



For Cloud Professionals, part of the On Cloud Podcast

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Title: AI, cloud and cyber, connected: A force multiplier for recovery

Description: The COVID-19 crisis has people focused on the moment, but it's also crucial to look beyond it and build a more resilient business for the future. In that future, organizations will need to be able to more effectively manage risk, understand their business better, and be more resilient in the face of disruptions to the market. In this episode of the podcast, David Linthicum and guests, Deloitte's Ranjit Bawa, Nitin Mittal, and Deborah Golden discuss how cloud, cyber, and artificial intelligence can amplify each other to form a multi-dimensional, connected core and aid in recovery strategies related to the current crisis—and help companies build a stronger organization for the future.

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Operator:

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David Linthicum:

Welcome back to the On Cloud Podcast, your one place to find out how to make cloud computing work for your enterprise. This is an objective discussion with industry thought leaders who provide their own unique perspective around the pragmatic use of cloud-based technology. And today on the show we have Deborah Golden, Ranjit Bawa, and Nitin Mittal. So I'm going to have them introduce yourself, and ladies first – start with you, Deborah.

Deborah Golden:

Thank you so much and great – appreciate you having us here today. So I'm Deborah Golden. I lead our US cyber practice and I spend most of my time working with clients to position cyber for strategic differentiation by converging business technology and cyber together. As we say, cyber's everywhere.

David Linthicum:

Ranjit?

Ranjit Bawa:

Ranjit Bawa. I lead our cloud offering for the firm. Like Deborah, I work pretty closely on helping our clients look into the future and redefine their core businesses.

David Linthicum:

Nitin?

Nitin Mittal:

I'm Nitin Mittal and I lead our artificial intelligence business in Deloitte, helping many organizations apply AI so that they can transform themselves as well as gain a competitive edge in the marketplace.

David Linthicum:

All right, first things first. We talk about the notion of cyber, which means lots of different things to lots of different people. And, Deborah, can you define cyber for us and why we're interested in it?

Deborah Golden:

Absolutely. So as I said, cyber truly is everywhere. It's across our personal and professional lives, made possible by the interconnected nature of computers and devices. And when I say that I mean networks, non-traditional IT environments, assets, applications, data, mixed reality – you name it. Cyber used to be contained in the four walls of a business, organization, home. Businesses were performed in a physical building. So when you think about how operations worked, we went into a building, we went home. Clearly digital transformation over the past several years, and as we look forward, especially with this pandemic where digital transformation has occurred in weeks, rather than months or years, this evolution has traversed past any four walls, and with it cyber is embedded in each and every aspect.

David Linthicum:

Wow, that's a great definition. So, Nitin, I'm going to go to you first. And so we're obviously a cloud computing podcast, but we're also looking at how we're going to take security to the next level. So why are cloud computing, cyber, artificially intelligent systems, and machine learning-based systems, and digital transformation important to the enterprise? And why are we focusing on this right now?

Nitin Mittal:

Absolutely. Deborah mentioned the digital transformation that many of our clients and organizations are undergoing. At the heart of this digital transformation is data that is resident in a cloud. Many of our clients and organizations have essentially migrated data in a cloud, but once they do that, how could they capitalize on the data that is resident in a cloud? This is where the application of machine learning and artificial intelligence, in particular, essentially comes into play, where you could mine the data, where you could uncover patterns, where you could derive inferences and, consequently, generate insights that could then be literally woven into the business decision-making fabric of a company. By doing so, companies can gain a perspective in the marketplace, can determine their destination, and consequently gain a competitive edge with respect to the other players in the marketplace as well as in the industry that they operate in.

David Linthicum:

Great answer. So, Ranjit this isn't my first hayride, and so, ultimately, we're back again and mixing AI with different systems. We used to call it you know, 20 years ago, knowledge-oriented security when we put in inference engines and things like that, we were programming Lisp and One. And the game has changed. And the problem when we were looking to build those systems – they were \$100 million to deploy. We typically had to buy a datacenter, huge amounts of servers to make and implement these things, and so the cost-effectiveness of it just wasn't there. So why is the value here now? And so why are we bringing together cloud, cyber, AI together you know, for our clients, versus using them individually?

Ranjit Bawa:

So great point there, David, and I think, largely, as we're starting to get our clients to believe, or get to an understanding around cloud, that cloud really isn't about the cloud. It is this connective tissue across all of the different things that a modern organization needs to do to deliver to the promise that their businesses need. So, just like Nitin and Deborah talked about cloud really becoming the foundational element of how you leverage your data, build secure, intelligent applications and products, we also focus very much on how do we change the way we build these products and bring them to the market as well. So, you know, a large part about our focus on cloud is not just about the cloud as a platform for all of these, but also how we drive to modern ways of working and modern delivery today.

David Linthicum:

So ultimately it's about value. And, Deborah I'd like to get your opinion on this. And so, in bringing together these technologies, is really the difference affordability, better technology, better approaches, better best practices, or all of the above?

Deborah Golden:

I think it's a little bit of all of the above. I mean, each of them carries their own dimension and importance if you were to look at them in a silo. But candidly, when they're deployed together they amplify each other and transform whatever they touch: how people work, the way a business operates, what factories produce, how customers feel about their brands. And so that interoperability truly is where you get the exponential value, and that's why we look at bringing them all together to drive further exponential accretive nature to the business. I mean, ultimately we would want to make sure we're increasing the ability to drive value, and so it is kind of an efficiency. It is a brand. It is innovation. But when you can bring them actually together, you're going to see that you get even greater value from that across the board.

David Linthicum:

So, Nitin, I'm going to go to you. What are some of the opportunities we have in order to collect knowledge? Obviously, we have training data and we're using for example, and attack vector information. We're building these AI systems that are going to be able to in essence defend themselves much better because they're able to kind of think like human beings and they're able to get smarter over time. Is there going to be an opportunity at some time to share

these knowledge bases in between these various security points? In other words, are we going to have AI systems that are localized to our particular systems, as well as AI systems that are sharable amongst all these various systems that are in essence trying to counter the same sort of attacks?

Nitin Mittal:

Yeah – no absolutely. When we talk about artificial intelligence, there are two aspects to it. One is the underlying data that an organization can access as well as learn from, and then second is the insights that are actually generated from the data by the application of machine learning algorithms. More and more what we're essentially kind of seeing, when you also go around the world with respect to the various data sovereignty rules that have been put in place across many countries, data is actually becoming more and more illiquid, meaning that you have to have the data resident in a particular country, or data is resident in a walled-off—a section of—a particular company, or data can essentially also be protected in cloud in a manner that it defeats the original purpose of ubiquitous access to it. But, on the other hand, what is liquid, what is far more accessible, and what is also a lot more sharable is the insights that are actually generated from the data. What we absolutely believe is that we are entering a world, and frankly what organizations are also planning for, is that insight is key to success. Insight is what is liquid. Insight is what is sharable. Insight is what is key to them essentially progressing and getting that competitive edge. So the topic is more about how insights can essentially be shared as opposed to perhaps the underlying algorithms or the data that is acted upon.

David Linthicum:

So, Ranjit, you and I do the same things in terms of working across industries, you know, finance, healthcare, retail, things like that. And so what, if any, industries are taking a holistic approach in their digital transformation and bringing together cloud, AI, and cyber?

Ranjit Bawa:

Great question. I think a number of industries have shown the way. More often than not, we have seen the startup community, particularly those -- the unicorns of the world in high tech and media that have truly shown the way, not just in terms of how they drive agility in terms of the products they build and deploy, but also in terms of how they think about the broader ecosystem, how they think about new ways of sort of sourcing data and monetizing that data. So when we think about, you know a famous ride share company, they can get a couple of developers together on a Thursday, think through an idea, draw it on the back of a napkin, develop the code over the weekend, and drop it on Monday morning, and then drive their revenue up by three percent. That's really the power of what we are talking about together across these three. And those folks have really shown the way for enterprise clients of ours to see the art of the possible and are very much leading the way for others to follow and be able to achieve that same promise.

David Linthicum:

So what industries do you think are the most innovative around using this technology, Ranjit?

Ranjit Bawa:

Certainly I think that, you know, some of our media clients have shown the highest level of innovation, not just in terms of how they think about broadcasting and delivering of media, particularly in these times, right in the COVID world. Similarly, tech companies have shown the way as well. A lot of our financial services clients are working their way towards it. There have been some great leaders in that. Certain regional banks have been able to show how you can truly deliver on the cloud but be able to create a platform that is largely innovative, agile, resilient, and can scale, particularly in times when you need to be able to scale quickly.

David Linthicum:

So, Deborah, a question for you. One of the most difficult things that I do is really trying to put a value on the use of technology. And the reason is because there's hard and soft savings and hard and soft values that are created. And certainly in cloud computing, we have the hard savings, the ability to become more efficient, and the ability to kind of take down costs say 20, 30 percent. But the soft savings and the soft value, the ability to deliver things such as agility, the ability to – in the case of cyber – avoid breaches is something that's more difficult to define. So how do we help clients understand the values? And, are any of that successfully integrated into all of these three technologies in understanding how they're tied to the business objectives?

Deborah Golden:

Absolutely. From a cyber perspective, we talk a lot about how the acceleration of digital transformation activities will change the way organizations interact with a variety of stakeholders – of course that would include customers, employees, and constituents. As such, the most resilient organizations will reimagine the virtual experience, which inherently involves incredible volumes and fundamentally different, often sensitive, data that many organizations haven't had to navigate before, including the ethical use of that data. It also involves extensive access challenges in thinking about creating protections when many, diverse user populations need access from any device, at any time, anywhere.

In addressing these challenges, cyber becomes not only a mitigating risk because we know that it is and it will obviously mitigate such risk but it also creates value through facilitating better, faster, more integrated experiences that have the power to impact user behaviors. This however can require a new approach to security, one that favors a "Zero Trust" or a "Never trust, always verify" approach to accommodate the growth in entry points and the reduction of legacy boundaries. This provides an opportunity for an organization to tackle so many security and management of expansive vulnerabilities and resilience— particularly as more organizations take the mature view that rapid detection and approaches to mitigate impact are as important as ever and include preventative measures. Just as cyber plays a role in securing Cloud and AI deployments, Cloud and AI empower these new cyber methods – so really, organizations who look more holistically at these three are going to be at a major advantage.

David Linthicum:

Yeah. Deborah, isn't this kind of a binary value scenario? Because if we're able to avoid a single breach, it kind of pays for itself. It's not necessarily fine-grain breaches that occur or fine-grain security issues, but the ability to kind of avoid these big, in essence, breaches, that may cost the business their value, may cost the business their reputation, may cost their business customers.

Deborah Golden:

Exactly, and I like to say that hackers can try, adversaries can try a thousand times. They only need to be right once. We need to be right a thousand times, and so in order to do that we really need to make sure, again, that when you look at the combination of these things, if you just put out the AI portion or the cloud portion or candidly the cyber portion on an on-prem or off-prem solution, you really wouldn't be able to have that full package to be able to be

truly secure, when you think about the data not just in motion, but obviously in rest as well. So again, making sure we're looking at that comprehensively while at the same time trying to be right a thousand times.

David Linthicum:

Really. So, Nitin, what role does the multi-dimensional digital core of artificially intelligent cloud and cyber play in fueling recovery right now? We're in the middle of a crisis, and so how will this stuff help us move out of it?

Nitin Mittal:

Frankly what I believe is that the current environment in the pandemic has only heightened the perspective around the need to bring cloud, cyber, and artificial intelligence together, as well as to accelerate the digital transformation and the digital core journey that many of the organizations are undergoing. Let me perhaps explain this using an example. If I take the health insurance industry and one of the large healthcare organizations in the US – they themselves have been undertaking a journey for the past many years, which is only accelerating in the current environment. In a health insurance environment, they have essentially been moving more and more of their member information as well as the medical claims information that is submitted for the care that is provided to those members – that data has been progressively moved into a cloud environment.

Having said that, as the data has been moved into a cloud environment and recognizing that health insurance happens to be one of the most regulated industries in the US, that data has to be protected. That data has to be handled ethically. And there is trust that has to be built between the members and the health insurance company, which is where cyber protection is absolutely key, to build that trust. But once you have a member's claims information on a cloud that has been protected and managed from a risk and ethics standpoint, you now have the opportunity to essentially apply artificial intelligence to engage those members in a manner where the world that has been virtualized, and people who have essentially been working from home or spending more time in their residence have the opportunity to engage digitally with that health insurance company.

This is where these companies are building out digital care for the purposes of essentially engaging those members in a moment in time where a lot of them are nervous. These members are making a number of calls that are placed to the contact center of this particular health insurance company as an example. And by building out essentially digital care based on the claims and medical information associated with those members that is resident on a cloud and protected, the company can engage with those members in a digital manner to be expedient with respect to the questions that they have and answer the very basic needs that are being posed and for which the members are looking for the answer so that they could calm their nerves as well as take care and have the pertinent information with respect to their loved ones.

David Linthicum:

So, Ranjit, in the current environment digital transformation is taking place really at a faster pace than it normally is. So what does this mean for the transformation journeys for companies going forward and how can we kind of mitigate the risks?

Ranjit Bawa:

Yeah. I mean clearly if anything, the current environment made three things very clear. Companies need resilient, secure tech platforms, they need to be able to drive to a more variable, lower run rate in terms of their operating costs, and they need to use this as a catalyst to modernize their product portfolio, but also to be able to create the delivery model that's less sticky to locations and time zones and things of that nature. So a lot of our clients are looking at this as a real opportunity to be aggressive about their digitization journey. They are looking to do things creatively, look to structure ways in which they're not impacted from a P&L perspective, but also use this to be smart about the things they focus on, rationalizing their portfolios, driving to digital channels that they will see continued growth in, while they try and use in some of their legacy environment to be able to free up cash and redeploy it. So we are seeing a very massive shift in terms of how people are looking at their broader technology capabilities and re-shifting their portfolios to be better positioned for the future.

David Linthicum:

And, Ranjit, you know, as someone who leads cloud, obviously we're seeing an uptick in interest in cloud computing. People are downloading this podcast more. People are hitting the blogs more. People are viewing videos more and getting training more and getting certification more. Do you think this is really a trend going forward or is this something that's going to wane at some point?

Ranjit Bawa:

Oh, it absolutely is here to stay. The train's left the station. There's no turning back the clock on this, right? We've all said here, there is no cloud without cyber, and without the power of data, you really can't get to the promised land here. So we certainly see this becoming more and more the way things are done, and we've always believed that—that over time cloud is just going to be the way technology is delivered and cyber will be everywhere. You know, and if you don't leverage the power of the data, you are underachieving the promise. So you know, this is very much here to stay, and we will only see it accelerate over the next several years.

David Linthicum:

Yeah, I'm seeing the same thing. Industries out there are double downing on cloud computing. So, Deborah, what do you see as the most important integration points for cloud, cyber, and artificial intelligence and, really as the market and the industries continue to change?

Deborah Golden:

Yeah, and as we've been talking about, I mean, there's multiple ways that they can come together. And certainly when they do, they multiple value to the business, increase confidence in the solution, spur innovation, drive efficiency, and improve performance for our people. So I would kind of take them apart really quickly. When you think about each of them – and again, not to sound duplicative, but each one does bounce off the other. So cyber with cloud and AI accelerates and amplifies value. How? Well, cyber secures data to move to and from the cloud. It helps prebuild AI, vastly improves system resiliency.

And cyber mitigates the risk of bringing cloud-enabled AI-fueled solutions to market fast. When you think about cloud, cloud is a dynamic environment that can enhance any organization's security posture and AI capabilities, as cloud provides both proximity to data and built-in tools to move things faster and keep them secure. And ultimately when you think about AI, cloud platforms, as we've been talking about, enable speed, diversity, transformation. It also

helps to democratize access to AI. Cloud gives AI immediate access to enterprise-wide data and many platforms that include pre-built AI tools while again cyber continues to deliver significant AI data protection and cybersecurity which is critical for ensuring trust.

David Linthicum:

So say we built a time machine ,all four of us hop in, and we go forward five years. What will this market look like and what do you think the innovations will have occurred?

Deborah Golden:

I mean as I said, the pandemic has caused us to do digital transformation in weeks, if not months. And so I'd love to see in years what is the art of the possible. I think, no matter where we are in five years, innovation is definitely going to continue to move forward at quite an exponential speed. And I do think that still cyber, cloud, and AI together are going to be critical for everyone's success.

David Linthicum:

Yeah, and I'll tell you what, if you guys out there in the enterprise space, enterprise IT aren't looking at this technology and how to apply it, this is one of those force multipliers that you can leverage to push the business forward. So if you enjoyed this podcast, make sure to like and subscribe on iTunes or wherever you get your podcasts. Also check out our past episodes including the On Cloud Podcast hosted by my good friend Mike Kavis on his show Architecting the Cloud and his book by the same name. And if you'd like to learn more about Deloitte's cloud capabilities check out DeloitteCloudPodcast.com. If you'd like to contact me directly you can reach me at DLinthicum@Deloitte.com, L-I-N-T-H-I-C-U-M. So until next time, best of luck in building your cloud computing solutions. You guys stay safe. We'll be back in a week. Take care.

Operator:

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