

The Internet of Things Meets Privacy

Joseph Bradley, Cisco's Vice President of IoT, on context, inclusion, and other things that make implementing IoT like the real world.

Michelle Dennedy: The Internet of Trust is all about ensuring data integrity, and that means ensuring both the security and the accuracy of data. But if data and data insights are the currency of the 21st century, how do you trust your data?

Cybersecurity, data protection, privacy. You like to stay ahead of the curve and listen to experts who are leading the way in deriving greater value from data with a more organized approach to data privacy. You're like us, just a few deviations past the norm. You are a Privacy Sigma Rider.

Hi all you Sigma Riders. I'm Michelle Dennedy, Chief Privacy Officer at Cisco. A few months ago, in Barcelona, Spain, I got to catch up with the great Joseph Bradley, Cisco's vice president of the Internet of Things, who was there for our annual Cisco Live conference. And so much fun. Joseph is a recognized industry leader and technologist and all-around expert on digitization and the resulting business value. As you'll hear in a moment, our conversation, caught on the fly in Barcelona, was all over the map, ranging from Joseph's IoT and business insights to his leadership—and my favorite—personal values learned from his daddy. Welcome, Joseph.

Joseph Bradley: Thank you so much, man. I'm enjoying Barcelona. It's great. It's about 50 degrees. Negative 50 in Chicago so it's awesome to be here.

Michelle Dennedy: We're winning from the polar vortex.

Joseph Bradley: Exactly right.

Michelle Dennedy: Our eyelashes are not frozen here in Barcelona. Joseph, what is exciting you most? Let's back up. I want to hear about exciting highlights but can you also give us your spin on the Internet of Things. You're the VP of that. That's like the VP of stars.

Joseph Bradley: Well, to me, what's so exciting is we've been talking about IoT for years and years and years. It's coming. It's coming. It's coming. We're trying to sell the value proposition, sell it, sell it, sell it. Now everybody gets it. It's not a conversation where I'm trying to convince people. It's all about implementation.

Michelle Dennedy: They want it now.

Joseph Bradley: They want it now. They want it right. They want business value. It's so exciting to see so many different parts of the business being stressed, that we're working in silos. Now we're realizing that we've gotta come together because IoT is about not only do they gotta connect things, gotta connect data, I've gotta analyze the process and I've gotta tie it to people. So, it takes the whole business process, business gamut, stretches it to its maximum potential and then delivers value.

Michelle Dennedy: That's pretty exciting.

Joseph Bradley: It's just been great. It's amazing. It's an amazing time.

Michelle Dennedy: With this background, now everyone is pulling on your shirt going hey, let's go. What are some of the exciting things that you were hearing from customers and from other Cisco folks this week?

Joseph Bradley: I think the biggest thing that I heard a lot about, it was a lot about if insight is the currency of the 21st century and you're trying to drive ... We're putting so much on the data analytics. How do you know it's not only secure but how do you know that data is right?

Michelle Dennedy: Exactly.

Joseph Bradley: There's a lot of conversation around data integrity, especially as it relates to autonomous vehicles, people's lives are at stake, people's security. So, there's a lot about data integrity, so that was clearly one area of influence.

The second area of influence that came out really loud and clear was not only do I have to have my data, but how do I get access to other's data, that contextual information that I need in order to create value. There's this, how do we create or what's gonna happen with this data exchange? There's a lot of conversation around how do I even take inventory of my data? How do I make it available to someone? How do I know which ones to get? There's a lot of talk about that. That was heavy.

Then I think the third thing that definitely came up was skill sets.

Michelle Dennedy: Yes. The workforce of the future.

Joseph Bradley: Yes.

Michelle Dennedy: It's interesting you say that because I think particularly when you apply the Internet of Things to newer techniques, we used to call it big data and analytics. Now we're calling it ML and AI. AI is coming. But we do have machine learning today to apply to this. How do we pull what we know about the things, how do we know to even apply machine learning to this, and then direct it towards an outcome? I feel like as we've started, it was like here's the stuff, let's play with it. What could possibly go wrong? But are we driving to an outcome?

Joseph Bradley: That's a really good question. I think, and in fact I wrote a book about this, sometimes we focus so much—

Michelle Dennedy: As it turns out.

Joseph Bradley: We focus so much on answers. It's really about making sure that we're fundamentally asking the right questions. We don't spend enough time, in my opinion, really saying hey, is this the right question that we should be asking? Is this where we need to be going? Even how we talk about customers today, we group customers and we talk about them in ways that were invented prior to the Internet.

Michelle Dennedy: You just said an important thing. We talk about them.

Joseph Bradley: Again, it's as if they're second person, not there. We're trying to figure all this stuff out. I'm like if we pause and we fundamentally not only worry about what we don't know but fundamentally challenge what we believe to be true, we can then get at that business outcome. I think there's some great examples around that. Quite honestly, I think about the current discussion around borders and walls and security. I think the question is not whether you have a wall or not. The issue is what is the best way to provide security?

Michelle Dennedy: Right.

Joseph Bradley: We're working on a lot of stuff within schools as an example, right?

Michelle Dennedy: Yes.

Joseph Bradley: Kids don't want to go to prison. Kids don't want to go into school and see all this stuff around. No. They want to feel as though they're in a place for learning. At the same time, they also don't want to worry about looking over their shoulder. They want to feel safe and secure. So, we've applied a really, really cool deep fusion, machine learning analytics, video analytics, and really came up with a really nice way to be able to identify you coming into a school, without having a physical fence but we know who you are. We know where you're allowed access to, and if there is a problem or there is an event around you, we know exactly how to notify you and exactly how to get to you. There are things like that, which I think are really important. Focusing on, again, what's that business outcome we're trying to drive?

Michelle Dennedy: This is where we get together, Joseph and Michelle Dennedy, IoT meets privacy. This is the perfect moment. We're working on privacy engineering and privacy ethics. The outcome is child safety. We'll apply this to the adults in higher learning, but I think everyone can get together and agree, even in divided times, children should be safe in school.

Joseph Bradley: Absolutely. Absolutely.

Michelle Dennedy: This is straight up.

Joseph Bradley: No brainer.

Michelle Dennedy: I think we have trouble when we have the dialogue of how much creativity and kinetic movement should the child have versus sitting in a classroom and sitting thusly, quietly, observing the wisdom of the person at the front, that will have no idea the job that they will have in the future.

Joseph Bradley: Exactly.

Michelle Dennedy: When I put all these things together, how do you break apart this is a really exciting thing, to have someone come in, know when an outsider is there, how do you preserve the integrity of the people that should be there, and do their needs change? As a kindergartner enters, I think we can all agree, I want to hand off from Joseph to Susan to Lynn.

- Joseph Bradley: Yes.
- Michelle Dennedy: When it becomes a teenager and a young teenager, a tween, the last thing they want is you to electronically hold their hand and walk them down the hall.
- Joseph Bradley: Right.
- Michelle Dennedy: What are your thoughts about who do you want in the room to think about this talking not about the customer, talking with the customer in mind and hearing, and how do you then turn those into specifications for the environment?
- Joseph Bradley: Yeah. You know what—
- Michelle Dennedy: You've got a tough job, my friend.
- Joseph Bradley: It's really hard. First off, I think you've gotta realize that it is a situation. It is an ecosystem. It's not a one size fits all. In fact, I'll often tell people, privacy to me can be very contextually based. If I ask people do you value privacy, you would say, "Absolutely I do." But then if I told you, "Don't you go into a grocery store and you put what you're gonna buy on the conveyor belt and everybody sees it? Why do you do that?" Because it's convenient. In that case, I'm willing to give it up. Yes, because it's value based. What value are you receiving?
- I think when you talk about children or you talk about whether it's a teenager or whether it's a younger kid, you have to be able to explain the value of what is happening in this environment, in their language to them. If they understand that value, then they'll be more than happy to participate. Why do kids participate on Facebook? Why do some don't? Because some see the value in it. They understand the value proposition. Others are like, "Hey, I don't see that value. I don't want to do it."
- I think the way you overcome it is bringing all the players in a room and making sure that you understand, listen, but you express ... The system has to be flexible enough that they can see value in what's happening, in what's occurring.
- Michelle Dennedy: Exactly.
- Joseph Bradley: Another thing you have to do is they've gotta trust. To me, trust is you've gotta recognize that hey, you've gotta be very, very clear on what data you're collecting, how you're collecting it, what you're using it for. You've gotta be ... You have to be open in every possible manner.
- Michelle Dennedy: Yes.
- Joseph Bradley: Any type of well, we're gonna just take this piece but we'll keep this back here and we'll let you know. No. Your intent is as important as what you collect.
- Michelle Dennedy: Absolutely. I think many times more.
- Joseph Bradley: Absolutely.

- Michelle Dennedy: Because I think the thing that we will find, because ... I like that you're using the word ecosystem. That's an organic term. That's a flexible term. That's an evolving term. Hardware doesn't evolve very easily. Software can be updated but when you take that systematic approach, let's talk about the skill set you're talking about. There are still people involved here. How do we make these seemingly static things, hardware, software, clouds even, that technologists know take time to refresh and redo and re-skill, how does that interface with a group of human beings looking at the outcome data, and they're gonna have to be the ones that shift us forward and close the gaps while we update, right?
- Joseph Bradley: Yeah, absolutely.
- Michelle Dennedy: How are we getting those people ready for this challenge?
- Joseph Bradley: We talked a lot about this in a discussion presentation I actually did yesterday. One of the dialogues I had with an audience that was primarily, probably all from a technical side, so all CTO, CIO. I said, "Rise of the humanities." They looked at me like what are you talking about? I said, "You are gonna have to understand that if you want to speak the language of people, of your customers, of users, as you said this ecosystem, you have to understand and learn their language. That means that you have to bring in someone who speaks the business, understands the business. You actually have to bring in someone that has a different mindset to you, and I don't mean to just tap into. I mean as part of your organization."
- I said, "If you think about, in the world we live in today, where all of the answers are pretty much known, value is understanding what question to ask." You better get those humanity majors to come in and be a part, not on the side of your business but a part of your business, sitting right next to your coder, your programmer, your analyst guy who's sitting there, or lady who's sitting there saying, "This is the algorithm I think I want to design. I think it's gonna work." Really? Why don't you think of it this way?
- Michelle Dennedy: Yeah, or what about this?
- Joseph Bradley: What about this? What about that? You've gotta really value that in the organization. They look back and they look back at me. I said, "Yes. Inclusion and diversity is not only what you physically see but we're talking about now around thought, what's inside." They were like, "Whoa. Wait a minute now. Hold on a minute—"
- Michelle Dennedy: I like control. What am I gonna do about that?
- Joseph Bradley: Yeah, you know, you have different personalities, different types. Wait a minute, they're on that side of the organization. No. They've gotta be a part of this ecosystem. It's the only way it's gonna work.
- Michelle Dennedy: I think we have to become organizations.
- Joseph Bradley: Absolutely.
- Michelle Dennedy: Instead of a collection of silos.

Joseph Bradley: Absolutely. I think you're right on with the skill sets. I tell people all the time, I think you really ... I'm all for STEM. Don't get me wrong because that's what makes your—

Michelle Dennedy: We need those guys too.

Joseph Bradley: We need STEM, I'm all for it. But I'm not for taking a child who is really excited about the humanities and saying, "No, no, no. You're not gonna make any money. You've gotta go to STEM." No. That's not the case at all. You need both in society, and I think you put those together, we're gonna see some really, really powerful outcomes.

Michelle Dennedy: I think that's right. I've certainly witnessed that and I think ... Let's go back to school for a little bit.

Joseph Bradley: Yeah.

Michelle Dennedy: We go back into the classroom and we say what is the outcome you want to achieve? I've got all these sensors. I think to a technologist, they say I want to keep this physically secure. Make sure the kids are safe.

Joseph Bradley: Yes.

Michelle Dennedy: As you were saying, geolocation and tagging. The question that is often missed, I think in the development process without the humanities present is where's the off switch and when should it be applied?

Joseph Bradley: Yes.

Michelle Dennedy: You don't want to be observed everywhere.

Joseph Bradley: That's right. When I think about that again, to me I think of almost domains. It's almost like experiences, right?

Michelle Dennedy: Mm-hmm (affirmative).

Joseph Bradley: Context is so important.

Michelle Dennedy: Or for our software developers, user stories, people.

Joseph Bradley: Yeah. User stories or user personas, right?

Michelle Dennedy: Yes.

Joseph Bradley: I think one of the things that, to me, by connecting the world, what it does is it gives you context, which we never had before. By establishing context, meaning are the kids in a learning environment? Are they in a classroom? Great. If they're safe in that environment and classroom, then I can probably shut that off and I can start thinking about what's happening around, what's happening. Is it quiet time? I can tell that. Why? Because they're all heads down. Nobody's moving. They're doing a test. Okay. Is it recess? Guess what? All I need to know is, is somebody

going outside of this boundary? Do I need to really know, are they down this hall or that? I don't need to know that.

Maybe I give kids ... Maybe certain kids might feel more comfortable, especially if you go outside the US. Let me tell you, in the US we're so worried about I want to have my privacy. If you go outside the US, they want to be known. I want you to know I exist. I want you to know where I'm at. Again, give that user, give that individual some flexibility. I'm sure certain parents want to have certain insights.

Between the kid themselves, the parents, give them some choices around when do I want you to know what's going on, when do I don't? When do I feel safe? I'm sure you're gonna find some differences but the most important thing is because we've connected the environment, we understand context, and we don't have to have one size that fits all. We don't have to have it, but what you can't do is you can't allow pure technologists to just determine what those domains are.

Michelle Dennedy: Right. It feels like you need to be a little leaky on both sides.

Joseph Bradley: Absolutely.

Michelle Dennedy: When I was a litigator back in New York, we actually took ... one of my favorite continuing education trainings, we took improv. It was terrifying.

Joseph Bradley: Gotta really listen with improv, man. You've gotta—

Michelle Dennedy: You've gotta listen. You've gotta be with your partner. And we're like dorks that went to law school because we have no social skills, let's face it. Someone had to listen to us because there's a protocol in court. I think it's often true with my beloved IT community that I've been hanging with for the last 30 years, I think also the technologists, raising their heads a little bit and somehow connecting it to their personal passions. They have children. They live in a community. They're religious. They have a mother that they still like. All these things are, how does this work?

Let's stick with the classroom for a bit, because I think the interesting thing you can do once the perimeter is safe, just like remember how computers evolved and first we worried about the perimeter or the firewall.

Joseph Bradley: Yeah.

Michelle Dennedy: Now you've created a boundary of virtual safety here.

Joseph Bradley: Yes.

Michelle Dennedy: Instead of just saying we want to make sure the kids are okay in recess, and so now we're good, objective achieved. Maybe now the next question is what about the painful introverts? I remember recess and gym as my most terrifying and terrible times. I have zero physical agility. I'm like this chubby little dumpling who nobody is running to pick for the ball game. What I wanted was a little quiet pod where I could just read my book and not be on display as the kid

always sitting alone in front of everyone in a big box. I think having the flexibility of security allows for us to rethink what do all the kids need, and are they kids one lump, or are they Joseph and Michelle who have individual learning needs?

Joseph Bradley: I think it's right on. I think typically before we talked about customers on things that we can see, like devices. How many kids, how many cellphones are there? We're talking about the device itself. Now you can talk about behaviors because again—

Michelle Dennedy: Who's holding the device?

Joseph Bradley: Who's holding the device? Are they really active? Are they moving? This person likes to read a lot. We can begin to describe people based on behaviors, based on what's happening the time of the year—

Michelle Dennedy: Based on the weather.

Joseph Bradley: If it's raining, maybe I'm not a kid ... I just moved to Chicago. I'm not comfortable going outside at recess and it's 17 or minus 10. I'm not used to that. You know what I mean? There are all these different ways to your point that I think we can really say ultimately how do we maximize the experience of that child?

Michelle Dennedy: Yes, because that's the outcome.

Joseph Bradley: Exactly.

Michelle Dennedy: We thought we had an outcome of security and look what we've gotten to, integrity, ethics, and a bigger outcome. Sometimes people are like, "Do I do the work for security? I've gotta comply with this new GDPR privacy law. My god." When you just even go through the verbal requirements setting workshop that we just did, suddenly wow, not only do we have technological innovation. How do you have a Kubernetes for a child? Now we also have what are the new skill sets? What is the new kind of classroom monitor? Then it goes back to what you said earlier about education, which I think is so powerful for continuous learners like ourselves, as well as the littles.

Joseph Bradley: Absolutely.

Michelle Dennedy: Now that we know, I'll say all the answers, we know many, many more facts and they're available in our pockets through super computers. How do we get to the ultimate learning goal of asking that right question, and then asking the wrong question and being okay with that?

Joseph Bradley: Being totally okay with that. Staying in it, right?

Michelle Dennedy: Yeah.

Joseph Bradley: Being able to spend time. Einstein said if you had 60 seconds to save the world, you would think about it for 50 seconds and execute the last 10. We're doing just the opposite, man.

Michelle Dennedy: Yes, we are.

Joseph Bradley: Let's just go, let's just go, let's just go.

Michelle Dennedy: It's like almost every launch is a beta.

Joseph Bradley: That's exactly right. That is exactly right. Then we're surprised when we have ...

Michelle Dennedy: Millions of records lost.

Joseph Bradley: Can you believe that? Why could that possibly be, right?

Michelle Dennedy: Yeah.

Joseph Bradley: I think you're absolutely right. Staying in the questions, staying in the moment, really focusing on it, not assuming that we have the right answers. We talk about this a lot. Marvel comics, I think it's a great story. Spend years trying to figure out how do I sell more comic books? Then they change ... Same people, same assets. They change the question. How do we drive greater entertainment value? Now all of the sudden they go from bankruptcy filing, to being bought by Disney for five billion. Same stories over and over and over again, but we don't spend enough time fundamentally saying are we asking the right questions?

The other thing it does is when you go to an answer, it automatically puts you in a right or wrong situation. You automatically stop listening to one another. You may be trying to optimize on safety. I may be trying to optimize on a kid's experience. Someone else is trying optimize on revenue to the school. If we can't agree on the fundamental question, we're never gonna—

Michelle Dennedy: And someone else is on top going don't change, please don't change. That scares me.

Joseph Bradley: Exactly. If you stay in the question, you find that I think you can open yourself up to improving your rate of learning, because you're listening to one another and you can truly drive an outcome. But if you skip that step, it's a lot of conflict.

Michelle Dennedy: Yeah, and you're doing add-ons to try to harden the security of it.

Joseph Bradley: Correct.

Michelle Dennedy: Then when you get into that impossible situation, and so we'll use it with records lost in large hotel chains or OMB records so that people's portfolios when they're applying for government work, that can be a national security problem. Then that becomes the instant problem that is urgent and we forget that this is breaking the entire environment.

Joseph Bradley: Absolutely.

Michelle Dennedy: You've lost all those other requirements.

Joseph Bradley: All of them, all of them.

Michelle Dennedy: It's a terrible outcome.

- Joseph Bradley: It is.
- Michelle Dennedy: Then people say IoT can't happen.
- Joseph Bradley: Then they start saying it, and the thing that's funny to me, a lot of folks talk about ... They'll talk about IoT like it's an event. Let me go get some IT. Let me go get an IoT. Let me go get this tool. It is truly a life cycle.
- Michelle Dennedy: It's a lifestyle.
- Joseph Bradley: Lifestyle, life cycle. It's a market. But what it isn't is a specific core technology. I think when you think about what's driving and what's so hard to implement about IoT is because enterprises are set up where they have data center or they have a security business or they have a collaboration. They have all these separate businesses, and IoT is like the real world. I don't want a bunch of independent tools. I want an outcome, which means that all of you have got to work together to create an ultimate experience. That is something. How is it measured? Who gets credit for it? All that stuff is what makes IoT so hard to implement in the real world, right?
- Michelle Dennedy: Yeah, and see how you're looking at it financially too. If no one's responsible, then who's responsible and who gets incented to push this forward?
- Joseph Bradley: Without the clear lines of that business value, I always tell people IoT at the high level is very easy. It always makes sense. The problem is that those people who receive the benefits aren't the people that pay. So, you have a misalignment oftentimes of cost and benefits. Happens all the time in smart city, any type of smart city applications. Who's gonna pay for it? Who's gonna receive the benefits? We want private enterprise to pay for it but the citizens are gonna receive the benefits. At the highest level it makes sense, but when you get down to the core parts of economics, that's where it gets really, really stressed.
- Michelle Dennedy: Exactly. It's very tempting to say it is the age of digitization. I need to consume that data. So, my payment if you will as a technologist will be access to that data. Meanwhile it's citizen data. It belongs to each individual. It doesn't belong to the corporate. You can't sell away someone's rights if you're a city, even if you have their best intentions in mind, you can't just alienate someone's human rights.
- Joseph Bradley: No, and I think the thing that's amazing to me is we'll talk about an IoT project or an IoT event, without even understanding and doing an inventory of what data assets I have or I don't have.
- Michelle Dennedy: It makes me drink in the morning. Now you're in my world. This is where privacy engineering works. I'll give you an example and then if you'll indulge me, I'll tell you my interpretation—
- Joseph Bradley: Absolutely.
- Michelle Dennedy: Of what we used to call the IoE, or Internet of Everything.
- Joseph Bradley: Yes, absolutely.

Michelle Dennedy: First I'll give you the use case. A smart city came to us and we'd been working on a project. To your point about outcomes, we had healthcare and security come together and they were super excited. I don't mean to diminish it. It's a great outcome, but the outcome was this. They had a very ... an aging population, which a lot of communities will have. If you look at the aging population, we're in like a bell. We're gonna have a lot of seniors running around the planet and we're able to keep them alive for much longer. As a result, we will get people with some confusion and some early dementia and other issues that are part of the aging process.

The outcome was we have a lot of seniors here and sometimes they just get lost on their way home or they get confused or whatever. What if we had a solution for IoT so that we can follow our seniors wherever they go, and then you can have an app on your phone, if you're their kid or their grandkid and track grandma. They were so excited because the family would always know where grandma was. This was like 20 dudes in the room and I just was like I'm gonna be that guy again but again, inclusion. I was like ... If you are the one being included in a meeting, they don't always want to hear what you have to say, but you have to be extra bold and say it.

Joseph Bradley: Absolutely.

Michelle Dennedy: I raised my hand and I just said, "Not everyone likes grandma." There could be an inheritance issue. There could be a disenfranchisement. There are a million things that go on in a million families and grandma is not able to consent because she has dementia. That's the use case. We had to really rethink. The outcome is great. Making sure that people that are lost or confused have a safe place to be. But that means going tiny on the data, rather than going huge on the data.

Joseph Bradley: Right.

Michelle Dennedy: You can come to a conclusion, which leads me to walk through the IoE and tell me what you think. I think today ... I'll say yesterday since we're talking about what today and beyond will look like. Yesterday, it was IoT was created with four ... I think it has four IoEs, the Internet of everything, the stuff, everyone, the people that it's describing, ethics, and experience.

Joseph Bradley: Yes.

Michelle Dennedy: Those four Es together, for me, are an outcome regardless of what theater you're in. The problem with the way we used to do it, today and yesterday and beyond, is we start as you say with the stuff. We start with the Internet of Things and say what's available? What are the toys? There's not enough memory. We need more state so we can record stuff. We need access. Then maybe we go to the Internet of people because we're thinking about what's the population, how much money do they have to pay.

Joseph Bradley: You're being generous.

Michelle Dennedy: You have to apply all the privacy rules at this stage. It's like okay, we've got our stuff. We've got maybe this. Then we go to ethics and I think this is the crossover between legal and ethics, because legal really is a look back of what could go wrong or an imagining of people who haven't experienced that context of a set of rules and requirements. Ethics goes beyond for me. Ethics is your brand.

Joseph Bradley: Absolutely.

Michelle Dennedy: It's what am I willing to transparently say is my north star? I apologize to the philosophers. I know that's not the real definition of ethics. Then you get to experience. As you said, you don't want to drive a car and now I've gotta turn my carburetor. Need a little more of this. You want a steering wheel. I think the way we will, from now on my hope is, and let's point to the hands, this is how Joseph and I are gonna roll. You flip it on its head. Let's start with experience. Who are the nurses and the teachers in the hospital? Have they been technically trained on Kubernetes and network segmentation, and are they aware of the latest encryption and is quantum ... No. I want them to understand how to ask the questions, is it secure, blah, blah, blah.

But the experience for that person, that teacher, that educator consuming the data, let's consider that work plan first. Now you're introducing your improv people, your artists, your user. The people that tell stories for a living. Then you go down to ethics. If we have this story, if the scenario did work, is this still, regardless of what any law said, is this still who we want to be at the end of the day? Then you go on to are the people still be served, and finally but not least, you build.

Joseph Bradley: Absolutely. Just because you can doesn't mean you should. I think that's-

Michelle Dennedy: I call that the Lady Gaga rule. You want to know why?

Joseph Bradley: Let me hear this one.

Michelle Dennedy: Are you a little afraid?

Joseph Bradley: No. I'm never afraid but excited. Let me hear this one.

Michelle Dennedy: This is the Lady Gaga rule of ethics. Just because you can doesn't mean you should. Lady Gaga, lovely, talented, amazing artist walks out to the VMA awards in a meat bikini. Do you remember that one?

Joseph Bradley: I do.

Michelle Dennedy: She was wearing steak on her nude body.

Joseph Bradley: I remember that, yes.

Michelle Dennedy: I'm not gonna lie. She had the legs for it. However, just because you can, really? Really? Don't do the Lady Gaga.

Joseph Bradley: You're right on. I think what we were talking about earlier, you're still starting with a question. You're saying what are we trying to achieve first? What's the goal? What do we believe, what do we envision?

Michelle Dennedy: If anyone says the goal is security, kick them out of the room. If the goal is a wall, kick them out of the room.

Joseph Bradley: Absolutely.

Michelle Dennedy: If the goal is how do you have two societies with different cultures, different rules, different requirements...

Joseph Bradley: Absolutely.

Michelle Dennedy: Having a seamless interaction in a modern world that says no one of these needs to be better than the other. That to me is the outcome. I'm not hearing out of anyone having a border discussion.

Joseph Bradley: It isn't. It's because it's let me get this tech in, or let me get this position in or let me get this data in.

Michelle Dennedy: Or just give me your data. I have a platform.

Joseph Bradley: Exactly.

Michelle Dennedy: It's magic.

Joseph Bradley: Oh my god, everybody has a platform. I keep telling folks. When you think about the word platform, by definition, a platform means that somebody has to use it. There's gotta be multiple users on it. It wasn't as if Apple decided we're gonna build a platform. Apple said, "You know what? We're gonna give you a new way to consume music." Wow. All of a sudden, people really loved that experience so it developed into being a platform. We all say, "No, no, no. Here's my platform." Then they give you all the tools. I was talking to my nephew. He's three years old.

Michelle Dennedy: They're the best designers.

Joseph Bradley: Oh my god, between Play-Doh and the Legos and the puzzles. We were going as ... I had one of those real surreal moments. He's looking at me. He's getting frustrated. He's like, "I want the truck, Uncle Jo Jo." Because he can't say Joseph, Uncle Jo Jo. I want the truck, Uncle Jo Jo.

Michelle Dennedy: I will be calling him Uncle Jo Jo.

Joseph Bradley: I want the truck, Uncle Jo Jo. I want the truck, Uncle Jo Jo. It was funny because I'm like this is what our customer is saying. Don't give me a bunch of Legos and parts and throw them on the ground and say our partner or someone else will put them together-

Michelle Dennedy: How about a block? Here's a train track.

Joseph Bradley: No. Give me the truck. Put it together. I want to see it go. Exactly. You're right on. I think the ethics question ... My grandfather, when I used to come home from school all the time, he would always ask me, "Do you know what it means to be a good man, Joseph?" He would always ask me that.

Michelle Dennedy: We have Uncle Jo Jo and grandpa.

- Joseph Bradley: He was really concerned about, I was his only grandson, and so he was—
- Michelle Dennedy: No pressure.
- Joseph Bradley: No pressure. But he was really concerned about making sure that you grew up to be a good man, as he would say. Then he started changing the question, and he'd say, "What does it mean to have good character?" Being a good man means you have good character. Then finally, it must have been maybe probably 10 years before he passed away. I was, I don't know, maybe something like 30s and he said, "I'm gonna finally give you what does it mean to be good character." We were talking and he said, "Character is what you do when no one is watching."
- Michelle Dennedy: Absolutely.
- Joseph Bradley: That ultimately is what ... It's not when the cameras are on. It's not when there's a big room of people. It's when you're sitting down and you're about to make a decision. You're thinking through it. Are you really focusing on the outcome or are you gonna go right back to tech? It really is, especially when you—
- Michelle Dennedy: It's comfortable.
- Joseph Bradley: It's so comfortable. Everybody's here, let's just put this thing in, because I can see it. I can measure it. There it is. There it is. You guys worry about the implications. I didn't know. I'm sorry. You mean we actually found out where you were, when you were, and that got leaked? I didn't think about that.
- Michelle Dennedy: My bad. Let's just build another tool. You go over there, we're gonna do this without you again.
- Joseph Bradley: I love it when they say, "Give me some IoT. Give me some." Sure. We will. What tool would you like today?
- Michelle Dennedy: Exactly.
- Joseph Bradley: I think you're right. I really like turning it on its head, focusing on the outcome. I think our customers are demanding it, quite frankly. They really are demanding it.
- Michelle Dennedy: I think so. Let's do one final question to wrap it all together. You're a leader. You're an author. You're an evangelist of these things. All these great things. How do you take your grandpa's great advice and say to your employees and even to your customers and partners that you interact with, what is character for you? How do you move into it and do you use that mantra at work and how does that show up for you as a leader?
- Joseph Bradley: Being authentic is really important to me. How it shows up to me as a leader, it's not ... My job is an important role, but it's not my purpose. It's not my purpose. Making profits is required to Cisco, yes. Breathing is required as a human, but it's not my purpose.
- Michelle Dennedy: That's not my purpose.

Joseph Bradley: It's not my purpose. To me, my purpose is every person I meet, I would like to leave that interaction learning something and expressing, and giving that person some value.

Michelle Dennedy: It's an intellectual barter.

Joseph Bradley: Yes, and I think—

Michelle Dennedy: And an emotional barter.

Joseph Bradley: An emotional barter. I think you honestly have to show up authentically. Let me put it to you that way, in terms of how you interact with people. And I always tell my team, very, very carefully, mind your thoughts because your thoughts become your words. Mind your words because they become your actions.

Michelle Dennedy: You think you're faking it when you don't like someone.

Joseph Bradley: Exactly. Mind your actions because that defines your character.

Michelle Dennedy: That doesn't mean to walk around being a jerk everywhere.

Joseph Bradley: No. It doesn't give you the opportunity. It means that you have to be aware what's happening and if you define your character, know what you're doing when no one else is watching. That will shape your destiny. That's how I live my life. That's how I'm authentic to my team. I'm excited with the folks that I get to interact with. This has been great.

Michelle Dennedy: Yeah, this is fun.

Joseph Bradley: Such a fun conversation, we've gotta do it again.

Michelle Dennedy: Yes. Definitely.

Joseph Bradley: Anytime.

Michelle Dennedy: Uncle Jo Jo, otherwise known as Joseph Bradley, vice president of our IoT group at Cisco. Thank you. Namaste from my heart to yours.

Joseph Bradley: Been great.

Michelle Dennedy: This has been really fun. Thank you for your insights.

Joseph Bradley: Thank you very much. Been great.

Michelle Dennedy: Sigma Riders, it's a wrap.

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