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Paul Thies: As our world continues to accelerate all things digital, we are seeing a greater emphasis from organizations on the productization of data. While data scientists undoubtedly have a role to play, the commercialization of data will require thoughtful consideration on the various skill sets and strategies necessary for success.

Hello, I'm your host, Paul Tiffs. On this episode of *IF Win*, our topic was Data Products with an emphasis on an emerging new role. The Data Product manager. My guest for this episode is Dr. Tom Davenport. Distinguished Professor of Information Technology and Management at Babson College. Visiting Professor at Oxford Business School. Fellow of the MIT Digital Economy Initiative, and senior advisor to Deloitte's AI practice.

Tom's many accolades include authoring 23 books and over 300 articles for Harvard Business Review and many other publications. Being named one of the world's top 25 consultants. One of the top three business technology analysts. One of the 100 most influential people in the IT industry, and one of the top 50 business school professors in the world.

Tom, thank you so much for joining me today. I'm looking forward to talking with you about data products and data products strategy as a component of some of the emerging technology that we're seeing in data analytics and artificial intelligence and whatnot. Now, I've been looking at some of your recent papers and research you've been doing work for AWS and publishing stuff, of course, as you always do on the MIT and Harvard Business Review.

You've been talking about, I think recently, within the last month or two pieces I've been around data product strategy. Can you start us off, can you describe a little bit, what a data product strategy is?

Tom Davenport: Sure. I guess I should first say what a data product is and there's a little bit of maybe not controversy, but disagreement about that topic. I always thought of data products as the combination of data and the tools that you need to accomplish something specific with it, which usually turns out to be analytics and AI. The ways we make sense of data, but there are some people and organizations that argue a data product is just the data itself.

They might refer to an analytics product or an AI product, but to me, data by itself isn't terribly useful. I like the idea of a data product being both the data that you're using and the tools that you need to make sense of it or get some value out of it.

saying, "We're going to decide on what analytics or AI use cases we're going to develop and we're just going to call them data products."

I do think that just as companies who produce things for their customers have product strategies, it makes sense to have data product strategies.

Paul: I hope I'm not off base here, but it sounds like it's kind of productizing context and being able to look across and creating a more holistic solution. You have the data, you have all the raw data and then you're making sense of it, but then applying that sense that's being made and then productizing that and selling that to the market. Is that fair?

Tom: Yes. Except that it may not be sold externally. It might just be for an internal purpose. Those are often called data products too. Maybe I want to do a better job of assessing my risk under certain circumstances. You could have a risk-oriented data product or you could have a marketing data product to produce recommendations. Or some companies I've worked with have created these next-best action data products.

I think when data products were initially discussed, it was in digital native companies, mostly in Silicon Valley. For them, it was typically, something that you take to customers and sell or at least give away with the intention of getting eyeballs and selling something else. Within legacy companies, it could be just an internal application or something for customers.

Paul: Now I think, in concert with this, we're seeing the rise of the chief data officer. It's a fairly recent phenomenon among the C-suite, I think within the last 20 years, I think is what I had seen. I know largely, or I suspect largely really was emergent in the financial sector because there's a lot of any money laundering and data privacy and a lot of things where data just naturally lent itself to the risk of the institution.

They were looking at it, the board was demanding greater governance over data. Anyway, that said, you recently offered a report for AWS on chief data officers and prioritizing business value creation. Now, how do you see data products folding into the efforts of the CDOs to create value for the organizations?

Tom: I think a key element of creating value, in general, it's hard being a chief data officer if you don't have responsibility for analytics and AI and even business intelligence. Is a tough job because data's an abstraction to many people. They don't fully understand what's right or wrong about it, how to make it better, et cetera. Many chief data officers have become chief data and analytics officers.

They've taken responsibility for both the supply of data, but also the demand in terms of analytics and AI and ~~business strategy~~ ~~ny mns(it)(g)ahe~~

Tom: I know maybe we created a little bit of a monster, but the problem is companies thought, "I'll put data scientists in charge of the whole process of producing valuable things with analytics and AI." It turns out many of those data scientists aren't really interested in anything but creating a great model. They love manipulating the numbers and the models in order to get high area under the curve, percentages, and so on.

Many of those models just never got deployed in organizations. There were various

Tom: Yes. Just for example, in banking, everybody's interested in not only how much money of this particular customer I manage, but what's my share of wallet. To do that you really have to have some collaboration with other banks to say, "Let's share data to some degree anyway, maybe through a third party. It often is the case through a third party so that you can see you have 20% of their assets but these four other institutions have percentages as well and might be an opportunity for you to gain some share or there's some data that's just much more likely to be generated external, like weather data for example."

Weather data is quite useful in predicting what things you might want to buy, which is one company where they did those lenses that turned dark in the sunlight, transitions lenses, and obviously weather plays a big role in that. If you have a really rainy summer, people aren't going to buy as many sunglasses. Weather data's usually supplied by, it was supplied by the National Weather Service, but now IBM bought weather company, a number of companies are getting into supplying whether data AccuWeather does it too. External data I think is generally a little overlooked by many companies and I think it's a good idea to apply it when you can.

Paul: Yes, no, that's interesting. It's not to get off track, but it's like that, it makes me think of supply chain implications, for going to your transition lens if I'm a transition-- if that is a part of my product portfolio and I know that it's going to be an exceedingly rainy season and I don't need to buy X amount of components, I need to buy Y and I need to adjust my supply chain and then there's downstream implications to all of that.

Tom: Yes, a lot of companies now are interested in not only what things might be going on with their suppliers, but they're trying to look further up the chain and say, "What about my suppliers' suppliers? Are there floods where they're producing as their political unrest?" Maybe something is happening. My supplier hasn't had a problem yet, but they will. You can really anticipate a lot more of what's happening. Obviously, we should have done better about that during COVID-

Paul: Oh yes.

Tom: -than we did.

Paul: There you go. You live and learn. Now you mentioned earlier, when we're talking about data product strategy and you mentioned, the digital natives, Silicon Valley, they're really the leading on this, but that maybe, I don't know, more traditional is the right nomenclature you hear about. More traditional companies, large companies are trying to make this shift towards data products.

Can you talk about maybe some of the challenges that you've found among large companies that are trying to implement a data product strategy?

Tom: The ones that have really embraced it seem to be doing pretty well with it, but probably the biggest complaint is, it's hard to find the right people because data scientists, for the reasons I was discussing earlier, generally are not the best at it because, they tend to be focused on building great models and algorithms, but some

Tom: A lot of companies now are trying to look at, it may violate some people's idea of data privacy, but they're trying to track their customers across a variety of different platforms. They're internal platforms, but also social media and loyalty programs, and so on. You have a class of companies emerging that do that. We always had third-party data brokers, but now they are working across channels in many cases.

If you want to get a sense of, is this person who appeared on your website somebody who has bought a lot from other companies in the industry in the past or whatever, you're only going to get that through a third-party provider. That'd be one example. I think the number of potential external data suppliers is really endless, location data, health data, and I think driving data.

A lot of the automobile companies now have connected vehicle data, there's going to be even more of that in the past as cars become more electric and autonomous and so on. They're going to be fantastic opportunities as long as you don't annoy your customers too much to take advantage of all that external data that's available.

Paul: That's interesting. I had spoken years before with, he was the chief digital officer for a European car manufacturer. I think one of the things they were trying to do is get to this personalized digital memory. Basically, you create this profile as a driver, and then whenever you rented a car-- you're traveling, and wherever you rented a car, you had a key fob or something.

It would, regardless of where you were in the world, if you rented one of their electric and autonomous vehicles, it would remember your Netflix preferences and logins, all your social media, and everything. It extended beyond just memory of, "This is how you like your seat," and the ergonomics and all that kind of thing to where it was your whole digital life followed you in your whatever vehicle.

It wasn't just your vehicle, but any vehicle that you rented from them across the world, which it was interesting, but it was like, "Wow. That's, again, data privacy." That might be a head-scratcher for some people.

Tom: I wrote an article recently, it hasn't been published yet, I don't think it's in one of these management journals with long lead time, but it was on AI and personalization. It's how I reviewed some of the literature on what consumers think about personalization. It turns out they're very schizophrenic about it. They want it if it can save them a lot of money, or save them a lot of time, or bring them free goods or discounted goods or whatever.

On the other hand, they don't want to give up their data in order to make it possible. It's a little hard to know where the line is. I do think that having your customer's permission is increasingly important and providing some value exchange. "I'm going to use your data, but I'm going to give you something valuable in exchange for it." I use Gmail as my email client. I know they look at my data on occasion.

It's never really bothered me all that much, although now I notice there are some

Paul: I think there's a desire to see personal data get monetized so that people can make-- It's like, "If you're going to use my data, then what's in it for me?" You're saying it.

Tom: Monetized, being the owner of that data is the individual from whence it came, and they get some money. Unfortunately, a lot of companies when they're talking about monetization, it's, "How do we make money off of our customers' data?" That, I think, is not really ultimately going to succeed.

In fact, I even tell companies, "Don't use that term monetization if your customers hear it, unless it's providing money for them," which is probably another case, they're going to be annoyed.

Paul: I do think there are data advocates out there. I've talked to some commentators that think that that might be coming where it's not-- The monetization goes back to the person. It's like, I recoup, I get monetized for you, ACME incorporated using my data.

Tom: Tim Berners-Lee, the inventor of the Web, is working on some products that would allow that. 'Sandy' Pentland at MIT, a friend of mine has argued for that. There's a new venture by Frank McCourt, who used to own the LA Dodgers called Project Liberty, where they're trying to create that. It's a hard road to hoe. It's a lot of change necessary in

how the internet and the web work to make these things happen and I hope it does. I think we need some changes, but I don't see it happening quickly.

Paul: There's going to probably be countervailing forces that I try to get around that,

Paul: It seems like there's been a lot of talk about blockchain and cryptocurrencies for the last several years, but it just hasn't replaced currency as we know it. Tales of

customers with that?" Is this something that is an acceptable form of bias that we've been using for decades like the insurance one I mentioned?

Paul: This last question comes to us from Ian Sharp of Sydney, Australia, and I think it ties to the question Hamid just asked is, what safeguards should organizations put in place as part of machine learning design to help ensure appropriate and legally defensible decision outputs from AI?

Tom: I'm very interested in this. I have a new book coming out in January called *All Lane on AI*, where I talk about companies that are really aggressive in their use of AI. Most of them talk about the AI as a fine

This is the GitHub business unit. They have a tool called Copilot, and they've already been sued even though it was just introduced to the marketplace a month or two ago.

Paul: That's interesting. I don't know why, but that reminds me of record sampling and how that--

Tom: Yes, exactly.

Paul: The late '80s, early '90s with groups like the Beastie Boys and suddenly it was like, "Whose music is it?" but anyway.

Tom: Yes, same idea.

Paul: Tom, thank you so much. This has been a fascinating discussion and congratulations on the new books and also obviously all the material that you're putting out this fall. Data product strategy, fascinating data, product manager. Kids get your resumes together and if any universities are out there listening, it sounds like we have a new potential new job market to train up for. I really appreciate you taking the time to talk with us today.

Tom: My pleasure. Thanks for having me on.

Paul: Absolutely.

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