

THAT MAKES CENTS



Automation and innovation with Alex Kantrowitz

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Guests: Kasey Lobaugh, chief retail innovation officer, principal, Deloitte Consulting LLP
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Bobby Stephens: Hi there, everybody. Welcome, or welcome back, to That Makes Cents. For those of you who are new, this is the show where we invite expert guests to help you make sense of the biggest trends in the consumer industry. I'm really pumped for this episode, as it features a great topic with two very interesting and dynamic guests. Today, we're talking about automation and innovation, two buzzwords that are coming of age.

The first guest joining me today on this topic is a repeat guest who's helped me preview the holiday season last year. It's my colleague Kasey Lobaugh, the chief retail innovation officer at Deloitte Consulting and a longtime friend of mine. Kasey, can you give our listeners a quick intro, or re-intro if they caught the previous episode?

Kasey Lobaugh: Hey, Bobby. Good to be here. Happy to introduce myself. So I'm a principal within our Retail & Consumer Products practice, and have been with Deloitte now for I think 25 years, if I'm still counting.

Bobby: Awesome, Kasey. Good to hear you again. Our second and special guest, sorry, Kasey, is Alex Kantrowitz. Alex is an acclaimed tech reporter, host of the Big Technology podcast, and author of *Always Day One*, a book about the culture of innovation at the tech giants. Alex, kind of the same request as Kasey, how about just a quick intro for our listeners?

Alex Kantrowitz: Thank you so much for having me, Bobby. It's great to be here. The quick intro for me, I'm a reporter based in the Bay Area, and recently wrote this book, *Always Day One: How the Tech Titans*

Plan to Stay on Top Forever. And it's a book that looks into culture and leadership inside Amazon, Apple, Facebook, Google, and Microsoft, and specifically how they use technology, internally, not just the technology they create for us, but the technology they make for their own employees and their own processes.

And I believe pretty firmly after doing the research that the way that they use technology and the way that they build process around that is a large part of why they've been so successful, and I think it gets overlooked. People are like, "What's the strategy on this product? What's the CEO doing today?" But I think with most companies, when you look inside, that's when you find the real insight into why they're actually so successful, and I think that's really the case with the tech giants.

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Bobby: Thank you both for being here. Like I said, I'm really looking forward to this conversation, and frankly getting both of your help to demystify these buzzwords. And, Alex, you already gave us a little bit of a preview. I'm really excited to get a peek behind the curtain of the technology companies, the research that you did and, to some extent, what really helps them keep their hold on the market. And of course, all of us probably want to hear a little bit about ways that more traditional companies can think about these two topics.

Kasey, to connect the dots on how you all met, I'd assume, based on your role, you probably came across that book and maybe some of Alex's other writing. Maybe talk a little bit about how Deloitte got introduced to Alex?

Kasey: Yeah, it's interesting because I actually got to Alex a bit backwards. In fact, the first thing I came across was an article that Alex had written for Harvard Business Review that outlines what's called the Hands Off the Wheel program at Amazon. By the way, I came across that article when it was perfectly on point with work I was doing for a particular client at the time, and then I discovered that he had also written this book *Always Day One*. The article was so interesting that I got my hands on the book and read through that, and then from there I reached out to Alex, I think through Twitter originally.

Then I've really looped Alex into several of our client engagements, because the story is so interesting and the research he's done is so on point for our clients that frankly aren't in the Bay Area, and frankly aren't the tech giants. And so, through that connection, Alex has now been helping us bring his message to some of our clients to help them think differently.

Bobby: Alex, we'd love to hear a little bit about Hands Off the Wheel then, since Kasey just mentioned it.

Alex: Yeah. And first of all, I'll just say at the start that the book investigates the culture and leadership processes of the tech giants. Not written for the tech giants. The whole point was that I wrote it for the

rest of the economy so that we don't have five companies at the top of the economy controlling 25% of the S&P 500, and everybody else just scratching and clawing for a little bit of growth. The idea is, I identify these processes so that we can co-opt them in the broader economy. And so, every company, especially those outside San Francisco, I believe, has a real opportunity to actually go out and learn a lot from these companies.

Now Hands Off the Wheel. So, Hands Off the Wheel is an automation program inside Amazon's retail organization. And what it is is, so it took almost all of the core processes done by humans inside that organization and handed it off to robots or to automation. Now, when we think about Amazon's automation program, we think about the robots themselves rolling around fulfillment centers bringing shelves to people who pick the items off the shelf and then send them down the conveyor belt where they get put into an envelope and shipped off to us. That's the most visible implementation of Amazon's desire to automate almost everything it can.

But they actually do it in the headquarters as well, and that's what Hands Off the Wheel is. So there are these folks inside Amazon called vendor managers, and traditionally, a vendor manager in Amazon's retail organization would be on the phone with a brand like Tide and saying, "We need X number of detergent units in X fulfillment centers at X time, for X price. How soon can you get them there?" And there would be a negotiation, they'd maybe go to lunch, they'd get to know each other. They would adjust based off of past performance. And Amazon was basically like, "We can use machine learning to take care of all of this stuff."

And today, actually, after years trying to make it work, the machines do this. They do the ordering, they do even the negotiation, they do the forecasting. It's all done through automation, and now the vendor managers are auditing what those machines are doing.

And I think the key here is that most of the time when we hear a story like this, we think, "Okay, it's gloom and doom." And actually, we don't have too many examples, because

this is all so new to the economy, and that's why the tech giants are particularly interesting to look at for this stuff, because they got to it first. Because they had their internal research divisions that they're able to pay a ton of machine learning scientists to be able to get this stuff beforehand, but now it's starting to be democratized.

And so, I think when a lot of us start to think about what happens when the machines automate our work, we freak out a little bit. We're like, "Oh, okay. Well, that means the end of jobs." But Amazon did kind of the opposite, where they realized, the company realized, "Hey, wait a second. We have great people inside the company. If we automated and got rid of their jobs, we would be doing ourselves a disservice. Because, while we would be making ourselves more efficient, we would still just be in the same business we've always been in. And then someone will eventually out-innovate or out-invent us, and then we'll be on the outside looking in."

So rather than going for the short-term bump in profit and doing the mass layoffs, what Amazon does is it puts the people whose jobs it automates and gives them a chance to become product managers and program managers—basically professional inventors inside the company that dream up and then shepherd along the building of new processes. That's why you see Amazon involved in everything from first-party retail to third-party retail, logistics and fulfillment, voice computing with the Echo, hardware manufacturing with stuff like the Kindle. They're also an Academy Award-winning movie studio, a grocer, and now they're getting into healthcare. They're just starting to roll out their Amazon Care beyond employees and bringing it to the rest of the world. And the doctors that I speak with seem to think that it has a real chance of working.

And so it sort of goes back to the title of the book, *Always Day One*. What they do is they use this technology to make their processes more efficient, and then instead of firing, put their employees on more inventive tasks. Reinvent, reinvent, and reinvent. And that's why a company that's as old as Amazon is feels like it's inventing like a start-up, because it's been able to

reimagine the way internal processes and technology works and use that for creative and not destructive purposes.

Kasey: You know, here's what's interesting, Alex. When you expand off of that, you talked a lot about efficiency. But the things we're discovering with our clients is that there's an effectiveness component. So, for example, if you look across a traditional retailer's value chain, you'll discover they actually make a ton of decisions, and we could actually study whether or not those decisions actually drive the outcomes that they're looking for.

So, for example, we place inventory out in the stores, or in fulfillment centers, and the reason we place that inventory is to drive sales. We've done a study where we looked at our clients, and we looked at those decisions. We find that the normal distribution of outcomes tends to be very, very wide. Many of our clients don't study it this way, but when we do study it, we find it's very, very wide.

Which means that our clients take actions without understanding whether or not those are predictive of the outcomes they're looking for. And so, the thing that's interesting about Hands Off the Wheel and the article that you've written is it focuses a lot on efficiency, but there's this major effectiveness component that says, "If I had the right signals, I could actually become dramatically more effective at decision making if I was actually thinking about this, sort of, statistically."

And that's really the work that we're working with our clients, and we really brought Alex in on, sort of thinking about, what does efficiency and effectiveness look like? If I have the right data, and if I have the right signals, and I applied the right science to those, can I actually make those decisions more efficiently? In other words, hands off the wheel, but also more effectively, meaning using the data that I have to actually make better decisions, and in some cases, dramatically better decisions along the value chain.

Alex: Yeah, I think all the above. This is kind of exactly why I wrote the book is because there are companies that are looking at the tech giants and they're saying, "Well, I'm not a Google," or "I'm not an Amazon, and I'm just gonna do what I'm doing." And that's why we see these companies dominating the economy.

And of course, there's gonna be two ways we're gonna get to an economy where growth is more evenly spread out. One is government intervention, that's coming. And the other is companies that are not these five companies taking advantage of the tools and the processes that they've built internally, putting them into place in their own workplaces in a way that it makes sense, and actually getting these benefits. Being more efficient, being more effective, being more inventive.

And the moment a company says, "Oh, that's not for me," they're already losing the battle. And so, that's why I think, again, this was like the driving force, for me, for writing *Always Day One*, was, okay, as long as we have our heads in the sand, and we rule out using any of these processes or any of this technology, because "well, we don't really like the tech giants," or because "they're not good corporate citizens," which, by the way, I think there's a case to be made for all this stuff, I definitely highlight in my reporting. But the other side of it is, we can learn a lot from them, co-opt their systems, put them into place in our own places of work, and end up benefiting in a great way for it. I just think that what Kasey's saying really resonates, and I think it's a really good thing that there are companies that are outside of these five, outside of Silicon Valley, that are starting to think about it, and look at it, and it's exciting to see it make its way across the economy.

Bobby: So, on a practical level, I think it's, at least for me and the listeners, it's probably not too hard to make that nice logical leap between "Hey, if we can automate certain things, but also put those people back to work on more creative, more strategic projects, that's a good thing." Seems pretty straightforward, and I think a lot of people could get behind it.

What I've experienced, and you guys probably have as well, is one of the harder things, there isn't necessarily the sort of intention behind it, it's the execution of it. And one big hurdle that I've experienced is trusting and utilizing that data and those signals, as you said, Kasey, that you have access to, really taking the hands off the wheel requires a level of trust that the people who for many years have had that manual intervention may not feel super comfortable with at first.

So, what are your thoughts on really trusting and utilizing that data and what are some of the things that companies could think about to kind of step their way there?

Kasey: Now, what we're discovering is, when we show up at our clients, you have one of two sorts of things going on right now. The first thing we see going on is the sort of rationalization to say, "Well, we're not Google. We're not Amazon. You can't expect that, they're in a different category than us," but that's actually interesting, because at the end of the day, we're competing for dollars, we're competing for investment dollars, revenue dollars, share of wallet, et cetera. That's sort of the first thing.

But, then the second thing we see happening is these clients who are starting to say, "Oh, we need to do a digital transformation." However, they don't know what "digital" means. They don't know what the term means. And that's sort of the first kind of hurdle. To get this understanding of what it means to apply these technologies. Second, and you really hit on this one, and this is one where I'd love some of Alex's perspective here, is the change management hurdle of applying these once you understand that we're not talking about just webpages and mobile apps. But we're actually talking about operations, we're talking about DNA of the organization, and the culture of the organization. Overcoming that is really the change management hurdle that is material and shouldn't be overlooked. But maybe, Alex, you can expand on what you discovered from the tech giants, and how that applies with non-tech giant clients of ours.

Alex: I mean, I can talk quickly about the change management side, which I think is one of the most fascinating things I've found while I was researching *Always Day One*. So, just put yourself in the shoes of a vendor manager inside Amazon. The company says, "We are going to go hands off the wheel, meaning everything we've incentivized you to do, we're no longer incentivizing you to do. Everything we've rated you on, we're no longer going to rate you on. Your job is now moving to machines, in large part."

And the company is also communicating to many of them, "There's gonna be room for you in this company. You're gonna have a chance to get on more creative, more inventive roles and projects, but you gotta trust us." And, as you might imagine, the people, when they first heard this, were completely deflated. It is a big, big change.

And I think that people who work in tech are generally more comfortable with change, but it does seem like this is just gonna be a factor of our workplace moving forward in every industry you are in. Eventually, though, what happened was these vendor managers, they figured—there was this amazing moment when I asked them, "Okay, well then, what happened?" They're like, "Well, they automated. And then we started to believe that this was the right thing to do for the company."

And, in fact, one of Amazon's leadership principles is invent and simplify, and a quick word on the leadership principles. These are like the Bible inside of Amazon. And the idea is, you invent, you simplify the processes, and you make room to invent again. And so, I think what eventually sold the people on this was that they saw people moving, vendor managers moving into product manager roles, and now getting to work on the next big thing inside Amazon.

So, I think the key here is, (a) Amazon communicated this was going to happen. And they did it better in some circumstances than others, so I think that the communication thing is super important. But at least it was baked into the ethos of

the company through these leadership principles that, this was part of what they were doing. Part of what the big plan for Amazon was, was to do programs exactly like this.

And then, I can't emphasize this enough: they actually walk the walk. So, they didn't come in and sit everybody in a conference room and say, "All right, well, this is your last day and the email is coming to you." Because if they had done that, just think about how much innovation Amazon would have missed out on. For all the work that these people did to help build the next product would have been gone and some other company would have gotten it.

What they did is they actually showed them that when we do automate, we're gonna give you these opportunities, and they're gonna be better opportunities for you. Because if what you're doing is possible for a machine to replace it, then there's probably elements of your job you don't actually want to do anyway. But I think that once Amazon showed proof that these folks were going to remain important to the organization, perhaps even remain more important to the organization, and weren't gonna lose their jobs, in large part, that's when people started buying in. And then you go through that process once, you'll go through it again and again because you realize it works.

I do have a story on this. So, there's a guy inside Amazon. His name is Dilip Kumar, and he was the head of pricing and promotions in the retail organization. And he spends a couple years as Jeff Bezos's technical advisor, which means he basically goes and shadows all of Bezos's meetings. And he does this for about a year and a half. By the time he's ready to come out, pricing and promotions is on its way to becoming automated. Can't go back there. So, what he does is, he gets together with a handful of other folks who had been in the retail organization, and said, "What if we tried to take on shopping in real life? And what if we use technology to solve the most annoying part about shopping in real life?"

Okay, first figure out what that is. They figured out that it was checking out. People like to browse the shelves. They don't really like checking out. Once you're done with your selections, you just like to walk out of the store. And so they said, "All right. Let's use technology to solve this." And they eventually came up with Amazon Go, which allows you to scan in with a QR code, pick whatever you want off the shelves. With centers and machine learning, computer vision, they figure out who you are, what you've taken, and then you just walk out. No scanning necessary, no checkout necessary, and eventually it pushes a receipt to your phone.

Now if Amazon told Dilip Kumar, "Actually, we've automated pricing and promotions, you're gone," they would have completely missed out on what's gonna be the most important new push for them in brick-and-mortar retail, which is checkout-free shopping. But because they kept his team on and said, "We want you to solve an even bigger problem, go ahead and do it," and he actually went and did it, that's proof inside the company that this system works. And it shows the employees that they're serious about it and also, it helps the company, in the short and the long run because now they have this new inventive product that they can take to market or go roll out. And it's entirely a product based off of like the culture, processes, and technology they put into place.

So remember at the top I was saying, okay, it's all about culture and processes? A lot of times people hear that and they're like, "All right. Yeah, culture and processes, that's the most important thing. Got it, got it, got it." But no one actually believes that. But usually the truth is, inside Amazon, this is the case. This is happening, and that's why people there buy into it.

Kasey: This is the big a-ha that when I had you at one of our recent executive sessions with a client of ours, you were talking about this difference between building a culture and an organization that is meant to operate versus building a culture and an

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organization that's meant to invent. And that was a big a-ha and a takeaway for me. Do you mind expanding on that for a minute about how organizations are built?

Alex: So, I think there are basically two types of companies. One has a culture of invention and one has a culture of refinement. And that kinda goes back to the title of the book, *Always Day One*. On day one of a company, you have no legacy product to maintain. You are, by default, you're de facto a culture of invention. You build, because if you do not build, you do not exist.

But then as you grow older, now you have an option. Do you keep inventing, or do you maintain and refine your core product? Maybe make it more efficient, maybe become more profitable, maybe not worry too much about building a new thing because you're already sitting pretty in your market. And it's so tempting for companies to get into this culture of refinement, culture of maintenance versus culture of invention because they get to this place and they say, "Okay. Well, I'm in good shape. I can hold the line for pretty long."

The problem with a culture of refinement is today we're living in a moment where it's never been cheaper, and it's never taken less time to start a new company. Never before. And so, if you are happy with your culture of refinement, culture of maintenance, you'll be able to do fine, but for a limited amount of time, because there are going to be competitors who will see opportunities that you've given up on, that will take advantage of the climate, with things like, being able to incorporate faster than ever before, being able to use all the infrastructure like cloud services and get up online faster than ever before. Even, for instance, Shopify, plug and play solutions for retail. That exists. None of this stuff existed 10 years ago.

And so companies can sit or rest on their laurels and think everything is going well, but ultimately they'll be overtaken and it's just a matter of time, and it will happen again and again and again. We have a story in the book. Microsoft was like this. Microsoft was a culture of refinement when it had

Windows. It was the desktop operating system, and nobody was gonna challenge it. And then we very quickly moved to the world of mobile and cloud.

The core theme for me is that everybody starts with a culture of invention. The question is, can you stay in that culture of invention versus fall back to what many, many companies do, especially as they get larger, which is become a culture of maintenance, a culture of refinement. Again, that could work for you, but it certainly is going to work on a much more limited time scale than being driven by inventing new things.

Bobby: So, we could probably keep going forever, but I do think we need to get moving here, so one final question, and it's pretty open ended. If we think about what we talked about today, kind of automation, innovation, and, to some extent, the flywheel that those two things create together, what is something that you think everyone will be talking about in five years that will just be obvious, but today is not quite there? So fast forward, what will everyone be talking about one of these two topics?

Kasey: Bobby, I'll go first on this one. This is specific to the consumer industry, retail consumer products as well. There's an explosion of available information, I'll call it "signals" about the consumer. About what the consumer wants, what the demand is, these signals and how they relate to opportunity.

That explosion of these signals, and, Bobby, you know within Deloitte, we've got our product that we call InSightIQ, which is a really broad collection of available consumer signals. So using those to begin to really drive dramatically more effective decision making along the value chain. What do we buy? Where do we put it? What do we price it at? When do we mark it down? How do you liquidate? When do you liquidate? All those kinds of questions that have traditionally been more gut instinct, they're going to become dramatically more scientific. They're gonna become automated, and

that's actually going to be a revolution in the operations. So when we talk about digital, we're really changing the way we operate fundamentally, driven by signals, science, and automation. I actually believe that's going to be a significant wave during the next five years.

Alex: All right. I've been listening to Kevin Roose on his book tour. He wrote this book about how to survive the coming age of automation. And I like his take on this question, "Will the machines take our jobs?" And it's never the machine's choice, it's always people's choice. And it'll probably be a lot of people who are listening to this podcast choice actually.

So I think five years down the road, we're going to look at what people have done with this choice of whether to automate jobs or not and it will be a choice. I mean, we are already past the point of asking whether automation can come to companies. We're now asking how will companies use automation?

And I think in five years, we're gonna see two different types of companies. Companies that have used automation simply to become more efficient, more profitable, and reduce headcount. And I've met the people who are trying to do this. I understand what they're thinking, but I think they're wrong. And then there's going to be companies that will use automation to become more inventive, more effective, as Kasey mentioned, and keep their employees on the job, put them to more creative uses, more inventive uses, like the current tech giants are. And they're gonna have a real opportunity.

And so, I think for five years from now, we're going to start to really see the winners and losers from this. The losers are gonna be the people who thought, "Okay, we can automate and get away with it," and you're gonna start to see their leads in whatever industry they're in start to shrink. Or the depth they are in terms of trying to follow the leader, that will grow.

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And then I guess the second thing that you'll see is that the companies that have taken advantage of this moment to take their companies, use automation, become more inventive, reinvent themselves, keep up with the pace of innovation that we have today, are gonna be in a much, much better position. So yeah, I guess, if I had a final message to the listeners, it's the choice is in your hands, and choose wisely because this is eventually what's gonna make or break companies in the future.

Kasey: Maybe a better question, Bobby, is what's Alex's next book?

Alex: I'll talk about it, why not? At the end of the day, you have to do the work to write a book. So, if someone's out there that wants to do the work and beat me to it, that's fine. (laughing)

Obviously, I've been following Bezos through the *Always Day One* adventure that I had writing that book. And I think he's a pretty interesting person. And through the whole process, we were like, "We've got five CEOs. If one of them steps down right before the book comes out, we're gonna have to shred thousands of copies of this book and then start over." (laughs). Because it was all about their leadership practices. Book comes out, and then, about a year later, Jeff Bezos announces he's stepping down as the CEO of Amazon and he's going to leave I think Q2 this year?

And I think at the end, when he does leave, he'll work on doing a few things. Washington Post, though he's going to be more hands-off on that, charity, although he really hasn't shown much of an interest in that, and then space. And I think Bezos's pursuit of space flight at Blue Origin is fascinating, and I think when you put that up next to Elon Musk's pursuit of space flight at SpaceX, you can start to ask some really interesting questions about the nature of leadership, the nature of where our planet is going, where humanity is going next, and what role the government plays versus private enterprise. So, anyway, I've given it all away, but that to me seems like a really interesting second book.

Kasey: Absolutely. Maybe the next podcast, you'll be somewhere in space connecting with us, huh?

Alex: I wonder if the more I write about it, if I'll be more inclined or less inclined to get on one of those things.

Kasey: Right.

Bobby: Well, sounds like you heard it here first. (laughing) When I was prepping for this, I thought the conversation would be more about technology. But I heard a lot more today about culture, about the human portion of it, about the people's choice and how companies', people's, leadership's choice around the topic of innovation and automation, and how those two things intersect.

It's probably as important, if not more important, than some of the technology, some of the tools that can help enable it. In fact, the trust in your team, the trust in innovation, the trust in the data, all critical portions to really kind of move this thing forward, and the ability to be kind of always inventing versus maybe tinkering or refining over time. I thought it was a really great conversation.

Thank you very much, Kasey, thank you very much, Alex, both for your time and insight on it. And, Alex, thanks for the preview of the next topic. I will not beat you to that one, I can tell you that much.

And everybody else listening, thanks again for joining an episode of *That Makes Cents*, and we will see you really, really soon.

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