

How to lead through the AI disruption

So much opportunity created in so little time. Here's how one leader captures fast AI innovation, democratization, and hyperpersonalization to create business value.



Prompt engineering as a career path now seems almost quaint. The speed of AI capability is burning a future path for work and leaving recent convictions in the dust. Few executives see the pace of AI innovation as closely as Ruba Borno. As vice president of the Global Specialists and Partners group at Amazon Web Services (AWS), she works with partners and customers across industries to turn rapid technological advances into business impact. On this episode of the *At the Edge* podcast, she speaks with McKinsey Senior Partner [Lareina Yee](#) about leadership strategies, how to avoid pilot purgatory, and why AI security doesn't slow growth, but speeds it up.

The following transcript has been edited for clarity and length.

Why this AI moment matters

Lareina Yee: We're in a transformative AI moment, and this year we're layering on [agentic innovation](#). Help us understand why this is so special and unique.

Ruba Borno: I agree with the word "transformative." This is one of the most transformative shifts we've seen since the internet, with generative AI and the rise of AI agents. Some analysts say it's a \$3 trillion to \$4 trillion or more opportunity for North America's largest 2,000 customers alone.

If you look at historical transformations—let's say farming—and go back to the early 1900s, approximately one out of three US workers was in agriculture. But then technology innovations that boosted farming productivity were introduced: tractors, self-propelled farming equipment, fertilizers. Today, only about one out of a hundred people is in that industry.

That change happened gradually. Industries and society were able to absorb it, and people could go into industrial- and manufacturing-type jobs. What's different about this shift is the pace of innovation is so much faster. I don't even think 10 times or 100 times is a fair comparison.

Just a year ago, everyone was talking about "prompt engineer" as the next new job that college graduates should consider. Already, that's out of date. Nvidia CEO Jensen Huang says the new programming language is "human"—whatever language the person happens to be speaking.

Lareina Yee: You captured what I am also experiencing every day: this enormous pace, which is both stunning in a positive way and scary. The simple question I often hear is, "How do I do this?"

Ruba Borno: Really, the question is, "Where do I start?" While the opportunity is massive, we've seen a lot of lost value by starting in the wrong place. Moving from, say, a proof of concept or a pilot—using generative AI or deploying agents—to production has been a challenge.

A year ago, the stats were that only 20 percent of proofs of concept or pilots moved into production, where the customer got value from them. Now about 30 percent make it to production.

We want to help customers get value out of the people and the time, to get value out of their generative AI investments. A couple of the learnings that I'm sharing have come from our AWS Generative AI Innovation Center. I would broadly categorize them into four buckets.

Number one is data preparedness. I'm sure you've heard that enterprise AI is only as good as the data it learns from, and you need data not to be in silos. The data has to work together. It has to include policies and role-based access control—who can access the data—to ensure that you get meaningful insight out of it and the right people have access to that insight.

The second is security. When it comes to generative AI and agentic AI, where actions will be taken in a much more automated fashion, security is critical. It needs to be embedded in every customer's or every company's AI strategy. Our customers' data is their data, but we do ensure there are guardrails that allow them to implement security controls.

Lareina Yee: I like that the first two buckets are incredibly practical: data and security.

Ruba Borno: The third piece is [change management](#). Ultimately, this is a people change. What incentives and top-down messaging need to be put in place? What's in it for them, what is the training and process redesign, and how does it fit into their day-to-day work?

That's a key bottleneck when you ask people to fundamentally change how they work. It goes way beyond just providing the technology. That's insufficient.

I'll add one more, because this helps with change management as well: partnerships. When it comes to generative AI and agentic AI, no one can do it alone. It is a multiparty activity, a multiparty value proposition. It's critical to know which partners to work with and bring them together to help the customer assess and address the specific workflow or function they want to transform. We want to ensure customers can find the best partner to support their use case and objectives.

From an AWS marketplace perspective, it's a place to discover and procure what you need regarding technology. Our latest launch of the AI agents and tools marketplace is really to help demystify that for customers and give them a more guided, curated experience.

Building with partners

Lareina Yee: Ruba, you've been in tech for many decades. The approach "let's play with all the partners; let's create something more" is not how traditional tech has built solutions. Is this a dramatic shift, or do you think it's more of a moment in time?

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Ruba Borno: It's a fundamental shift. A year ago, I said in an interview, “The future of tech is partnerships.” If you look at the AWS gen AI strategy from the beginning, we put out there that our customers will use multiple foundation models, whether it's from Anthropic, Llama from Meta, Stability AI, or Amazon's own foundational model, Nova. They'll train their own models and use their data. And we want them to train their models with their data—and it remains their data. So, it isn't going to train someone else's model.

The thesis that it will be multiparty from the beginning gives customers a choice. Why is choice important? Not just because it gives them the most suitable model for their outcome, but it's also the most suitable model in terms of price to performance.

There are so many downstream impacts of having the best price-to-performance ratio. It translates to power consumption, having the model that uses the least energy to deliver the needed answer, and lowering overall cost.

Lareina Yee: From an evaluation perspective, if I'm a customer, what are three or four of your favorite questions to help me make good choices?

Ruba Borno: It has to start with what their business objectives are. Gone are the days of, “Hey, I've got an IT product or a box or something to sell you. Which flavor of that do you want?” We start asking our customers, “What are your strategic priorities?” Whether it's a top-line-optimizing solution—driving new customer experiences, improving customer satisfaction—or a bottom-line-impacting solution. From there, it's “What are the strategies you could deploy to achieve that?”

I'll give an example. In financial services, Itaú is Brazil's largest bank. They've been innovating on AWS and using the cloud for a long time. They're using Agent Core to give their developers tools and flexibility to manage agents and ensure compliance. Why? Because they're launching new

customer-facing products faster than ever before. Their ultimate objective is to launch new products via their developers. The goal they wanted to achieve was speed, and that's where flexibility was the optimizing factor we wanted to work on.

It involves working backward from an overall business question and helping customers think through: What are the key strategic priorities? What are the actions you should take to deliver on that priority? And then the actual technology that delivers it. That's where the beauty of choice comes in.

Now, using the new programming language of “human”—natural language processing—customers can put in what they're trying to do in the AI agent and tools marketplace. It will come back with options: a description of the agent or tool, customer feedback on how others have used it, and, in many cases, even the chance to try it. Many agent and service providers offer “try before you buy,” so customers can evaluate, deploy, and see if it works for their purposes—and hopefully scale it.

The democratization and personalization of technology

Lareina Yee: It feels like customers are really changing in terms of the potential set. We've talked a lot about “pilot purgatory”—the failure rate from [pilot](#) to production. Tell us the horizon of innovation. What do you hope the technology can start to deliver on?

Ruba Borno: Whatever I say will be wrong. But I'll give you a couple of examples that I've found really exciting. I'm a Canva user, and I have a toddler. I'm a relatively new mom, and I wanted to write a children's book for her. My father and his side of the family were the main characters in this book. Canva has embedded generative AI—Amazon Bedrock is used there—to create some of the images and help me write the children's book.

Canva launched a product called Canva Code that empowers anyone to design anything. Their focus groups were very diverse. A kid wanted to create a study guide for math. A musician built an app that suggests a song based on your daily mood. A wedding planner designed a website for her business. And Canva Code built it for them.

When I met with the Canva team, they said that by leveraging Bedrock, they were able to go from idea—literally the idea of Canva Code—to production and launch on stage in 12 weeks at their Canva Create event.

Lareina Yee: Twelve weeks?

Ruba Borno: It's incredible. That's unprecedented speed for something of that value, delivering to someone like a kid who wants to create a study guide. So, whatever predictions there are, they'll be wrong.

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What’s exciting is that this has democratized the value individuals can get from technology. You don’t have to be a programmer. You don’t have to be a prompt engineer. You don’t have to know how to code to get a code developed in front of you and then tweak and modify it. Now, everyone can get value out of technology. That’s exciting—you can imagine new ways companies can monetize ideas faster and new ways consumers like me can develop things we didn’t think we could.

I’ll give you one cool example we shared at the Cannes Lions event earlier this summer: a fragrance lab. What do generative AI and agentic have to do with fragrance? Using our Amazon Nova family of foundation models, consumers could describe the fragrances they like, the environments that make them feel calm or inspired, or the words and attributes they value. They could also share imagery they like.

The system not only created a fragrance from a library of notes but also created an ad campaign describing the mood and attributes, plus a short video commercial with a tagline and a name for the fragrance. The person could modify it over time and then give all the information to a perfumer next door, who would make it within minutes.

Now, anybody could be a perfumer. That doesn’t mean they’ll displace existing large or niche perfumers. You could apply the same approach to nearly any industry: going from an idea to an actual product in real time because of AI.

Lareina Yee: There are two interesting things about the fragrance lab, which I got to experience, and children’s book examples. One is that it delivers on this idea that we’ve all been trying to get at in terms of mass personalization or hyperpersonalization, because the unit customer or your market size [for the children’s book] is your daughter. And if it’s a blockbuster, your adjacencies are to sell it to family members. And with the fragrance lab, my ad campaign was cute.

But what's so interesting is that both of these technology solutions are fairly simple. We may not have mined all the simple things the technology has been able to do for the past year or so. We're so focused on what's next, but it can also do so many things today.

Ruba Borno: You're hitting the nail on the head in two aspects. One is that the technology applies to every industry and function. And [hyperpersonalization](#) is table stakes in so many different industries. The sports industry is leading on this. Amazon and AWS have a partnership with Formula 1, and anyone who's watched *Formula 1: Drive to Survive* on Netflix can see just how exciting that sport is. But what's exciting for data junkies is that each car has millions of data points being collected every single second.

How is that data being used? It's different depending on who's looking at it, whether you are the manager of that team, the designer of the car, or a fan. If you're a fan, you want to compare the performance of that driver with their previous race. With generative AI, you can now personalize the questions that the fan or user of that data is interested in.

Data of that magnitude would take an analyst weeks to mine, but now it can be done nearly instantly. Millions of data points can provide that hyperpersonalized experience. You used to have to develop archetypes and personas, and now you do it for that individual.

More data means better outcomes

Lareina Yee: That sounds like the *Moneyball* moment in baseball, in terms of being able to unlock new things. What are other ways that you use these new technologies to make your life different and better?

Ruba Borno: Professionally, I use it every day. For example, we have a tool called Cedric. It's basically an agent that supports us with any business question. We're able to get an analysis done quickly. It can mine our own intranet and give us back information. Amazon Q Business also does the same thing, especially pulling data from spreadsheets and giving us those insights.

So, on the partner side of my job, one of the things that we need to be able to do well is pattern-match feedback from our partners. We'll do surveys; we'll do a lot of interviews. So, surveys used to give us the quantitative data. Then we'd get qualitative data from surveys and conversations with our partners.

Now, anyone on my team can transcribe every conversation they have with a partner and put it in a database. We use a tool called SIFT that can provide some of those insights on what partners are saying about, for example, the latest program launch. It can show the trends they are seeing across a certain technology domain or in a certain geography. That also includes when we have in-person sessions, like our Global Partner Summit, and bring everyone together.

We do the same with our customer advisory board, which allows us to shape the direction of some of the new innovations we want to launch.

Lareina Yee: Let's go back to the SIFT tool. It sounds like you have more data and insights on your partners. That's exciting but potentially scary. Tell us about how you lead—where it's good to use all these things rather than a threat to the way I'm used to doing things.

Ruba Borno: It's not a negotiation whether to use it. We've set a clear tone that we must use AI every day in nearly everything we do. I think AI adoption starts [all the way at the top](#). At Amazon, [President and CEO] Andy Jassy sent a letter to all employees giving a clear call to action to be curious, educate yourself, and use the technology available.

To shift from the fear you've mentioned, we've got to be clear about what's in it for them. It's going beyond saying, "You have to use this," and instead showing them the benefits, showing them they're able to innovate at a pace that allows them to, worst-case scenario, keep up with the pace of change. In the best-case scenario, it will enable them to completely leapfrog the pace of change and deliver innovations they never thought possible, in a way that satisfies their stakeholders, whether they are customers, partners, or end customers.

The third piece is to give them the training to use it. For example, say I bring my team together for a leadership offsite. They get together and talk through the strategic direction of the business and some of the key priorities they want to invest in. One of the things we've done is programmed AI personas that use data. They represent certain customer personas: a customer CFO, a customer CEO, in a certain industry, and in a certain geography. As we brainstorm ideas, we run them by personas trained by real data.

You've probably heard that in the early origins of Amazon, founder Jeff Bezos would put a chair in the room representing the customer. Well, now we have an AI agent in the room that represents the customer, and it responds to us with customer feedback based on information we have about how the customer has responded to other things.

So, there's the training. But there's also tooling that allows us to use it in our day-to-day and show how it transforms that one experience.

Last, it's important to be open to process redesign. Leaders need to give air cover to our teammates to accomplish that. Are there things that you can simplify and remove to make it easier so that they can get to the outcome faster? That's where the magic comes in and you get the triple-digit productivity improvement.

Calculated risks, not gambles

Lareina Yee: How do you curate what you bring into your team?

Ruba Borno: It is a tough question, Lareina, because it is moving so fast. I'm sure I'm unaware of everything out there, even within the Amazon walls. There's innovation happening with every single builder.

‘I think AI adoption starts all the way at the top.’

—Ruba Borno

I would say to learn and be curious. Listen to as many builders as possible and give them the space to innovate. That means taking more risks and knowing what to measure. And whether it works or not, be willing to take that loss and move on to the next example of what works.

But those risks need to be risks and not gambles. So, if I go back to the idea that only 20 percent of proofs of concept get into production, I don't know how many of the remaining 80 percent were risks versus just gambles of “Let's just do AI.”

A calculated risk is one that is sitting on a foundation of a customer problem you're trying to solve. It is built on a foundation that won't compromise the business in any way, shape, or form. And it's really clear what problem it's trying to address for the customer, and there's a business case around it. That's a risk worth taking, because then you can try a couple of swings and see what sticks.

Gambles are ones where everybody is just trying to adopt gen AI. And there may or may not be a juice that's worth that squeeze.

I would say crowdsourcing is still an amazing option and a way to stay abreast of the latest technology that could be applied.

Lareina Yee: I love the idea of thoughtful risks, not gambles of spurious nature. With all of the ways you're innovating and thinking about the foundation, security, and observability, to turn an Amazon phrase back on you, what's the AI headline?

Ruba Borno: I use this analogy often: Brakes on a car are not designed to stop you. They're designed to help you go faster, safely. It's something we have to keep in mind with rapid technology adoption.

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If we don't have the right security guardrails in place, the right access control in place, and think through how we use this technology responsibly in our own organization so that we don't compromise customer data or consumer data, it will stop us from being able to move fast.

Lareina Yee: Ruba—a couple of rapid-fire questions. You have a PhD in electrical engineering. Would you still recommend electrical engineering to students today?

Ruba Borno: Engineering in general and any of the sciences where you're taught the problem-solving and hypothesis-driven approaches will help you in any future role. But it's not limited to engineering. That was my path.

I would say it really depends on what intellectually stimulates someone. Knowing your motivation is my number-one piece of advice before I'd recommend a specific field. I'm motivated by learning.

Electrical engineering is a field that continues to innovate in amazing ways. AI and quantum are things I studied decades ago and now are becoming real. It's an amazing field for someone motivated by learning something new and constantly feeling behind. I would encourage anyone to go into engineering, but I will say the engineering jobs that were around when I graduated are very different from today and will be infinitely different in the coming years.

Lareina Yee: You've taken a bunch of different leaps from your PhD to working in business, having different roles, and being here at AWS. What's your quick career advice for those who are starting or maybe trying to make a pivot with their base?

Ruba Borno: The number-one thing is to be comfortable not knowing something. There is advice that I give pretty regularly, and it has served me well throughout my professional and academic career: 50 percent of anything that you do, you should be really good at and is a strength; it should be a delta function that you excel at.

The other 50 percent should be something new that will help you build new skills and grow your own development, skill set, and professional brand. Looking back on my career, I understood technology and the pace of change in technology, but I knew nothing about business.

So, I went into management consulting and got business transformation experience. I focused on technology companies, specifically enterprise tech companies. I knew a bit about their world, which was an opportunity to continue growing my skill set and building a business foundation. I'm always being stretched and feel like I'm behind, but I do build on that foundation of something I'm really good at.

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