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## Beyond the Network: Democratizing Innovation

The future of many industries rests on technology – manufacturing, medicine, transportation, even the food industry – and as with most industries, evolution, change, and disruption enable them to forge forward, to stay competitive, and ultimately reshape the foundations and footprints for the next generation. How does an industry, an enterprise, or an individual make these disruptions? Sarah Khokhar explains, as we go Beyond the Network with Cisco IT.

What is innovation? It's a fairly nebulous term, one that has the perception of being a unicorn, or a mass disruption to an industry, like online shopping, vertical farming, or even cloud storage. To innovators, it's a mindset of solving problems. For Cisco IT, it's a hub or a living lab of co-development on products with business units, customers, and partners. Jyoti Sarin, leader, innovator and founder of HackIT at Cisco shares her views.

**JYOTI SARIN**: "Innovation to me is creating new value. It could be existing solutions that you connect in new ways, or inventing a new solution. It doesn't always have to be invention – innovation is about solving problems in new and different ways, so that it actually creates value, and which I think is one of the most broadest definitions of innovation that is applicable to many situations, to many ways of thinking, if you will."

Mathilde Durvy, innovator and manager of the Innovate Everywhere Challenge at Cisco says:

**MATHILDE DURVY**: "Innovation for me is the creation of something new and valuable. I think for Cisco it could be a product, or service, a process or even a business model innovation. And it could be incremental or disruptive, and I think that's what's really key about innovation, is that there are many different types of innovation and everybody can play a role."

Kristen Caplan, innovator at Cisco says:

**KRISTEN CAPLAN**: "Innovation for me within an enterprise company like Cisco means continued market growth and continuing to meet your customers' expectations before they even know that they have these expectations. It's thinking about your customer, what do they need, how can you help them and coming at their problems in a different way than what's been done before in the past. For me, it's not necessarily some new and flashy, cool product, that may be common to think about innovation, it's really about finding those things that make somebody's experience so much better."

Stimulating innovation in an organization then becomes the responsibility of leaders and the strategies used to invigorate the workforce are numerous.

In an article in the 2014 issue of the Harvard Business Review entitled, "Collective Genius," a team of researchers delved into the world of innovation to shed light on the role that leadership plays in developing a creative culture within a company. The link between leadership and innovation was undeniably important to creating a community willing to test their ideas on the fringes of their imagination. This quote is pulled from the article:

"In the way they behave and structure the organizations where talented people work, leaders can draw out the slices of genius in each individual and assemble them into innovations that represent collective genius. The question is not 'How do I make an innovation happen?' but, rather, 'How do I set the stage for it to happen?'

But it's not just about one strong leader, it's about many. As a company with a reputation of disruption, Cisco has leaders across the company who understand the nature of the innovator.

Jyoti Sarin explains.

JYOTI: "What I have seen is the organizations with strong leaders that believe in innovation are fundamentally different in their DNA than organizations where leaders are focussed on managing for today. I'll actually give you an example of Chuck Robbins. I started to actually support Chuck's organization when he was leading the Americas Sales organization. He was definitely the kind of leader who saw the power of innovation and how it can change the organization. And he didn't just see it, it actually inculcated it within his organization. So we started supporting him on a couple of objectives where he wanted to drive the right knowledge management sales behavior so we had a program called Cisco Barbarians that was started under Chuck's leadership... then we had another program called Street Smart which was about crowd-sourcing innovation from field sales and being able to actually generate new innovative ways for sales to impact Cisco. That was directly related to Chuck's leadership and his vision around how he wanted to make sure Sales was an innovative organization. What was most interesting was it didn't stop with Chuck going from an Americas Sales leader to becoming the Global Sales leader to now becoming the CEO."

Emma Sinden, managing co-director of Bright Innovation, a marketing consultancy and change communication company, talks about her experiences with the role of leadership.

**EMMA SINDEN:** "I think one of the big problems we've always had with technology with a business like ours, is that leaders often make decisions about technology tools or ways of working that we expect our junior resources perhaps to leverage and to use, but we don't do it ourselves. We see this a lot with the businesses that we're working with, especially within the change communication piece of what we do, and one of the big problems we have is there is a little bit of a 'do as I say, not do as I do' mentality with senior leadership. Because I think a lot of them by their nature are a little older, they're a bit perhaps more set in their ways, they are often the people who are least good at adapting to new technology. So I think what's really important with leadership is that you, to coin the phrase, 'eat your own dogfood' so we aren't going to be asking our clients or our staff to leverage new technologies, different tools and different sets of data and use those things with our clients, we need to be leading the charge on that. We need to be using them, those tools and we need to be the curious ones. We need to be the ones that are out there looking at what's available, what people are doing, what new things we should bring in and adapt and how we can use them, rather than being the laggards, which I think is quite often the case within the industry."

SARAH KHOKHAR: "Has Bright strategy evolved over the years?"

**EMMA**: "It has evolved, and what we do has evolved based on the needs that we found in the market. And I think that's the other thing about leadership, in that you mustn't be afraid of change. Because when we started the business, the business was started very much as a response to frustrations that we both had working in the industry about the models that agencies use with marketing communications. And we felt that there should be a better model, one that's more about partnership, that was more agile, that was more data-based, and that was more about being able to provide service rather than simply delivering tactics, if you like, and kind of pre-set deliverables. It's the previous agency model to be very much the agencies have kind of sat back and waited for clients to give them things to do, and so the model we created was very much about partnership, it was about being more agile, it was about being able to test ideas and prove their ability to work before asking clients to commit big budgets. But because we come from the tech sector one of the things that happened, a kind of an evolution along the way, is that we were talking to a lot of our clients at quite senior levels, like CIOs, and they were telling us about a shift in their responsibilities. So many of these CIOs were now being asked to drive big digital transformation programs across their businesses and all of a sudden out of that came this opportunity to move into the change communication space. And now that is 40 percent of our business."

Company-wide, employees wanted a place to make a difference and company-wide, leaders were willing to step beyond their traditional roles to create opportunities for employees to engage. What does Cisco's innovation ecosystem look like? It ranges from company-wide strategy, to organization-specific programs, to co-creating and collaborating with partners and stakeholders outside the company.

The stage is set for continuous innovation, a pillar of what CIO Guillermo Diaz Jr. calls Future IT. We covered Future IT on Beyond the Network previously, but to recap, Future IT is the best people working in an agile and dynamic way, driving continuous innovation to deliver unprecedented outcomes. Driving continuous innovation requires leaders who understand the uncomfortable and organic nature of innovation as well as people who are empowered, who have the skillsets, autonomy, and environment to try something different.

Jyoti explains IT's involvement in the development of a creative community.

JYOTI: "When I joined Cisco within Cisco IT I had a very technical operational role and I saw that there was an opportunity, especially at this time. So, imagine, 12 years ago, IT industry was a very operational-focused industry. But Cisco IT is different. Cisco is a company that basically serves IT as its customers and Cisco IT is one of the first customers that Cisco has, so we have a perspective on where IT is going and where IT is transforming as well as IT is one of those organizations that cuts across the entire business and has the ability to see deficits from an innovation standpoint and what problems we're facing as a company, and has the ability to actually bridge that and innovate. So we saw that opportunity and I was fortunate enough to start a practice for innovation within IT. Over the years, that practice has actually grown to become one of the core innovation organizations. We, as my organization, we support innovation programs across Cisco. We partner with corporate strategy, we partner with services, we partner with multiple organizations and we help them drive the innovation. I've been personally very passionate about driving the culture of innovation because as I have gone in the past over the last decade one of the biggest things that I have learned in the innovation realm that it's not a process, it's really the people. At the end of the day, innovation is all about bringing the people who are at the edge of knowledge or who are at the edge of their imagination and creativity and giving them the right tools, giving them the right environment to flourish and being able to unleash that, is the role that I think I've played through the programs that I've created like HackIT, Innovation Hub. We've created innovation capabilities across the company to run innovation programs, to support and mentor innovators and to support and mentor an ecosystem of folks that actually support those innovators. So that's sort of been my role personally as well as my passion, and has been the role of the innovation organization I've created within Cisco IT."

Cisco's People Deal is a strategy implemented across Cisco that focuses on the employee experience, and the Innovate Everywhere challenge is a part of that strategy. Mathilde Durvy, innovator and manager of the Innovate Everywhere challenge at Cisco explains.

**MATHILDE**: "So, the Innovate Everywhere challenge is our yearly global innovation competition at Cisco. All employees can participate, it provides a vehicle for employees to grow their best ideas and develop their entrepreneurship skills. And it's really about creating new opportunities for Cisco both internally and externally. So, the challenge is part of our People Deal. We help our employees innovate everywhere and we expect them to do so. So, our People Deal more generally includes 11 Moments that Matter, moments that matter in an employee's life and My Innovation is one of these moments. It includes the Innovate Everywhere Challenge but also other programs to help employees innovate on a day-to-day basis. So we have for example The Hub which is our go-to portal for innovation, we have Start-Ups at Cisco, which is a hands-on workshop to accelerate projects using the latest innovation methodologies, and we have our mentor network with more than 3,000 Cisco employees ready to help others innovate.

So, we run the challenge every year and we are currently running our third challenge. Every year we have about 49 percent of Cisco employees that go to the challenge website, so that's about 30,000 people. And 29 percent of

these employees take an action as part of the challenge, so they might submit an idea, they might join a team, they might comment on ideas, or they might invest their free tokens as a way to help select the best ideas. So in total, over the 3 years, we got 2,300 venture ideas submitted which is on average 800 per year."

SARAH: "What do you think makes this challenge so successful?"

**MATHILDE**: "So I think there are a couple of things that make it so successful. First it's the sponsorship of our leadership. So, we have two big sponsors, one is our CSO, Hilton Romanski, and one is our Chief People Officer, Fran Katsoudas, so I think this combined sponsorship means that we focus both on employee experience and developing talent, but also on business outcomes. So I think that's one of the key things that makes the challenge successful. The other one is really the intrinsic motivation of our employees to bring their ideas to life and the fact that we give them everything they need to achieve that as part of the challenge."

Around the globe, Cisco has adopted what it calls Innovation Centers – hubs that build solutions with partners, start-ups, accelerators and universities, that engage in rapid-prototyping, and that showcase what is possible in the realm of digital transformation and the Internet of Everything. In10 locations around the world, each Innovation Center is different. Tom Goerke, manager of the Australia Innovation Centers, talks about how they work.

**TOM GOERKE**: "So the model that we've used here in Australia was based on the model that they did in the UK, so IDEAL, which started off with UCL DC Thompson and Cisco, which is now EDF instead of DC Thompson. I would say the team there are a little bit more start-up focused, but you've also got CREATE and IDEAL which is combined. We're probably a hybrid of IDEAL and CREATE, where we're very focused on customers and not so much on start-ups, so if you've actually ever been into IDEAL, which I'm sure you have, you'll see lots and lots of start-ups in there. That's not been our focus, so a little bit different from IDEAL. Now the start-ups are in there really to bring customer engagement and to drive influence sales. We are probably a little more direct in our influence in direct sales because we're trying to solve customers problems and then we're trying to track the Cisco solutions that we sell later on to meet those requirements. But not only that, by the customer being able to come in here and talk to us about business challenges that may or may not have a Cisco component to the solution we very much change the engagement."

Cisco's innovation ecosystem is maturing and evolving every year. Some of the innovations coming from this ecosystem come from the Innovate Everywhere Challenge.

**MATHILDE**: "We had for example a venture called Evar, which was about augmented and virtual reality and how we could integrate it with the Cisco portfolio. So it's now something called Spark VR which is a client for Spark that people can download to bring a VR experience to the Spark Cisco product, so that's one. We had a project Life Changer which was about hiring more handicapped people as part of our workforce and doing that using the Cisco collaboration portfolio, so that's now a program that's active at Cisco. We've hired about a hundred people under that program at Cisco currently. And we had also another good example was a venture called Rain Maker which is now a project called Vicarol, which is about the provisioning of the data center for big service provider customers, so people like Comcast and others."

Spark is now known as Webex Teams.

Some come from the HackIT program, Shyam Sundar Ramaswami explains his innovation called Jarvis:

**SARAH**: "You're an actual winner of HackIT, your innovation has been implemented in Cisco's Umbrella. Can you tell me what you created and how it works?"

**SHYAM**: "The basic bottom line of any research is threat intel, which is very vital today in our Internet lives. Threat intel and info gathering about any campaign or a domain takes a lot of time, to be honest. By the time you gather the intel the infection spreads real fast. So the starting point is always hard and by the time you gauge an attack it

kind of spreads real, real fast. So what if something gives you info about a domain from various standpoints? That collective info will help you to decide to block or unblock a domain within 3 minutes instead of 30. Well, we built Jarvis for that, and Jarvis emulates a researcher and analyst mindset and gives you suggestions and predictions and even predicts the possible threats, unearths the hidden threats in a domain. That makes your life really, really simple when you do threat prediction."

And some come from the Innovation Centers, Tom explains:

**TOM**: "Let's talk a little bit about the SKA. So, when we created the center here it actually came out of – it was the world's IoT Forum in Chicago, Cisco was talking about our innovations centers. There was a contingent from Australia that were in Chicago and they said 'This is really cool that you're building these innovation centers. By the way, did you know that we'll be building the largest IoT instrument in the world, in western Australia?' And that's called the Square Kilometre Array.

The Square Kilometre Array will have 130,000 attenas when it goes live. It will generate over an exabyte of data per day. It dwarfs everything else that you can possibly think about . And the reason why it's important for humans is that post the Big Bang, the first I think it's x-hundred million years – the numbers keep changing – there's no light. So think about that, there is no light. So when you're using optical telescopes – because once we look back further and further away we can look back in time – we don't see anything, we can't see right up to the Big Bang. The radio telescopes, of what the Square Kilometre Array is, can. So they can go right back to the beginning of the universe. And that's why it's so important. There's lots of reasons for that.

So we took that, we took the fact that we also had supercomputing facilities. We took the fact that Cisco can provide this connectivity and is very interested in connecting this. Working with the university and the institutes of computations, said this is all around data analytics, machine learning AI, and the fact that SK is helping to drive this, that was the catalyst to create the center here in western Australia."

#### So where does Cisco go from here?

JYOTI: "So we have over the last decade or se, we've gone from not having sort of an IT innovation program to having an IT innovation program, and in fact sort of really re-energizing our Cisco workforce especially when it comes to internal innovation or organic innovation. Now what is important to us is how quickly do we bring these innovations to market and how close we are to our customers with respect to the innovation itself. So there are two important vectors that we're working on. One is how do we create a continuous innovation model, where our voice of the customer it has the ability to dictate our product roadmaps and has the ability to create that customer intimacy between our engineering organizations and our direct customers, ensuring that model is actually streamlined, it's data-driven and all that. So that's one of the most important vectors. The second is how do we ensure that we can take some of the what we call horizon three, the real sort of big-bang disruptions to market faster? And you know that's not something we are focusing on by ourselves within IT, but that's a joint effort that we 've streamlined it across the entire company. Now that's a pretty big undertaking because it's not something for a company the size of Cisco it's not the most easy thing to do. But that's kind of a key focus area, is to make sure that we can actually bring speed and skill to innovation."

#### Kristen says:

**KRISTEN**: "A large company like Cisco can do really well and I've seen it where ideas have skyrocketed super quickly and been adopted and even gone into products right away. And I've also seen it not go so well. And I've learned to overcome those unfortunate times and continue to advocate for innovators within Cisco. The biggest lessons I've learned is probably around perserverance and not giving up right away."

#### Mathilde says:

**MATHILDE**: "So I think my hope is that we can really create an environment where all innovative ideas can emerge, be heard and ultimately become a reality. And that through our programs, we are growing this community of Cisco founders, Cisco angels and that we kind of continue to learn, adapt and grow. Our motto is really "think and act as a start-up but scale like an enterprise." And I think that summarizes very well what we want to do."

You've gone Beyond the Network, with Cisco IT. The latest version of Cisco Spark VR was unveiled in March 2017 at the Enterprise Connect show in Orlando, Florida and Cisco's Spark solution has since been renamed Webex Teams. This episode was written and produced by Sarah J. Khokhar. Special thanks to Doug Alger for recording assistance. Follow and like our podcast on SoundCloud or iTunes. Visit cisco.com/go/ciscoIT for episode transcripts and related content.

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