



FINTECH ONE-ON-ONE PODCAST – MARCO ARGENTI

Welcome to the Fintech One-on-One Podcast. This is Peter Renton, Chairman & Co-Founder of Fintech Nexus.

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Peter Renton: Today on the show we have a special treat for you. I'm delighted to welcome Marco Argenti, he is the Chief Information Officer at Goldman Sachs and Marco was actually our Opening Keynote at the recent Fintech Nexus USA event and today's episode is a recording of that event. The title of this session was "A Revolution of Knowledge: Generative AI, Data & Digital Transformation in Financial Services."

So, we do a deep dive in AI, it's not just about theoretical applications. What Marco does, he sort of gives us an insight into where this is all going and what it means for developers, what it means for people working in financial services and what it means for the efficiency of organizations and truly I thought this was just such a fascinating discussion. I had more comments about this particular session than any other at the event and you'll find out when you listen to it. He brings up this concept of being superhuman and that AI can really help with that, anyway, give it a listen, you won't regret it, it is really a fascinating discussion.

Okay. So, let's maybe kick it off with just giving everybody a little bit of background about yourself. I mean, you haven't been in financial services your whole career, you came to Goldman Sachs from AWS so tell us a little bit about that journey.

Marco Argenti: So, first of all, thank you for having me here. Yeah, it's been an interesting journey, I've been in technology pretty much all my life, believe it or not, I started to write code when I was 13 which is now over 40 years ago, and things have definitely changed. So, I spent the last, before coming to Goldman, I spent the last six/six and a half years at AWS where I was really driving some of the innovative areas, we launched, for example, serverless land messaging, a lot of the Internet of Things product and at the end, I was really engaged in what we used to call digital transformation, especially in the context of how Internet of Things and how some of the new emerging technologies like Edge Compute will transform the way some of the industry will do their business.

So, when I started to realize that, you know, that my primary focus was shifting from talking to the CIOs to actually talking to the CEOs of those companies, for example, automotive companies, I started to realize that technology really was starting to have a seat at the strategic table, was starting to be top of mind for CEOs, was starting to be top of mind for boards. And so, it kind of when I decided that I wanted to be part of that transformation rather than from a vendor standpoint to actually be within a company that is going through that transformation, and so that's kind of what led me toI was looking at what would be an industry that will kind of drive that sort of transformation.

You know, financial services is a fully digital industry, it's fast, it's not constrained by, for example, physics, you don't have to bend metal, you don't have to build, you know, airplanes or things that are large and complex from a physical standpoint. And so, I wasn't anticipating what was coming which is kind of this AI revolution that we're all living right now, but I felt that there was something there. So, that's what kind of made me do the move.

Peter: Right. So then, when you're talking with say your CEO, David Solomon and the Board, what is top of mind in your conversations today?

Marco: Well, right now, you cannot escape the topic of AI no matter where you are and so that kind of was a little bit dominating the conversation at the moment. But, in general, especially David Solomon, always an advocate of putting technology at the center of transformation of the strategic agenda and in particular the idea of empowering developers and empowering people that are into technology, not only to improve the way we use technology internally but also how could we offer technology externally to other developers which is kind of what led to what we used to call the financial cloud, the externalization of our services which culminated with the creation of our Platform Solutions unit.

So, today, if I look at, you know, you have these two kinds of opposing forces that are top of mind pretty much for every CEO, especially in our industry, which is on one side you have an increasing regulatory activity, regulatory pressure which really is looking to put safeguards in place. And the other one you have the opportunity of AI that is kind of pushing to really, really rapid pace of innovation and how you balance the two, and how you do it safely, how you actually navigate that line between innovation, safety, compliance is actually one of the biggest challenges that every CEO and every CIO and every Board needs to think about today.

Peter: Right. So then, let's dig into that for a little bit if we could. I read an article that you wrote recently where you talked about Generative AI and you compared it to the invention of the printing press, which is a pretty, you know, it's a pretty big kind of step in human history, that particular piece, so maybe you can explain what you mean there.

Marco: Yeah. I mean, everybody is coming up with their own, you know, hyperbolic metaphor in many ways (Peter laughs) so you hear people saying, it's like the Internet and it's like fire, it's like the wheel so I picked the printing press but not randomly.

So, there are two ways to think about AI today and they're not mutually exclusive, you can think of it as a sort of a sustaining technology which essentially makes your business more productive and you can think of that as a disruptive technology, especially on the area of knowledge and that will actually make your business more competitive. Now, productivity is great but it's not enough. I always say, you know,

you can get fit as a human body but that doesn't necessarily make you a champion, okay. Now, it's a necessary but not sufficient condition and that's like efficiency so you can be very efficient, you can still not win in the market.

And so, I think it's the revolution of knowledge, what AI brings, that I think is transformative and let me actually explain that a little bit more and why the printing press. So, the printing press created the conditions for scalability of knowledge so remove the barrier of physical access to knowledge. Before, in order to know, you know, like if you wanted to know math, maybe you needed to know a mathematician and have access to his manuscripts or hear his words. The printing press eliminated the constraints of physical access to knowledge and led to the creation of libraries, universities and, you know, obviously schools and education as we know it today.

Still, a very important barrier exists which is the accessibility of content from an understanding standpoint. So, if you have a very complex book that is kind of, you know, written for a mathematician but maybe still contains a lot of concepts that you as a business person, for example, want to access or a technology book, you will have to even ask someone to translate it for you in simpler terms or in different terms or you will have to study a lot so there is a barrier there. What we see with GPT and with AI is that it's almost like a book that explains itself, it's a book that actually explains itself based on how you are actually interacting with the book itself. For the first time, the reader and the writer are at the same level.

Peter: Right. That's really interesting when you...so, basically, as I hear you talk, I think of, as you say, really complex books that maybe a very small potential population can understand, or really complex topics. What you're saying is that AI is going to bring that, make that available to almost everybody at their level.

Marco: Yeah. So, imagine the impact that it can have on society, but also the impact that that can have on corporations, okay, which I think is one of the most fascinating. So, a lot of the knowledge in a company, and I think people that are listening to us today might relate to that, if you think about your own company, where is knowledge stored and definitely the answer is not database, it's not documents. A lot of knowledge is tribal and is kind of in the heads of people and then when you join a new company the very first thing you need to do is finding someone that knows about the source of subject, so you create this network and sometimes it takes years.

Imagine a new employee joining Goldman or joining any other, you know, company large and small, the time that it takes to master knowledge, the time that it takes to have full productivity is generally very long. So, what if you could codify the knowledge of a company into a model that you could query and they will give you relevant answers, the same way as the most or the biggest X of that company would give you. And so, I think one of the things that I see coming, I mean, is that every company at one point is going to actually want to create those models that are highly personalized, they are really like codifying the knowledge that is within the company itself that now is not written anywhere in a way that is interactive to people and I think that could be the biggest productivity booster probably that I have seen in my lifetime.

Peter: Yeah. When we chatted recently, you were saying that it helps people become superhuman-like, super humanizing the, you know, the top performers. Why don't you elaborate on that?



Marco: I think there's a good way to kind of think about what could be the return of the potential of the return on investment, right. It's very hard right now to quantify and even this superhuman kind of idea might sound theoretical, but then you can think about the following. What would a, and then you can put your own percent, what would the boost of productivity of X% in a particular person with regards to this knowledge would yield?

And so, let's start with developers. Developers are kind of the area where we started also, we started to, you know, do proof of concept and experimentation on products that will automate or actually like suggest code that then developers would review and then put in their code, okay. So, the boost of developer productivity, you can easily see at least a 10 to 30% boost of productivity, so a superhuman developer could be 30/40% more productive. If you map it to the typical IT cost of an organization, especially in our field, that, you know, very quickly can add to hundreds of million dollars a year which then you can choose whether you want to realize it as a velocity increase so you do more and faster, or you can have a cost saving, but that's kind of the parameter.

You can think about super humanizing your top people, but what would happen is they could be, you know, 10/20% more efficient in terms of the companies that they cover, the clients that they cover, the strategies that they come up with and then you can kind of price that amplification and that would give you a little bit of an idea of the return of investment. And that, in turn, will allow you to prioritize working fast and that's kind of a type of exercise that we're going through right now because, I tell you, one of the things...in a moment, I've been through a few of these revolutions. So, you know, I've seen the Internet revolution, I've seen the app revolution, I've seen the cloud revolution, the mobile revolution.

And in all cases, the two kind of factors that are so important for anybody to make decisions are A) enabling people to experiment because you really cannot plan what the success is going to be, there's just too much variable right now, but the second one is also to actually to make bolder decisions. You need to have some form of intuition to say okay, I cannot do everything, but I will choose this, it may be something else and then you really focus on those and so that kind of intuition also comes from experimentation. I think this is a moment where every company and every CEO and every CIO needs to go through that mental model and I think this idea of who to super humanize to get the highest yield, I think, is a question that I think will be interesting, you know, for everybody to reflect on.

Peter: Right, right. So then, you talked a lot about what internally companies can do, what about other opportunities for, you know, improvement and the disruptive nature of Generative AI, what opportunities are you seeing?

Marco: Well, broadly, I think, you know, we are looking at three categories. One is obviously on the impact on your developer productivity, like I mentioned, on your IT spend in general, on the fact actually that today there are products that are off-the-shelves that will immediately make your developers being able to really shorten the time that it takes to develop a code but also to test code and also to create, you know, the test cases for code, etc. So, that part is extremely interesting and definitely something that I think everybody should focus on, especially because developers today are kind of ahead of the curve and they almost demand that. So, it would be a question of talent at some point, you can attract talent if you give them the opportunity to work with the latest tools.



Then we're looking at the broad area of knowledge digitization and it starts.....from, for example, document classification. Every one of us receives, you know, hundreds of thousands or millions of documents which are in the form of, for example, contracts, for example, think of derivative contracts or think about loan documents, etc., etc. and those need to be classified and then you need to do what is called entity extraction so you need to actually extract, for example, covenants and terms & conditions and make them readable by a machine. And it turns out that AI is extremely good at that, and Generative AI can actually take it to the next level and so the whole aspect of going from document management and document classification entity extraction and then knowledge extraction.

You're looking at what are the most valuable sources of data within your company, where are some areas where you could train an AI to start reasoning interactively about that data so that part I think is definitely a very important one. And then lastly, you know, we are also looking at automation. One of the things, one of emerging characteristics of large models is that they are really good at figuring out step A after step B and actually being very creative at creating workflows. And I think that is also a huge area of impact in a lot of companies like ours where, you know, we have extremely complex front to back workflows and thinking of an orchestrator, a next generation solution for workflows front to back I think is something that could be extremely disruptive.

Peter: Okay. I want to switch gears a little bit, move away from AI. I want to talk about the technology that Goldman Sachs has, I mean, you've got now, you know, you're an important company for a lot of enterprises that's providing the technology for some of the largest companies on the planet within your platform's business. So, tell us a little bit about what goes into developing platforms that can scale within some of these big companies.

Marco: So, when I joined the company, actually the first few days, literally, Goldman did an Investor Day where we talked, in fact, it was Stephanie Cohen and I on stage, we talked about the idea of externalizing technology. For the first time, we started to talk about developers as our clients, it was never done before. Developers were never clients, especially of a bank. And that meant taking some of the technology that we had inside that we've been using sometimes for years and sometimes was completely natively created to serve other developers in other financial institutions or other corporates that wanted to offer financial services to then be able to really heavily simplify that process and allowing things like an incredibly highly personalized credit card experience, like, you know, you guys are very well aware of that or an incredibly efficient corporate sort of a checking account in the form of transaction banking.

So, we took a very, sort of, you know, kind of bold approach of creating cloud-native products, we'll be extremely developer-focused, we created developer.gs.com which is our developer portal where developers could find well documented APIs, where they could find, you know, getting started guides, etc., kind of things that are generally not associated with the way a bank operates, more like thinking about a technology company, especially at our size. And so, we started in this journey that led to us actually starting to offer solutions that have obviously high finance content, but they're also characterized by extreme customizability and extreme developer friendliness which led to products like the Apple Card Savings, TXP, like I mentioned, and also Marquee which is really our digital storefront for institutions.



We recently launched a product called Visual Structuring which is a fully mobile product to do essentially structuring of derivative products so I'm quite excited about that because in a way it serves a dual purpose. It pushes our developers to actually use a certain approach which is you externalize but also you treat your internal developers as clients and that changes the game internally to your organization. You know, something that I kind of learned from Amazon that if you build something with externalization in mind, even if it's internal, most likely you're going to make your internal developers much happier. So, it's interesting how this shift of philosophy within Goldman and how we actually operate our own technology translated into the benefit of being able to offer those products externally, I think that's really good synergy.

Peter: Okay. We'll have to leave it there, that's all we have time for Marco, thank you so much for joining us.

Marco: Thank you so much, appreciate it.

Peter: I hope you enjoyed the show, thank you so much for listening. Please go ahead and give the show a review on the podcast platform of your choice and go tell your friends and colleagues about it.

Anyway, on that note, I will sign off. I very much appreciate you listening. Bye.

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