diffusetap
Virtual Event Series

Capitalizing on the AI & Crypto Convergence

Guest Speaker:

Xiaochen Zhang
CEO
FinTech4Good

Hosts:

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DiffuseTap: Capitalizing on the AI & Crypto Convergence

Last time on DiffuseTap, **Xiaochen Zhang, Founder and CEO of FinTech4Good,** talked to us about how the AI and crypto industries are helping each other to innovative new solutions, the five pillars of responsible AI governance, and how the misuse of AI could lead to serious problems in the banking industry.

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DiffuseTap

This networking session is part of our weekly virtual events series. Networking (you'll bump into at least a dozen high caliber fund managers) meets purposeful (you'll tap into brand-new sources of ideas)... straight from your armchair like a boss.

Meet the Speaker

XIAOCHEN ZHANG is a founder, venture partner, mentor, and advisor with over 20 years of experience in the financial markets. He is the founder and CEO of FinTech4Good, a global network that collaborates with startups, industry leaders, nonprofits, and investors to harness blockchain, AI, metaverse, and cloud computing for social good.

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KENNY ESTES: Mr. Zhang, do you want to tell the folks a little bit about your background and what you're up to over at FinTech4Good?

XIAOCHEN ZHANG: Yeah. Firstly, thank you for your invitation. It's a great opportunity to come back. I'm definitely a fan of the work that you and Ayla are doing. My name is Xiaochen Zhang and I am the CEO of FinTech4Good. FinTech4Good is a blockchain, AI, and emerging technology venture building firm where we identify market problems and then assemble the resources around the builders to introduce new solutions and new frameworks to the market.

I started FinTech4Good in 2016 after I left the World Bank at the time that Ethereum finished its ICO. I was excited about how to leverage emerging blockchain to do international development related work. That's where the name FinTech4Good comes from. It's the mission that we have.

Recently, we launched a new initiative called AI 2030, which is really trying to create a global movement in helping companies and organizations to adopt AI in a responsible way. In addition to FinTech4Good, I was the former Global Head of innovation and Go To Market at Amazon Web Service, and I also worked in the United Nation, World Bank and other impact organizations for many years. I'm very happy to be here. Thank you.

KENNY: Alright, thank you for joining us. First question. You said AI 2023 aims to help corporations do AI responsibly. Does this just involve things like avoiding Skynet? What are some actual nuts and bolts things you're working on with these companies when you say "responsibly"?

XIAOCHEN: The excitement in AI is that all companies are just racing to launch new products, but there is also a lot of fear of the side effects around that. We're mainly looking at the five pillars of responsible AI. These are transparency, fairness, privacy, accountability, and also sustainability.

There are tons of examples where an AI product can create an unfair situation. For example, with a borrower or lender, you could potentially be discriminated against because of your race or your gender, and there is no transparency.

Many of the regulators have received AI-related complaints. The customers would not know what's going on there, but that decision was made by AI. They need to really understand how that decision was made and why they were declined. We need to know how to create transparency.

A lot of AI-related problems also relate to whose data are used to train the LLMs, have they authorized the use of their data for AI training, have they been properly compensated financially, etc. There are all kinds of issues.

Also, training AI models can produce about 626,000 pounds of carbon dioxide, or the equivalent of around 300 round-trip flights between New York and San Francisco – nearly 5 times the lifetime emissions of the average car. That will have a big impact on the environment. So, how can you create a

similar type of prediction while also reducing carbon emissions, and making sure that you can use the smaller language models to generate the same type of prediction? There is a lot of work around that as well.

Basically, what we are trying to do is that we're looking at what are the core pillars, and what are the tools available to reduce the technicality and provide that insight to more organizations when they are launching AI, and they want to build it responsibly with the right builders, the right tools, and the right knowledge.

KENNY: Okay, interesting. That's five pillars. Let's pick one and talk about it a little bit. I haven't done much with AI, but my understanding is that with large language models, or LLMs, literally no one knows actually how those decisions are made. So, when you're talking about transparency, how does that even work from a practical point of view? Because that seems to be anathema to how these things operate at a core level.

XIAOCHEN: Yes. Basically, we think the transparency calls for one keyword there, which is explainability, where you know how to explain your model. Just yesterday, I had an interesting conversation with a PhD scholar at Harvard. One thing they did was look at the disagreement problem. From their research, over 80% of the developers of their models cannot really explain the model results properly.

Various frameworks and matrices may prove more effective in explaining one model over another. Data scientists and modelers should be cognizant of the strengths and limitations of various frameworks and matrices, enabling them to make informed decisions when selecting the most suitable one for their specific model. They spearheaded the OpenXAI project, aimed at aiding modelers and researchers in addressing the challenge of disagreement in AI models and advancing the field of AI explainability.

There is a lot of early work as to the frontier researcher who is trying to make the AI explainable, and that itself is at an early stage and has worked just as a discovery model. I asked whether we could develop functions that enable AI to alert us to potential biases and other associated risks within models. He said it's so early that we don't want to just start relying on AI to alert us because that alert may be totally misleading. That shows where we stand in terms of the whole research landscape. It's really at the beginning. AI 2030 is trying to surface the problem and trying to bring on the masses together, and then having a crowd to validate and provide more insight there.

KENNY: Interesting. I mean, I kind of get it. You want to apply a human explanation for what's causing a signal. But at the end of the day, you don't actually know. You can only do a best guess. You're saying, hey, let's just impose a framework on what these explanatory signals are on to the model. That sounds like a very difficult task, so kudos for giving it a whirl.

I mentioned that a lot of the audience skews towards crypto. So, one narrative that is going out there is that crypto and AI do not actually intersect other than they are both the shiny ball that all of the investors have been chasing for a while. But now, AI and crypto are not exactly super exciting. Well, it's more exciting now than it was a week ago, but still. You're sitting at the intersection of crypto and AI. So, how does that actually work? How did these two ecosystems play nicely together?

XIAOCHEN: I think a lot of the excitement is from the crypto side or blockchain side. The demand from the AI side was clear, especially to make AI responsible. Blockchain, as the trust machine, can naturally be leveraged to help solve the transparency problem of AI

So, there's a natural synergy where blockchain comes into play to establish data ownership. With blockchain, data owners can authorize modelers to use their data for AI training, all while ensuring they receive fair compensation. A blockchain-based peer-to-peer payment system further minimizes transaction costs. The immutability of blockchain technology ensures data integrity and security, with all transaction records on the blockchain serving as an auditable trail, providing evidence and compliance records Decentralized communities can harness blockchain-based infrastructure to efficiently contribute to Large Language Model (LLM) training, all while maintaining a robust and well-governed structure.

There are some very interesting blockchain companies such as singularityNET or Fetch AI. who are adding great value to the AI side. And similarly, many of these AI companies are addressing blockchain-related challenges.

The primary hurdles to widespread blockchain and Web3 adoption are related to user experience and compliance.. Whether you're a trader, investor, or borrower, the complexities involved in executing transactions can be burdensome. AI-based innovations hold the potential to significantly enhance the customer experience and compliance in Web3 businesses, making the entire process more user-friendly.

If you take CBDCs for example, where you have a digital currency supporting the national economy with a real time payment infrastructure from a blockchain, you have this large amount of data generated. And then regulators, or the service providers can leverage your data through AI to make smart decisions and enforce laws and regulations. So, yeah, there are a lot of interesting things that are worth exploring.

KENNY: I mean, that's a lot of potential areas of overlap and collaboration between those two ecosystems. That's pretty interesting. You talked about the five pillars. I see what you're working towards, but things like ChatGPT and Google Bard are very much already in existence. So, how do you see what you're working on applying to incumbents? Or is it going to be more of a voluntary, pseudo regulatory framework?

XIAOCHEN: For me, the responsible AI has to be sector-specific and aware that responsible AI for financial services should be different from transport, or healthcare, or manufacturers..

Each industry must have their own responsible AI framework. What we are doing is we're really looking at how to apply responsible AI with industry-specific unique challenges and risks, and to reference those pillars to ask the right questions, providing the best practice for those specific industries, rather than rely on industry-agnostic, technology-based frameworks. That is the difference.

KENNY: Okay, that makes a lot of sense. While we're on the subject, are regulators viewing this space right now? What's the status quo? How do you see it unfolding in the not too distant future?

XIAOCHEN: Interestingly, just yesterday, the White House just issued an executive order on responsible AI. Keywords in the EO such as Safe, Secure, and Trustworthy can be translated into the pillars we discussed. Last week, we had the Chicago AI conference. Several speakers shared invaluable insights and practices related to responsible AI, which can greatly aid in understanding the executive order.

Regulators typically adopt one of three primary approaches to AI regulation: Assess the impact of AI on existing laws and regulations, and enforce them accordingly. Introduce new laws and regulations to protect emerging AI-related rights not covered by existing laws. Strive to strike the right balance between AI regulation and fostering AI benefits and innovation.

Many of the regulators also talked about the talent gap or the workforce development gap. They're talking about how to foster the emergence of new talent, which have both the ethics and also the technical capability to build and ultimately enforce regulation. And when you look at it globally outside of the United States, other countries also are trying to introduce the new rules. Examples include the EU AI Liability Directive, recent AI-related regulations in China, and the AI white paper in the UK. Moreover, several Latin American countries, including Brazil, are currently engaged in the process of developing new AI-related laws.

In essence, regulators are proactively working to deepen their comprehension of AI and strengthen their enforcement capabilities. These efforts are directed at safeguarding both well-defined and as-yet-undefined rights in the AI landscape.

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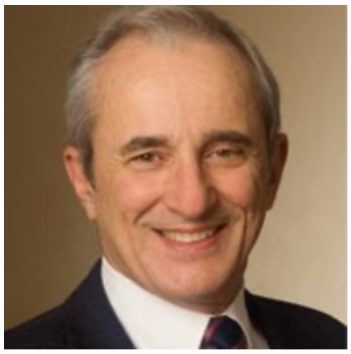
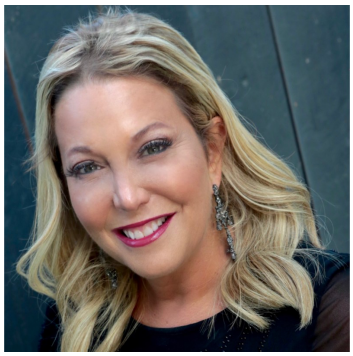


Dennis Chookaszian

Corporate Director, CME Group

DiffuseTap: Institutional Grade Governance

Sharing his decades-long expertise on corporate governance, Dennis talked about how to avoid a co-partnership going sour, the problem with overly idealistic CEOs, and the importance of keeping your board in check. Read on



Susan Brazer

CEO & Founder, LionShare Media

DiffuseTap: Media Metaverse 2022

Susan described the 2020 digital media landscape; the evolution of media distribution; how converging, emerging technology points to the metaverse; and the prospect of having an open, decentralized, and free Web3 marketplace. Read on

Raj Mukherjee J.D.

VP/Global Head of Tax, Binance.US

DiffuseTap: Crypto Taxes Decoded with Binance.US

Raj explained the complexities of the US crypto tax landscape, how he built a dynamic tax information system for Coinbase and Binance from scratch, and how investors can profit from crypto without getting caught in a taxation mess. Read on

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