

CONFERENCE REPORT

TOKEN2049

Singapore

13–14 September 2023

BULLISH INSIGHTS TEAM

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Summary

TOKEN2049 this year saw over 10,000 attendees covering two floors across Singapore's iconic Marina Bay Sands Exhibition Centre. It felt far from bear market vibes as people poured in for the two-day conference. Side event parties were full with free-flow of networking occurring across the whole of town. Arthur Hayes's pool party saw close to half the conference attendees (about 4,000 to be exact) attempt a wall climb to get a glimpse of the crypto celeb.

Day 1

Day 1 of the conference kicked off with Balaji Srinivasan's exploration of network states, digital-first "countries" powered by cryptocurrencies. He pointed to interactions between physical and digital entities, such as Tuvalu's domain deal with GoDaddy and El Salvador's Bitcoin adoption, as precursors to these network states. A panel discussion, featuring Zaki Manian, Kevin Lu, Sreeram Kannan, Seraphim Czecker, and Darren Langley, tackled the potential of protocols like Lido to become bad actors in Ethereum staking due to their significant market share. They maintained their commitment to decentralization and discussed the balance between decentralization, cost, and incentive.

Ben Roth, Auros co-founder and CIO, emphasized the importance of a clear and concise liquidity plan in his keynote. He introduced the concept of ethical market making, which hinges on

accountability, transparency, and achieving best-in-class liquidity.

Meanwhile, a panel on The Path Ahead for Crypto as an Asset Class, featuring Jenny from Franklin Templeton, touched on their Bitcoin ETF application, on-chain money market fund, and future roadmap. Tom Farley, CEO of Bullish, acknowledged the challenging environment in the digital asset space but expressed a strong belief in Bitcoin and blockchain technology. Farley emphasized the importance of harmonizing with the centralized world and existing regulations, and he also raised concerns about certain exchanges inflating volumes, advocating for transparency and ethical practices.

Day 2

Day 2 focused on "Building Web3 Infrastructure for Mass Adoption," with industry leaders including Matt Roszak (Bloq), Joseph Lubin (Consensus), James Tromans (Web3 Google Cloud), and Pascal Gauthier (Ledger). They stressed the importance of blockchain systems as the foundation for future technology infrastructure and the need for a better understanding of decentralization. The panelists also discussed the trade-offs between decentralization and centralisation, and the necessity of developing infrastructure that supports both.

The “Institutionalization of Digital Assets” panel touched on the evolving role of institutions in the crypto space, highlighting the growing institutional interest in Bitcoin and blockchain technology. They discussed regulatory environments, the potential impact of BlackRock’s ETF, the need for institutions to understand and adopt DeFi, and the potential of tokenization for other asset classes.

Changpeng Zhao (CEO of Binance) and Balaji Srinivasan (Founder of The Network State) engaged in a fireside chat discussing crypto adoption, technological advancements, and the role of jurisdictions. They identified fiat on-ramps and easing regulations as key factors for the next billion crypto users.

Tyler and Cameron Winklevoss criticized the lack of regulatory clarity in the U.S. and the SEC and CFTC for not providing clear rules and guidelines. They also discussed the outdated Howey test and the SEC’s losing cases.

Jeremy Allaire’s discussion about stablecoins highlighted the emerging regulatory clarity

in the U.S., the importance of technological advancements for user-friendly crypto transactions, and the promising future for stablecoins.

TOKEN2049 proved to be a vibrant hub of activity, a meeting ground teeming with optimism, innovation, and thought-provoking discussions. The event was a testament to the robustness and resilience of the crypto community, with a palpable sense of momentum permeating every panel discussion, fireside chat, and network session. Even as regulatory clouds loom and technological challenges persist, the sheer enthusiasm of attendees, the depth of knowledge shared by speakers, and the widespread commitment to ethical practices and transparency underscored the collective faith in the transformative potential of digital assets and blockchain technology. As we reflect on the insights gained and connections made, we are reminded of the vital importance of such gatherings in shaping the future of the crypto space and our digital world.



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TOKEN2049 Singapore

13 SEPTEMBER 2023

Day 1

The Path Ahead for Crypto as an Asset Class

SPEAKERS

Jenny Johnson | President and CEO Franklin Templeton

Tom Farley | CEO, Bullish

Dan Tapiero | CEO, CIO, and Managing Partner, 1RoundTable Partners and 10T Holdings

Annabelle Huang | Managing Partner Amber Group (Moderator)

Franklin Templeton (FT) has been in the news recently about your ETF application and your on-chain money market fund. What are you guys thinking about crypto and your roadmap?

Jenny

This is a tech that enables and significantly reduces friction in transactions. When you think about financial services, removing the middle man means more things you can do. We did file for a Bitcoin ETF, Bitcoin is the greatest distraction to the greatest disruption to financial services. If you own an ETF today, it only prices twice a day, so you are buying something without all the information. On-chain it's a different story, it will open up new investment opportunities and drive cost down. We have an SEC approved money market fund. Worked through the SEC to get it approved and it's the beginning of the opportunities.

What's your take on Bitcoin and its path ahead?

Dan

Bitcoin is the core asset of this space, ETH is right there with it. The difference between the two assets is ETH has established a network

effect. The rest of the space to me is still a venture. I look at those two separately. In London 2049, I spoke the day after the FTX collapse. They asked me what the impact was and we said it's not great for our portfolio. That was the point of max panic and max negativity. It was a bullish divergence, when an asset can't make a new low on negative news, the selling has dried up. We deployed the remaining of our funds into the space after that. We are active in the secondary market with lots of big discounts. Some private equity players have been clear about backing out like Temasek, there's also other players pulling out.



Tom Farley, CEO of Bullish. As of September 13, 2023 at Token2049 Singapore.

Speaking of the FTX debacle, counterparty risk is top of mind for all of us now. With Bullish it's a slightly different setup and what is your roadmap for Bullish?

Tom

I agree so far with everything Dan and Jenny have said. Things aren't great right now in the digital asset space. It's difficult to make money and we want to see more innovation but I'm a big believer in Bitcoin and blockchain technology. I feel like a granddad here at this conference. Everyone talks about decentralization and I see every day a bigger reliance on THE US DOLLAR. The US dollar wherever you trade it is centralized and connected to the Fed. We need to figure out how to get along with the centralized world, the exchange industry has not been running in a way to get along with the centralized world and governments. Tell the business how much cash reserves you have, use a proper auditor, and talk about risk management practices. These are

basic needs to set the bar. I just came from a lunch where there was discussion about certain leading exchanges still in the practice of inflating volumes to this day.

I'm a big believer in Bitcoin and blockchain technology.

Dan

There's plenty of fake trading in the traditional world, I don't think this space will be devoid of that. Since it's so new I'm looking for improvement. It's going to be more difficult, you have to get all the regulators to agree. You might get small pockets. It's definitely better than it was five years ago.

Jenny

It will end up getting regulated. That takes time. The US has been slow but you can look at the improvement.



We need to figure out how to get along with the centralized world, the exchange industry has not been running in a way to get along with the centralized world and governments.

From an infrastructure perspective, what do you think regulators want to see in improvements before taking this asset class to the next level? What needs to happen?

Jenny

It needs to be regulated. Singapore is a perfect example. They were the first to create regulation around this then they backed off and now they are back in. I was talking to a US state governor who is very anti-digital assets. The thing that bothered him was when there was cybercrime they asked for Bitcoin and that's why he doesn't like it. Governments will always control their currency. If Bitcoin threatens currencies then you will see governments banning it.

Dan

This world has grown so much I think aspects of it won't be regulated. It's hard to regulate people exchanging PFPs or skins etc. Bitcoin and ETH provide an alternative. You decide where you want to allocate your assets and Bitcoin and ETH is that alternative.

Tom

On regulation, if the choice is zero regulation or everything is regulated, then we would agree the former is better. Neither of those is an option.

If you are a large custodian, you are likely to be regulated too, trading in large sizes also likely to be regulated. Customers are more discerning in choosing who they go with. Good things are happening without the ivory tower telling us how to do it. Right now there is so much uncertainty.

Dan

The space is too small to matter to the US. The total value of \$1.7tn is not really that big for the US. For Dubai it's big, for Singapore it's big. Some of these jurisdictions are attracted to this.

Jenny

If consumers in the U.S. are investing or using that company in Dubai, there is still going to have some U.S. regulation overlay. Something like 80% of companies setting up in Singapore are actually U.S. companies.

A lot of the regions look to the U.S. for regulation. It's still a highly dollarized industry. What the U.S. does will set the pace for what happens. What is really going on in the U.S.?

Jenny

We've been working with the SEC since 2017 for our money market fund. To be honest, they have a challenge too. We educate them on this space.

Forty come in and a quarter of them have left the SEC four months later. As with the CFTC and SEC, they haven't agreed who has jurisdiction over it. FTX was painful for the regulators, they got blamed for what happened. The accounting office in the SEC came out with an accounting rule: if you have a tokenized asset, you have to keep a dollar for every dollar on your balance sheet. We are engaging with them and trying to explain and educate them.

On a broader macroeconomic level, what's your outlook for the next year?

Jenny

I don't think it's what the Fed does, it's a risk-on, risk-off trade. When risk is on, crypto goes up. When risk is off, people move to cash and away from crypto.

Dan

The Fed has over tightened and I think they are done. My personal view is that this is the worst Fed that I have seen. They panicked and got aggressive with CPI. Now CPI has hit 3%. In the next month, we might have 2%. I think they won't raise rates with elections coming up. Housing and lending businesses are getting crushed. Growth and inflation are slowing. I think by Q2 they start cutting rates. That would be bullish for our space. I think we are in this consolidation period. Not in a bull phase yet though. I do think by next year this time we will have a bull market.

Tom

I think we are all confident we won't go back to a zero interest rate environment. One thing to look

out for is \$100bn in stablecoins locked that don't pay out interest. Jenny's money market fund is an attempt to solve that. At 5% yields, \$5, \$6 or \$7bn is giant. There should be changes in that if I were to guess.

What are the newer products you have in mind for the next bull?

Tom

Tactically, we are adding products, perps at the end of the year. What's exciting about the blockchain is its instant settlement. We're spending a lot of time in areas around remittances, stablecoins, etc.

Jenny

Anywhere with a revenue stream, there's an opportunity to fractionalize it. Blockchain is 1. Source of truth 2. Ability to do smart contracts and 3. The ability to pay. Rihanna tokenized her songs. Fractions of pennies when Spotify plays her songs, the royalties flow to the fans that hold the tokenized songs. When we think about the iPhone coming out, you had music, flashlight, and camera etc. that was really cool but Apple saw giving a platform to the world. They will never imagine what we can do.

Dan

Tokenization of real-world assets is a huge area. Be patient, hold tight and I think innovation in the space is the single most important thing driving us forward. Regulation will take time but the pace of innovation needs to continue. ✍️

From 1,000 Startup Communities to 1 Network State

SPEAKERS

Balaji Srinivasan | Founder, Investor, and Author, The Network State

Your network state is, in reality, your true neighbor. According to the definition provided by the United Nations, most countries actually have less than one million people. Only a select few exceed one million in population size. We've witnessed the rise of new countries over the past 30 years. However, the trend has

largely remained flat, but this is also true for the creation of new currencies.

Cryptocurrencies are now ranking alongside fiat currencies. For instance, Bitcoin is comparable to the Turkish lira and the Chilean peso. Cloud entities can be placed alongside fiat entities.



Both nation-states and social networks have high Average Revenue Per User (ARPU) multiplied by population. Network states achieve this through a new concept: Society-as-a-service. Network states could exist in a niche that technology hasn't fully explored yet.

It's entirely feasible for cryptocurrencies to build a global population, income, and real estate footprint that competes with existing fiat currencies. In a sense, we're looking at a physical social network.

This brings us to the concept of the network state. We've already seen sovereign entities striking deals with companies and cryptocurrencies. The physical land is already in negotiation with the cloud. For example, Tuvalu entered into a domain deal with GoDaddy, Nevada has a company deal with Tesla, and El Salvador adopted Bitcoin, establishing a currency deal. Soon, a country deal will be made with a network state.

So, why are new countries preferable? The reasons are both push and pull. Individuals lacking power now have an alternative to failed states. Ambitious people now have the option to be part of frontier societies. For those experiencing inflation, riots, food shortages, and other signs of failed states, these new countries provide an alternative. The frontier mentality is pushing the boundaries of what's possible.

Starting new countries can be profitable. Both nation-states and social networks have high Average Revenue Per User (ARPU) multiplied by population. Network states achieve this through a new concept: Society-as-a-service. Network states could exist in a niche that technology hasn't fully explored yet. With a few million people, like a Discord subscription garnering a few million a year, the focus shifts towards the strength of the network.

That's why I believe starting a new country is not just possible, but also preferable and profitable.



The Future of Liquid Staking

SPEAKER

Zaki Manian | Co-founder of Sommelier Finance

Kevin Lu | Co-founder Scalene.xyz (moderator)

Sreeram Kannan | Founder at EigenLayer

Seraphim Czecker | DeFi Expansionist at Lido

Darren Langley | General Manager at Rocket Pool

Does Lido's significant market share make it possible for them to be a bad actor?

Darren

Ethereum has set certain thresholds, namely 33% and 66%, as potentially dangerous. They recommend that no protocol should reach these levels because they could subtly and devastatingly influence the chain. This is particularly detrimental for permissioned node operators who, in theory, could collude and cause damage to Ethereum. We've decided to limit ourselves to a 22% share. Currently, we're at 3%. We don't want to undermine Ethereum.

Seraphim

I see some hands raised, suggesting that Lido could impose certain transactions on the Ethereum blockchain. It's essential to clarify that although we're a significant player, we don't have the control that some might assume. Yes, we make up a large portion of the Ethereum stake pie chart, but in reality, the largest staker is Coinbase with 8.5%. Node operators on Lido represent about ~1%. We can't ban transactions. Coinbase, potentially, could. At this moment,

the node operators aren't controlled by Lido.

We maximize utility, not control. We're more of an aggregator than a single operator. There's no ideology of centralization with Lido.

Zaki

We view the emergence of liquid staking as something we want to facilitate as much as possible. We're neutral. Staked ETH does present the biggest opportunities. There is a lock-in and network effect. Staking in Lido makes it difficult to move ETH anywhere else. We're able to be more aggressive on our leverage when using staked ETH because it translates to more staked ETH in the market.

Sreeram

We support all liquid staking protocols equally. One of the reasons we need decentralization, in addition to economic stability, is to maintain censorship resistance and inclusion guarantees. We actively incentivize decentralization in protocols. We're trying to build incentives for people to restake and choose the node operators they prefer. This creates value for decentralization.

One of the reasons we need decentralization, in addition to economic stability, is to maintain censorship resistance and inclusion guarantees.

There's a value triangle of decentralization, cost, and incentive. Do you believe in this concept?

Sreeram

We're not building a liquid staking protocol. We approach this from the angle of decentralization. How can we minimize the incentive to centralize? The best approach is active incentivization away from centralization. That's our main focus. A transaction on Ethereum doesn't distinguish between a less decentralized set and a more centralized set. Eigen layer can set the bar for creating an active marketplace for decentralization.

Zaki

I am a fan of enabling active staking on PoS protocols. By making it easy for any staker to convert their staked asset into a liquid voucher, you can easily transition from a staked atom to a liquid staked atom. It creates an interesting game structure. As a staking designer, there are many parameters you can play with.

Seraphim

Lido is one of the large protocols that uses decentralized on-chain governance. We have so much value at stake, so it's crucial to maintain the decentralized aspect. Some people talk about institutional-grade solutions like KYC/AML. Traditional finance guys don't care as much about KYC as they do about liquidity. They want to sell \$200mn of staked ETH with 2% slippage. We prioritize jurisdictions. It's not acceptable to have 3,000 node operators all in the US and all using AWS. The distribution should be global, spread across Asia, Africa, etc.

Darren

Being a decentralized protocol is a difficult path. We're competing against centralized protocols that can scale and move much faster. We choose the long road because decentralization gives us characteristics on Ethereum that make it the open, credible, neutral, and censorship-resistant financial layer we need. Ethereum should be an unstoppable global open platform.

There are two major forces at play here: regulation and the Ethereum roadmap. How are these impacting your strategies?

Darren

Regulation does affect our daily operations, and we need to remain mindful of it. The Ethereum roadmap, especially with the upcoming Dank Shard release, is fantastic. We're taking advantage of this to scale even further. We aim to maintain this scale and increase efficiency.

Seraphim

A lot of people are betting on regulatory clarity, but I don't think you should base your business on it. The reason why we're in Singapore is because of APAC. Liquid staking is widely accepted in Asia, which is why I'm here instead of at Permissionless. America will eventually catch up, but I don't think it's going to take off quickly. Regarding Ethereum, we're waiting for triggerable exits. Its roadmap is vital to us, and we aim to align ourselves with it.

Zaki

From a regulatory viewpoint, I firmly believe that we can't reach a decentralized world by merely hypothesizing about regulators' potential responses. It's best to start with first principles and economic correctness. From

the perspective of the Ethereum roadmap, I find the idea of bringing representations of Ethereum yield to the application layer, like the L2's, very exciting. These could be used as money, collateral, in perps, etc. I believe that's where liquid staking will fuel the narrative of a multichain world.

Sreeram

Regulation, as a proxy where real-world trust is needed, is essential. One problem we're solving is capital efficiency. With Dank Sharding for data availability, we're taking the economic incentives and building them in a different manner. This approach allows us to maintain a more robust system, even with regulatory considerations in mind. 🏹

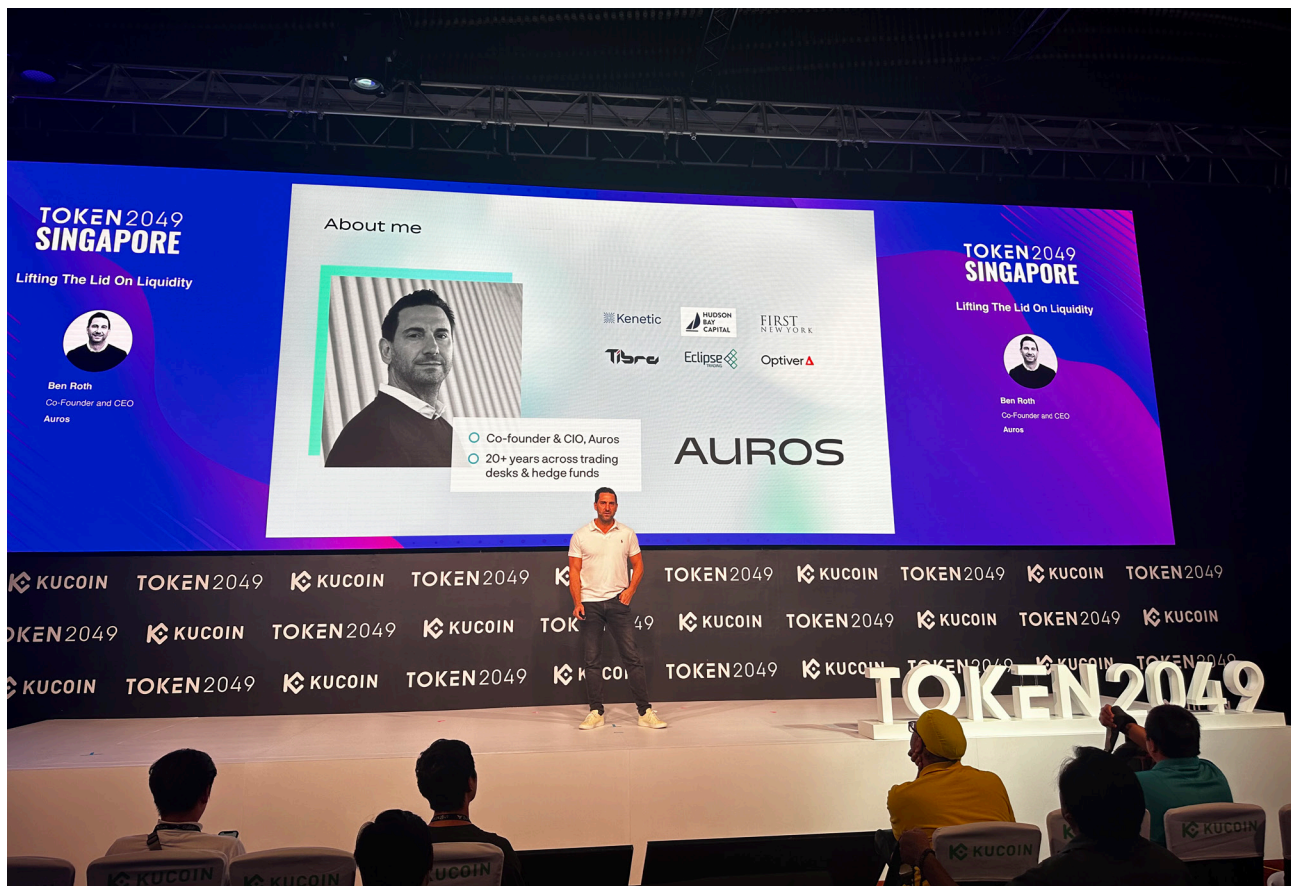
Lifting the Lid on Liquidity

SPEAKERS

Ben Roth | Co-Founder and CIO Auros

We have transacted over \$2tn across various platforms such as spot, futures, perps, options, and so on. Just to highlight a few milestones, we founded Auros back in 2019. We reached a significant achievement in 2020 when we transacted \$1bn in a single day for the first time. Since then, we have seen exponential growth. During this period, we realized we could leverage the technology and service of our firm to establish a strategic market-making business.

The importance of liquidity cannot be overstated. It can make or break your project. If you don't have a clear and concise liquidity plan for your token, it can lead to serious problems. In equities and traditional asset classes, there's less reflexivity from fundamentals to asset prices. Crypto, however, is different; a healthy secondary market breeds healthier adoption, driving more people into the economy. Good liquidity can protect market participants. It's crucial to ensure continued liquidity in both up



and down markets. This attracts long-term sticky capital. Whereas fast capital is quick to come in and leave, sticky capital is more reliable.

So, how do we define good liquidity?

There are three key factors: spread, depth, and uptime. Spread is the difference between the best bid and best offer. You want to transact with tight spreads to minimize cost. Depth is a measure of the amount of slippage. When you look at decentralized exchanges, they use Automated Market Maker models, while in centralized exchanges, it's up to the market maker to reduce the slippage. When the market gets busy and volatility increases, maintaining uptime becomes imperative.

Ethical market making rests on three core pillars: accountability, transparency, and a focus on

achieving best-in-class liquidity. A liquidity provider needs to be there at all times, in up markets, down markets, and regardless of volatility. There should be accountability for the market maker, with daily or weekly reporting for transparency. When you select a liquidity provider, you should look for those offering best-in-class liquidity. This should be a primary focus for token projects. The third pillar is long-term partnerships, not short-term transactions. A liquidity provider needs to be engaged and dedicated to the token project for a long-term horizon, committing to a base level of service for the entire period of the mandate.

We aim to educate the industry by raising the bar and advocating for legitimacy and adoption. Driving project success and sustainability is of paramount importance to us. 🦋

14 SEPTEMBER 2023

Day 2

Virtual Fireside Chat: Sam Altman

SPEAKERS

Sam Altman | Co-Founder, Worldcoin

Alex Blania | Co-Founder and CEO, Tools for Humanity / Worldcoin

Joyce Yang | Founder GCR, Moderator

How has the mission changed since ChatGPT?

Sam

It hasn't changed, we need to think of new ways to deal with global governance and systems.

Crypto hasn't been great in building UX, what's your learnings been for Worldcoin?

Alex

Talking to regulators and policy makers is a big part of what we do. The industry has had a hard time and there's a lot of people that ask why crypto? The US regulatory framework is difficult and there's conversation around how to regulate crypto. They are still figuring out the general regulatory framework. Some countries have accelerated that. We try to talk to as many people as possible. Use cases wise, the products we build are mainstream so it's exciting.

What have you learned when you bring an orb to a person? And questions around privacy?

Alex

It depends where you talk to users. Asia is surprising because you don't need to explain what crypto is. Crypto adoption in Asia is very

strong. We tell them your data is deleted, we use ZK proofs to protect anonymity. We need to figure out a global mechanism on the internet independent of governance.

How are you guys thinking about going to market?

Alex

It's been very different in different markets. Universities are where you find super tech savvy people. Our team shows up there and picks who is entrepreneurial to take an orb and take it from there. It is very different from market to market. We try to balance globally, not just LATAM for example.

Sam, you were recently in Asia, what was your experience?

Sam

Excitement level was really high. A lot of the places make it exciting for crypto and AI.

What are you thinking about the next stage of crypto?

Sam

I think Worldcoin answers that. We need to make it easier to use and a clearer value composition overall and a lot of that work is happening.

What are the real world use cases?

Alex

Hopefully in the next year we will see bigger adoption. One of the major things happening in crypto is stablecoin transfers. That's the real large scale use case. For Worldcoin we are hoping to build a network effect. There's 2 million plus users adopting Worldcoin already.

When you reach a milestone, how are you thinking about decentralizing?

Alex

It's been one of the focus areas. In our case you have hardware that needs to be produced by other people so there are challenges there but we will figure it out. We have been working with an engineering team. Hopefully by 5-10 years it will be fully decentralized.

Sam

I agree decentralization is important and a big milestone for the company to get to.

How do you build the orb from scratch?

Alex

We built the lens from ground up. We started the company in the middle of Covid, we were sitting in the middle of a small town in Germany and every Saturday we would go out with a prototype and test it out with users. Then two years ago we kicked off the manufacturing efforts with scale. Now internally we have more sophisticated devices than what we see here.

I agree decentralization is important and a big milestone for the company to get to.

Do we think there will be newer versions?

Alex

You should expect to see one every two years with better security, better imaging.

What's security like?

Alex

Your uniqueness code is independent and the data is deleted when you receive an orb ID.

What is your vision with World ID and Worldcoin existing with new world AI?

Sam

I don't think we all know what the world will look like. As these systems become part of our lives, I think what we are working on with Worldcoin will be increasingly important.

Two of the biggest hurdles for Worldcoin?

Sam

Operational challenge is huge to get these orbs manufactured and the other is overcoming the biometric resistance people have when they first hear about the project. But I believe they are both trending well. 🏆

Building Web3 Infrastructure for Mass Adoption

SPEAKERS

James Tromans | Managing Director, Web3 Google Cloud

Pascal Gauthier | Chairman and CEO, Ledger

Tristan Yver | Co-Founder, Backpack Moderator

Joseph Lubin | Founder and CEO, Consensus

Matthew Roszak | Co-Founder and Chairman Bloq

What does mass adoption look like?

Matt

We are living in a generation with amazing core technology, how we disseminate data, information, money etc. our grandparents never had this ability. It's important we build these cooperatives and elements. For the systems to be resilient they need to be built on blockchain systems over a long period of time. This is a really important scaffold and infrastructure. The basis of the framework will be important for every system going forward.

Joseph

Before we had to "trust" these third parties back in the millennia. Now we have the ability to build infrastructure bottom up. A shared open database in which we can participate and directly inspect. Based on the new trust foundation we can instill trust, decentralized assets and property rights. We can build it into different layers in heterogeneous systems. From top down we are now going bottom up which will change everything.

James

Not everyone wants to be the owner of their own private keys but they should have the option to. We don't have a cohesive shared idea of what decentralization means. Is it networks, application layers etc.? There's always bottlenecks. The end user needs to just have a Google UX. We don't talk about web2 and web3 as separate and just call it technology.

Pascal

Crypto is a tech-led world and products are very different. The way the iPhone was designed from a user and product point of view then suddenly it was very easy to use. Product leads to mass adoption. Security and ease of use go hand in hand. Login password was enough years ago but now it's not anymore and we need 2FA. Time for hardware takes quite long, mass adoption will need a whole new generation of hardware to improve UX.

What are the trade-offs between decentralization and centralization?

James

I believe in users being able to run their own nodes on their own phones. We are trying to build for that. Click to deploy functions. We will bring Solana and Polygon to the market very soon. People might want to participate but we need this level of infrastructure. We need more developer adoption. Not all developers know about web3 and some are building in traditional technologies.

I believe in users being able to run their own nodes on their own phones. We are trying to build for that. Click to deploy functions.

Joseph

Our space can be divided into situations where you must focus on rigorous maximal decentralization from the start. It is hard to build that but you need the mind share and talent that believes in that mission. Ethereum technology is an excellent example of that. In my opinion, it will be hard for other protocols to let technology fix the problems. Our use cases are going to grow faster than hardware improvements. We anticipate a highly modular heterogeneous system. Ethereum at the base must be maximally decentralized and at higher layers it is important to be seen as decentralized but for us with Infura we focused on performance. We took the highest priority as being security as with Metamask.

We are progressing to decentralization.

Permissionless innovation in the Metamask context leads to maximal decentralization.

Matt

It will be more about provisioning agents and how you get all these elements on not just the node but the node stack to focus on decentralization.

Pascal

If not decentralized then why? These technologies do not exist to be centralized. You can make sacrifices for convenience. You also need to wonder about privacy. If you want to be decentralized and private it does become technical, you also might sacrifice user experience.

How are you adding more users for Metamask?

Joseph

We've been working behind the scenes on a sandbox security infrastructure enabling us to turn it into a platform. We can open it to the world of developers for functional features. There is a revolution blossoming in the Metamask space. It is no longer under our control. We provide the platform but it's offered to the world to build on.

Is Google concerned about furthering Web3?

James

Our customers are asking for help on this journey. We don't believe it is mutually exclusive.

We will live with Web2 and a decentralized world where the two coexist. Most customers don't have a political agenda. We want to make sure we respect all the views and produce capability.

What happened with the update and people speculating there's a back door to Ledger?

Pascal

The world of crypto is super emotional. Twitter is not real life. It looks more than what it is. Ledger is always trying to innovate. If you do nothing nobody criticizes you but when you do something people freak out. It's important to people and they worry a lot, we understand that, feeling humbled. But we are security experts and so far Ledger has never lost a cent or mismanaged money. We don't compromise

on security in the sense we would rather be slow than move fast and break things. Move fast and break things is a Silicon Valley saying but you can't do that in crypto. We didn't have negative feedback when we raised the update at conferences etc. until what happened on Twitter. A mistake we made was miscommunication. I believe it is perfectly secure, we published so many things between that PR crisis and now. We will release the product soon as open-source. One of the feedback from the community was how do we know there's no back door hence why we open-sourced it. It allows for the community to verify. Since we have been releasing new nodes and talking about the product more, the feedback we got is that now they understand. We were being asked a lot to deliver a product like this. 🙌



Institutionalization of Digital Assets

SPEAKERS

Giovanni Vicioso | Global Head of Crypto Products CME Group

Pradyumna Agrawal | Managing Director, Investment Blockchain, Temasek

Evgeny Gaevoy | Co-Founder and CEO, Wintermute

Chris Rhine | Managing Director and Portfolio Manager Galaxy

Stephen Richardson | Managing Director, Financial Markets & Head of APAC Fireblocks (Moderator)

Where are the institutions and what role do they have to play?

Gio

A lot of the conversation back in 2017 was, “What is Bitcoin and what is blockchain technology?”

We’ve seen institutions really garner interest and look at it in a way to decide how we are going to use this. Introducing the Bitcoin reference rate was a big milestone. We’re seeing growth in open interest, which is a sign of institutional interest in this space. We’re really seeing them adapt to this space.

A lot of the conversation back in 2017 was, “What is Bitcoin and what is blockchain technology?”

We’ve seen institutions really garner interest and look at it in a way to decide how we are going to use this.

Evgeny

There’s been a big change to six years ago when crypto was almost a dirty word. Now we see Bitcoin and ETH being traded on the CME, PayPal launching payment options, etc.

Chris

What we see now is a divergence between east and west. A lot of it has to do with the hostile regulatory approach. You have countries aligned with the US and that bleeds into them too. So far they get close then kick the can down the road a bit further. Family offices, for example, the decision-making process is a lot easier, you aren’t a public company versus the risk of larger institutions making a misstep is too big. Allies to the US easing back their own views will be needed for them to incorporate this into their own framework.

How are regulators here in Singapore, Hong Kong, and Dubai looking at this?

Pradyumna

There’s a consistent theme across markets about retail protection. People look to the US to set that regulatory framework. Institutional

participation is widely supported in these regions of the Middle East and Hong Kong. If there are clear rules and guidelines, it helps them operate within those lines.

Gio

Hong Kong has made announcements allowing exchanges to offer products to retail along with Bitcoin ETFs. We introduced a Bitcoin reference rate based on Hong Kong and Singapore settlement published at 4pm local time. It helps around price discovery.

We've heard about the BlackRock ETF, is it overhyped or will it move the needle?

Evgeny

It is overhyped on one side but I believe it is inevitable. Even when the SEC ultimately approves it will still take time for the products to be launched and listed then it will also take months until asset managers allocate to it. Realistically we are looking at 1-2 years before we start seeing real flows. It's hard to see what is priced in yet.

Chris

The institutions I speak to see the approval of a spot ETF a huge regulatory milestone they can check off their tick box. It helps legitimize crypto as an asset class versus a rogue investment vehicle. Large institutions will take time to put money in. Wealth channels in the US and getting products approved has been a big roadblock but now with crypto you might have a much faster process to bridge that gap. As investors get more comfortable they start to get more

curious and look to other options. We need to take advantage and help them access other areas of the market that aren't captured by just spot ETFs.

What needs to happen for institutions to look at DeFi and enable it in their portfolios?

Pradyumna

In each crypto bull run, you tap a different pocket of wealth. You start with the OGs then to high net wealth and family offices then the institutions. You have DeFi which is truly native decentralized infrastructure. What needs to happen in my view is the bridging of the two worlds. If you want broad-based participation then the question is what do I use this infrastructure for? I think it's not a one-year time horizon but is more of a question of is there efficiency and liquidity benefits for example.

Will tokenization be translated to other asset classes?

Pradyumna

You have money movement then broadly digital assets. Money movement yes it is efficient but more so on a domestic infrastructure basis. Real-time money movement is not happening on a global basis. It's about new digital infrastructure allowing money to be programmable. You can write a bunch of code around micropayments which is distinct to crypto infrastructure and can be supported by it. In capital markets, you need to work with the value chain and figure out a way to deliver value. To me, it is unclear yet if there is a problem that's been solved.

Can traditional players fit in the crypto infrastructure, 24/7 trading for example?

Chris

You won't start at an efficiency angle but you start with an illiquid asset. Taking an illiquid asset and tokenizing it to build out markets is what you need. There is a growing market that will provide for that 24/7 efficiency. It's probably part of that technical adoption curve where there is an inflection point.

Evgeny

We dealt with T+2 inefficiencies etc. and it's not anywhere near as efficient as when it's on blockchain rails. Instant settlements where you don't rely on banks is a clear improvement. General democratization of how people access is decentralized. There are many steps and inefficient ones traditionally to access certain assets and through tokenization you provide better accessibility.

Which regulator has the right balance of innovation and regulation?

Evgeny

KYC and AML aspect is a main point for regulators.

Gio

They all have the same interest in protecting individuals. They should get together and work together.

Chris

Emerging markets have an advantage in the sense they don't have the infrastructure in place. Developed countries, some have been forward-thinking but it is hard to steer a new technology into that, that's why I think we have been slower in the US.

What do we need to move to full adoption?

Gio

Having Bitcoin and ETH spot ETFs in the US will open up institutional investor eyes to broader opportunities. Regulatory clarity and prime brokerage is needed in this space.

Evgeny

Making sure crypto is safe and secure.

Pradyumna

Stablecoins, how do you take fiat and create more with it. 🏹

Virtual Fireside Chat: CZ

SPEAKERS

Changpeng Zhao | Founder and CEO, Binance

Balaji Srinivasan | Founder, Investor, and Author *The Network State*, The Network State (Moderator)

Balaji

How many users have you got now, what's the latest?

CZ

We have passed 150mn users as of a few months ago, might be slightly above that. We've seen 200,000-300,000 monthly active users.

Balaji

What are the most technologically progressive jurisdictions?

CZ

Smaller nations where it's easier to adopt new frameworks like UAE. France is very open too. Hong Kong and Japan are also progressive. We are also seeing Thailand opening up too.

Balaji

What's next after ZK rollups?

CZ

We want to give a platform for projects to grow. We try to catch trends, not invent them.

Balaji

Have you thought of integrating micro NFTs to Binance?

CZ

NFTs are going through a hard time right now. There are a lot of new applications for them people have not tapped into. It isn't high frequency trading and does not require high throughput, low latency technology. We would love to support new applications.

Balaji

Have you seen good utility around NFTs? Like ENS?

CZ

There's a lot like network state, identity, a soul bound token, ticketing all have utility value. There's gaming being explored but in a limited way still. Cross-game NFTs for example. I'm not far out there with NFT but I do believe we are at the tip of the iceberg.

Balaji

What applications will we see beyond DeFi?

CZ

I would love to see an on-chain social media platform. Today we have Twitter, that can be brought on-chain. We can deal with spam, id verification etc. Most blockchains probably can't handle the volume of Twitter interactions but now with layer-2 protocols we are getting there.

I would love to see an on-chain social media platform. Today we have Twitter, that can be brought on-chain. We can deal with spam, ID verification etc.

Balaji

What do we need to onboard the next billion people into crypto?

CZ

Fiat on-ramps in my opinion. With tightening of regulation in the early part of this year we've seen traditional institutions who used to provide fiat rails pull away. But solving for that will help with the next billion users. We can also benefit banks and we are seeing them want that opportunity to tap into our users. Crypto doesn't need 100% adoption but only 60% of people use the internet globally. Crypto is at about 5% adoption now. I think we are on the verge of going beyond that 10%.

Balaji

How do different countries look at crypto?

CZ

Singapore was crypto friendly but post FTX its been more limited for retail. Hong Kong said they want to do better than that and has allowed for

retail users. However, Hong Kong is restricting the number of tokens listed. Japan had that problem 6 years ago but that is changing. El Salvador has a forward-thinking progressive president so he makes things happen.

Balaji: What else other than Binance are you interested in?

CZ

I've been curious about longevity as well. I haven't done much investment but with more time I want to look into that. I'm also curious about your network state.

Balaji

Zuzalu is happening in Singapore right now. We are recruiting network state meet ups around the world. Grading them by seeing how many people you can bring to the workshops. From crowdfunding brunches we go to crowdfunding buildings. These people are starting to be mayors of these groups and they are essentially allocating public goods. 🦄

Fireside Chat: Cameron and Tyler Winklevoss

SPEAKERS

Tyler Winklevoss | Co-Founder and CEO, Gemini

Cameron Winklevoss | Co-Founder and President, Gemini

Balaji Srinivasan | Founder, Investor, and Author *The Network State*, *The Network State* (Moderator)

DC and other centralized governments are generally unfriendly to crypto, and smaller governments are generally more friendly to it like Florida and Texas. What are your thoughts?

Tyler

There's no clarity, they say come in and register but it's not possible to register.

Cameron

It's ironic the regulator can mislead the public with no repercussions but if a company does it then they get into a lot of trouble. You have to ask why they aren't creating rules and regulations. Maybe because they can't keep up with crypto and AI. They are becoming irrelevant. The CFTC is asleep at the wheel, letting the SEC run on their turf.

Tyler

The forms don't even make sense. If you're Ethereum you don't have a board or directors to fill out those sections in the form. It's nonsensical and disingenuous. It seems entirely political, it's not about innovation, capital protections. It's a

political game of thrones. That's the state of play in the US. Even if Wyoming says you're good, on a Fed level it becomes confusing. Now the SEC if it sues a company it's like a rite of passage.

Cameron

The Howey test is a hard to decipher test where you need a big group of lawyers. The SEC is losing, they lost Ripple. It's a 1944 ruling, that is pre-internet and pre-crypto. They are bringing cases they aren't going to win and that's a change because they shouldn't be doing that. They have the upper hand and should not be operating in that manner. If people don't comply then sure enforce the law but doing so wasting taxpayer dollars when you know there is no case is not the way.

Tyler

Twitter is so good at this, clips where Gensler says there's no regime to regulate crypto then months later says you can register it.

Internet values is something everyone shares, it's global and pro-tech. What can you add?

Tyler

Almost like the web1 where people were open to it and web2 when it became more dystopian. Web3 is bringing back that web1. APAC is where we want to grow in the next coming years as well.

Cameron

Crypto resonates with founding principles, it's way more than technology it's a movement and ideology. I think America is hopefully going to find its way back. It takes someone like Elon who purchased Twitter and takes things back to that web1 ethos. We're in the fight phase of the Gandhi quote, it's important for everyone to continue the work they are doing to get to the other side when we win. ✨

The Howey test is a hard to decipher test where you need a big group of lawyers. The SEC is losing, they lost Ripple. It's a 1944 ruling, that is pre-internet and pre-crypto.

Fireside Chat: Jeremy Allaire

SPEAKERS

Jeremy Allaire | Co-Founder and CEO Circle

Haslinda Amin | Anchor and Chief International Correspondent Bloomberg (Moderator)

What do you take away from the Grayscale verdict?

I think all around the world we're seeing national governments establish regulatory frameworks around crypto. It falls around markets and stablecoins. In the US you have more complicated processes for regulatory clarity. Enforcement actions and legislative initiatives trying to put in place new laws and you have the courts where they look at the cases that come to them. The policy process in the US, the courts are saying there's a process by which we decide how to regulate these things and that is by new legislation. The court is saying let's give time for that to take place. The payment stablecoin act is making its way through legislation. We might soon have legal certainty for stablecoins to potentially do hundreds of trillions of dollars in transactions.

Thoughts on stablecoins across regions?

Japan has put in stablecoin rules. The EU was the first to pass stablecoin laws coming into effect soon. If we want stablecoins being held on balance sheets you need that regulatory certainty, when you have it that's when you can take it mainstream. I'm not sure its Asia vs US or the west but we are seeing progress around the world. The market in Asia independent of crypto

is an incredible and dynamic market, one of the fastest growing in the world. There's demand for digital dollars, remaining widespread across the Asia region. Our expansion plans wise, Asia is our largest effort. We want to make sure dollar stablecoins are well regulated and their use are well defined by regulators around the world. Japan has a model for foreign issued stablecoins for example. Another stablecoin we have issued is the EURC.

For an average person to onboard they shouldn't be afraid of losing their device and money, social onboarding and social recovery should be made easy.

What will take mass adoption?

There's curves of adoption that take place and the number of users is not anywhere close to mass adoption right now. There's a few things happening though. One is legal certainty. Households need to know these are defined parts of the financial system. The

most important thing is solving the technology problems. We are seeing a progression of blockchain infrastructure from scalable, to cost-efficient layers, this is all key. For an average person to onboard they shouldn't be afraid of losing their device and money, social onboarding and social recovery should be made easy. Users shouldn't need to know what gas fees are. Crypto needs to go in the background and the money in the foreground. Gasless transactions, smart account wallets, and user abstraction will make it seamless for users. Web2 companies are wiring up to web3. The paradigm shift with web2 companies coming onboard will be a breakthrough. 2024 will be an extraordinary year for growth and scaling out.

How about non-dollar stablecoins?

There will be a prevalence of digital dollars as a preferred medium of exchange. We will also start seeing the proliferation of other stablecoin currencies. We are believers in on-chain FX markets that are a composable service. Those things developing are key which leaves behind the speculative value phase to the utility value phase.

What would it take to see an explosion of growth?

User experience and access needs to be easy. The Amazon of Latin America we had them embed USDC, what's the use case? Latin America wants digital dollars. When you have access and can transact with people with virtually no fees, the value exchange takes part. Remittances and cross-border transactions. We announced a partnership with Grab as well in Singapore for a web3 wallet, piloting it with the F1, the user experience for

Latin America wants digital dollars.

that is so seamless to set up, it's a direct self-custody experience.

What partnerships are you looking at?

Established consumer companies, e-commerce companies etc. are our target. It's an indicator that this has arrived, it's about people connecting it up to the internet experiences. Even Visa, last week announced they added merchant settlement with USDC on the Solana blockchain which is exciting. It's more about how you efficiently move value across people and businesses.

Central banks are looking at their own CBDCs, how will stablecoins adapt or evolve?

If you ask the average person in China, e-cny or Alipay? You will get a consistent answer. People want an air gap between the government and their wallets. When you look at the internet delivering a massive scale of utility for people, it's amazing.

What are your hurdles for the future of stablecoins?

I'm optimistic right now. I want to see more developers and start-ups work on the utility value aspect. There's new takes on DeFi, speculative activity etc. but we need to solve problems for households, firms and corporations. I want to see more output from the development community around this. 🚀

Author's Note



Sylvia To

Manager, Bullish Insights

TOKEN2049 has always been one of the most looked forward to crypto conferences of the year. It always feels like a bull market and the organization of the conference is best-in-class globally. This year's unprecedented record number of attendees has made it "the biggest crypto conference in the world".

Thank you for taking the time to review this report. The insights and discussions captured within these pages reflect the collective thought leadership and market trends in the rapidly evolving world of crypto.

The preparation of this report involved careful observation and meticulous transcription of the sessions, aimed at bringing the most accurate representation of the event to those who

couldn't attend, and to serve as a refresher for those who did.

It's important to note that while every effort was made to capture the speakers' views verbatim, some paraphrasing has been employed for clarity and brevity.

I hope this report provides a comprehensive overview, stimulates further discussion, and enhances your understanding of the topics discussed. Your feedback is always welcome and appreciated to improve future reports.

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