



## Lowenstein's Tech Group Podcast: Crypto Innovators

### Episode 4 - Wax Studios

By [Eric Swartz](#), [Leah Satlin](#), David Kim

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**Eric Swartz:** Welcome to the Crypto Innovators podcast presented by Lowenstein Sandler's Crypto Practice. I'm your host Eric Swartz, Vice Chair of the Crypto Practice. We're speaking with the most innovative founders and operators in Web3 to shine light on the technologies that fascinate us all. I want to introduce my co-host, Leah Satlin.

**Leah Satlin:** Hi, everyone. I'm here counsel in the IP/Tech Group at Lowenstein.

**Eric Swartz:** And I also want to introduce our guests today from WAX Studios. We're extremely excited to have David Kim. Hi, David.

**Leah Satlin:** Hi, David.

**David Kim:** Hi, guys. Nice to be here.

**Leah Satlin:** Thanks for being here. I think we want to kick this off by just getting some background on yourself and your journey before WAX Studios. Can you give us a little background?

**David Kim:** Yeah. So I am a 20-plus year game industry veteran. I've worked at several major publishers, including THQ and Vivendi Games. I've also overseen the interactive games businesses at major studios, such as 20th Century Fox and Sony Pictures. And prior to getting into the games business, I was actually in the music business.

**Leah Satlin:** Nice. And what did you do in the music business?

**David Kim:** I was primarily focused on marketing the music business. I started in marketing, and that's when I transitioned to the video game business. That's what I was also doing. But then over time as I got to more senior positions, I had to start to learn all the other aspects of the business as well. And at this point, I consider myself a pretty decent jack of all trades when it comes to pretty much any and every aspect with regards to video games.

**Leah Satlin:**

Awesome. So I guess you mentioned that you had worked at 20th Century Fox and Sony Studios, Sony Pictures. What brought you away from those big shops into a Web3 powerhouse like WAX Studios?

**David Kim:**

Well, first of all, keep in mind, when I was working at those movie studios, I wasn't involved in the primary business of making movies. I'm not a movie guy. I'm not interested in being involved in that business at all. I was there because I was working on games. And that's always been my primary interest and focus.

So basically, while I was at Sony, WAX Studios approached me about licensing some IPs for NFTs, because all NFT-related projects fell under my department. And I'd been dealing with NFT and blockchain proposals for a few years at that point. And I'd never seen anything that I felt was particularly interesting, or innovative, or useful.

Primarily, that had to do with the fact that most blockchain activity at that point was happening either on Bitcoin and Ethereum. And Bitcoin is not really useful for anything other than as a cryptocurrency because it can't support NFTs or other types of functionality. And Ethereum is very limited in what it can do because of the fact that it's proof of work, which severely restricts the number of transactions it can process at a given time to a point where it's not practical for most things.

So most of the proposals that I'd seen at Sony Pictures were not particularly interesting. The proposal from WAX, initially, was really interesting because it was about doing things at a mass market scale and for mass market users, which really wasn't really there from the other proposals that I'd seen before. And then as I started digging more into WAX blockchain, the technology and how it was different from Ethereum, particularly, I started to realize that there was a lot of potential within the technology to solve some problems that have been plaguing the game industry for well over two decades.

So I decided to join, and because I really felt that this was going to be the next phase of evolution in the video game industry. You had the original games, which were you buy it, you play it, and then you finish it. Then you started having games as a service, and then subsequently free to play with microtransactions, and now you see that is a very common business model.

Microtransactions actually exist in practically every type of game you can think of, from free-to-play, games as a service, all the way to box product games. And I think that what's going to happen is that play-and-own based on blockchain technology and NFTs for in-game items is going to be similar to that, and they'll become a very common feature in most games in the future.

**Eric Swartz:**

I couldn't agree more. I definitely saw the same kind of thing that you did and don't have the same gaming experience, but have the same excitement about gaming, and the same excitement about Web3 gaming, specifically.

Because I think part of what really drew me in was the ability to have an ecosystem that existed for people in very, very poor nations and very, very

difficult circumstances. And I thought that that would often give those folks their first day job ever, desk job ever, which really was exciting to me, and was something that I thought was an amazing thing.

**Eric Swartz:** And then also, I couldn't imagine it in a way that wasn't a fun game because that's how you think about gaming now. But I think that folks have really had a lot of trouble creating both sides of that spectrum. And I know that WAX Studios definitely doesn't. And so would love to hear you talk a little bit about that.

**David Kim:** So when I talk about building a need that's existed for two decades, what I'm really talking about is the ability of people to buy and sell in-game items with each other, legitimate fashion. People have been doing it in one form or another now for, as I've mentioned, over two decades in MMORPGs, people have been trading items through gray market since the dawn of MMOs.

Clearly, people want to do it. And then, you also had a lot of businesses that involved in skins trading with *Counter-Strike: GO* and other games. But all this is gray market. It's technically against the terms of service of most of these games to actually engage in that activity, but people are doing it anyways. And they're doing it to an unbelievably large extent. I've spoken with operators of some of the biggest MMOs out there, things like EverQuest and RuneScape.

The ones that have tried to do a study to understand the sides of that gray market, they've all come to the conclusion that gray market size is somewhere in the nature of probably one to three times the size of the actual in-game economy, which means it's a huge amount of economic activity that people want to engage in, that they're not allowed to in any kind of legitimate or convenient fashion at the moment.

So I think that blockchain technology, what it does is it enables game companies to facilitate and enable players to engage in those transactions in a trustless manner, which avoids a lot of legal potential complications that come up from the games trying to do it themselves as a middle man. And also simultaneously, allows them to have complete visibility into all economic activity that's happening, whether inside the game or outside the game, so they can balance their economies properly.

**Eric Swartz:** And it's just such a hard world to get that right. And I think that generally, you guys really have created a situation where you have a lot of volume. Because Blockchain Brawlers, for instance, \$357 million in trading volume across the NFTs and the in-game utility token just the first week. Tell us about that journey, tell us about what got players so excited. And then also on the economic side, folks that were thinking about it more like a business, what got them so excited?

**David Kim:** The reason we started making games is because we started to realize that was a primary activity on our chain. Just let me be clear, WAX Studios does not own WAX Blockchain. I say, it's our chain, but it's a completely decentralized chain, which is operated by the community. WAX Studios plays

no role as a node operator or validator on the chain. So that's all handled by the community.

**David Kim:**

But what we do is we provide services that people need to be able to engage with blockchain. So for instance, things like a wallet, other services, we're working on SDK to help people, we're building games in Unity and Unreal to connect to WAX Blockchain, and a variety of other things. But when you're building these services, sometimes the best way to understand what is needed and where those services fall short is to actually use them yourself. So we started making games, and Blockchain Brawlers was our first one.

We very much wanted to experiment with trying to solve some of the problems that we had seen in economies from earlier games. In particular Axie Infinity and Farmers World, which were two of the most successful blockchain games of all time. And both of them had the same problem, which is they got super popular. Prices for items went through the roof, the price of their token and their NFT skyrocketed, which brought in more players. But then eventually, the players just kept producing and producing and producing, and at some point you hit a tipping point. There was oversupply of everything, and the market just crashed, and both games completely crashed.

So with Blockchain Brawlers, one of the things we were trying to do is to really solve that problem. And it's a problem of in-game parlance. You have in the economies, what you call faucets and sinks. So faucets are things that generate items or currency, or whatever for players, and sinks are where they use them. The problem with things like Axie Infinity and Farmers World is that they had a lot of faucets and not a lot of sinks. And in particular, their faucets produced permanent items.

And if you think about the way economy works in a real world, if everything was permanent and never needed to be replaced, the economy would grind to a halt pretty soon, because there would just be an oversupply of everything, eventually. And it's the same thing that's happened in these games. So we tried to design a game that had a lot more sinks in it. So it was things like you needed to spend tokens to keep replenishing everything, your health, there's wear on all the items.

So it was trying to be more like a real world economy in that element. I think that also obviously gives a lot more utility to the token, because you need those tokens to keep replenishing your items, to be able to keep playing. And I think that's what drove the success, and also the high volumes of token trading initially, where people needing tokens. Because we didn't do an ICO. We didn't try and raise money off the token. We just literally released the token. So people needed to start buying them to be able to do these in-game activities, so they started buying the tokens. And that's what drove the volume.

With regards to sort of, I think why we were so successful, I mean, and part of it comes from the fact of who we are. We're WAX Studios, we built the WAX Cloud Wallet, we built and then completely decentralized the blockchain. So people are familiar with us and they trust us. They know they

can trust us. And I think that's why we were able to have success right away, is the trusted name.

**David Kim:**

I think this is something that's really important in the blockchain space, in order for it to go mass market. You think about it, for a long time, it was all about anonymity. I mean, people were basically trying to sell things to people without one iota of information about who they are. And people were spending literally thousands of dollars on NFTs and tokens, or even millions without knowing who was selling them this stuff. I mean, who does that in the real world? And it was kind of crazy that people were willing to do it. But you've had a lot of rug pulls, I think some of them intentional, some of them not intentional.

A lot of times, what people consider to be rug pulls, it's not a deliberate scam. What it is, it's the crowdfunding problem, that you had a lot with a lot of crowdsource products on Kickstarter, Indiegogo, which is that people don't understand what is really necessary to deliver on the promises they're making. So people go out, they sell NFTs, they sell tokens. They think they've raised enough resources to be able to fully deliver on what they're promising. And because they don't really understand what it takes to deliver, they underestimate it. And then they ended up essentially going bankrupt before they could deliver the product. WAX Studios, people had confidence that we were going to deliver the product, and there was very little risk to them in terms of us just disappearing on them.

**Eric Swartz:**

I couldn't have imagined a better response to that one. I mean, the sinks response. I remember when we had our initial conversation about that, it hit me so hard. Because I think when you have inflation without a way to eat the inflation, we all understand that in terms of currency. But when you're thinking about in-game assets, I think people lose that common sense, real world just common knowledge, and it's so important. Because the reality is, I mean, no one's going to ever really love an ecosystem that has too much inflation. It's just not going to work. Just like we currently have too much inflation in our economy, and folks are super upset about it. So I think it just shows that those realities exist in the metaverse, and we just need to be mindful of them and be conscious of loose monetary policy, even in the metaverse.

**David Kim:**

I mean, look, economies, whether digital, in the metaverse, or real world, they work the same way. There's not some kind of magic difference between an economy based on digital goods versus one based on physical good. It's all about supply and demand, and balancing supply and demand. And when one gets ahead of the other, you're going to have problems.

**Eric Swartz:**

And we definitely saw them. I mean, and even with the Axie's attempted fixes, we've never really seen a resurgence in that ecosystem. And I think that's the definitional reason for that.

**David Kim:**

I think it speaks the fact that once an economy gets unbalanced, it's very, very hard to bring it back into balance.

**Eric Swartz:**

Agreed.

**David Kim:** Especially when the balance problem is oversupply, and the system keeps producing more supply anyways.

**Eric Swartz:** And there's no interest without it. So it's just like, it's the drug of choice for the folks within the ecosystem and you can't stop it. I agree a 100%.

And then I think another question, and I just wanted for folks that are in the gaming space that maybe aren't as aware of the WAX Blockchain, maybe can you just give them a little background on the fact that it's a very eco-friendly blockchain? Because I think a lot of people in the gaming space are really concerned about that. And I just want folks to understand the amazing work that WAX has done to bring that to the world.

**David Kim:** So WAX is the most environmentally-friendly blockchain in the world. It is the most energy efficient and produces the least amount of carbon. And this is despite the fact that we actually process more transactions than all other blockchains combined in most days. We are the most utilized blockchain in the world.

And the reason that it's so energy efficient is because it uses an architecture called Delegated Proof of Stake. And Delegated Proof of Stake is by far the most efficient architecture you can have in terms of processing data on a blockchain.

So what that allows us to do is it has a blockchain. As a blockchain, the WAX Blockchain can process 20 million plus transactions a day, and yet only consumes the equivalent of about five individual Americans energy a year. So it basically utilizes no more energy than traditional game servers or e-commerce servers to process transactions.

**Eric Swartz:** That's amazing. And I think that that's really important for our audience to hear. Because I know that gamers generally actually tend to be a really ESG friendly bunch. And I think that they need to know that there are alternatives like WAX, and that they are welcome on WAX if that's how they feel. And they won't be committing any sort of ESG sins in that regard, if they play games on WAX.

**David Kim:** I think there's a lot of misconception, I think, among gamers with regards to blockchain and energy. And most of it is driven by, again, Bitcoin and Ethereum. Bitcoin, which isn't even usable for games, and Ethereum, which honestly processes a very small fraction of all transactions on any given day. So I believe Bitcoin only processes about 5% of all transactions across all blockchains on a daily basis. So you're really talking about most of the energy being consumed by a very small fraction of the activity that happens on blockchain.

**Eric Swartz:** And then the next question we wanted to get your point of view on was, we're looking at different game studios and their per instance numbers. Recently, we saw some pretty impressive numbers from Improbable games' iteration of the other side metaverses. And we just wanted to see what WAX's thoughts are on pushing boundaries in that arena, and whether you think it's even a necessary battle to fight.

**David Kim:**

I don't think it's a necessary battle, and I'll tell you why. Because right now with traditional MMOs, and that's what most metaverses are when you look under the hood, other than connection to blockchain, it's the same kind of technology that use traditional MMOs. They can already handle couple of 1,000 people simultaneously in one instance. It's really technically impressive, if you can get that up to 10,000. But from an actual player experience or user experience perspective, it's meaningless in terms of any benefit to being able to do 10,000 over 2,000. And I'll tell you why.

Because at that point, the limitation of a player's ability to benefit from having more players isn't the technology and how many players can be fit in, it's the number of lines of communication an individual person can actually handle at any one given time. I mean, if you go to an arena with 10,000 people to watch a sporting event or a concert, you only actually directly interact with probably maybe a couple of dozen or a couple of 100 people total over the course of the event. You can't talk to 2,000 people simultaneously. You can't talk to 10,000 people simultaneously. You can't talk to a couple of 100 people simultaneously. I mean, if you think about what a chat room in a video stream that has even just a couple of 100 people looks like, you can't keep up with the chat.

So it's not relevant, from a player experience standpoint, that 10,000 people can be in the same instance. What's really important for players and users in terms of being able to have a large degree of interaction with other people, in the same way they do in the real world, is actually asynchronous forms of communication and interaction. So think about it in the real world, how you communicate with a larger group of people. Even if you go to a party, chances are you don't talk to everybody at the party. There's a couple of dozen people there or a few dozen people, maybe a few 100, you're only going to talk to a small fraction of them.

Now, you probably do have social networks that encompass 100s, if not 1,000s of people, but the way you communicate with them most of the time is through asynchronous means. It's through text messages, it's through email, it's through social media. And that's how you actually normally handle activity with them. And then only occasionally do you actually get together in real time with a small portion of those people who are in your network.

So that is what you need to be able to do in the metaverse. You need to be able to interact with up to a couple of dozen people simultaneously. Over and above that, your capacity to actually handle the situation is not there as an individual human being, but you need a lot of things that allow you to communicate asynchronously and interact asynchronously with the other people who are in the universe. So things like marketplaces, things like in-game messaging systems, and that's, I think, when people talk about wanting to interact with people on a large scale in a metaverse, that's the really important thing, not getting 10,000 people into a single instance.

I mean, the reality is that anybody who's played an MMO, even the traditional ones right now, they can do a couple of 1,000 people in an instance. When an Instance is full, you've literally got avatars standing on top of each other.

And it's just not realistic, and it's not anything that's very helpful from a player experience.

**Eric Swartz:**

So that was exactly what I thought your response was going to be. And I thought it was just so funny to see that advertised so heavily from the creators. I just thought exactly what you thought. Like the most fun iteration of the metaverse is probably your own three, four people that you want to hang out with in the metaverse.

And it goes back to exactly what you said before, like just as it's the same economy, it's also the same social sphere. It's not really that different than the real world. And I couldn't agree with you more. So that's exactly why I asked you this question. I was hoping this would be your response. Because I don't actually see a need at all for having 10,000 people in an instance, I think it's just somewhat overwhelming in a way. And also it might actually literally have a detrimental effect on what we're really looking for, that connection, like the asynchronous connection that you said.

I think what we're really trying to build is a way for everyone to see each other virtually, and like really see each other and have an experience where they can connect on a personal level. I think 10,000 users in an instance is just the opposite of that. So I'm so glad that I got to chat with you about it, because it was really driving me crazy.

**David Kim:**

Look, when people talk about a metaverse, what they're talking about from a social standpoint is being able to, at the core, interact with people the same way they interact in the real world. Except some of the activities you can do is probably more fantastical. But you're talking about getting together with people and sharing experiences, but when you share experiences with people, you can only genuinely share that experience in terms of really being able to be in the moment together and talk about it in the moment with a few handful of people. You can't do it with 10,000.

**Leah Satlin:**

Great. Well, it's been really helpful and interesting to hear your point of view on that stuff. I think what's left for us to ask is what's happening now at WAX Studios? Can you reveal anything, share anything with us about what's going on currently over there?

**David Kim:**

We're working on more games, so obviously Blockchain Brawlers. And these games, we approach them from the games as a service perspective, the same way from that traditional gaming background. So that means that we're constantly trying to improve the games and adjust them based on player behavior to provide the best experience for players.

For Blockchain Brawlers, the big thing we have coming up is that we have a PvP mode, which is going to be... It's a really interesting sort of card battle mode, where the card battle is almost akin to poker in the way you play it. It was designed by Richard Garfield, who is the person who created Magic: The Gathering. So that'll be launching in a couple months.

We have a new game called Music Mogul, which we recently announced. That'll be launching sometime in the fall. It's basically a music management



simulator. So simulating, being artist manager or music company owner. And that's going to have a completely different set of mechanics from Blockchain Brawlers. You're going to be competing with people on leaderboards. Almost like fantasy sports. It's really about a test of your ability to predict what's going to happen in the coming week. So that's going to be another game.

**David Kim:**

Then we've got a couple other games that we haven't announced yet, that are also completely different from the two that we already have announced. And we're always on the lookout for other good games and good game opportunities. So that's what's coming down the pipe. And then also, again, still working on services. Like I said, we just finished creating an SDK for Unity, should be up on the Unity Store soon. The same team is now working on a SDK for Unreal, to connect Unreal to the blockchain.

And we're always working on improving things like WAX Cloud Wallet and the user experience there. I mean, that's the thing I think we really emphasize, is the most important thing is user experience. Doesn't matter how great the tech is, if the user experience is terrible, you're never going to get mainstream or mass market adoption of any service. And I think we've seen that with blockchain. I mean, up to this point, the user experience of blockchain has been so challenging, the way wallets work and the way you sign transactions and all that kind of stuff. I know so many people who try. They try and they set them in MetaMask Wallet, and they just drop out, out of frustration. Because it's such an opaque, weird process for most people. So we're trying to constantly improve the user experience and make it easier for everybody.

**Leah Satlin:**

That's going to be great, that gamifying the whole interest in emerging music thing. I think will be a hit. So good luck. We're really excited to see what comes out of WAX Studios in the future. And this has been a wonderful chat.

**David Kim:**

Great. Thank you very much. Appreciate you having me on, and look forward to speaking again, hopefully sometime in the future.

**Kevin Iredell:**

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