FINTECH ONE-ON-ONE PODCAST 392-JOHN WU

Welcome to the Fintech One-on-One Podcast, Episode No. 392. This is your host, Peter Renton, Chairman and Co-Founder of Fintech Nexus.

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Before we get started, I want to tell you about Fintech Nexus LatAm happening in Miami on December 13th and14th. Latin America continues to be the hottest fintech region on the planet and our 2022 event will feature all the leading players. So, join the fintech LatAm fintech community this year where you'll meet the people who matter, learn from the experts and get business done. Register at fintechnexus.com/latam and use the discount code "podcast" for 15% off.

Peter Renton: Today on the show, I'm delighted to welcome John Wu, he is the President of Ava Labs which is the organization behind the Avalanche blockchain. I wanted to get John on the show because he's got a really interesting history and I think the Avalanche blockchain is one that should be paid attention to by everybody really in the fintech and traditional banking for that matter.

We talk about what makes Avalanche different, what makes Ava Labs different, we talk about how they're working with traditional institutions today, including the new tokenization that was announced with KKR, one of their funds, we actually talk about why that was a big deal. We talk about the popular use cases for Avalanche, we explain what subnets are and why they're important, we talk about DeFi, the crypto winter and much more. It was a fascinating discussion, hope you enjoy the show.

Welcome to the podcast, John!

John Wu: Peter, a pleasure to be here. You guys have done a lot of great work in the lending space and then tech in general, always thought leaders. I'm glad I can be on and, hopefully, share something that your audience will enjoy.

Peter: Yeah. Well, it's great to have you, thank you for that. So, why don't we get started by giving the listeners a little bit of background about yourself, you've had an interesting career. I know we met a few years back when I think you were trying to do some blockchain investing. Tell us a little bit about your career to date before you got to Ava Labs.

John: Yeah, well, thank you, Peter. So, I was a tech investor in the hedge fund and private equity sense, I worked for some pretty large funds, it was a great experience. And then roughly in 2014 when I converted my fund into a family office, I started investing in what I would call "off-the-run stuff" and that included Bitcoin back in 2014. Yeah, when I met you it was somewhere 2016 or 2017, early days, when I was trying to find other great blockchain investments. So, something happened in 2017 that got me even more excited which was the ICO boom and to me, the ICO boom was the unbelievable first use case that I saw in crypto. Before, I was still very skeptical in terms of utility, I thought Bitcoin could be a store of value and it was a great potential investment, but I didn't really realize that there could be utility until 2017. And I had the notion that the ICO construct could be used in a compliant, regulatory compliant way, to do what I call an STO, Security Token Offering. And in the US you have the Security

Laws 1933/1934 and you need to rely on exemptions like Reg D so I became CEO of the Digital Assets Group in late 2017/2018-ish where I was trying to tokenize private securities.

Now, the team did a great job, we got it up and running from a regulatory compliance perspective, but from a pragmatic perspective, commercially speaking, it was just too early. If you were a private security like Uber or Lyft or Airbnb you can just, back then, now they're all public companies so back then you can easily go to Sand Hill Road and raise as much money as you want. On top of that, the technology information as well was not quite there. Frankly, if there was an IPO level type of security token offering, if it wasn't scalable or will cost a lot of money to do it and that's where Avalanche came in.

There's a professor by the name of Emin Gun Sirer, he was a distributed systems professor at Cornell University, he and his PhD students were creating a whole new consensus protocol in order to become a faster, more scalable while still secure blockchain in creating architecture that will allow for that. So, since then there's a whole bunch of other layer ones including Avalanche that popped up and layer two is all trying to solve that scale problem I just talked about in 2018 so the space as a whole has advanced a lot.

You know, three years ago, Ava Labs, the team behind Avalanche, was ten people in a room, we ended up raising our equity capital from Andreessen Horowitz, Polychain Capital as well as Initialized Capital and since them we've been off to the races, we're the fastest chain out there, we have the fastest ecosystem that's growing and we have over 200 people in the firm now.

Peter: Okay. So then, you got involved right near the very beginning of this, I mean, tell us a little bit about how did you get involved in the first place.

John: So, when I was a pure investor in the space before I became an operator with the security token platform I just talked about, I applied my trade as a professional investor previously which is do research, do primary research. My grad school was Harvard, my undergrad was Cornell, I got in touch with both schools and tried to find out who were the best people in the space at each one of them. Emin Gun Sirer, the distributed systems professor in the Computer Science Department at Cornell is a revered professor and a person in the space.

In 2003 he had actually invented the first proof of work protocol, this was way before Bitcoin, it didn't take off, but he's been in the space and well known for a long, long time. So, I got in touch with him and in either 2016/2017 circa, that area, he and I became the first advisors to the Cornell University Blockchain Club, he was faculty advisor, I was the external advisor, from there it was kind of a great bond and off to the races, if you will.

Peter: So, tell us a little bit about what makes the Avalanche blockchain unique. I know you touched on it talking about speed, but obviously there are other layer ones, there's Bitcoin, there's Ethereum, there's several others as well, what is it that makes Avalanche unique?

John: So, I think there are two things that make it stand out, first of all I have to premise everything - I do believe in a multi-chain world……

Peter: Right.

John: ……even today in social media, it's not like Facebook is the only place. You have Twitter, you have SnapChat, you have Tik Tok, there's going to be a group, but what stands out about Avalanche is when they try to solve that trilemma problem, they started at the consensus protocol itself, so that's a new paradigm and consensus protocol in the history of distributed systems. First, there's one 40 years ago, the classical protocol, a lot of private blockchains are based off of that paradigm, then you had the Bitcoin Nakamoto protocol, that was circa 2008, but Gun and the team thought in order to get the scale and the speed solved let's create a whole new consensus protocol that can get to consensus faster, that's the random sampling method Avalanche protocol. That allows what we call instant finality, settlement and payment happen literally instantaneously.

Think in the real world or traditional world, credit cards take 30 days to settle because the merchants have to wait for the banks to collect the money, even stocks take two days to settle because of intermediaries and because of other technology bottlenecks, if you will, so that instant finality allows payment and exchange of financial assets, it's a huge competitive advantage for them. The second thing that makes it, gives Avalanche the chain, a competitive edge over some other players is the way it scales in the architecture. There is a horizontal subnetwork style of scaling where developers can basically spin up their own blockchain with their own execution environment.

That execution environment, if you are a gaming company, you obviously care far more about fast transactions; if you are a compliant financial services firm, you probably want it to be set to rules of the validator set so that it's very compliant with either AML, KYC accreditation-type rules so it allows you to create your own execution environment and let you create your own parameters. And then, therefore, each Blockchain-as-a-Service, if you will, subnet is your own layer one, let Ava Labs the team, manage the substrate for you, you get the benefit of the Avalanche consensus, but yet you have your own execution environment to your own requirements. So, that's another very exciting thing that separates Avalanche from some of the other singular mode type blockchains out there.

Peter: So, should we think of subnets then as like a layer two because it sounds like what you're describing is …….

John: More like a layer one because it's using the same consensus as Avalanche. Maybe Avalanche should be a layer zero, if you will.

Peter: (laughs) Right, gotcha, gotcha, okay. So then, how are you working or are you working, you know, with traditional financial institutions today?

John: I'm glad you brought that up because, you know, that's dear to your mission and to bring real-world assets to a more efficient platform, whether it be in peer-to-peer lending or on the blockchain, for our case. So, another thing that differentiates us is we've always had a mission to be multi-vertical, if you will, to not only be very good for the DeFi on-chain crypto-native applications, but also to be able to tokenize real world assets, financial assets, and the market for that obviously is far greater than $150 or so Billion in the DeFi world.

We have activity and DD reach-out to many, many financial services firms, in fact, they are reaching out to us. Most recently, you've probably read in the news that KKR tokenized a slice of their fund on the Avalanche blockchain. This is basically the original mission I had when I was CEO of the Digital Assets Group at SharesPost. I was trying to create more access to hard-to-find alternative assets or securities and the tokenization mechanism is actually a very eloquent way to allow issuers to issue the right of ownership of an asset and it's a lot easier for users to actually own that, especially when you have the rules of ownership and transfer encoded into the smart contract itself.

Peter: Right, right. So then, when you look at tokenization, are there certain assets that you think, like you talked about the KKR Fund, that's a real-world use case, but are there certain assets that lend themselves more readily to tokenization?

John: Yeah. I'll start with the benefits then we can work backwards to which assets had the benefit of these two greater benefits on the meta level. Number one thing is operational efficiency. Having everyone work off of a shared source of truth in a distributed ledger allows for any vertical to cut out intermediaries and also to improve workflow automation as well as database management. So, therefore, you can literally save a lot of time and cost by having it on a proper blockchain, whether it be a permission-less or a closed but with many participant blockchain so that's the first benefit.

The second benefit is the actual tokenization. Again, tokenizing the right of ownership and putting on a preferably permission-less blockchain, you've already accomplished, besides cutting out intermediaries, you're automating, you're also providing transparency so people can see and you have a proof of transaction history on this blockchain that even if the goal is not to disintermediate, you help the auditors audit because in theory they can get access with transparent data far easier and far faster. You can help servicers on loans get to their end goals a lot faster because, again, they have access to that instead of calling, using APIs, calling data from four or five different sources and having to bundle and reconcile themselves.

So, the type of assets that are benefitting from the tokenization as well as the work flow automation aspects of blockchain and crypto, there's a lot, but the best ones will be the ones that have a complex workflow first and then also ones that have low access points to, I would call it, the individual markets, whether that be qualified purchasers or accredited investors because those individuals now are big and disproportionate amount of the assets, in terms of net worth now, and there's no reason why they can't go and purchase things directly like a large fund does.

Peter: Right. There's certainly been a lot of talk about, in the securitization space, and I know that we've got Mike Cagney's Figure, originally their loans are available on chain with their particular protocol, but is securitization one of the things you're thinking about?

John: Absolutely. And I think he's done a great job and he's highlighted in the HELOC world how much cost he's taken out of the system. I think their blockchain though is a private, private, private blockchain and that doesn't take advantage of the full benefits of a lot of the advantages of a permission-less world. One of the benefits of an Avalanche subnetwork is you can start out as private, but you have an easy access to the permission-less world because it's almost like an on and off switch that you can just turn on, it's like an API key, you can just plug into the benefits of the rest of the ecosystem. You don't really get the benefit, the composability where other developers are developing,

taking advantage of the substrate and building things on top, making more efficiencies so kudos to him. Anyone that is helpful in advancing this cause, if you will, should be complimented.

Peter: Right. And I think the lending space is one that is, you know, it does seem to fit really well with taking out the efficiencies, it's lots and lots of disparate kind of data sets that need to kind of be talked together and then, you know, when you do like traditional securitizations they don't actually take the entire data set, they take samples and it just seems like to me is ludicrous. That made sense 30 years ago when computing power was really low and expensive, now you should be doing it all, but beyond the lending area what are the use cases, I mean, we're talking about tokenizing Picassos, we're talking about tokenizing real estate, I mean, what are some of the things?

John: So, obviously, real estate's been talked about for a long time and on paper, real estate sounds like it checks off all the boxes. The issue with real estate, however, is even though it benefits well from the efficiencies as well as the fractionalization, all the benefits of tokenization, on the demand side, real estate, frankly, is a very local phenomenon. So, just because you can buy a piece of an apartment that's in Denver on some street doesn't mean you will, its not like a stock where it's like okay, Starbucks, I just had some Starbucks, this real feel with this product that I love. So, I think real estate's one that's been talked about a lot from people because it meets like the technological checkboxes, but from the demand side, it's been a lot harder to do.

What is, I think, some very interesting things happening right now definitely, art. You're going to see people doing it similarly with wine, you're also going to see it in a non-financial services manner. You've already have loyalty points being tokenized by certain brands, you're seeing fan engagement tokens by professional sports leagues all being done so there's a lot of tokenization of "real world assets" that's happening not just in financial services but in the general greater enterprise world.

Peter: You're just certainly starting to hear about that, but I think if you went to the average person in the street they wouldn't even know what the word tokenization meant. What will be the catalyst, do you think, to really grow the sort of, the variety of assets that are tokenized, what do you think we can do to really accelerate this process?

John: Before I answer that question, by the way, the dream is that the average person never has to know or know the word blockchain. It's no different from an average person working in a corporation doesn't even know that the stuff that they're doing under a computer is housed in some AWS, either the compute or the storage is being housed at Amazon, somewhere, that's the goal. To obfuscate it so that it's just part of flow of what you do, but after people in the enterprise recognize that it is happening, I guess your question comes down to like, what is that big killer app?

So, first of all, there is no killer app yet, otherwise, we wouldn't be talking about it, I think the killer function is still tokenization because tokenizing something really is something that allows you to embed the rules of ownership as well as the rules of exchange into the code and when you do that it's a far more eloquent solution, it allows issuers to issue easier and allows users to actually own and transfer a lot easier.

However, for that to really, really, really take off from a financial services perspective we need clarity on regulation and what I mean by that is the first order of business is, and I think we're getting there and

working on it, is probably establishing like a USDC as tender, as legal tender. So, for instance, Ava Labs, you've got Avalanche is working with Deloitte, Deloitte is building an application on top of Avalanche for FEMA, the federal agency that basically needs to deal with disaster recovery in a very fast manner. When a hurricane blows through a small town they need everyone in the supply chain, whether it's FEMA, to the local counties, to the insurance companies, to the third star risk party providers that clear trees or pave roads or building houses to the individuals who get their insurance checks, they want everyone to get that info very, very quickly.

However, they're only doing one side of the benefit of blockchain which is they're creating this application on the Avalanche blockchain so that people can easily access that information, that one sheer source of truth quickly. Ultimately, what their dream would be is that they can match that flow of information with the flow of payment and that requires that USDC or some other construct be established as legal tender and then you really unleash the power of the blockchain. So, to answer your question three steps back, there is no killer app yet, I think there is a killer function and for that killer function to happen, you need more clarity on the regulation that we're moving towards and starts with the USDC.

Peter: Right, that's really interesting. And then, you kind of start to get into the potential of the programmability of money, this is a programmable construct. We can't even imagine the end use cases here, it's like they couldn't have imagined Facebook 50 years ago, it's like we can't imagine programmable money, but I'd love you to imagine it right now. I'm sure you've thought about this to a large extent so how does programmable money fit into sort of the Avalanche vision?

John: I call Web3 the Internet of Value. And well, Web1 way back when was the Internet of Information, if you will, that's Web1 in my opinion, it made the moving information around the days of the early search engines made information discovery a lot easier and free or almost free. And then, Web2 was not just reading information but also writing information, social media allowed everyone to be a publisher quite easily. Web3 is about moving value around relatively easily through what I call the tokenization function and you're right, once there is tokenization I think there are applications that we haven't even really thought of today.

I'll give you one example that is already starting, but it's not really big. You get to tokenize anything that has value, anything that has a cash flow or income stream associated with it and be able to embed the rules of transferring that value around. So, there's a company called Brave, they have the Brave browser, the Brave search engine. One of the biggest problems right now in terms of Web2 is that you give up a lot of your identity and your privacy for the efficiencies of communicating on Web2 and then they use it to basically make money off of you. So, Brave basically blocks the tracking of your digital fingerprint and your search history and how you move around the Internet. And allows you to opt into whether you want to get advertising or not and if you do, they will pay you directly a piece of that through the Basic Attention Token.

So, basically what they've done is tokenize your digital traffic or your digital graph or your digital fingerprint and created an asset there allowing you to decide, self-sovereign identity, allowing you to decide whether you want to keep your privacy or whether you want to use that and get paid directly, again, this market is still very small, but that's the vision and it's already starting to happen in small

slices. These are things that will come up that we haven't even really fully imagined just yet. This goes back to your earlier point.

Peter: Right, right. So, let's talk about the fintech space and the banking space, well, traditional finance, shall we say, because in some ways I lump fintech in with traditional finance when it comes to this space. So, how should sort of those people who are, they're in finance today, whether it's fintech or TradFi, how do you think they should think about the crypto space right now, like where is the disruption coming for them first?

John: When I think about fintech, it's trying to make things more efficient on existing rails that exist in TradFi, if you will, and most of that is done really on the front-end. So, the user when they trade crypto on PayPal, they have no idea how messy it is on the back-end, but to the user who are using Venmo for traditional fiat, it is so easy to them so a lot of fintech, in my opinion, has been on the front-end with minimal back-end stuff. Blockchain, as we talked about with the efficiencies earlier, that is about the backend so there is a lot of complimentary work that can be done between fintech leaders and blockchain leaders.

In fact, I would say the synergies are great because fintech dapps and new neobanks and all these different companies that have been well funded from Silicon Valley, they're very adept at UI/UX and understanding the end user, far better than blockchain developers are right now. Maybe that'll change over time, but there's a good window here where the two technologies, or products from both sides, can work together, hopefully, to create great synergy.

Peter: Right, right, that makes sense. So then, I want to just touch on sort of the downturn in the crypto market. Certainly the price of tokens we're down, you know, I think it was from $3 Trillion down to around $1 Trillion over the last 12 months. How has that impacted Ava Labs, has it been negative, positive and what are your thoughts on that?

John: So, from an operating perspective and an activity perspective, it really hasn't affected Ava Labs. There is more inbound request, more development happening, in fact, transactions on Vox terms as opposed to dollar terms is at all time highs, whether it's transactions, you know, there's more transactions in the Avalanche ecosystem than there are on a daily basis at Ethereum now, number of developers coming in, number of inbound resumes for people want to work at Ava Labs has only increased and they literally are at all time highs.

You know, no one can escape the fact that the prices are down so I think what that has led to basically is the consumer side, maybe the demand side may have a slower pipeline right now. You know, the world works in strange ways, but when we were in a bull, bull, bull market in 2021, not only did the interest from the developer and the enterprise side start to come in well, but the user side was growing really, really quickly. So, I think in a down market you lose some of the speculative user, but you still have the utility user, if you will.

Peter: Right, right, okay. When it comes to Decentralized Finance or DeFi, I have primarily a traditional fintech audience, what are some of the things that you would like for them to understand about DeFi and where it's going?

John: So, DeFi is very rules-based and if you go back to the recent issues with some of the platforms like, we call them CeFi, centralized finance-type platforms, whether it be BlockFi, Celsius or Voyager, they were really more centralized entities in their on-ramps in the DeFi world. So, the mistakes that were being made there are similar to any TradFi, they were unsecured lending, there was mismatch in duration, there was over leverage and there were black boxes in how they operate to their end customers. The irony is during all that massive sell down when these companies were facing real stress, what you saw was the lending apps, they did not have any problems, they continued to function. Yes, they lost assets, but they continued to function, that's because everything was based on rules and based on code and they executed it automatically.

So, I think what TradFi will really appreciate from DeFi one day is that there's benefits of being very strict code-based rule as opposed to subjectivity of a human being and having to trust that human being. Now, that's not to say that you can completely disintermediate everything in the TradFi world because there are places where I think you absolutely need some sort of regulation to protect consumers from fraud and from scams and from all of that. So, you do need a Web 2.5 before you can get to a Web3 and 2 and 3 have to work together. I also think another big function that needs to happen at some point is identity.

So, in DeFi you don't really get the benefit of collateral because you have to over collateralize a lot of things because everything's rules-based, you don't have the FICO score of an individual or figuring out like whether this person can pay down this amount of debt and have less debt than you would and borrow like you do, or basically have less collateral and be able to borrow more. So, until you have good identity and somehow we maintain the privacy on the DeFi ecosystem, which people are working on right now having cryptography, cryptography experts trying to figure out how to keep the identities private, but the information public, you're not going to get the full leverage of DeFi.

Peter: Okay. So, last question, I'd love to kind of get your vision for Ava Labs, what's its role going to be in the future of the crypto space?

John: Well, I think, again, there's going to be a multi-chain world in the next five years, Ava Labs and Avalanche will be one of them. The goal of Ava Labs is kind of very simple, it's a permission-less world. So, Ava Labs is a blockchain infrastructure company, it maintains and upgrades Avalanche, the operating system, if you will, but it also creates SDKs to make it easy for developers to onboard, but we talked about subnets, that's something to help gaming experts worry about just the gaming functionality, not worry about bridges, not worry about, you know, the underlying layer-one substrate.

So, providing easy development tools and SDKs for developers to create innovative applications will lead to users wanting to use those applications on-chain and to do that, Ava Labs is also creating what we call Core Wallet. Core Wallet is going to be something that gives you Web3 functionality, but looks and feels more like a Web2 Schwab wallet, if you will. So, we are creating tools and things that allow developers and users to access the Avalanche blockchain in a more speedy manner.

Peter: Okay. We'll have to leave it there, John, it's always great to chat with you. Thank you so much for coming on the show today.

John: Peter, always a pleasure, thank you so much for having me.

Peter: You know, there's no question that crypto enthusiasm has waned a little bit this year. Obviously, it's reflected in the asset prices, but when I hear John talk and talk to others in this space what strikes me is that the technology underpinning all these, this is what's exciting. We've had several guests this year that have talked about the different facets of this technology and I think what we have is the whole idea of smart contracts and having complex processes all be brought on chain, having it be transparent and immutable.

Those are things that are really game changing and I think we are going to kind of, sometime soon, remove this relationship between crypto prices and the technology itself because when I talk to people in the fintech space and the traditional finance world that are interested in crypto, they don't really care about the price at all. It's all about the technology and that's really what John was sort of reflecting on there and I'm very bullish on the technology that is behind a lot of these great blockchains like Avalanche.

Anyway on that note, I will sign off. I very much appreciate you listening and I'll catch you next time. Bye.

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