Steven Karan:

Hello and welcome to the *How Data Should Work Podcast*, a podcast series from Capgemini Canada that seeks to bring a practical business-focused lens on the often complicated world of data and analytics. I am your host, Steven Karan, Vice President and Head of Insights & Data at Capgemini Canada.

I'm quite excited for our podcast today, as it's a topic that I'm very passionate about. Actually, two topics: (one about) Canada and the (other) the business of data. And just to level set here a little bit, the data analytics software market in Canada, and so this is purely just software, so software without the services layered on top, is north of \$2 billion based off the most recent findings from IDC. And in this market today in Canada, we see very dominant hyperscalers. We see some maturing pioneers as well as disruptive startups. And I think the implication for Canadian businesses in terms of how do you effectively manage OpEx and CapEx spending associated with data hasn't been this difficult in many, many years.

So, in today's episode, we thought it'd be helpful, and perhaps a little bit fun, to discuss some strategies to improve the speed to value and improve the bottom line of managing data within an enterprise. And as you can hear, I personally love talking about the topic of the business of data in Canada, but I'm also very delighted to be able to bring on a guest today who not only shares that passion, but is also a veteran of the software market in Canada, Ryan Heal from Databricks. Ryan serves as the Vice President and Country Manager of Databricks in Canada. And he's spent nearly (all of) his 20-year career now focused on bringing the right tech software, data platforms, and cloud solutions to Canadian businesses. So Ryan, welcome and thank you for joining us today. Would you mind sharing your story with our audience here, please?

Ryan Heal:

Yeah. First off, thank you for having me. Super excited to be here. I'm also very passionate about the Canadian technology market, as well as data. The bulk of my career has been focused around working for technology companies, and primarily early day startups, earlier day startups, and helping them build their presence in Canada; (that) is really where my career has been focused, especially for the last, call it, 12 years.

Steven Karan:

That's fantastic. Thank you, Ryan. And before we get into some of the meaty questions that I have for you today, and I'm going to put you on the spot a little bit as well as we go through, perhaps we can do a little bit of an introduction of Databricks to the audience as well. I imagine most of the folks will have a very good understanding of Databricks, who you are, what you're all about. For those perhaps who are new to this space, would you mind introducing your company?

Ryan Heal:

Yeah, for sure. Databricks... I think a lot of people when they think about Databricks, they think of the creators of Spark or relate Databricks to Spark. But what Databricks really is is the inventor of the concept of the lakehouse, where it's really bringing your data lake and your data warehouse all in one spot where you can do AI and machine learning, and derive value out of that data. And that's really what our focus is.

Steven Karan:

That's brilliant. Thank you, Ryan. So let's get started. And maybe the question that I have for you off the top is what's your view on the data business in Canada? You've been in the tech field now for some time specializing in, again as we talked about, bringing the right solutions to Canadian businesses. And if you think about, Ryan, the market and the business of data in Canada, and you

compare it to let's say our friends south of the border in the US, how would you categorize the Canadian data market today?

Ryan Heal:

Yeah, I would say it's definitely evolving and growing extremely quickly. I think what I've noticed... so, in my time at Databricks, the two and a half years I've been here, my prior time (was) at Splunk, I think companies, especially in the last five years, there's obviously been hard economic times and they've been forced to try to do more with less. And a big part of that is having to leverage their data, which is one of the company's most valuable assets. And you've seen that with companies growing with their cloud maturity and starting to do more with artificial intelligence and machine learning.

I think we're still behind our US counterparts. And I really think it comes down to kind of three things. It's really cloud maturity. I think for Databricks, we were born in the cloud, so we need customers' data to be in the cloud to really leverage it. And I would say Canadian companies, in comparison to the US, are still early on in their cloud journey. I think we're seeing that grow. And you're seeing, whether it's Microsoft, Google, or Amazon, those companies are all growing at a rapid pace in Canada as well. And that's really because Canadian companies are going further along on their cloud maturity journey.

The other reason why I think that we're a little behind is it's a resource thing. So I think that it's really hard to find data-engineering and data-science resources in Canada. I think it's a struggle in the US, but I think even more so in Canada. So I think that has lagged the journey behind. And then I think Canadians in general tend to be a little bit more risk adverse. I've just been covering just Canada this year, but prior to that I was covering the Pacific Northwest, so had the US as well. And I find the US companies have more of an appetite to go all in from the start where Canadian companies seem to be more of a dip your toe in the water type approach. So I'd say those are, when I contrast the markets, it's really those three things. Cloud maturity, the resourcing piece, and then risk.

Steven Karan:

You're absolutely right. And I think the interesting thing of how you described those three factors, you could probably take those three factors and copy and paste it into many different aspects of the digital world in Canada. So it's not really only applying to data, but it really applies to digital transformation. It also applies to digital customer adoption. There are so many different things where you can take those three categories that you succinctly put together and apply it in many different places.

Now Ryan, one of the reasons I really wanted your take on this is I personally have seen certainly a degree of maturing of the market here in Canada as it relates to data and really the understanding of data. As I go into conversations with CIOs and the vice presidents and senior vice presidents of data and analytics at various businesses across Canada, the question no longer is how do I convince my enterprise to invest in data and to invest in unlocking the value of data? The question is really more now around how do we do that, as opposed to if we do that.

I think where the question remains or where some of the gaps remain today is just exactly what that journey looks like. How do you do that and in a risk-adverse environment like in Canada where you're not going to necessarily launch a large scale, multi, multi, multi, multimillion dollar data transformation from the get-go. It's around how do you potentially start small, build a bit of a snowball effect, get that momentum and muscle memory built in your organization for unlocking the value of data, and then really trying to scale to an enterprise level in kind of an incremental way, if you will. And I was curious to get your take on this question of how have you seen these conversations with businesses in Canada evolve over the last five years? What are the senior leaders that you're interfacing with and Databricks is interfacing with asking for now? What are the questions you're asking for now versus what have they been historically asking?

Ryan Heal:

It's different in the sense that I think the conversations in the last three to five years, I felt like when it came to data strategy, data in the cloud, it was very much more of a science experiment. They were just trying some things, but maybe not putting that in production, or are we even going to do that or go down that path? And I think it's happening. We are at the very start of that data revolution, I think, in terms of the Canadian market, and we're just scratching the surface of what we can do from an innovation perspective.

I think one of the conversations that I'm having with executives on where to get started is I think you do need to have some sort of a data strategy. What do we want to do with our data? What are we hoping to accomplish? I think if you don't understand the outcomes or what the value is, then it will stay a science project. So I think you have to start there. I think for a lot of companies the data is still siloed. So I think you need to make the data accessible, is kind of that first step. And I think you have to start small. So understand what that outcome is, what is that first thing that we want to solve for? Start there, prove that out, see success. And then I think then you can start to replicate it.

And I think that really starts to drive that momentum when you can show the enterprise at the C level and the board level the value that you're actually driving. And we're seeing customers at Databricks where we're seeing nine, 10 figure, whether it's revenue generation or cost savings. We are delivering that kind of value. And I think that does get the C level and board's attention. But I think it's really those things, is having a strategy, make the data accessible, and start small and show value. I think those are really kind of where I see companies starting down that journey and being successful.

Steven Karan:

I agree with you. I think what you're essentially saying is you need to have a plan and you need to have a good sense of where you're going and where you'll prioritize. And the approach that we may have seen five years ago, which is, let's experiment, let's see how far we get, and then figure out what we do next, I think that can certainly work in pockets. But if you're really looking at fundamentally transforming the maturity of data in your business, fundamentally maturing your ability to get insight out of data that you maintain in either legacy on-premises systems or hybrid cloud, or whatever it may be, there really needs to be a plan. There really needs to be a plan that's connected to business priorities and a clear roadmap that will help you get there as well.

Would your advice be any different if there's an enterprise, let's say, already progressing through some level of journey in terms of that data maturity, clients and businesses in Canada who, let's say, have a very complicated hodgepodge in terms of their data technology stack today? We're talking, let's say, legacy on-premises Hadoop clusters, with some kind of foot into the cloud in terms of a cloud data lake or data platform. And in some of those cases, you might have 20 percent of your data in the cloud, but 80 percent of it still remains on legacy on-premises. And what would your advice be to a client that's, let's say, started that journey, tried to make a foray into moving data into the cloud? May not have, let's say, realized some of the anticipated value immediately, and are now kind of rethinking what their path forward would look like.

Ryan Heal:

If I understand the question correctly, I think one of the things that when they're going down that journey, or the things that I would make sure that they would consider, is touching back, making sure they understand what the outcome is. What are they trying to solve for? And more technology and buying more doesn't usually solve for that when you don't know what the outcome you want is, right? So I think that the customers we see that fail is that they don't clearly understand what they're trying to accomplish. They just bought a technology without really knowing what they're trying to do.

I think the other thing that I see where customers fail is they just try to do what they did onpremises, and then do that in the cloud. I had a data warehouse on-premises, and now I'm just doing the exact same thing in the cloud because that's what I know. So what we would call a lift and shift. But I think you have to reimagine your data landscape, reimagine your technology landscape. And I think that's really what the lakehouse is trying to do, is saying don't just do a data warehouse the way you did. Just don't do a data lake the way you did it. Consider a different paradigm of how you approach your data and encourage customers to make sure that what they're looking at is open. It's an open stack. I think any customer would talk about the vendor lock-in in the days past of Oracle, et cetera. And so I think open platforms are really important.

And I would really make sure that you're looking at multi-cloud. I don't think you want to be single threaded in anything, right? Different cloud providers do different things well. I think there's also a leverage point of not having all your data with one provider. I saw that firsthand at Splunk where we had all of our data on one cloud, and we knew eventually as a company, as an organization, we had to go to multi-cloud. And I think I'm seeing that and hearing that from customers. So I think those are really the ones. So rethink.

So if I had to summarize, it would be don't just do lift and shift. Rethink on how you're approaching your data. Make sure it's open. And I would make sure that it's multi-cloud and really understand what are the outcomes you're trying to drive, and start with those and then work backwards. Instead of, I bought the technology, now what outcome am I trying to drive?

Steven Karan:

That's great. That's great advice. That's advice that many clients would pay us for at Capgemini to provide as well. And I think you summarized it very well.

You touched on something that I'm very passionate about in the world of data. Because just like yourself, we have definitely seen this pay dividends in terms of the impact from a dollars and cents perspective on the cost to manage data. And that is the data lakehouse. I think this has been a really significant entry into the data ecosystem world, if you will, roughly five, six years ago now. And Databricks was absolutely one of the pioneers of the data lakehouse. Now, if this is a new concept for a listener today, how would you describe what actually is a data lakehouse?

Ryan Heal:

I would say Databricks definitely was at the forefront of the lakehouse concept. I think how I always would explain the lakehouse maybe for someone who wasn't familiar with it is, there were companies that had a data lake, started going down this path, and they had a data warehouse. They were expensive, cumbersome. It was difficult for organizations to maintain. And they needed something different, and we need to rethink that paradigm. And I think that's where the lakehouse came in. It's really combining your data lake, so where you store your data in the cloud, and your data warehouse, combining it into one platform, and making that data easily available and accessible. That you could do machine learning, artificial intelligence on top of that data to drive business value. And I think just bringing that all under one platform is really the lakehouse concept.

Steven Karan:

Yeah, you're right. It's a very interesting concept, right? Because it really just kind of mashes together these two very dominant ways of thinking about data in terms of data lakes, as well as data warehouses, and try to bring the best of both worlds under one very flexible and sort of scalable approach to managing data.

What's your view on a lakehouse being future proof? Is that even possible in the world of data and technology, to have an underlying platform, data platform, that is future proof? And do you believe organizations that, let's say, adopt and implement a well-architected lakehouse can future proof

themselves and have that lakehouse grow with them as they grow, merging in, for example, not just structured data but unstructured data, not just IT data, but also potentially OT data or field data? Do you think that provides a degree of future proofing?

Ryan Heal:

I think it does. It kind of goes back to the one point that I brought up earlier, and I think it's really around the importance of open platforms. I think it's really important for companies to avoid proprietary platforms. I think there are a lot of companies that would say that they had that vendor lock-in in the past and it was very expensive and very painful to get off. So I think Databricks really being born in that open-source community, we open source a lot of our components of our lakehouse platform.

So I think making sure that it's open does help future-proof it because it makes it easy to integrate with technologies that we don't know will be coming out in the future. We have a very broad ecosystem of companies and partners that we work with that integrate easily and openly with our platform. I think that we'll continue to be able to be flexible and work with other companies. And it's something that I really enjoy, that we work with all the major cloud vendors, and a whole bunch of a large technology ecosystem. And being able to provide customers with that choice and flexibility is something that I'm a big fan of, and I know our customers are too.

Steven Karan:

I completely agree with you. And I think it's not just anecdotal thoughts that you're expressing. I think the track record and the evidence in the market sort of speaks for itself. From sort of my vantage point, if you will, I do see that maturity progressing in the financial services space in Canada. We see that maturity progressing in the sort of tech and telco media space as well in Canada. There may be some other organizations, and very much generalizing here, let's say in the world of energy utilities that are just about to sort of start this journey, may be not as progressive as let's say banks, credit unions, telco providers in this country as well.

But what we've seen from those, let's say, organizations that were early adopters and moved to cloud, moved data into the cloud, those that went down the road of closed systems, closed platforms are now reaching the point where they're unwinding that, right? They're rethinking that because that closed platform approach has really increased the cost of managing data and managing data effectively. And it's not only increased the cost, but in many ways that data has become more locked in, a little bit more rigid. Because for example, you don't necessarily get the ability to empower business owners with that level of timely insights when the platform is a little bit more closed. And if a platform is a little bit more closed, the amount of talent that's available in the market in Canada to effectively serve and manage that operating stack is also diminishing.

Ryan Heal:

Yeah, I would definitely agree with you, and I think we've seen that across the board.

Steven Karan:

I'm glad that we're seeing the same things. So you touched on something that I think is perhaps not well understood in terms of if you're looking at it from a dollars and cents perspective in terms of how do you really drive down the cost of managing data in your business, how do you maximize and lower that OpEx spend? Certainly how do you become more prudent with the CapEx? And I think that's always a conversation at hand for senior leaders in IT and data in our country. The concept of, I think, open source, I think that's understood now. The concept that perhaps may not be clearly yet understood in mass today in Canada is the value of having a multi-cloud approach to managing your data and managing your data in the cloud. Would you like to speak to why, from a Databricks

perspective, you've seen that really be sort of an important foundational element in an organization as it thinks through its maturity of managing data?

Ryan Heal:

In Canada, it definitely is probably a little bit more immature because, as we talked about earlier on, the customers are still kind of early days in their cloud-maturity journey. But I think as customers mature more and as they go further down that curve, I think multi-cloud, it's not if, it's just when, right? I think companies that, as they become more mature, will be multi-cloud. And I think, as I mentioned earlier too, that these cloud providers, everyone does different things better than others. So just as we've made choices for other technology stacks that, hey, this is the best thing for this, I think companies will look at cloud providers the same way.

I do think that there is, probably the one point that nobody wants to talk about as much, but I think there is this leverage piece. It's that vendor lock-in. I don't think you want to be locked in, all your data in one vendor. I think having that spread across, I think that provides that competitive nature between the cloud companies, and making sure that you're maximizing your value. I'm working with a few clients right now, very large Canadian brands, where that is an absolute requirement that we need to be able to leverage your technology stack across multiple clouds, not just one provider. And I think it's a known thing where we have a great relationship with all of the cloud providers, and they're all actually investors in Databricks. So I think you can go across the major cloud providers, and we do it and our customers will too.

Steven Karan:

I think so as well. And I promised my team that we wouldn't get too nerdy here. I think the right threshold was 10 percent nerdy. But I think this is an area I would love to just get a little bit nerdy on here in terms of, let's really visualize for our listeners what a multi-cloud approach to managing data in the cloud could look like. And I think, if I think through it, what's a very simple way of thinking through a multi-cloud approach.

The way I always like to describe it, Ryan, and I'd love your take on it afterwards is, let's say there's roughly three layers to your overall data platform. You have your underlying data warehouse, you might then have the current model, a data lake, on top of that. And this is the data warehouse sort of storing that data, the data lake sort of processing that data, and getting it ready for the analytics. And then you have the analytics layer at the top of that pyramid, if you will, essentially getting the data visible and actionable for business users.

So when you look at a multi-cloud approach, what's the recommendation from Databricks? Are we talking about, let's say, having the data warehouse in one cloud provider, having then a merged approach to how you store and process data with a lakehouse, having that in another provider, and then potentially a third provider for serving up that real-time analytics. Is that the way you typically describe what a multi-cloud environment for unified data looks like? Or is there typically a different story or a different approach?

Ryan Heal:

I think that covers it. I would say it differs depending on the organization, right? How they're structured can depend on how you architect that multi-cloud strategy. I think the multi-cloud strategy, I think data residency can play a factor in that.

Steven Karan:

That's fantastic. So now let's talk about dollars and cents because I think that's an area where there is a lot of interest, especially from organizations that we see in Canada that really want to understand if I go down this road of an enterprise lakehouse, what does that actually do to my

bottom line? What am I actually potentially freeing up in terms of productivity, in terms of computational or storage costs? Help me understand what's that baseline of savings that one can anticipate?

It really depends on several factors. It depends on where your data lives today, and is it in a unified data warehouse? Do you have it spread across a multitude of platforms? It depends on certainly the type of data that you're looking to move into the lakehouse, whether that's structured data, unstructured, how much processing that data needs to do. So there's a variety of different factors like that. But I know Databricks, being a pioneer in the world of data lakehouses, there's a tremendous track record there of seeing clients and seeing organizations adopt this very new paradigm shift in terms of managing data with lakehouses. Do you generally have a bit of a guideline for the senior leaders that you're talking to in Canada around what can they expect from ROI and speed to value through the adoption of a data lakehouse?

Ryan Heal:

I break it down into three main areas. I like to do threes a lot. But I think there's the initial one, this is true from I think going on-premises to cloud for any solution, is I think there's the hardware and software component. Companies usually see savings just off the top on moving to the cloud, that usually see some savings by just going to the cloud. And the benefits of cloud in general, their elasticity of you only pay for what you use. So I think customers usually see savings in that area.

I think the second area is really around productivity. So productivity around your team and resourcing. So going from on-prem to the cloud, on-prem systems usually are very difficult and complex to manage. And taking away some of that complexity of not having to manage the hardware component to the same level that you did and upgrades of the software, et cetera, moving to the cloud, there's usually some productivity benefit.

And then the third one that we usually measure, and I see customers benefit from, is the business impact side. If I am an energy company and I'm able to predict a failure in my plant before it happens and avoid a costly shutdown that costs millions of dollars, which is a real example for a Databricks customer here in Canada, that's millions of dollars in savings. And usually that business outcome piece is where they're seeing the biggest return. We have another customer in Canada where heating the pipeline, if you can dial that in and predict what it should be just within a degree, you're paying less on heat. And those also can drive millions of dollars in savings, which is another real-life use case that we have. So yeah, I really say those three areas. But...that impact to the business piece can really be that nine, 10 figure type revenue generator savings. And that's the big one.

Steven Karan:

You're absolutely right. And I love the way you summarized it. I'm going to borrow that from you going forward. But when I do borrow that from you, I'm going to refer to it as Ryan's rule of three. And I think that's perfect. Sort of taking a look at it from the technology stack itself, the hardware, the software. And you're right, there's an immediate savings from just shifting that technology stack into the cloud. There's that productivity piece. And I think what you really touched upon there is to unlock the productivity savings that would be gained from looking at a shift into a cloud lakehouse, don't overlook the ability to really maximize your operating model around that. Because there's new ways of now serving the business, new ways of serving the organization. I think that's an important piece as well.

And you're right, perhaps the most difficult part of that rule of three to quantify, because it could be exponential really, is the impact to the business. You refer to the example of eliminating downtime on a plant. I think there's several other examples of that as well, where in a lakehouse, for example, with one of our clients that we work with, we have a client who was able to unlock hidden customer insights by taking legacy on-premises customer data, merging it with some other customer data that

they had in a cloud data warehouse, bringing it into a data lakehouse. And when they did that, they found out new insights about their customers. They found out really how to personalize the promotions and marketing sort of options for different customers as well in a way that they historically haven't been able to.

And I think the stat that I saw from them is they were able to increase upgrades in terms of moving customers from a lower tier to higher tier offerings by 30 percent by just purely having that more holistic view of a customer in a lakehouse. And I think that's an example that can repeat itself in many other industries. So oftentimes the impact to the business of moving to a lakehouse is not clearly defined or perhaps not well understood, but it is absolutely there. But it all revolves around making sure it's well architected and making sure that your operating model is evolving with that adoption into a lakehouse. Would you agree?

Ryan Heal:

I would definitely agree. We've seen, I think, data in the past with being on-prem was so siloed and so just getting access to the data was just impossible. So now bringing it into one place and leveraging that lakehouse paradigm, making that data accessible unlocks all this potential. And the reality is you've heard people say data is the new oil or whatever, however you want to term it. I mean data really is companies' most valuable asset, that and their people in my opinion. So I think being able to actually access it is now unlocking all these amazing use cases that are driving real value for companies. And given the economic climate, which has been tough globally, companies are forced to do more with less, and data can really help them do that. And there are lots of platforms out there that can help them, and I see Databricks as one of them as well.

Steven Karan:

Fantastic. So Ryan, maybe in closing, what we can do is provide our audience with some insights gained from our experiences of helping clients and organizations in Canada make this migration and make this move into lakehouses. I'd love to get your take around those lessons learned. When has the adoption into a lakehouse gone very well and those expectations to the businesses have been addressed, the expectation amongst the C-suite really been addressed? And where have you seen some mistakes made in terms of that journey and that migration from legacy on-premises warehouses into a more unified enterprise lakehouse? And so that, as organizations are perhaps considering this journey themselves, they have the opportunity to really understand how do they set themselves up for success here and how do they really, again, maximize the value and the impact that a lakehouse can have?

Ryan Heal:

If I had to summarize it, I think it's usually not a technology problem or a lack of technology. It's usually a people and process thing for organizations. What is our data strategy? How are we going to democratize our data? And making sure you have the right foundations in place with the right team. I mean, five years ago, you never really heard of a CDO, chief data officer, right? You're seeing companies put that in place or innovation teams that are just purely folks on driving innovation. So I think it's starting with that foundation of the strategy and having the right people in place.

And then it's moving to what are we actually trying to achieve? What outcomes are we trying to drive to? And then it's what technology stack is going to help us do that? And that's really where we talked about earlier as well, that I really want to make sure that it's open. I think you want to make sure that it's that multi-cloud. And I think that you want to work with companies that are focused on driving innovation. So I think if you start there and go down again, we'll bring it back to the three, it's the people and process. It's then once you have that in place, understand then it's what outcomes are we actually trying to drive, and then what technology can help me deliver on those things?

Steven Karan:

Yeah, I completely agree with you there. And I would add a couple things, just to summarize really effectively what you've said. And I'm going back to something you said at the start of the conversation. If your expectation and anticipation is you're going to take what you do today on-premises or in a data warehouse in the cloud, and just port that over to a lakehouse, that's the wrong expectation to have. It is truly a paradigm shift. It's the merging of these two worlds around data warehouses and data lakes coming together. You have to be ready as an organization for that change. Understand it is a change. Understand that that requires changes to the operating model, changes to perhaps the service delivery model as well. And having that understanding from the get-go will really ensure that you're just not doing like for like. You're not doing a lift and shift, as you said, but you are really in a position to take advantage of something new, something different. And I think that's an important piece to have as well.

And something else we touched on in terms of how do you really make sure that migration is aligning with the needs of the business, ultimately prioritized into the areas of your value chain that perhaps need a degree of prioritization. It also comes then down to really ensuring that that future state is well architected. Have a clear understanding of what your data landscape looks like today, all the different pieces, all the things that are hidden under rocks, all those little mini little data warehouses that a segment of your business may be running off to the side. Uncover all of those things, pull back the carpet, really understand where you are today.

And then that will help you ensure that as you articulate the future state and that conceptual architecture of what a lakehouse would look like, you really have a good sense of where you can prune, what you really need to transfer over, what data really needs to come over, what platforms and tools created in these data warehouses really need to come over. But take the advantage of this opportunity to prune those things that are no longer providing value, that are just incurring technical debt. And if you take that approach to pruning off the top as well, I think you set yourself up for success, in addition to the Ryan's rule of three that you've talked about there.

Ryan Heal:

Yeah, I would agree. I think that architecture piece is one we see. You do need to align on an architecture. And too often, we see companies don't have that architecture well defined. So everyone goes down these different paths. So you end up in this same position of data being in silos, the processes being followed, and it still creates the same problems down the road.

And the other one that I see a lot is I would tell organizations to make sure you invest in your people. I see in the data space, very similar to my previous organization where security became the hottest thing, right? And so people were in roles before, and maybe they were data analysts, and now all of a sudden they became your security person, right? They never really had any formal training there. They just shifted into that role. And we see that kind of on the data side as well. And so I really encourage companies to, as these roles have evolved, I think we need to help the people evolve. And I think that comes by investing in them and helping them enhance their skills for whatever role that you want them in. And I think that's a really, really important piece that's often left out.

Steven Karan:

Well, I know, I think what you just touched on is perhaps a third area where you and I share a mutual passion, which is around people. And how do you create an environment and have a culture that attracts the best data-analytics professionals, and really help them grow and set them up for success in their career? And I feel like between you and I, we probably could go another hour into that topic alone.

Ryan Heal:

Totally.

Steven Karan:

But we might lose some people on a two-hour podcast. So, I think, why don't we wrap our conversation there? Ryan, it was such a pleasure to be able to talk about this topic of the business of data in Canada with you. It was really, really insightful to get the Databricks viewpoint around how the market has matured and what you've seen in terms of successful adoptions of lakehouses, which again has been a terrific paradigm shift. And so thank you for making time for us and making time for this conversation. I truly enjoyed it, and I have a feeling our listeners will as well. So thank you.

Ryan Heal:

Yeah, thank you so much for having me. Really enjoyed the conversation, and hopefully we can do it again sometime soon.

Steven Karan:

You can count on it, Ryan. On the next episode of the *How Data Should Work Podcast*, we're going to be taking a look at some key trends in data beyond 2022. And to help us analyze these trends, I'll be joined by John Palazzolo from one of the most innovative data companies in the world today, Snowflake. I'm looking forward to the conversation, and I hope you are as well.