
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- 24:04 If your staff are encouraged and motivated you will have a high-performing organization.

Ashwin Krishnan: [00:00:40] So another edition of the UberKnowledge podcast. Today, a very, very interesting guest. I'm not going to break the suspense myself, instead I'm going to have Dinah Davis talk about herself. So welcome to the show, Dinah, can you tell a little bit about yourself to our listeners, and then we can dig deeper?

Dinah Davis: [00:01:03] Yeah, for sure. I'm currently the VP of R&D at Arctic Wolf Networks, and I've spent the majority of my career in cybersecurity, but I came to it in a very roundabout kind of way. I was actually quite good at mathematics in high school and I didn't know what I could do with that for a job. So, the counselor suggested I become a math teacher because, you know, women who are good at math should be teachers. I was naive and 17 and followed that. I ended up at a beautiful school, where I quickly found out that I loved mathematics and I wasn't terribly interested in teaching it to children. I felt like, if you are going to be a good teacher, you should be really passionate about the teaching part, not the mathematics part. In my third year of university, I took my first computing course and I was like, oh my gosh, why did I wait so long to take this? This is how I think, I love problem solving. I already think like this, it's just another syntax for how to express what I want to do in life. My first co-op term was with the CSE, which is the Canadian equivalent of NSA, and that is where I discovered cryptography and cybersecurity.

[00:02:20] And to me, it was this perfect mix of mathematics and computer science that you could put together and make a real world impact and change with. And that sent me on to grad school at the University of Waterloo. And I got a degree in cryptography there. And then I was very fortunate that when I came out of grad school, I was able to start at BlackBerry in 2004. I started on a team of five people and we were the team responsible for BlackBerry security. So, I got to grow with it for eight years. I got to be on the bleeding edge of mobile cybersecurity. It was just phenomenal, just fantastic, a big experience.

[00:03:20] You know, everybody knows the BlackBerry story, so we don't have to go into that. I decided to leave in 2011 and I went to another location, and what I had found was that I had actually had a very supportive team at BlackBerry. I worked with fantastic people. It's not to say that everyone in BlackBerry was great to women in tech because I know they weren't, but my team really, really was. And I landed in a new place where my boss was very misogynistic. He was a bully and within ten months managed to destroy my self-confidence. And I realized that I didn't ever want that to happen again, to anyone, and that I was no longer going to be quiet about women-in-tech issues. I kind of always had just been one of the guys, you know? So, I started blogging about it. I left that job and I went to another place and I figured, well, if they really care that I'm a feminist and blogging about it and they're going to fire me for it, then I don't want to work there, so I'm going to take this risk. That personal blog grew into a whole publication called Code Like a Girl. I was sharing the stories of hundreds and hundreds of women and their allies about what it was like for women in tech and sharing it through this publication called Code Like a Girl.

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[00:05:02] I ran that for three years. It became this amazing community. We had zero followers on day one and 40,000 followers of our publication on the day I handed it off with 2,000-3,000 people visiting every day. In November, I handed it off to one of my co-editors because she was able to take it on as a full-time endeavor. Whereas I'm at Arctic Wolf doing things I love here, and I really felt like the next step for Code Like a Girl was to become somebody's complete focus instead of my side hustle, that's what I called it, my side hustle.

[00:05:52] So, yes, I handed it off to her, and I've been able to focus a lot more on my VP role and my family. Now, of course, I can't just do those two things, I also have to create a security conference in KW, which is the Kitchener Waterloo area, where I live. I'm helping, with two other people, create a conference here in October for security.

Ashwin Krishnan: [00:06:17] Wow, that's one amazing journey and certain things really stood out while you were talking, one is your ability to understand when you have a misogynistic boss and being able to take that challenge up front but not get cowed down by it and spend the better part of your life feeling miserable. That's a big takeaway over there.

Dinah Davis: [00:06:45] Yeah, that's true, but that experience also coincided with discovering that I was suffering from massive depression and it just contributed heavily to it. So, I guess it was a wakeup call for me that things weren't good, and I needed to address them. But that experience made that so much worse. I really never wanted anyone to experience that again. So, I got some help for the depression. Then what we discovered was that the root of my depression was actually an eating disorder. And so throughout whole time between the time I left BlackBerry and about four years ago, I was actually actively fighting an eating disorder. I'm going through recovery, I'm happy to say, and I'm in full recovery now. I don't have it anymore, but it made everything all the more difficult. I also think it made me who I am today. I had to do a lot of soul searching. I had to do a lot of resetting expectations of what's important in life. Is it important to be thin or is it important to be smart and funny and helpful to your friends and doing something you believe in?

“That experience also coincided with discovering that I was suffering from massive depression.”

Ashwin Krishnan: [00:08:13] Dinah, I must tell you this, a lot of people, I'm sure, have had similar challenges in life that they keep private. We talked about this just before the podcast started. You've been extremely public about your eating disorder and your ability to fight your way through it. So let me ask you this, what gave you the courage and inspiration to come clean? You mentioned helpful; I'm sure part of the mission is to help others to acknowledge and get treated versus keeping it private. Correct?

Dinah Davis: [00:08:50] Yeah. So that's very interesting because it was a two-year therapy process for me. Where I went, the therapy is a whole bunch of group sessions and some individual therapy. But you really end up learning a lot from the other

people in the groups. In the group sessions with therapists, you learn a lot, you really learn a lot from the other ones. The biggest thing I learned was, I wasn't alone. I was not the only one whose mind was working in this way and that that was not a healthy way for it to work. Actually, what happened was throughout the last six months of treatment, I started very slowly telling people. I was not ready before that. It is a very personal thing to go through. And there is a stigma around it. But one of the things for me was that the last thing the eating disorder had over me was shame, shame that I had it, and I refused to give it that anymore. And so, I slowly told people. Then on the day I had my very last session, I just sat down at my computer and the whole story just poured out of me. I had to tell it. I really feel like it was almost no work at all. It just came onto the page and I published a story about it on Medium.

[00:10:27] My point was, I don't want other people to feel shame or go through this anymore. Just in the same way that Code Like a Girl was kicked off. If this helped somebody realize that they had an eating disorder, if they got help because of it, even if it was just one person, then this was worth it. And for me, it was personally worth it to remove the shame. I don't have to sit and worry that somebody is going to find out that I had an eating disorder because I've publicly said it, and I don't care. It's a thing that I had. It's a thing that was a hard process in my life that really helped me become who I am. I have since learned that there have been, for sure, two women who have read the article and sought treatment and got recovery from that. So for me, it was 100% worthwhile in many ways.

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Ashwin Krishnan: [00:11:23] Amazing, amazing. I'm giving you a virtual hug as we speak. Switching gears a little bit, coming to your present role as VP of R&D at Arctic Wolf, what makes you wake up every day and come to work charged with a mission and to be a source of inspiration to the broader team?

Dinah Davis: [00:11:40] My job every day is to help make our clients more secure. Every single day, I am coming in and thinking of all the different ways that we can help them do that, because what we're doing is, we're trying to let them sleep at night. That is our job. Our job is to help all those IT people who are running these companies, help them sleep at night because they know we've got it. Now, what does that mean? That doesn't mean that I'm innovating on high-end security stuff every day. It might mean that I'm looking at the processes that our teams are using. Could we do something better here that would result in our security engineers being a little bit more effective and being able to see a little bit more? It's always that incremental thing. What small thing can I do every single day that is going to push the needle forward?

[00:12:48] And what I love about this organization is just the people are so smart! And everybody says that about their organization, but it's really true. We have this philosophy here of no walls. It's quite unique, actually. We don't believe in hiring testers or a separate DevOps. If you think about it, when you have a test team and a

development team, the developer tests their code just enough because they're like, yeah, the test team will find anything major, if there is. They throw it over the wall to the test team to be tested. The test team, on the other hand, wants to do their job really well, so they test it like crazy, and they'll come up with even tiny little things that don't really matter and send that back to the dev team. It's not because they want to be pedantic, it's because they're just trying to do their job. But if you take the tester away from the software developer, you've taken away their safety net. So, they have to test their code well enough.

[00:13:57] We have an amazing test automation system that we use. The first time that whatever they built breaks at 2 a.m., and they have to get up and fix it themselves, they're not going to do that again. If there's a whole bunch of manual steps that they're supposed to take to test something, which they would have totally been OK having a tester do, they won't do that either; they're going to automate it. So, it's not that we don't believe in testing or that we don't believe that testers have amazing skills, we totally do, we just don't employ anyone in that specific role. It's the same with DevOps. In our organization, if you build the code, you deploy the code, you secure the code, you test the code, and you deploy it and monitor it, day in and day out. And so, we do have experts and all of those things that work with us, but they basically facilitate the ability for everyone in my organization to be able to do that themselves. And because of that, you get this no egos, no walls, everybody pitches in, we're all one big team scenario. And it's got to be one of the best teams I've ever worked in, in my entire life.

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Ashwin Krishnan: [00:15:10] As you were articulating that, it's amazing, because I can imagine. I mean this was a long time ago, I used to be a software developer, and I can relate to throw it over the fence and hopefully no bugs come. And the test team, exactly like you said, my job is to make sure that every core dump or every memory leak is documented, and until everything happens, I won't clear this thing. I mean, what kind of mentality change did you have to get these top-level engineers to go through, to actually say, you know what, you own this end-to-end, was that hard?

Dinah Davis: [00:15:54] Well, OK, so it wasn't hard for me because I didn't do it. [Laughs] My amazing boss and mentor, Kim Tremblay did it. Actually, what happened was the company was founded exactly on those principles. She and the first developer that came in, they said, this is how we want to operate. And so, as every new person came in, they were brought into this world where this is what was happening. To say that you could just go and change another organization midstream, that would be pretty hard. You could do it, but it'd be pretty hard. I'm fortunate to have walked into it while it was in here. It is my job to ensure that we can keep that going. There's a lot of work and effort because with every new person that comes in, as you said, you have to explain this and you have to explain why we do it this way. And quite honestly, once we describe it, they're pretty excited.

[00:16:51] Developers love ownership. They love the ability to influence what they're

doing from end to end. And at times, they'll be a little irritated that there's no separate tester to do it, but it just motivates them to automate more and to build better things and to test it more properly themselves. And so, I actually have very little to any pushback on this philosophy.

Ashwin Krishnan: [00:17:19] OK, that's amazing. Let's talk about women in tech and cybersecurity in particular. It's obviously been getting a lot of attention. I believe RSA 2019 had more women panels and women speakers, so there's obviously an effort being put in. Is it — and I'm going to be direct about it — is it just lip service to make sure you're getting the statistics right, so that the event organizers bring you in the next year, or is there truly a cultural awakening among men, among the regulatory bodies, among conference organizers, even among startups, such as Arctic Wolf, and larger organizations to say this is existential? We not only have to correct the fact that we are way underrepresented in women and cybersecurity, but if we don't get it right, fundamentally, like you are saying, we will not be able to sleep well at night because our customers are not going to be protected well enough because we don't have diversity of opinion.

Dinah Davis: [00:18:30] Yes. I think it's a little bit of column A and a little bit of column B. I actually don't even think the lip service part is a bad thing right now, because if we look at the state of affairs five years ago, it was rare to see a topic about women in tech. It was rare to see a panel about it. It was rare to even talk about it at all.

[00:18:53] Then we had the Susan Fowler case with Uber and then other publications like Code Like a girl came up and started pushing that conversation. And not just women in tech, women in general with the whole MeToo movement and a lot of that kind of stuff.

So, what may start as lip service can actually turn into how things work. When it was first said, well, we should diversify these conferences, and you just threw together a panel that had a few women on it, well, you know, it was better than not having any women on it. And now some people have seen more women on panels, it's really good. All of a sudden it starts to go into their consciousness that, yes, women should be on panels. Yes, it's totally plausible that that should happen. It's a normal thing. Now, instead of being lauded for doing it, you will be crucified for having an all-male panel. That would never have happened five years ago! Five years ago, you might've had a couple of people say, "Well, it would be nice if there were more women on it, but, oh well, there's not enough women in tech for that." And what we've proven is, yes, there are enough women. You have to look for them harder because there's fewer women; that is very true. But there are many, many very amazing women out there.

[00:20:20] We're growing a whole new set of them because now they're starting to be able to see what they could be. If you can't see what you could be, if you can't see it, you can't be it. That's why I talk about things a lot more because I want them to see what I've done. I want them to see that it's possible, that it's rewarding and fulfilling

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and fun and challenging and all of that. That's another reason why I created Code Like a Girl. Is it enough? No. It's so systemic, and I just don't think this problem is going to be solved in my lifetime. But is it going to be better for my 10-year-old daughter when she's getting a career? If she wants to go into tech, will it be better for her than it was for me? Yes, I think so. I think it is better for her today than it was for me when I started in the early 2000s. I mean, if I look at the first senior-level computing course I was in, I was at a university where the women-men ratio was legitimately seven to one: seven women for every one guy. That's because it was really focused on teaching. In that computing course, there were 60 people; two of us were women.

Dinah Davis: [00:21:47] That really shows you what it was like in the late 90s to be in computing courses. But what we're seeing today, because of seven or eight years of recruitment done by universities — like the University of Waterloo in Toronto who have put huge efforts into diversity and recruitment — we're seeing 30% of graduating classes be women. So they're coming, they're coming up. It's becoming more normal. Kids are coding early. There's all kinds of activities and things for girls to do now that were limited to boys only before, and they're not anymore. I think there's always going to be work to do. But I do think we are making progress.

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Ashwin Krishnan: [00:22:42] Great to hear, and again, part of the mission behind UberKnowledge and the UberKnowledge podcasts is to exactly do what we're doing right now. We want to get people like you, who've been through that, to talk about your life journey and inspire the next generation of women leaders, to say, this is not just cool, this is a mission and a passion. You can actually go and solve something that really protects every one of us.

[00:23:12] One of the last questions I have for you is on this very interesting interview you did with, I believe, Silicon Republic last year. You touched upon it briefly, and I quote you here, "Your team must have a strong and open environment where they feel comfortable bouncing around ideas and building each other up." The other comment you made was, "For every bad thing that is said to them, high performance teams need to hear seven good things." That's a very interesting comment. Can you talk a little bit about that? Is the philosophy that constructive feedback or negative feedback sometimes goes into a tailspin, and people are not willing to take that, therefore you've got to couch that with some positive feedback? What was the philosophy behind this theory?

Dinah Davis: [00:24:04] Well, I actually learned that from an agile coach that I worked with about seven or eight years ago. The philosophy on it is, when you're really negative all the time, your developers, they get down; they're not up for a challenge. I mean, even if you just think about it yourself, if somebody is being critical with you all the time, are you motivated to go in and do a good job? Nope, it's really hard.

[00:24:37] The interesting thing for me is just very recently, there's a book that came out called "Accelerate," some of the authors of that are the same as "The DevOps Handbook." What this book proved was it actually proves that philosophy that you

need to have job satisfaction to have a high-performing organization. I have devoured this book. It has become my tech-leader bible. In fact, I have written an article this weekend that I'm going to be posting sometime this week about the book. I did a whole book review on it. But anyway, the idea is this, if you have high job satisfaction, if you have a collaborative work environment, and if you have a high-delivery performance, you will have a high performing organization.

[00:25:31] Now, how do you get those three things? They proved to come from two other things. First is continuous delivery. So, setting up your dev. environment so that you're working in a continuous way with all the trappings of continuous delivery. And the second is to have an agile or a lean mindset. Those two things combined, and if you do them well, will increase job satisfaction, will increase your delivery performance, and will help facilitate a collaborative environment.

[00:26:10] I know it's not exactly an answer to your question, but it shows to me, it proves that if you want to have high job satisfaction, positive things have to happen. Even challenging things, that's even better, right? But if you have an environment where when people make a mistake, they get yelled at or blamed, then they don't want to take risks to make those mistakes again. You want them to take risks. When you have a mistake, instead of having a "who done it" and whole kind of thing like that, we do a blameless retro. What happened? How can we not have it happen again? What did we learn? How can we prevent this going forward? And all those things become conversations and part of the things you learn to become better and better.

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[00:27:03] That's what I mean by, you know, seven positive things to one negative. If I just go into a dev. team and say, "You're not delivering, what's going on?" they're going to get really demotivated. If I go into the dev. team and I say, "Hey, I noticed that you guys built this, and it had a few issues when it came out. Did we find out why? What are we doing to prevent that going forward? Oh, you learned that. That was very interesting." You know, when you change them into conversations and opportunities, it makes for a better team.

Ashwin Krishnan: [00:27:39] That's great perspective. I completely understand where you're coming from, it's just like having the consistency of seeing something good and saying something good, and then people are willing to take the constructive feedback when it appears.

Dinah Davis: [00:27:51] Yes and we're not shying away from what's happened, and we're not artificially saying, "Good job!" because a developer is going to see right through that. They'll be like, "Yeah, go away, it's not worth it."

Ashwin Krishnan: [00:28:10] [Laughs] This has been a fascinating conversation. Again, I applaud you for being open about your journey. And I know I can easily say of the 40-plus podcasts we've recorded, this has been extremely fulfilling, just in terms of the conversation.

Dinah Davis: [00:28:30] Thank you!

Ashwin Krishnan: [00:28:30] It's amazing. I'm sure the listeners are going to dig into it as well. Thank you for your time, Dinah. Hopefully we can continue the engagement going forward.

Dinah Davis: [00:28:38] Yes, of course. I'd love to come back on sometime.

Ashwin Krishnan: [00:28:41] Thank you.

Dinah Davis: [00:28:43] Thank you.