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Episode 20: American Express Believes Machine Learning is Going to Radically Reshape Just About Every Industry-transcript

Mike Shields (19s):

Hey guys, this is Mike Shields. And this week on Next in Marketing. I spoke to Anthony Mavromatis, Head of Enterprise Customer Data Science and Platforms at American Express. That big title really means that Mavromatis is Amex's machine learning guy. We spoke about how we envision machine learning changing every aspect of Amex as a business from using data, to communicating with customers. That's it, Mavromatis also gave us a real talk about how challenging it will be to implement this kind of huge technological change inside giant slow moving companies. Let's get started. Welcome to Next in Marketing. Today's guest is Anthony Mavromatis. He is Head of Enterprise Customer Data Science and Platforms at American Express. Hey Anthony, thanks for being here.

Anthony Mavromatis (57s):

Hey, great to be here. Thank you for having me, Mike.

Mike Shields (59s):

So you have a really interesting title. It sounds like you're the guy that is dealing with data and what kind of marketing technology your company uses. And you're the machine learning guy, as I understand it. I want to get into how your company is using machine learning. But can you help us --this comes up all the time, I feel like you probably hear this a lot. Like I feel like people in the advertising and marketing use machine learning, AI, and maybe even computer vision interchangeably. Give me your definition here of a machine learning. How we should consider this?



Anthony Mavromatis (1m 33s):

That's a great call out. And I think... you know, I've heard many people that I have a lot of respect for. Say we should eliminate the use of the word AI and just focus on machine learning. And those who know the origin of the use of it. To me, it's using statistical techniques to learn rapidly and through use of large amounts of data. That to me is the statistical part of the machine learning. At least as I define it.

Mike Shields (2m 14s):

And the implication is that it's not just like you can set up an algorithm and it will dictate what kind of response or what kind of ad someone sees. But the idea overall is a machine learning gets better over time, correct? And it gets smarter.

Anthony Mavromatis (2m 29s):

It gets better over time it learns. But I think it maybe this is where you're going with this, Mike. It really is highly dependent on how you set it up. How you set up its objectives? How you measure it? How you monitor it? How do you account for the edge cases? So it's a lot more, at least in my mind, than just the model part of it.

Mike Shields (2m 51s):

Got it. Okay. So, all right. Beyond the definitions, what's really the vision for machine learning at Amex? Is it primarily customer marketing? Is it acquisition? Is it all kinds of things? What's the vision there?

Anthony Mavromatis (3m 4s):

I think the vision for machine learning, I would say, is no different than the vision for all the tools and solutions that are available to us as leaders at American Express. Which is first and foremost, to enhance and augment, and reinforce this brand of 160 years. So I think that job number one is



exactly that. And AI and machine learning are a very important tool to achieve that. But ultimately, it's no different.

Anthony Mavromatis (3m 46s):

In the sense of, if we're asking the right questions, and these are the questions I asked my team every day is like, is it enhancing the brand? Is it the delivering the designed experience that relates back to the core mission of the company, and core values of the company of having our customers backs, delivering premium and value, tangible value, everyday of their lives? So that's the first and foremost objective. From there, we can get into the fact that more and more decisions, and more and more of what we do is being powered by that.

Anthony Mavromatis (4m 33s):

But ultimately, one of the most important things that any, not just American Express, any company that sets up and dedicates themselves to leveraging machine and learning is to make sure that core value and core objective is front and center of all the decisions that are made, particularly as it comes to AI and ML applications.

Mike Shields (4m 58s):

Since so much of this is so abstract and hard to wrap your head around. Maybe you can give me a walk me through like a theoretical example. Like, what an Amex marketing experience be for a customer pre-machine learning and then post? Like for I'm sure that you have, you know, you've got tons of email addresses on your customers, and you can identify them, and you have customer retention software, you're helping them --you're trying to use the traditional tools to show them better offers or help anticipate what they want. What does that look like pre-machine learning versus like where it's gonna be?

Anthony Mavromatis (5m 33s):

Yeah, and maybe rather than pre-machine learning, I mean, one of the advantages I would say that machine learning and data science in general has been around in different forms, maybe, and certainly at American Express, for a number of years, I think, obviously, in the last couple of



years, everything has accelerated significantly. So maybe Mike, if you allow, I would say, like, what does it look like without machine learning versus not? I mean, a good example is you log in, and I'm going to tie it, if that's okay, to the core value part, which is you log in, if we're really good. So let's take the machine learning example.

Anthony Mavromatis (6m 15s):

You come to a website, you come to the app, you pick one. We have a good sense of what the customer need is. And coming back to the core value, the decision, we have thousands of decisions to make, at any given point of what we can put in front of the customer, what the experience looks like? And with machine learning, we want to be able to anticipate that need, we want to be able to service that customer's needs as quick as possible, in a way that is ideally. If we're really good at it, it is feels almost like a human interaction.

Anthony Mavromatis (6m 54s):

Going back to the very origins of customer experience, customer service, that we're all in person. We were really good. And your machine learning, and your experimentation, and your system is set up really well anticipating, it's hitting that core value, resolve the customer inquiry, whatever their intent is they're trying to check their bill, all the way to they see a transaction they don't recognize. And then it will really good, add in an a predictive basis. What is most relevant potentially of value to the customer, something they didn't know about their particular card, a benefit they may not be using, or it's something new that they might not be aware of a new Amex offers an example.

Anthony Mavromatis (7m 38s):

So that's all the power that AI and ML is able to do. And then they will do that at a very, very large scales, which frankly, humans are not very well suited that to do, certainly not in real time. So that's the -- let me pause there. That's, I think the part of the power that is at least that I see it as of using machine learning in that example.



Mike Shields (8m 1s):

So in your organization, like you described, it wasn't like one day I think you decided. Or, you know, we're just using machine learning and you bought a machine learning kit and plugged it in. You've gradually been trying to do this over time, it sounds like. So where are you now in that progression? And then how long will it take if there's ever a day that you're like fully using machine learning the way you want to be?

Anthony Mavromatis (8m 24s):

So I think that's a great question and clearly, it's an evolution. One of the big milestones that we hit, actually last month was, is rolling out at least in the US market, our Orchestra, centralized personalization platform that powers the experience I just described in the predictions that I just described. I think companies historically been pretty good at figuring out what's the offer? What's the message? What Orchestra does is it solves the rest of the who, what, when, what in questions, the rest of the questions of, "Okay, I have a series of potential experiences and content, who do I serve it to?"

Anthony Mavromatis (9m 12s):

When do I serve it to them? How do I even serve it up to them? And in what channel and what context do I do that? And so that is been a big milestone for us. It's been almost a three year journey to get that capability and a channel agnostic, very customer centric manner. One solution powering all the experiences all the channels in real time. So that to us it's been a big -- with experimentation and learning built in. That's been a big milestone at least from where I sit, and a big part of what I've been focused on. So there's obviously a lot more to go but it at least for us, as American Express has now put us in a position to really think about the next generation of personalization.

Anthony Mavromatis (10m 1s):

How do we further strengthen the experience, the brand, the suite of things that we can power across our many channels.



Mike Shields (10m 13s):

Okay, so your just three years ago. You guys are deciding we need to get really serious here. Orchestras your own, correct me if I'm wrong --

Anthony Mavromatis (10m 23s): That's right.

Mike Shields (10m 23s):

You decide, okay, maybe we should just get a partner and go all in on one marketing technology company or we have to build their own because it's so important to us. What was that decision like?

Anthony Mavromatis (10m 34s):

That's a great point around external buy versus build. When I started this role like three years ago, like maybe many companies, there was a lot of infrastructure legacy platforms. And actually some of it was the third party solutions. When you want to build a -- and a lot of companies go through this journey or going through this journey. When you think about taking a customer, first customer centric approach, when you talk about the core values that you want to be able to do that, you can't have different channels having different optimizations, different technology stacks, different...

Anthony Mavromatis (11m 17s): you name it, right?

Mike Shields (11m 18s):

And those are all things that happen that is when over time when companies are...

Anthony Mavromatis (11m 21s): Over time, exactly.



Mike Shields (11m 22s):

Buy load, and they do add stuff here and there and no one knows what it's all doing.

Anthony Mavromatis (11m 25s):

And more importantly, if you want to make a change it becomes, it was almost comical, right? When I first took on the role, I said, "Well, I want to change this." They said, "No, no, no, please don't make that change because that's gonna involve months and months of like --"

Mike Shields (11m 41s):

Like dominoes will fall and things could screw up.

Anthony Mavromatis (11m 43s):

You know, please don't put -- and conversely, we would say, "Well, don't put too many different types of offers there because it's just going to screw things up, right? It's going to be too complicated." So that's where you have to take a step back and say, "Okay, where do we want to be?" And how do we want the customer experience to be? Because ultimately, that's what we want to solve for. And then, work your way backwards for what does that mean for your technology stack? What is you need for your setup stack? What does it mean for your machine learning stack? And recognize you can't do this. And most importantly, you cannot do this in a year. You can't do this in a six month period. It's just you have to have that organizational commitment. And I'm very lucky that --"

Mike Shields (12m 24s):

It's an organization wide endeavour that has to --"



Anthony Mavromatis (12m 27s):

Its organization wide. And it starts from the top and belief and support. And the onus was on us to as we get through that process to keep showing small wins, small proofs of concept that, you know, we can drive as an example, higher engagement be measured through your click through rate. We are getting more people engaging with our content. We are reaching more people. Even in these baby steps, but that's basically what it is. In the process of trying to decide, the reality is that the design and the solution is internally built, but it is built also on a lot of open source solutions. And certainly, I can speak for the AI and ML part.

Anthony Mavromatis (13m 9s):

We are the beneficiaries of, and we stand on the shoulders of many, many very, very smart individuals that keep pushing the envelope of what AI and ML can do, seemingly on a weekly basis, right. I mean, the pace of innovation is just breakneck at this point.

Mike Shields (13m 29s):

But it must be hard when you're trying to institute that throughout a big company, when you're the guy coming in screaming about how everyone does things. Like, you're the guy that say, "You know, I'm going to change your system, and it's going to be really unfamiliar or challenging." Like that can't be easy to implement over time.

Anthony Mavromatis (13m 46s):

So I think that I will not sugarcoat this. It is not an easy thing to do. And we always anticipated that there would be a bit fear component of change management. I talked a bit about showing wins as you get along. Perhaps most important is to recognize that the marketers role in the immediate term, and certainly in the next five to 10 years is going to change. And I believe it's going to change for the better. I mean, let me give you an example. I talked a bit kind of half jokingly about, "Please don't add more content, or please don't create more versions of the same..."



Anthony Mavromatis (14m 26s):

Right? Because it's just gonna break the system. And then I have to go into it. We are in a place now where we are enabling the marketer to focus on their the core value, the core essence of their job. I think new hires were often kind of surprised. You know, they hire big talent, marketers, and MBAs. And then a lot of their job turns out to be very mechanical. "Oh, I need to set up this offer. I need to figure out who and when it should go." So we've given that, that's a job that's really, really, with that machine learning is really well suited to do take this massive amounts of data.

Anthony Mavromatis (15m 12s):

And just focus on what you want to create? And this is where machines are not very good at yet. But it's that creativity, that judgment piece, that we're allowing more and more of that marketers time to be focused on that. And then let the Orchestra solution take care of which channel? When? You know whether it was the best variant for a particular customer, and so on and so forth. Take care of the rest of that value chain. And I believe that that's only going to continue. I like to describe it enough, are described as AI as your coworker almost. Let, you know -- they have the --

Mike Shields (15m 50s):

Right. He's not taking your job. He's making it better. You made your life easier.

Anthony Mavromatis (15m 53s):

It is making it better. And guess what? In this 160 years ago, when the company first started, they weren't seven, eight different ways you can communicate --

Mike Shields (16m 7s): Right.

Anthony Mavromatis (16m 7s):



-- with the company. Now we have and within the web, there's all kinds of different experiences and so on. You almost have no choice but to leverage those automated solutions and powered by machine learning. That's not to say that they work kind of in a black box on their own very much still a lot of human oversight to that. But that's really about how we tune and how we leverage the these AI and ML solutions.

Mike Shields (16m 38s):

So you keep referring to how -- you want to be able -- somebody brands want to do more with their data. They're good. They've have way more than they even can use. I imagine a big part of this is being able to extract and use that data at scale a ways you could not in the past?

Anthony Mavromatis (16m 55s):

That is definitely a big component of it. And in fact, I talked about the three year journey to get to this important milestone with Orchestra. A big part of that is credit goes to the engineering teams that work with us. A large part of it was just harnessing the data. Bringing it even just together. You just even just starting with something super basic. And leveraging the data that is actually generated, but often not stored. When a data scientist comes in, the data angle that they bring is very different because we know what the potential is for using the data.

Anthony Mavromatis (17m 38s):

Anything from small clicks, or the time that a customer spends in a particular experience is valuable insights to us. So I would say that 80% of the effort is really about that engineering the data. And it's not often talked about I think as much as it should, because a lot of the glory goes to the AI and machine learning part of it. But really, a lot of it is just getting that information centralized. And to your point, Mike, the data is a lot bigger. Harder to move around than it ever has been. The the data exhaust itself of one placement can be very significant, and technologically challenging to manage.

Mike Shields (18m 24s):



You can't just send a couple emails and move the data around so that works. What about --okay, so, on that note, you're talking about how, it took a long time to put all the data the right place, and now you're trying to make the most of it. The ad business is going through a weird moment where you're going to have, theoretically, it's gonna be harder to identify people because you're not going to have cookies, it's apples restricting what you can do and mobile devices. On the one hand, maybe machine learning is arriving at just the right time when you're going to have to battle notice the industry to get more into this and need the systems. Or does it make your your job that much harder?

Anthony Mavromatis (19m 3s):

So the scope of my role is almost exclusively existing customers. And most of the interactions we are on our assets, so are by the assign --

Mike Shields (19m 19s):

[inaudible] hear by those people are it's less than -- you're less worried --

Anthony Mavromatis (19m 22s): That's correct.

Mike Shields (19m 22s): -- about cookies and --

Anthony Mavromatis (19m 23s):

We're less worried about that because we have to have them self-identify, to login, to what have you. But yes, the broader industry, I think there's a lot of questions out there about ability to identify. And I think these are very, very good questions. And it comes down to privacy as well, which I think there are a lot more questions out there. And more attention, which I think is also a good thing across the industry.



Mike Shields (19m 55s):

That's interesting. On privacy, how do you manage that? Like, because you're primarily focused on first party data as your direct relationships with customers, theoretically, you're in better shape than a brand who has to really rely on trying to harvest data, like to target people. You know, customers always want to have, they don't want things to feel creepy, but they want you to anticipate their needs and know them. How do you balance that?

Anthony Mavromatis (20m 21s):

That's the critical question. And I mean, let me start with the basics. I think that, first and foremost, when people do business with American Express, there's an expectation and rightly so that their privacy will be respected. I'm not just referring to the legal piece. We have very explicit customer facing commitments around what data we will and what you will not use. And I can tell you kind of from the other side, that's very much not only applied, but there is, it's something that is front and center in a lot of these decisions. Because to your point, Mike, once you take the next step, it's a very thin line between creepy and very personalized, right?

Anthony Mavromatis (21m 7s): Like, how do you know --

Mike Shields (21m 8s):

You call yourself a membership company, right?

Anthony Mavromatis (21m 10s):

That's right. But we hear it both ways. Like in doing customer listening sessions they understand, "Yes, we trust you American Express." But they also have expectations about us knowing them and say we're like, "Come on. I've been a customer with you for 20 years. I spend --"

Mike Shields (21m 28s): Right. I put my money on you.



Anthony Mavromatis (21m 30s):

Yeah, why do I have to tell you, like I really like Italian food from this type, right?

Mike Shields (21m 38s): Right.

Anthony Mavromatis (21m 39s):

So if we do it really good, really well, we're able to meet that. And in a way that to your point is strikes that right balance, because a key ingredient to personalization is knowing and recognizing the customer. And we're blessed with a rich data ecosystem, because we have the relationship with the customer and with the merchant. So we're really able to get a good understanding. But we also are very clear on where we draw the lines on what transactions we will not use. And we've made public amendments to that. And above that, knowing where there's going to be value and it's reasonable to do that, using our customer graph, in terms of understanding the preferences, and leveraging them to bring value to the customer.

Anthony Mavromatis (22m 31s):

And, in fact, more recently, with the changes that we've had as a result of the pandemic that's come in very handy to be able to rapidly adjust to a changing environment.

Mike Shields (22m 43s):

If you can think outside of Amex for a second. I would argue made the promise of personalization in advertising and marketing has fallen short of at least the way it's been touted. Would you agree with that? Give a sense why?



Anthony Mavromatis (22m 57s):

I would say it's mixed outcomes. I've seen a few experiences that are good. But you're right, I think there's a lot of instances where either the experience falls short or is just not quite what I think anybody would expect it to be given the state of technology and Machine Learning and AI. And I think that the suggestion I would make to folks that may be listening in and are interested in trying to create that better experience is that the measurement of, and the objectives, and the functions that you're trying to optimize are probably the most important thing in the whole ecosystem.

Anthony Mavromatis (23m 47s):

Yes, having the data. Yes, having the AI and having the talent. There's a whole bunch of things that need to go in there. But how you assess that experience and how you measure it, if it's really good, because whatever experience you design is going to communicate some design intent. Whether you do it by deliberately or not. So, the challenge for, and particularly for everybody, not just the data science teams, but also the product and the technology team. But is really how do you make sure that the design intent, the value that you have, the core principle that you want to be able to translate comes through in that experience, across the visual experience the content, you name it.

Anthony Mavromatis (24m 43s):

I mean, I can give you an example of where that sometimes works, sometimes that doesn't work.

Mike Shields (24m 50s): Please.

Anthony Mavromatis (24m 51s):

So one of the roles that I have is managing the machine learning behind the bot. So any customer can log in. They get stuck somewhere. They have a question and they can click on the Ask Amex button and that gets you to the Ask Amex bot, which you can type in your questions. And the first line is an automated system. And then, selectively we go on. I'm just giving that as an example but you can easily translate that to the other. You could come to me and say, like, "I just want to



automate as much as possible. Right? And guess what? Might work for some experiences, but at some point, it's going to come in and people are going to realize and customers realize, all you care about is automation.

Mike Shields (25m 39s):

Right? I'm not dying, as person, you will not let me mad at you.

Anthony Mavromatis (25m 42s): Exactly. You can't solve my problem.

Mike Shields (25m 44s): You'll be yelling at the bot.

Anthony Mavromatis (25m 45s):

Yeah. Why are you keep talking to me? And bot is one experience. You can talk about IVR, you can talk about the -- when you first call in. The number of times that we've held out, you know, yelled into the phone, right? Or I've heard...

Mike Shields (26m 0s): Representative.

Anthony Mavromatis (26m 1s):

Representative, right? So that's exactly where your intent and your design really comes in. Because if your objective is, "No, I want to resolve the customer's need as fast as possible, then that's a very different paradigm." Versus, "I want to try to optimize my automation piece around that." Because then it becomes a holistic experience of what's the humans role? What is it that the AI Machine Learning component can do and we feel comfortable with? At what point do you quickly transition? How do you build empathy into the system? That becomes a very different objective function.



Anthony Mavromatis (26m 42s):

And I think spending time thinking about that is one of the keys to developing and keeping an experience that really is successful to your point in terms of feeling personalized, and feeling relevant and successful in the long term.

Mike Shields (26m 59s):

Given the work that you've done and the vast amount of data that you have and what you're going to learn over time, Orchestra magic, I imagine it's going to get stronger and smarter as it goes on. Could you imagine this being used outside of Amex? Like, could you ever see -- like you said the builder by question is going to come up and so many other brands. Would you ever want to be outsourcing this to other marketers? Is that crazy? Work at this self? Where else could this be applied?

Anthony Mavromatis (27m 25s):

You know that it's a great question. And one that I haven't really thought that much, but we're just excited to have it. But I would say nothing is outside of the realm. I think right now we're looking at the expanding to other markets within American Express as well. And we're looking to harness the power of what we have for to build new experiences that before we would be much harder to stitch together. So some of it is optimizing existing experiences. The Amex offers ecosystem is a great one where customers come in.

Anthony Mavromatis (28m 7s):

And we have offers that are tailored and personalized to them from our merchants as part of the the relationships we have with them. But really, that's a great example of where we would love to be able to take that on a more proactive basis. You traveled to -- hopefully, all of us will be traveling soon again.



Mike Shields (28m 27s): Yeah, nice.

Anthony Mavromatis (28m 27s):

But you traveled, right, to London, or what have you. How do we anticipate what you might need? What might be relevant at that particular time you landed in the morning? Like, do you have a hotel? Do you have some, we have some locations that we can suggest? Do there's some offers specifically for that merchants? So how do we -- you know, I talked a lot about the servicing component of it and getting and servicing them quickly, efficiently and as fast as possible. But also, how do we surprise and delight them and bring value to their everyday experience? So that to me is the next chapter of personalization.

Anthony Mavromatis (29m 8s):

And getting ahead and delivering that either existing or potentially new value for card members.

Mike Shields (29m 19s):

Anthony, I want to maybe take a broader look at what we're talking about here. Maybe we'll wrap on this topic. One of the interesting things we're almost, we're less than a week from a from an election, hopefully, the country's holds together here. But one of the more interesting things has come out of this race has been Andrew Yang has his candidacy and talking about, a lot of things we're talking about. But, you know, he's spoken about how AI is going to improve a lot of work at companies but he's also talked about how low skilled jobs is going to take ahead, and people are going to need retraining. You know, you've talked about how, obviously this is going to help your workforce unlock their potential and not have to do all the other stuff they don't want to do.

Mike Shields (30m 2s):

But on a macro level, how much does the American workforce needs to sort of prepare for this, get retrained? Do we need a whole bunch of new people, more data scientists? Everyone, can everyone learn this? Where are things going from a macro employment level?



Anthony Mavromatis (30m 17s):

So, I know, on a personal level, I think it's really great that folks like Andrew Yang are bringing even this important topic to the forefront. And I think I'm glad to see it part of the increasingly part of the common discourse, because AI and Machine Learning is definitely upon us. And its impact is only going to increase, going forward. And I can't speak too much to one way or the other. But I do think that it is often overblown, almost in terms of what it will do.

Anthony Mavromatis (30m 57s):

Like, what I see as a data scientist in terms of the code that I'm looking at, and some of the depictions of what it can do. On the flip side, or potentially exaggerated as well. I can tell you from where I sit, I know you mentioned the point I made that it is more of a, I see it at least as a co-worker, rather than then replacing, because let me give you a concrete example. With Orchestra as an example, we see now that marketers are creating a lot more content than they have ever had before.

Anthony Mavromatis (31m 49s):

So you could say, "Well, why are you doing? Why? How? Why is that happening?" It's because well, they don't have to worry so much about every single creative, every single offer, who should go to? What should it look like? What is the best one for which segment, which channel --

Mike Shields (32m 2s):

That's taken care of negative [crosstalk]

Anthony Mavromatis (32m 3s):

Also taken care of. So technology, I think I would leave everybody with this thought, that technology -- and I don't care which technology you're referring to, has this funny way of solving



one such problem on sort of perceived problem one side and kind of helping you on one side. But then on the other -- just almost at the same time it starts generating these other demands on the other side and this is really tricky piece. And you can start with like any technology. The washing machine, right? It's like, "Oh, it's freed up more time, but then you just wash more clothes." And it's kind of the same thing, like all of a sudden, now we see. And it's great from the customer's perspective.

Anthony Mavromatis (32m 43s):

You know, it's part of what is exciting for me is that the volume that they're able to generate, and the creativity that goes into that is just increased multifold. Because we know that Orchestra can make 200,000 decisions in a second. And that's what it's doing across multiple touchpoints is about multiple customers. And we've built in the ability to learn and to listen to the customer in a systematic way. They like this. They don't like this. Oh, let's adjust. Maybe this isn't the right one for this particular customer, or for this particular time. And so that's I think, if nothing else at least been my experience, which is that just as it takes over some parts of roles, it seems to create other opportunities for different work elsewhere.

Anthony Mavromatis (33m 37s):

So maybe this is a bit of a biased view on the impact of machine learning. I think it's something we should keep talking about. No doubt about that. But at least that's been a bit of my experience on that front.

Mike Shields (33m 51s):

Yeah, that very much reminds me of the early days of programmatic advertising it was going to be, "Oh, there's been no more salespeople. And then she's going to use them anymore. Everyone's gonna get fired." And it turned out you needed a lot more people, you need a different kinds of people. But it created new jobs in a way and different kinds of talent. So it was a net positive. It's just it does happen all the time.

Anthony Mavromatis (34m 11s):



And I think you can use that example across multiple areas where there was exactly that concern. I think tellers, automated ATM machines. So they we did not get any money. It turns out, "No, you have actually more tellers." Because that human interaction becomes even more valuable, and also more to the essence of what you want it to be as opposed to, "Can I be more transactional?" Because there's parts of it that are transactional easier to do that with the machine.

Mike Shields (34m 41s):

Very, very true. Anthony, thanks so much for a great conversation. It's a really interesting stuff and I appreciate your time here.

Anthony Mavromatis (34m 49s):

Mike, thank you for having me. It's been a pleasure.

Mike Shields (34m 52s):

A big thanks to my guest this week, Anthony Mavromatis Head of Enterprise Customer Data Science and Platforms at American Express, and of course, my partner is an Appsflyer. If you've liked this episode, please take a moment to rate and leave a review. We have lots more to bring you, so be sure to hit the subscribe button and will see you next time for more and What's Next in Marketing. Thanks for listening.