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**Marty:** [00:00:00] I'm not leaving.

**Thomas:** Um, I don't think there's any reason to leave. I think it's gonna be fine. Um, you know, I think that there's gonna be an American resurgence at some point. Um, the country still sort of holds most of the cards globally. Speaking. Um, we were talking about this yesterday. Uh, drew and I were talking about sort of the, the Chinese population, um, uh, problem, sort of the spread between, you know, of age labor and how most of the Gen Z class is doing, sort of, not most, but like a significant portion of Gen Z.

You know, Chinese labor force is doing the lay flat. Like why would I, why would I just grind endlessly? It's happening here too. Yeah, for sure. For sure. We gotta like find a way to reboot and I think that the energy industry and the bitcoin mining industry is doing a decent job with this. Although it's not like the most like labor [00:01:00] intensive activities, but rebooting sort of manufacturing and industry sectors in the US like would be a massive, massive

**Marty:** unlock.

I agree. I think, I think the tide are turning in terms of the narrative around Bitcoin mining and energy. We had, what was it, kpm? No, not K P M G. It was, uh, EY came out with that report yesterday. I didn't see that. One of the big four consultant firms came out and said Bitcoin mining's actually good for the environment and for, for the energy sector.

I'd

**Thomas:** be surprised if it was ey. 'cause I think, um, they've been very like Ethereum duck over the last, you know, Mm, six years or so. I think Paul Paul Brody wrote like, um, a new book on why Ethereum's Awesome. He probably has missed like, the last couple of years of actual developments within the Ethereum ecosystem.

Um, where there's sort of like a, a a, a willful, like, like, you know, blinders on. Um, what is going, has anything been going

**Marty:** on there?

**Thomas:** [00:02:00] Um, well, uh, in like Defi land, there was the curve Rugging, um, from the founder. I don't know all, I don't follow it that closely, but, um, I actually, I

**Marty:** read a thread on it yesterday, so apparently he took out like a huge collateralized loan to buy.

Yeah, like a hundred

**Thomas:** million dollar loan.

**Marty:** Yeah, to buy a house in Australia or something like that. And

**Thomas:** the house is like super mid, like

**Marty:** it's terrible. Like I'm saying, the scammers have the worst aesthetics. I'm just saying that

**Thomas:** it's like a McMansion like castle, like in Australia and it's, it's just very gaudy.

But yeah, so I think that, um, at one point, I guess the, the collateral on that a hundred million dollar loan reached like 35 or something like that. It hit like a liquidation price. And then that had, um, a bit of a cascade, uh, across the entire, like, I don't know, fucking liquidity pool or

**Marty:** whatever. Is this a learning lesson in the world of defi that will lead to changes in the way these [00:03:00] protocols are structured that will make them functional No.

And stable in the future? Or is defi as a concept completely borked?

**Thomas:** Um, I don't think defi is a concept that's completely borked because it was, I. I mean, it was borked from the beginning and it really is just sort of churning through some of the same mechanisms that are in traditional finance to begin with.

So I think that it's just like another, it doesn't matter if the contract's written, you know, in stone or on a napkin at a bar, like it's still a shit contract. And if the point of most defi is to sell a token and a lot of the yield or you know, a lot of the like follow on liquidity and yield farming from that comes from just, you know, turtles all the way down, token omics.

Then, you know, I think it'll just come around the racetrack again. Right now there's a lot of scrutiny from the s e c, the ss e c five years after the hex launch, like finally gets around to figuring out that Richard Hart is a scammer. Like [00:04:00] again, scammers have time, lots and lots of time to do these

**Marty:** things.

He's the one of the worst too. He's

**Thomas:** so, yes, he's, uh, he, he's hard to look at. I, I, it, it would be nice if you were able to have, um, muted pictures. Like it would be a great feature for, uh, for x if they were able to like, identify a picture of Richard Hart and I would be able to say like, please don't put this in my,

**Marty:** I do not.

My see him in his Louis Vuitton.

**Thomas:** Oh, the fucking, like, the, the peacock twerking stuff is just so, um, nauseating.

**Marty:** Like I said, like, it, it, I think, and I was gonna tweet this out the other night, but I couldn't articulate it and I don't know if I'm gonna be able to articulate it clearly here, but there's just something about the class of scammers where it's S B F, uh, Richard Hart, um, going over like the traditional tech, like Sam Altman with World Coin.

Yeah. Like, they're not, they're aesthetically unpleasing, very cheesy, bad taste. [00:05:00] And I don't know, maybe I just have a better EQ than most people, but it's pretty obvious to me

**Thomas:** who are those classic scammers. Gimme another like Dan Larmer project, gimme a Bit, shares EOS Steam. You know, EOS did pretty well for itself, right?

They just have a tremendous amount of Bitcoin. They have what,

**Marty:** 300,000

**Thomas:** Yeah. Block one does. And they've, and they've plowed that into that project Bullish, which, um, I think had a presence at the, the Bitcoin conference actually. But it's like an, I think it's an EO based, like decentralized exchange. Just backed with like a fuckton of Bitcoin.

Yeah. Well, God

**Marty:** bless. This is a conversation we've been having on this show over the last few weeks because it's an idea that's been stuck in my mind for a while. Matt and I have been discussing it on and off on R H R over the last like six months, and it goes into the nature of the crypto cycles moving forward.

Like has Bitcoin reached a point of maturity? [00:06:00] At the protocol level at layer two with lightning and fetti mins emerging and other ideas being thrown out there, where the tropes that were thrown around 2017, even earlier, like 20 13, 20 14, 20 17, 20 21 with defi that like Bitcoin can't do this stuff. Like, is Bitcoin beginning to prove that it can do the things that the shit coins are saying it can't?

And if so, will we see crypto cycles moving forward as pronounced as they have been in the past?

**Thomas:** Uh, I think that's a great framing. I mean, I think that there is, um, an adoption curve that's gonna take way longer than people expect for a lot of the like, If you look at sort of broader crypto as research and development for some of the use cases that'll eventually come to, you know, hardened protocols like Bitcoin and Lightning, um, the activity that's [00:07:00] taking place there is largely bullshit, right?

There're like novelties, the defi stuff. Um, there's a tremendous amount of money, there's a huge opportunity for venture funds to take to tokens and dump it on retail. You know, I think Melton said the quiet part out loud at the conference recently. Um, but she's 100% right. I mean, that, that exit, that exit liquidity and the speed at which you, uh, are able to get that exit liquidity is incredibly attractive.

So, you know, in a period where there's a bit of a regulatory arbitrage and the s e c has a very difficult time going after blatant scams like Ripple and Hex and other ones, then you know, you can move fast enough and get wealthy enough. And the scams, you know, Seem to make sense. Um, but in terms of like shifting to the actual utility, and I think the ordinals and inscription thing was a very, very, uh, good view into just how long it's gonna take for the real activity to hit Bitcoin, like inscriptions and actually [00:08:00] timestamping data is an incredibly powerful concept that I think we're still tinkering with.

But we saw a boom and a bust of the same exact, you know, N F T projects, you know, limited edition, 10,000 mint. You know, flip, flip 'em quickly. If you get a rare, rare, like, stuff like that is like sort of flash and pan. Um, do you have any rare wears, rare rares? I've never people there, there's like a couple, like I think Bitcoin magazine came out with like a plug your wallet in and find out if you have rare Satoshi's.

It's enticing, but it's just like, I, I don't know if I'm gonna put my, you know, you know, my finger in the electrical, so it's like, I don't know how this shit works. I'm too busy to figure it out. Like, you know, not plugging in my wallet. Um, I think that there are interesting concepts and people like, clearly like 'em, like you have collectors.

Like there's not a huge difference between if somebody want to, wants to have like a serialized satoshi and look, Satoshi don't technically exist. I, I get that, but it's all bullshit to me. It's all bullshit. [00:09:00] But, you know, so much, so much collectible, so much of the collectibles market is bullshit. Like, look at what happened with the Pokemon cards where.

You had insiders at the factory that were just scooping off the legendary, you know, cars and selling them on the black market, but like, it still has value. It's something that people get a lot of enjoyment out of and you know, I think it's, I think it's, you know, don't reign on somebody's parade if they're having fun, especially if it's only hurting themselves, I think is like, you know, kind of my, my approach to it.

Well,

**Marty:** agreed. Like they're only hurting themselves. That, that was one

**Thomas:** thing that was really interesting as long as, let me reframe it. As long as they're not hurting others, right? Like I I, if they're, if they're wasting money and people can look at like collecting football jerseys or something like that.

Well that's what I catastrophical into

**Marty:** people predominantly in emerging markets. When the orals men congestion was at its peak in what March or April, like, people were like, oh shit. Like I can't [00:10:00] send it on chain transaction right now. It's way too expensive. Is that hurting others or do we have to realize that block space is scarce?

Yes, it may have hurt that individual use case at that particular point in time, but if Bitcoin's gonna be successful, we should assume that that type of transaction's gonna get priced out and needs to be bumped up somewhere else. Bump it

**Thomas:** up. I mean, look, you know, yes, I think it's a good thing. Like Block Space has value.

Inscriptions, ordinals like proved that. I think definitively that if Block Space has value, it will be used at a certain price. Full blocks all the way high transaction fees, bumped this stuff up to, you know, lightning liquid, wherever. Um, and we experienced this firsthand at Pub Key. We, we turned off on chain transactions.

Just thinking about the mechanism of payments, like on chain transactions are not good, particularly for, you know, a merchant or an in-person transaction. Like, you can wait if it's, you know, cross border e-commerce or something like [00:11:00] that, that's fine. But you know, when you're standing in a bar and it's a crowded bar and you're trying to close out a tab, Like an on train transaction simply doesn't work from, you know, bar operations and also from like the customer experience perspective.

So the ordinal spike, we had one issue, and it wasn't even an issue that was specific to Bitcoin, it was somebody was trying to send from their Coinbase wallet and it just like took a while to, to broadcast it. Um, but we sort of like used that as an opportunity to say, you know what, we'll go, we'll go lightning only just because it smooths things out on both sides so much.

Yeah. And you,

**Marty:** you guys particularly here at Pub Key probably need to do that because you attract a lot of smart bitcoins who probably know how to double spend

**Thomas:** and Yeah, I mean there's a lot of different reasons to do it and you know, look, you know, I think the total, the total Bitcoin revenue right, is still under like 2%.

Well,

**Marty:** It was crazy to see. 'cause we're, we have [00:12:00] the, uh, the binding meetup tonight where we're gonna go over the Galaxy Digital Mining report. And I was actually prepping for this since I'm gonna be moderating. I was reading through the report around the corner at a coffee shop this morning. It was pretty jarring.

The, um, the amount of fee revenue that's been acquired in the first half of 2023 was something like 87, around 8,700 Bitcoin, or last year at the, that point in time it was like 2300. So it's like a almost a, it's like a three

**Thomas:** and a half X. Yeah. And they have the chart. I I I, I believe they have the chart, uh, they do in the report and we'll pull that up.

But so much of that was captured in like what, a two week span? Yeah, around the conference, like just before the Bitcoin conference in Miami. Uh, and then it sort of has fallen off a cliff since then, and I think it takes a little while for. You know, there are lots of projects that are building like ordinal inscription, like exchanges, and there's other infrastructure that needs to be built out for that market to come back and have the same impact reflected for, you know, transaction fee [00:13:00] volatility.

I think that that comes back and that's just, I mean, that was a, a fresh breath of air for mining operations. I don't know. I don't

**Marty:** know. I think, but how much of that activity in April was similar to like the activity that we see in Defi land where it's a bunch of insiders just juicing the numbers to portray like high activity versus actual

**Thomas:** Yeah, look.

Well, I think that there was something very, um, uh, philanthropic about udi's project because miners needed that help and the only one that was able to provide it was udi at the end of the day. Nah, I'm completely kidding. Oh, I was gonna say, I could've thought I was expecting you to come a little bit harder after that one.

**Marty:** My, my response was gonna be that I think I had the problem here. Yeah, if you're talking in your mic, my mic just shuts off or something like that. [00:14:00] Is

**Thomas:** it? Yeah, there is a little bit of a cross, but

**Marty:** what I was gonna say, if miners need help,

**Thomas:** should I just, here, I'll, I'll, I'll look away from you. Are we sitting too close?

No, we're

**Marty:** fine. Oh, okay. No, that's fine. Never done it in a quiet room. If miners need, if miners need help, that's their problem. Like, you can't depend

**Thomas:** on, uh, yeah. Look, I think, um, transaction fees aren't gonna save miners. I think that this is a good metric to look at. Um, as far as like the, the progression of.

You know, just minor economics in, in like holistically, because we do need transaction fees to boost over time as the block reward subsidy decreases. Like there's gonna be a lot of attention on transaction fees. So I think, you know, using the Bitcoin blockchain in ways that are, other than, you know, just payment mechanisms, you know, opening and closings of channels, I think the timestamping mechanism is very powerful and will probably play a role, uh, [00:15:00] you know, for the indefinite, like, uh, for the future.

Is open

**Marty:** timestamps, uh, an example of something that proves that's not the

**Thomas:** case? Peter Todd's project. Yeah. Um, because

**Marty:** that's been going on for what, almost a

**Thomas:** decade now. Yeah. But that was, that was just sort of like a notary service, right? Rather than inscribing the actual data, like into the transaction itself.

Right. I think that was just a timestamping mechanism. That was a hash that pointed to something else. Yeah. Like a New York Times article or something like that. Yeah, a marriage certificate. Okay. So that's a distinction, a deeded. I mean, we've always had the capability of doing that, but it has to reference, um, you know, the actual data there has in another

**Marty:** database.

It has to be providence on chain.

**Thomas:** Yeah. Yeah. But now you can actually embed the N F T or you know, whatever, um, into the blockchain itself. Into the Bitcoin blockchain, uh, into the block. Um, whereas all the other [00:16:00] projects, if you look at Ethereum, Solana, they're still pointing to other databases, which is just a w s and things like that.

It, it's kind of funny that Bitcoin accidentally did this stupid N f T stuff in a far more, you know, effective manner. It's true.

**Marty:** Yeah. I'll give, I'll give the oral screw that I

**Thomas:** always end up having to talk about orals. Yeah, you brought it up. It's a good example,

but, um, how did we get here?

**Marty:** Uh, just talking about cycles, whether or not shit quit cycles will be as pronounced moving forward.

**Thomas:** So, um, yeah, I think that they'll probably be as pronounced. Um, um, uh, people are just very slow to understand the elegance and simplicity of Bitcoin. I don't see that, uh, dissipating anytime soon.

I think that that's gonna be a really like sticky like, ongoing issue for Bitcoiners and stuff that we have to deal with just in terms of like education, talking through, you know, the differences between, you know, [00:17:00] uh, a w s blockchain and blockchain stuff and the mechanisms, uh, behind Bitcoin that deliver the censorship resistance and, and, and the other properties that make it, you know, the powerful, you know, communication protocol that it is today.

Yeah,

**Marty:** I think I'm, I'm, I'm on the contrarian side of this. I think the market is learned. A lot of lessons over the last 10 years. I mean, we have the old school bitcoin talk.org, shitcoin launch. Uh, what did you have the, um, the fair proof of work launches? The, the proof of state coins like Feather coin and all that, um, popping in as well.

And then we had the I C O boom, obviously then we had defi along the way. More ways that people come in, stay, come in, stay, and alongside everybody looking at the sidelines has sort of been viewing this too. Like, all right, there's something weird going on here. And then you get the [00:18:00] validation from BlackRock.

And I do think the utility, and we were talking about it over there in the quarter before we came to the couch, but I do think that the utility that can be brought, I. To the AI industry using Lightning Network. Paywalls will be a use case that really sets Bitcoin apart. So I do think that they're gonna solve the problems that they have, particularly with the amount of capital that goes into the electricity.

And then, um, preventing chargeback risks. They're gonna need to use

**Thomas:** something like lightning. I agree with all of that. I am, uh, a little bit more pessimistic, or I'm gonna give a little bit more, um, runway for, uh, the scammers to stop taking advantage of people that do not have the time or necessarily the technical capabilities of differentiating between these two things.

Uh, I think that the s e C has already lost a lot of these battles. Um, well

**Marty:** that's one [00:19:00] thing I wanted to bring up. I saw you tweeting about Ripple the other day. A judge came out and said, uh, yeah, this may not be the correct ruling

**Thomas:** here. Uh, the second judge is, Completely right. In my opinion, like we have a framework to assess these things.

There's a tremendous amount of money being poured into law firms who are the first ones through the door at a lot of the regulators, um, you know, explaining why, you know, their project doesn't fall under this or that. Um, it's what happened with Ethereum way back in the day. They, they got some of the largest law firms in the world to be the first, you know, people through the door to start the conversation.

Ethereum is not a security. And when they do that over the course of, you know, we're coming up on, we what, eight years? Eight years? Yeah. Um, you know, that's a lot of money. That's a lot of time, uh, to find the effective pathway to buy more time. So eventually it's gonna go to Congress and they want new laws, and I think it's gonna be successful.

I [00:20:00] think that Ethereum's gonna get a carve out, um, where it absolutely shouldn't. It was launched as an unlicensed, uh, unregistered security. It continues to operate as such. Um, there's gonna be lots of regulatory capture. I think consensus pivoted years ago to being more like compliant on chain compliance focused.

They're basically chain analysis for Ethereum, despite being the, the for-profit arm that launched Ethereum. Um, and I'm just very pessimistic. Like they can't even wrap their, they can't even wrap their hands around Ripple. Like I think Richard Hart's probably gonna, you know, be somewhat successful. Like, I don't think we're gonna get a lot of jail time outta Ss b F that's a totally separate issue.

I mean, maybe some of the other ones, Quan whatever, like they'll certainly capture some of them, but just woefully, woefully in ineffective. And I wrote about this when I was at Fidelity in, in 2016. I had an internal blog called The Bit Distillery at Fidelity. And in one of the weekly updates, um, I talked about sort of the s [00:21:00] e c has a choice to make here.

Um, they can play whack-a-mole over, uh, uh, and, and go after the egregious scams, like the ones that are just completely blatant. Um, they can go after the exchanges, which were already pretty decently well capitalized. But this was, again, back in like 20 16, 20 17 when I wrote this. That could have been an approach.

Or you go after Ethereum and Ripple, which were the big ones back in the day, and you have a seminal court case and you get after it immediately fast forward from se 1617 to today, it's not viable. Like the, the SS e c doesn't have the resources to fight, you know, Ethereum or Ripple for that matter. And I think that that's being, you know, played out right now.

So when a lot of the, the crypto lawyer, like think boys, you know, say like, you know, oh, it's just gonna be a mess. It's gonna flip flop from one judge to the other. Like, Congress needs to act. Of course they want that because they're involved with that. They're lobbying, you know, a lot of, you know, [00:22:00] representatives in, in, in that, in the House and Senate as to why, you know, ex extraordinarily well-capitalized shit, coin Project A, B, and C are not securities.

And they're just like Bitcoin, a validators like a minor. And they're talking to staffers, they're talking to interns, they're talking to lobbyists, and they don't have the time to understand the difference. And, you know, Bitcoin obviously doesn't have that presence. We don't, we don't like pour money into lobbyists to, to, you know, work on the painstaking education to bring people through that.

So I'm much more pessimistic. I think that, we'll, we'll continue to get these waves. They'll just morph. They'll be within, you know, I mean, look, banks did it forever, right? You know, how did we find ourselves in a situation like oh eight? Um, I think it'll just take a slightly more, you know, Tradi Tradify sophisticated, you know, uh, compliance like obstacle course.

But there will always way to be a way to do it. [00:23:00]

**Marty:** I'm still gonna push back. I don't think so. Uh, I mean, I hope you're right and I'm not depending on, and I wanna be clear, I'm not like, depending on, let me fix

**Thomas:** this. Yeah. Here, let's pause for a second and see if we can fix this. 'cause we'll wanna fix this.

Yeah. So I think the, the last big shitcoin pump definitely coincided with just a tremendous amount of free money being flooded, you know, post covid. Um, I guess that goes to more, and you've had a lot of really great macro guests on in the last like month or two. Uh, you always do, but I think that there's been especially good, um, good conversations around that.

Uh, do you think that this continues or they end up printing more? Like if there's more free money and they have to like, ease up a little bit? Uh, well on, uh, uh, like where, where do you actually think that that's going? Because I think they, they have to resume, right? They have to resume the printing.

**Marty:** I think the problem's gonna be, everybody's expecting this soft landing.

I'm about to talk with [00:24:00] Alex Thorn when I was listening to Galaxy Brains in the Drive up here. Alexy Brains in the latest interview. Like that was the, the pre-interview. Yeah. Macro Talk was like, yeah, we're gonna get a soft landing. The fed's doing this incredibly well and I just completely disagree. Like, I don't, like C P I print may be 3.3%, but it, there's no way inflation's just 3.3%.

Just go to the grocery store, go to the gas station, try to fly anywhere these days, um, it's. Rather expensive. And then on top of that, like I think Fed just rose another 25 beps. And the day after we had, uh, obviously the inventory draw of oil that was way higher than expected. Yeah. So w t I ripped above $80.

I do think that energy inflation is gonna continue. And so from a narrative perspective, like we forget about when we talk about hyperinflation, like I think [00:25:00] we're in the beginning stages of it, and it's part mechanical, part social. Um, mechanical is obviously expansion, the monetary base flooding the markets with liquidity, uh, to base the currency.

But then the social part is like, do people actually believe that the central banks can maintain po maintain the monetary system? And I think what's happening right now with the Fed raising rates, And I think inflation's gonna come roaring back in Q four this year, particularly driven by energy. Uh, that narrative that, uh, the Fed create a soft landing is quickly gonna go out the door.

We're gonna be at five point a half to 5.75% Fed funds rate. At that point, the Fed will have embarked on the most aggressive interest rate hikes at all time. They would've barely been able to re, re, uh, reel in inflation. And that point, that's when the social part kicks in. It's like, oh shit. They just raised rates almost 6% over two years to two years and some change.[00:26:00]

And it did very little to fix inflation. And now due to the debt situation, uh, I mean that's the other thing, like the, in the interest expense on the debt is at a trillion dollars. Now it's gone up like, It's doubled year on year. Yeah. So you have those things and then the fed's gotta cut rates and exacerbate that debt problem.

Yeah. That's when the social part kicks in and people are like, oh shit, they have no control of this. Yeah. At which point it's like, all right, no more bullshit. I don't have time to speculate. Uh, whether or not if, if Ethereum or Solana is gonna flip in Bitcoin, like it's pretty obvious that Bitcoin's been here for 15 years.

Uh, it's matured and the, um, the promises that were levied about the second layers are being to, to come true. And you're seeing that in the market.

**Thomas:** Yeah. I, I'd like to, I, I think that that's all, those are all really great points. And if you look at who was really fueling it wasn't, in my view, [00:27:00] and feel free to disagree with this, it wasn't really a retail phenomenon.

It was. Really bootstrapped by large, large, deep, deep pockets. Um, so who were the venture funds that were really plowing in and who were the LPs that were, you know, plowing into these venture funds to just execute these, you know, pump and dump, you know, highly speculative betts in like Solana and things like that.

Like, are we looking at multi-family offices that are just trusting, like take your pick Andreessen Horowitz or some of the, the really big VCs that are out there, because that cascade, those multi-family offices are the ones that are the primary be beneficiaries, right? And their relationships with, you know, the large, you know, banks that are beneficiaries of, of the printing press.

So if that's not there to spur sort of the, the retail feeding frenzy or to get like a little bit of it going, um, then I could [00:28:00] see, you know what you're saying, where you're, you're, you're more. You have a easier time scrutinizing value for value? Well,

**Marty:** yeah. Let's put ourselves in their shoes. Like let's say the scenario I just laid out comes to fruition, inflation isn't fixed.

The geopolitical situation in the world continues to get worse. We had South Africa come out yesterday and saying, this Bricks Nation meetup next month is going to be a pivotal point in history. It seems like the multipolar world is only gonna get more polarized and at the same time we have the having coming up next April.

Again, all the fundamentals around Bitcoin only getting stronger and hot waves as the price rich Bitcoin on exchange. There's only 21 million Bitcoin and the mines of these multi-family offices. Once they realize, which I think BlackRock, whether you like the E T F or not, like that signal is massive and signals directly to that caliber of investor, like they're gonna begin to really internalize the opportunity cost of playing stupid [00:29:00] games in shitcoin land versus getting their.

A portion of the 21 million. And as the price of Bitcoin rips six figures, low six figures, mid six figures, potentially, like they're gonna be able to get less and less Bitcoin. And again, the opportunity cost of playing those stupid games is gonna be so large. It only grows is the price of Bitcoin goes up.

**Thomas:** What year do you think the fork wars commence? Uh,

**Marty:** I don't know. I don't, I don't think we're gonna have another one. Absolutely.

**Thomas:** I don't think so. 25, 26 at the latest, in my view. Over what? Um, so I think the BlackRock E t f gets approved. I think it controls a tremendous amount of Bitcoin and, you know, there are some, you know, not great imprecise language that could be read from an adversarial perspective around, you know, the, what they identify as the, you know, the Bitcoin true Bitcoin, Bitcoin, the, the, the one [00:30:00] true, the one true back, the BlackRock Bitcoin.

But as we learn, well

**Marty:** true, I agree that language exists, but like BlackRock, the E T F, it's just a, an immobile vehicle or Bitcoin just sits in. What we learned the 2017 fork wars is if you actually want to support what you deemed to be the winning train, you actually have to like, send those coins through nodes.

**Thomas:** You know, for all his faults, Bernard Silbert, uh, was pretty hands off. Uh, in retrospect, I think that he was ideologically like, um, You know, he liked Bitcoin, he dabbled with a lot of shit. Um, but I do think that there was a passiveness to, you know, uh, a situation where you could have somebody being far more activist around, you know, throwing around their weight and their, their Bitcoin holdings, right?

We're not gonna be dealing with a Roger Vere. We're gonna be dealing with a far more formidable foe. [00:31:00] If BlackRock turns into an activist that understands the underpinning of, you know, bitcoin core developments, like Bitcoin core is still quite small at the end of the day. Um, you know, the Bitcoin community is pretty robust, and I think that the fight won't be necessarily an easy one, but I, I would expect it.

My bet is 25 back, half of 25 will be dealing with these issues.

**Marty:** Let's take the other side of that bet. 'cause again, like I don't think there's many layers to that scenario just laid out that like, don't compute again, the. E T F is just supposed to buy a bunch of Bitcoin, have it sit there and um, what are they calling them?

Approved partners can take that Bitcoin in kind, but that's only gonna be like Fidelity and a few other bds like to put their weight behind a certain fork. They're gonna have to move that Bitcoin. Like, is that in, like, [00:32:00] are they able to do that via the mandate of the trust they've set up? Like what, yeah,

**Thomas:** I think, I think that the language, or at least the initial drafts, the language in the initial drafts definitely allow, um, some flexibility for moves like that.

But, you know, we're also talking about one of the biggest, you know, investors in broader E S G. Like, they have pulled back from that quite a bit. E S G's dying. It is dying for now. I, I, I don't think it's dead and I, I definitely don't think that, you know, a lot of the, uh, Money and ideological, like pursuits behind E s G are dead.

I think that they might be taking a little bit of a, of a breather right now, but, um, I, I doubt that we've seen the rest of that and the world is, you know, starting to, to, to wake up from that, um, nightmare.

**Marty:** I think again, it's possibly

**Thomas:** good. I'm much more, I'm surprised by this. You're usually more pessimistic, like I'm the pessimist, uh, uh, this chat, well,

**Marty:** I'm becoming more optimistic because I [00:33:00] do like, again, like the coalition of events that's happening in Bitcoin and external to Bitcoin is making me extremely optimistic.

Look at confidence in institutions all time low. It's getting worse every day. Yeah. Like they're dealing with that too. BlackRock is one of the largest institutions in the world, and people are becoming increasingly, increasingly, um, wary of what they're doing. Yeah. So I think that like the backlash, like if we thought the backlash against Barry.

And Coinbase was bad. You just wait until you tell everybody, BlackRock's trying to fuck up like the open monetary system of the future.

**Thomas:** Are you gonna be around to fight again?

**Marty:** Yes, of course. If I have to. I don't think I will have to. Um, but that another

**Thomas:** thing too. I feel like the old, old guards getting tired.

No,

**Marty:** I'm definitely not getting tired. I'm, I'm

**Thomas:** my battery, not you. I mean like in general, my batteries are charged.

**Marty:** I'm ready to go

**Thomas:** moisturized, but [00:34:00] hydrated

**Marty:** on top of that as well. I think this is actually something as Bitcoiners, we need to do a better job of framing like the E T F particularly. And then going back to like the lightning use cases.

It's like, all right, with the BlackRock E T F, obviously you'll be able to get exposure that way. Uh, it doesn't seem like you as an individual with exposure to that E T F are going to be able to take that Bitcoin in kind. At the end of the day, you're gonna be depending on the Fidelities of the world to do that for you and then give you the Bitcoin.

So most likely you're gonna have to sell.

**Thomas:** I don't know if Fidelity is enabled to withdraw us yet. No, they haven't. Right. So

**Marty:** yeah,

**Thomas:** unlikely retail withdraws for, from Fidelity's perspective, I think are still, you know, a ways away. F a s, which is an institutional product, fidelity Digital Asset Services allows for that.

But that is like a, that is a institutional grade product. Yeah, for like funds. Um, but the retail product, I would be surprised if they opened the floodgates for that. I, I

**Marty:** would agree. And so, [00:35:00] making my point for me, it's gonna be impossible for you to actually get Bitcoin without taking on a large taxable event when you sell your shares to the E T F to get actual Bitcoin.

And why I say that is 'cause I do think what's being proven out. With the Lightning Network and like the emergence of fdi, is that Bitcoin as a medium of exchange, as a payments protocol? It's gonna be extremely useful, yes. It's probably, uh, like best to just hold Bitcoin as a savings vehicle right now and ride the monetization wave.

But the monetization wave can come fast. It can come strong. You can wake up in five years and your Bitcoin could be worth a lot. And then around that, the infrastructure could be so mature that people are actually using Bitcoin transactionally. And so when it comes to the BlackRock E T F, I think we need to go to people and be like, Hey, like yes, you want Bitcoin exposure, but here's some examples of how people are actually using it in their day-to-day lives.

If you get exposure via [00:36:00] BlackRock, you are gonna be cut out from that ability. And so, When you're thinking about your allocation of Bitcoin and make sure you're getting it via an exchange or a product that lets you actually take it in kind at some point in the future when you will inevitably want to use the utility of the network on the internet or in day-to-day commerce and MeetSpace,

**Thomas:** uh, global South definitely has a number of advantages here.

Yeah. Utility through necessity, uh, utility of Bitcoin in the absence of sort of the robust, you know, rails. We've been talking about this for a long time in Bitcoin, but I, I do think that there are some really like positive developments in the last couple of years where that is just becoming clearer and clearer for folks.

**Marty:** Dude, uh, Cody Lowe gave a, a demo of Ty main net at the Lightning Summit in Nashville a few weeks ago, and it was just like, wow. It was like magic. Yeah. How, how it work, like it actually

**Thomas:** works. Mm. Exciting times. Very exciting times. So [00:37:00] tonight we have the mining meetup. We do. A Galaxy Sims coming. Um, what else is top of mind for the mining me have to discuss with the Galaxy folks and their perspective?

Uh,

**Marty:** superconductors, completely. Bork day. Are they real? No. I had no idea what this was until like a week ago. The concept is superconductor, let alone they're just trying

**Thomas:** to hit you with the trauma hammer over and over again.

**Marty:** Aliens, climate chain superconductor. Yeah.

**Thomas:** You, you haven't, you haven't had enough trauma.

You're still too cogent, uh, when you're discussing some of the macroeconomic forces that play here. Hit him with the hammer again. Super superconductors. Yeah. You got free energy. There's gonna be fucking laser cannons that can destroy the moon like next week or, or something like that. Yeah,

**Marty:** no, like, like I said, I was reading the report earlier and I think, uh, probably the most underappreciated theme of the last two years is [00:38:00] the geographic distribution of hash rate.

Like Middle East, stepping in. Yeah. Bhutan stepping in Latin America, aping in as well. Like I think that's very

**Thomas:** underappreciated right now. There's a tremendous amount of wasted energy everywhere on the planet. And being able to capture that and build infrastructure in, you know, isolated or disparate areas is just such a straightforward win.

Like it's, it's just non-negotiable. Um, to be able to capture some of that waste and then use it for other infrastructure that would be critical for that community, no matter where they are is just, it's, it's fire. It's the wheel.

**Marty:** Yeah. And the one question I wanna ask beyond that too is it's not really a question that was a statement, but the man, the ASIC manufacturing landscape at the end of the decade, like how does that shape up?

'cause Bitmain, their latest batch of xps. I'm not sure if you've heard, but they can't really take the heat as well. [00:39:00] Yeah. As

**Thomas:** earlier batches, weren't there issues with the P S U for the pros or something? I think that one of the 19, the J Pros. Yeah. Yeah. I think the J Pros had a P S U issue was, which was fixable.

Uh, this is going a little ways back, but you know, the SS 17 was a bit of a dumpster fire.

**Marty:** Yeah. The, the epoxy on the dashboard's completely melted or something

**Thomas:** like that. Yeah. So, um, these things happen. There's so much unplugged equipment like we're ripping. Right. Um, and did you see Adam back, uh, saying that we're gonna double by the end of next year?

**Marty:** So we had like 700

**Thomas:** x a hash? No, he was saying what's next? It was like a thousand.

**Marty:** No, we're at like 3 75 right now.

**Thomas:** More than double, than like triple. I think that he put out like a thousand x a hash. Yeah. Which is, which is what? I don't know What comes next? Uh, ZA dash.

**Marty:** Is ze dash, Zeta hash

**Thomas:** is gonna be kind of cool to say.

Yeah. Um,

**Marty:** where? Ze dash, I mean, we're seeing it at standard. We've been plugging in like top [00:40:00] of line, Asics, and it's crazy how much hash rate you can get with a megawatt of power. Yeah. Top of line models. Yeah.

**Thomas:** Are we over securitized on hash

**Marty:** rate? You don't know? Yeah. Depends. Some miners find out

**Thomas:** the hard way.

Um, but going back to your question on, you know, uh, from like,

**Marty:** apparently like the latest xps, like if you go over a certain degree, I believe it's like, like they can only handle like 75 degrees Celsius. The dashboard's good. And if one of the chips on the H board breaks it borks the whole,

**Thomas:** the whole board not good.

No. Um, apparently miners are very good. I mean, the tooling around things like, you know, the firmware, you got brains, you got Luxor, um,

**Marty:** Luxar really, uh, impressing people that are downloading

**Thomas:** it. Yeah. Yeah. Um, it's a really great product. Shout out lor. Um, but also other things, just monitoring software like Foreman.

I think that, [00:41:00] like holistically the entire industry has gotten a lot smarter from like an operating perspective. So if you know those boundaries, I think miners are gonna like, catch on pretty quickly. There's a ton of unplugged equipment still just warehoused, right? Like, uh, a a lot of inventory as some of the um, uh, the big like credit facilities that were written years ago from Block fi Celsius, you know, galaxy Foundry, ni Dig Anchorage.

Like, as those are unwound, I think that healthy asics are gonna eventually find a good home and get plugged in. But Bitmain hasn't really slowed down. I think that they have been very defensive with their allocation from tsm, uh, T S M C. Um, and I would assume the same is true for, you know, micro BT and Canon.

Like it's really sort of use it or lose it. Um, so there's a lot of capacity. I'd like to see more foundries. I think that everybody would like to see, you know, American boundaries get, you know, serious again. Well,

**Marty:** going back to your [00:42:00] point about optimism and like reshoring manufacturing, did you see what's happening in Arizona with T S M

**Thomas:** C?

Yeah, it's a big facility. Why did, did did it get derailed?

**Marty:** It got temporarily they couldn't hire any engineers 'cause nobody's smart enough in the US to do this shit. Wow. I did not see that they had to import something like 10,000 engineers from Taiwan.

**Thomas:** There are lots of highly skilled individuals that would love to come to this country to work.

Like I feel like that is the easiest, like get the fuck out of the way. But we talk about

**Marty:** like Congress. I agree. I'm optimistic on the future of the US I think bitcoin's gonna play a big part, but we really need to get back to like actually learning shit. Um, yeah. That's gonna be the, the biggest hurdle for us moving forward.

Yeah.

**Thomas:** Yeah.

**Marty:** Like, they literally couldn't hire Americans 'cause we were too dumb.

**Thomas:** Um, that's very sad to see, to hear. When did that hit? Was that recently? Last week. I read an article about last week. Yeah, that's not good. Um, that's a major facility. I mean, look, they were, they're, they've been pouring tremendous amounts of money into that.

I [00:43:00] don't think that, you know, that should not be a death blow for the project. Like those, they, they need to figure that out. There's much at stake. I mean, they imported

**Marty:** the people can actually do it. So they brought them over imported. I don't know if that's supply

**Thomas:** chain issue. Yeah, they couldn't get containers.

They put a bunch

**Marty:** of engineers and a shipping container got

**Thomas:** them over here. That's terrible. Um, yeah. I, I, I think that that'll be a little bit of a choke point eventually, but, um, I don't know. Do you think it levels off? Do you think sort of like network hash rate hits like a level or it just continues to, to rip like indefinitely?

**Marty:** Yeah, we have these cycles, right? Yeah. It rips and then it hits a level and then miners wake up, they're like, oh shit, this is actually pretty unprofitable for me. We

**Thomas:** haven't had like a big like sustained dip, right? They're like

**Marty:** short outside of 20, what was it, 21 with a the chime [00:44:00] fan China. Yeah.

**Thomas:** That bounced back so quickly.

Like you, it like if you zero in, like if you zoom out a little bit on that chart,

**Marty:** it's a blip. Well, I think the trend to pay attention to, and

I wanna preface this with like, it's gonna be very important to filter between the hype cycle and the actual signal in the AI industry. It's becoming abundantly clear that that is gonna be energy intensive too. So I do think there's gonna be a lot of competition for these data centers from the AI industry.

And I actually think that's a trend that's beginning to pick up within Bitcoin mining hosting facilities that're beginning to co-host a six and GPUs. Yeah. These, these, uh, LLMs. And so I think that will have somewhat of a, a dulling effect on the growth of hash rate, if that's one scenario. The other scenario is just we build out so much energy infrastructure that you can handle both.

Um, I

**Thomas:** guess Dyson fear, fears mining Bitcoin. I guess that's [00:45:00]

**Marty:** what's gonna need to be determined. Capture stars. Sounds like it's a competition from ai. Price out outlines and curb hash rate. Did you see

**Thomas:** the wind drought? Is that what they call, like what? What happens when it's not windy anymore? There was no wind in Texas.

Yeah,

**Marty:** recently. Two days ago. I saw PR tweeting about it. Yeah. Super interesting

**Thomas:** prices shot up. Is it a drought? What happens if there's no wind? What do they call that? A dearth of wind, A dearth. That could be it. That sounds good.

**Marty:** A dearth of wind.

**Thomas:** Um, okay. So there was a dearth of wind, um, and that had pretty interesting effects on miners in Texas as well. Yes. Um, I think that we'll probably, we'll probably discuss that tonight, but, um, a lot of them had to shut down. We've seen it in recent

**Marty:** weeks. It looks like we're about to have back to back downward adjustments.

Interesting. Predominantly driven by minors. Curtailing in narcotic, I believe in

**Thomas:** Texas. Yeah. Yeah. How much total hash rate do you think Texas is putting out at this point?

**Marty:** I think the latest estimate I heard, which [00:46:00] I, um, I heard, I was like, yeah, that's believable. Was like 20%. So 20% of the total. Yes. It's what, like

**Thomas:** 70?

That's very impressive. Like Texas is really like throwing some weight around. Yeah. Where we at right now? We

**Marty:** at 3 75. 3 53.

**Thomas:** Yeah. 75 sounds right. Yeah. Um, I think we're, we're, we're chugging towards 400 here. Yeah. Um, fascinating.

**Marty:** Now that's got another trend to pay attention to. We should probably talk about tonight, shout out to the cathedral boys for really publicizing what they did.

But, um, having a under clocking overclocking strategy,

**Thomas:** cockroach miners, yeah. On the go. I think that this is gonna be much more, um, much more of like a, like, prevalent strategy for like small mid-size solo operators going forward. It's gonna make it, it's gonna put a lot of pressure on the large scale public miners because, you know, they're competing against, you know, nation states [00:47:00] who don't necessarily care or have the same considerations that public pubco do, uh, hobbyists and, you know, hobbyists growing, uh, from one ASIC to 10 asics.

And, you know, lots of people that just wanna participate in the network for whatever reason. And then I think the small and midsize operators getting a little bit more savvy around this, like cockroach mining. Uh, a strategy that Drew and AJ like were very, very like eloquently, um, outlined in a shareholder letter, I think, right?

Mm-hmm. Um, I think that's gonna start to put a lot of pressure on the large pub coast.

**Marty:** That, and another piggybacking on this discussion is like, what drives a larger percentage of hash rate growth moving forward, like mega mines or small to mid-tier mines? 'cause I think that's one thing that we've learned in this bear market.

It's been a great time to plug in as six over the last six to nine months if you believe that the price is gonna rip. And as six have obviously been very cheap. [00:48:00] So it's been a good time to build out infrastructure and does the strategy of focusing on smaller, more distributed sites that are 10 to 20 megawatts, um, and being able to build those out in like six to 10 weeks, depending on the size, becoming more.

Advantageous strategy than going and buying a gigawatt facility and taking three years to build that out?

**Thomas:** Yeah, I think so. And I think I, I think that, you know, there are a couple of like, you know, fine tuning tweaks that can be made in the, the real world in terms of like operating a data center, operating a mine.

I think we're gonna see in the next four years, this is gonna be, uh, the era of revenue optimization and risk management for, you know, the production of mining operations. So I think there's gonna be a lot more functionality in what you can actually do with the hash rate itself in terms of, you know, evening out transaction fees, if that volatility risk increases, you know, uh, different approaches to difficulty, volatility, [00:49:00] risk.

And I, I do think that, you know, variance is gonna become a bigger issue sooner rather than later. Um, I think mining pools are sort of like a centralized, you know, um, uh, attack surface. And we had Matt Williams, who's the head of derivatives at Luxor here last week for the mining meetup. Um, and we went into sort of the role of a mining pool.

They're basically like, you know, lux swaps, like swapping out variants, at least like, um, a, a mining pool that pays out on the expected mm-hmm. Is really just trading the fix for a float. So, so there's a lot of

**Marty:** balance sheet. The buyer will buy shares that have been produced, maybe a block hasn't been found, but you can offload the risk that those shares hold before a block is found.

Yeah. You

**Thomas:** get paid out. So, you know, uh, a mining pool that's paying out on the expected value or the, you know, uh, whatever they, they agree, agree to in terms of a determination of, you know, the price of hash rate and then the quantity that a miner is sending a pool. Um, [00:50:00] there's a bit of a balance sheet game there effectively, whereas if you look at like brains where they're paying out on the expected, you can have lengthy periods.

They're, they're paying out on the actual, aren't they? I'm sorry, the actual Yeah, that's what I, that's what I meant. Um, they're paying out on the actual, but you can have lengthy periods and, you know, your revenue is quite lumpy. Um, and I think most mining operations, I think. Are there any public companies that mine with brains right now, US based, uh,

**Marty:** uh, I do not know.

**Thomas:** I think that Brains has had trouble, you know, keeping large scale, they lost riot, right? Yeah. Um, you know, they, they probably still have some, and you know, this is nothing against brains. Brains is, you know, going back to slush pool, they invented the entire concept. But, you know, public companies and reporting, um, you know, their financials to shareholders on a quarterly basis are just naturally going to seek out whatever way they can smooth that out.

So with, um, Uh, [00:51:00] mining pools, paying out on the expected, uh, offering a swap that effectively deals with the lumpiness of variance volatility risk. They have clearly gravitated towards that. That's be become sort of industry standard. It comes with a host of issues on the back end that we haven't really seen come to, um, um, come to head yet.

Um, but I think that all volatility risks embedded within hash rate are gonna see sort of the same, um, tooling in the next, you know, four to five years. So this is

**Marty:** the cycle where hedging tools for mining operations beyond price hedging, I think so comes to market.

**Thomas:** And I think it's, it's hyper localized.

So, you know, to enter into some of these contracts, one of the crux of the issue is, um, uh, the underlying collateral. Uh, the basis of the contract in case, you know, it just explodes, uh, not viable. When, you know, you have a US buyer contracting with a minor in China, like you have no visibility for that underlying collateral.

You don't [00:52:00] know, you know, what condition it's in. Um, you know, if you have to trust in courts for legal recourse to, to, you know, get custody of that, you're, you're kind of fucked.

**Marty:** What about Bitcoin held in a multi-jurisdictional multisig?

**Thomas:** Yeah, but you know, are miners holding a lot of Bitcoin? Um, are they holding a lot of dollars?

Right? You could do it with dollars too, but you know, particularly now the cyclical nature of, of the mining industry being as soul crushing as it is. Like they're not holding cash or Bitcoin. Like right now, it's certainly soul crushing. It is hard. It's one of the worst businesses on the planet. It's kinda like, um, hospitality in New York City.

**Marty:** It's very masochistic. It's, people keep coming back to the trough. It's,

**Thomas:** it's intriguing, it's addicting. It really is. The highs are highs and the lows are low. The highs are very high. That's for mining and hospitality. So

**Marty:** that's another thing maybe we should talk about tonight and right now, which is like treasury management.

It's like the treasury management that went on at the [00:53:00] height of the bull market at the end of 2021 was baffling to me. Like yeah, I mean people should have been clipping off like a percentage of their, their holdings locking in cash.

**Thomas:** People were just ripping at that point though, like, think back to like the isolation of Covid 2021, Bitcoin is going absolutely nuts.

You still had the premium for G B T C. Everybody is just like, you know, it was full top gun, like, you know, craziness at that point.

**Marty:** Yeah. And that's, it's like something I think about a lot is, is, is I've been in since 2013, so I saw 20 14, 20 17, 20 21. So I've seen three like ripping bull markets and for the mining industry particularly, I think that's something that teams really need to prepare for is those bull markets.

And before you get into the bull market, basically have a strategy where, alright, if we mine this much Bitcoin and the price reaches this point, we're gonna scalp off X percentage and [00:54:00] hold it in cash just so they could survive.

**Thomas:** I mean, I guess there it depends. It depends on the minor, right? And what they want to deliver to shareholders really.

**Marty:** Well that's, that's another part of the discussion is, Due to the volatile nature of Bitcoin mining as an industry specifically, like how do you communicate that to shareholders? So like, yes, we're at all time highs and we are selling some Bitcoin, but believe me, yeah, believe me, it's a prudent decision that you guys, you shareholders will appreciate in the bear

**Thomas:** market.

Yeah, I mean, I think that most, most mining operations, the way that they articulate their value proposition to shareholders is we're a high beta play on, we're an energy, uh, arbitrage, right? We, we have a, we have a machine basically to take cheap energy and make it, you know, and, and create something more valuable that we can liquidate quickly.

Yeah. Um, you know, there are mining operations that, you know, look to hold Bitcoin depending on, you know, the type of, uh, time of cycle. I think G D A has done [00:55:00] this very well, very effectively over the, over the years, you know, riot and others, um, have done it, done it quite well, but it's, uh, it's a tricky.

It's a tricky game.

**Marty:** Yeah. Yeah. You have to weigh the balance. Like do we sell the Bitcoin? Do we dilute shareholders? Do we

**Thomas:** get more debt? Yeah. Um, do you see a lot of consolidation coming? Oh yeah. I think that there's a lot of, you know, small to mid-size miners that are probably just, you know, um, I think across the entire stack actually though, uh, we, we haven't really talked too much about Foundry being the crown jewel of D C G.

Like, at some point that has to start to play out, right? Like, you know, well we've

**Marty:** sort of already seen it play out with them adding fees, right? Like, like the first step towards, all right, something's going on here. For you guys that are unaware, Foundry essentially was able to offer free fees on their mining pool.

'cause they had a deal with [00:56:00] Genesis where if you're gonna liquidate, if you're gonna mine with Foundry and then liquidate Bitcoin, you would. Run that flow through Genesis, and obviously with Genesis being embroiled in the lawsuits that it is right now, that's not possible. So they've had to monetize Yeah.

Adding fees to,

**Thomas:** yeah. Their customers and most large pools for, uh, a period of time are doing that. It, it's effectively like a loss leader. So Binance, I think would even pay in certain circumstances for that, that that stream of hash rate being pointed to their pool, as long as you could lock them in for, you know, exchange custody solutions and, you know, would make sense in isolation.

It's a good thing to, to attract. But it's one of the reasons why mining pools are not necessarily like the, the best like going concerns because that, that fee, that, that like, uh, that that fee margin that you can charge a miner for effectively swapping out. That, um, variance risk just collapses over [00:57:00] time.

Yeah. Yeah. But maybe it comes back now that, you know, Foundry is not able to do that and, you know, they are expensive operations to run. Well, I think

**Marty:** the progress, I, I think the pool will continue to be lost. They just have to get really creative with their value add services. I mean, Luxar is a great example with their, um, firmware.

Obviously Brains offers the firmware too. Mm-hmm. LuxS got their, uh, their cash shuttle futures contracts.

**Thomas:** Yeah. The NDFs, they also have like an ASIC brokerage business. They all do consulting and stuff like that. I just, I, I think that the, the, the center point of the mining pool being the future of a lot of these companies is gonna, is gonna evolve.

I think they, they start to look probably more exchange like, um, uh, hash rate menu adminy in terms of like splitting upstreams if there are multiple, um, Like, you know, ultimate beneficiaries of, you know, the production of Bitcoin, um, [00:58:00] and then Stratum V two. Right. So if you go back to the thing we were talking about before, I won't say the name again, but, you know, block construction going to the miners rather than being sort of the privilege of the pool, um, I think is also another catalyst for, um, um, mining pool businesses, you know, evolving sooner rather than later.

**Marty:** Yeah. But the, the hangout with strategy too is like, yes, the privilege of constructing the block, it's reallocated to the individuals within that pool, but the privilege of broadcasting the transaction still sits with the pool. Still sits with the pool, yeah. Right. So that's like one thing I worry about.

Like the pools are pressured not to broadcast blocks with certain transactions included. Does that even, does, is it even a value add? To have the individual block construction.

**Thomas:** Maybe we need more pools. I agree. Maybe we need better connectivity. I mean, you know, [00:59:00] the Luxor and Foundry, you know, night egg, a lot of the most significant pools are us at this point.

You know, there's still some Chinese pools and you know, brain Chinese

**Marty:** pools. It's like Foundry's number one. Yeah. Then what is it? Um, F two pool's not two, is it? Yeah. F two pools. Two. I think it still is F two pool and then another Chinese. I think it's like V chain. Via. Via. And then Binance. I think those are the top four.

**Thomas:** And Binance. Yeah. Yeah.

**Marty:** Uh, it's Binance. Chinese. Are they Singapore?

**Thomas:** Malta. Maltese. Maltese. Remember that whole thing? They moved to Malta.

**Marty:** That's where Aunt Bax still lives, isn't he? Full-time? I thought that

**Thomas:** I could be wrong. Probably. Um, now it'll be interesting. Um, I'd like to see Stratum V two, you know, um, get pushed out.

No, to be

**Marty:** clear, like Stratum V two has many benefits beyond the individual block construction of an individual miner's. Privacy benefits to the way shares are transferred [01:00:00] between individual miner in the pool, um, makes it much harder to demand in the middle attack, uh, jack

**Thomas:** hash rate. It's whack-a-mole.

There are, you know, no shortage of live wires that need to be addressed in sort of the growth and the continued resilience and anti fragility of Bitcoin. But, um, you know, I think mining pool centralization is one of the things that, you know, deserves more attention. Um,

**Marty:** but is it that big of a problem?

Like, like historically it's not a problem until

**Thomas:** it is,

**Marty:** but it was a problem in what, 2015 with gha,

**Thomas:** with G hash and, you know,

**Marty:** people moved in

**Thomas:** haste. Yeah, but they just, they just opened up other entities. There was a lot of, like, that was a perception thing as well, right? Like a lot of that hash rates stayed within the organization.

It's just they renamed it and hacked it up. Okay. Um, in the same way that you had, you know, a lot of the, a lot of the bitmain pools were, you know, we saw this during the block size war where, you [01:01:00] know, a lot of them sort of effectively rolled up to jihan in one, you know, way, shape, or form. Um, so they weren't like totally autonomous in separate pools.

Yeah. Um, it hasn't look, it's a nice fallback because at the end of the day, a miner can just say, you know what? I'm gonna take some variance risk now, now, and, you know, that's, that, uh, it, it really, I think, hits public large miners harder than anyone else because it's the entities reporting. Hmm. Yeah. It's the entities that have to, uh, ultimately, you know, report to their shareholders and their board on a, you know, quarterly basis, um, who will probably have.

You know, some really negative, uh, uh, effects if they do have to take on, you know, variance risk full time. If there's a problem with the pools, could these

**Marty:** derivatives markets solve that? Like maybe we don't have any pools in the future. And people are just

**Thomas:** the, so I made this point, I made this point with Matt.

I think that Matt and Luxor would [01:02:00] probably disagree with the exact, you know, framing and the vocabulary that I used. But mining pools are the original hash rate derivatives in that they're really just a swap for lux. Yeah. Just buying hash. Yeah. And especially, uh, specifically the ones, so not necessarily, you know, um, uh, the paying out on the actual received Bitcoin and then hacking it up on pro-rata basis.

The ones that are paying out on the expected are, you know, the balance sheet games that are, you know, more swap like in nature than, than anything else. Yeah. So that is, you know, a form of a derivative product that, that, that's been pushed out there. I think that, you know, that could take many different shapes and sizes, right?

You can have somebody that has deep pockets and they're like, you know what, I'll take that. It can be an O T C deal, right? Yeah. Where you're like, okay, I'll, I'll smooth out that variance risk. I'll pay you for this, but I'm going to take the Bitcoin, you know, when we ultimately receive it. Yeah.

**Marty:** And there's always the hardcore cipher punk romantic urge to return to the days of F [01:03:00] two pool concept like Bray Pool that Eric and Bob, I don't know if they've been working

**Thomas:** on it recently, but No, not Eric there.

Um, it's, um, uh, it was a, uh, a li Bitcoin, uh, contributor is working with, um, Dr. Bob on, on braid pool. Um, Eric looked at it, I think, um, a while back, but it requires like, I think a second coin. Yeah. He needed a token.

**Marty:** Yeah. And then like fetty pools, who knows if they're viable, but that's a very intriguing concept of sort of combining Stratum V two with like the idea of a fedie mint where you have a mint, um, you know, federation of miners of a certain size that run the, run the mint.

And then, uh, maybe allow individual miners within the [01:04:00] fedie pool to construct their own blocks. But, um, the federation members sort of switch out who broadcasts the block. So that's a sort of step in the right direction. Yeah. Of you have many individual actors within a single fetty pool. Um, and each of them has broadcasting capability, which.

It could be great, a step in the right direction if it's

viable,

**Thomas:** do all the things like we need to test them out. Like, you know, viability doesn't just happen out of the box. It needs to, you know, be tested in the wild by all different. Very happy

**Marty:** you said that. What, because this is another part of my thesis is like going back to like, shit, Queens won't continue.

There's again, the caliber of the scammer in the space is aesthetically unpleasing. They're

**Thomas:** ugly, they have terrible, who's the best looking scammer?

**Marty:** I think Alex Legal is probably, um,

**Thomas:** good looking. Yeah, good looking scammer. I'm trying to think of another, they, they, they're, they're out there.

**Marty:** I dunno, [01:05:00] point being, there's Charles, not only they're aesthetically unpleasing, it's a combination of being disingenuous, which I think most of them are. And impatient. I think the retail side of things is more impatient. Like we're building cathedrals here. Yeah. Like, Bitcoin over the last 15 years doing a lot of work to get it where it is at the protocol layer.

And everybody's been shitting on lightning for the last four or five years. Like, did you really expect this second layer network to launch and be like fucking scalable and completely workable out of the

**Thomas:** box? So I do think that there are some benefits to projects outside of Bitcoin. Like I deviate with this.

I think Monero is, is fascinating. It, it does not outstrip the capabilities of Bitcoin. I'm not saying that it does. I don't think that they should be compared apples to apples. But, you know, having things away from Bitcoin, testing different approaches to privacy, preserving technology I think is important to have like out in the wild.

I'm [01:06:00] not saying that that makes it investible. I'm not saying that it's something that people should be using for these transactions, but I do think having, you know, money at stake and testing these things live, um, has certain benefits. But the one that I like the most recently is, um, hamster Gigi. Uh, were they, what?

I've just

**Marty:** seen like hamsters racing. What? Ah, it's

**Thomas:** the best. They take four hamsters. I'm a big popcorn guy. Uh, and they race 'em every hour. Racing four hamsters.

**Marty:** Is this like an e r C 20 token?

**Thomas:** I think it's like a Binance like smart chain thing and some guy is just like managing 20 hamsters. We're probably on like the fifth or sixth edition of popcorn, but like popcorn is good.

Teddy's good too. What is popcorn? Popcorn's one of the hamsters that runs. I'm very happy. I don't know any of this. You should. You, you will. We will. I look, we need hamsters. We need hamster raise gambling on the Lightning network. Like, like [01:07:00] please. Like we could do that easily. Help me with my, uh, de degenerate activities set up a forced to go into buying new smart chain to to, to wager on these fucking hamsters.

What, 10,

**Marty:** 10 0 1? Yeah. And Digital

**Thomas:** Garage. They've got 10, 10 0 1 won the first cohort of Wolf. Yeah. They got fantastic presentation Dlcss on Lightning. Yeah. Do it. It's that's an awesome project. I'm very excited about them. Yeah. Um, I really like the Wolf incubator. I think the second cohort, you know, well we, we naturally get some of them, um, at the pub for, for meetups or just, you know, um, random nights they'll pop in.

And talking to some of the teams that are going through the cohort now is, is really awesome. There's good stuff coming. Yeah.

**Marty:** It's good to see New York Bitcoin. Scene survived. Well after

**Thomas:** it was just so callously abandoned by, by Marty and Matt. Like we had to resuscitate the community and keep it alive.

**Marty:** Well, I was gonna say a lot. You deserve a lot of credit for you. You gentlemen are

**Thomas:** doing here. P thank you. We [01:08:00] definitely, no, I mean the, I fucking love pup key. I appreciate that. Um, a pup key is really sort of, it's just a vessel and it's worthless without the community there. Like everything that Jay's done and cultivated, and I think that we're coming up on a, on a big, uh, anniversary for bit devs.

Uh, there's, you know, New York is not dead and it's the only thing that's been declared dead more than Bitcoin, but it's also not perfect. Like there are elements of New York that attract the blockchain, blockchain D l t crypto scammers, and that is definitely. Ha that has a, like, outsized presence here. Um, so I'm happy that the, like the weird idea of Pub Key is getting, you know, a lot of traction and support from all sort and sorts of different stakeholders throughout, you know, Bitcoin and throughout New York City.

Because, you know, I think it's sort of is um, is proof that, you know, the community here, the bitcoin community here, still, still is alive and, and and doing quite [01:09:00] well. I

**Marty:** agree. I didn't abandon. I It's okay. I don't, I had a, I had a young child. It's not your fault I was in a studio apartment. It's not your

**Thomas:** fault.

It's not your fault. You're gonna be hung.

**Marty:** Am I,

**Thomas:** am I gonna start crying? How am I not myself?

**Marty:** Ugh. I'm really bullish right now. How

**Thomas:** bullish You wanna start talking prices, like rip your tits off Bullish, I think. Ooh, I think it's bullish. I

**Marty:** think we go to like 500 k.

**Thomas:** 500 K would be, that would be great. We'd probably close the bar for a couple days if it happened in like a 12 hour period. It's just like, close the bar, shut her down.

**Marty:** Shut her down. Everybody get in here. Yeah,

**Thomas:** exactly.

**Marty:** I would not be surprised. Like the, again, the macro tailwinds, the maturation of the protocol and the layers above it, and

**Thomas:** it do be under [01:10:00] undervalued. Uh, it, it's insanely undervalued. It has always been this way. I think that like, you know, we have always seen something in it that other people don't

**Marty:** gonna a shit for throwing a price target out there.

But I don't care. Huh? I'm gonna get a lot of shit for throwing a price target. I can't

**Thomas:** believe you did that. Um, what do you think? What at what, by what time? I think 500. Yes. In future I. But like if you, if you like, slap like a, a date on it, like, so 2026, like,

**Marty:** or be

**Thomas:** Q four, we're gonna, we're gonna turn into like charter lists, uh, here, like

**Marty:** Q 4, 20 25, early 2026.

**Thomas:** So I saw something, uh, for the past, you know, three holders, holders

**Marty:** aren't selling dude.

**Thomas:** So the hot waves are at an all time high. Uh, Bitcoin held on exchange is at, you know, one of the lowest points probably since 2016, something like that. Um, and I think the third most important thing is transaction fees.

Those are the [01:11:00] three metrics that I've put the most value in. Um, hot waves, you know, the amount of time Bitcoin has stayed in the same address. The Bitcoin held on exchange, um, exchange omnibus wallets. And the third one being, you know, transaction fees are just an extremely good indication for like actual usage, the amount somebody's willing to spend to memorialize a Bitcoin transaction.

Yeah. Um, all three of those things are. Fucking looking really great. And the macro back backdrop at the moment is, um, this is what BI Bitcoin was, was made for, I think, like this moment in time. So, um, I too am catastrophically bullish. Yeah.

**Marty:** Um, so it's going to zero. You heard it here. It's

**Thomas:** fucking done. I'm so much more comfortable in a bear market than a bull market.

Bull markets make me, can't even fucking think extraordinarily anxious. Like, it's just like it's over and you're just like, you know, you're going through like, you know, just a fucking horrible time. I like [01:12:00] the, the bear markets when everybody's just like, this is terrible. It's just like, it's like the, uh, Buster Scruggs, like first time, like the, the who's Buster Scruggs, the ballot of Buster Scruggs was a, it was like a, a, a collection of, of vignettes by the Cohen Brothers.

And one of them, like the guy ends up at the, at the gallows and he has the noose around his neck and he's next to a guy that's weeping and he looks over and then just goes First time. Yeah. Um, it's, uh, there's a, there's a certain like, calming, uh, aspect of the bear market 'cause there's time and you can actually get shit done.

It's the, it's the, it's cliche to shit at this point, but bear markets are for building and it is true to a certain extent. And you have much more like, uh, insightful conversations with people that are not necessarily distracted by just, you know, looking at how much fucking money there is, like floating around.

Yeah. Um, we [01:13:00] had, uh, I don't think I can, there, there's an article coming, um, uh, in the, in the Wall Street Journal that really focused on like Bitcoiners. Um, like a lot of the questions that I got were about like, you know, watching the price. And it was just like, you stop doing that after a while. Yeah. Like, you know, there there's not a lot of productivity.

It's actually kind of like, it's like doom scrolling on Twitter. There, there's no, um, active, uh, engagement of any like, positive value in doing something like that. You need to go out and, and get your hands dirty. Completely

**Marty:** agree. And that's why I'm actually very happy with myself. Oh yeah. This, this bear market, I think for me personally, has been like the most productive in terms of like actually building out what I view to be a foundation that will really help me benefit in the next bull market.

Um, like I was shown, we have some stuff planned for T F T C. It [01:14:00] looks great.

**Thomas:** I'm very

**Marty:** excited. I think, um, I'm really excited about that too. We're gonna launch that before the end of the year, probably before the fall. And then on top of that, like the mining stuff, like, it's been really fun. Um, building stuff out, like in the bear

**Thomas:** market, mining is fascinating.

Um, I didn't really focus on it personally until 20 18, 20 19, same. That's when I got into mining and like the looks that it throws, like, you know, from a Bitcoin perspective, looking at, you know, supply chains, energy, power infrastructure, power assets, um, it's just, it's a perfect match, uh, for the Bitcoin, you know, community.

And it is just a deep and vast rabbit hole that you can go down. It's a whole network. Um, but that's been, that's been very positive I would say, in the bear market. And also like, you know, despite a lot of the pain, uh, it was [01:15:00] very productive. I think, you know, what happened with Celsius, what happened with block fi needed to happen.

It had to happen, and I think that it probably happened at the right time. Agreed. Um, you know, I'd like to see some of the G B T C stuff. Push to conclusion. I am a little bit nervous about some of these large, you know, E T F investment products. They are not gonna have, you know, classic redemption windows.

Same thing, same thing with gold, right? Try and redeem physical gold, uh, out of an E T F. It's an extraordinarily, you know, painstaking process if the E T F allows you to do that. Um, so, you know, I'm a little bit, you know, more concerned about that stuff, but I think that we're, we're seeing really positive momentum.

I mean that blowup and we were talking about the, the three indicators that I like the most, the hot waves Bitcoin held on exchange and transaction fees, uh, Bitcoin held on exchange is, you know, at its lowest point because of these, it's

**Marty:** 2.3 or something like that. Yeah. 2.3 mil. Yeah. Out of [01:16:00] 19.6 Bitcoin, 19.6 million.

Because there's only 19.6

**Thomas:** Bitcoin. I know you said earlier, 21. I was, I was gonna do the nerdy like fact checker or 19.6. It's like, well what about the lost ones?

**Marty:** No, 19.6 is like what's been distributed to market. It's like the free

**Thomas:** float. Oh, I see what you're saying. Well, what about the lost ones? They're just

**Marty:** gonna pump our eggs.

Yikes.

**Thomas:** Are Satoshi coins lost? Are those counted in like the, I've seen a couple of different, like estimates for like how many Bitcoin have been, you know, destroyed. Uh, it's

**Marty:** like what, three to 4 million or something? Yeah. Yeah. I think Satoshi are included in that. Yeah. Where you have like a Satoshi, it's four to 5 million with his included.

**Thomas:** He has a lot of rare SATs. I've shot the fuck up. He has a lot of rare sets.

**Marty:** Uh, there's no such thing as,

**Thomas:** it's so, so many of these explorers

**Marty:** is just like, no. Well, that's [01:17:00] like, so I actually had somebody reach out to me, like

**Thomas:** going to a bathroom in a dive bar with a glory hole was just like, don't.

**Marty:** I had somebody reach out to me last week and they were experimenting with ordinals.

Then they were going on block explorers, like looking, I think it was like a inscription, a text inscription. He was like, looking for it on chain. I had to explain to him like, no, like that inscription is encrypted in what? Like hex data? Yeah. And you need external software to decrypt that HX data and then present it to you.

Yeah. He was like, oh, should I just be using op return? I was like, yeah. Yeah. If you actually wanna see it in a, yeah, in an explorer.

**Thomas:** Let people have fun. If somebody's having fun and they're not hurting anybody, let 'em have fun. It's, I, I still think going back

**Marty:** to like bad aesthetics, like all the N F T grades, like the worst aesthetics, like.

Which ones I like

**Thomas:** all of. They're terrible. I like the, the, the Nintendo Ripoff ones. The, the, the Shroom ORs or whatever to have No, you

**Marty:** don't like eight bit art? No. What about the [01:18:00] Pepe? I like the Pepe.

**Thomas:** You're sitting below the,

**Marty:** like I said, first 15. You're trying to own it. We've talked about this with Drew.

You're trying to own a meme and that's literally impossible. Like a memes whole reason for being is that everybody can collectively understand what it is. Intuitively. Yeah. You can't own that collective intuition.

**Thomas:** Yeah. What do you see in Pepe Pepe's? A Mirror. I've heard. Yes.

**Marty:** I think he's hilarious. I

**Thomas:** do too.

It's the best meme. It's so expressive. And then the story I, I, I still think my favorite Bitcoin magazine article of all time was sort of the dive into, you know, the history, the origins of the Pepe meme Feels good man into its sort of self cancellation. From the Anti-Defamation League and then even the Anti-Defamation League saying like, yes, okay.

It's in like minor circumstances where this is an o overtly like racist meme. And now it's like back and like, like Pepe is like

**Marty:** everywhere. Will Pepe ever die? Will be. [01:19:00] I'm like, well get to a point where we're like, ah, this isn't cool

**Thomas:** anymore. I think that Pepe's probably one of the most successful memes of all time, uh, if not the most successful.

Like what, what, what would be considered a more successful meme?

**Marty:** Um, I just had a terrible joke. Coca-Cola,

**Thomas:** uh, product memes.

**Marty:** Maybe like Uncle Sam. I don't know. Uncle

**Thomas:** Sam. Uncle Sam. Meme.

**Marty:** That's not mean. It's more propaganda. Wow. Or memes, propaganda. Wild cat.

**Thomas:** Yeah. Memes are absolutely propaganda. Yeah. Do you have any Mala?

**Marty:** No. God no. They're, yeah. Aesthetically unpleasing and she can murder. What's the story behind the lady? She murders her boyfriend or something like that.

**Thomas:** I don't know. They, so they have run sort of my understanding is that the male ladies, uh, community has run I think four or five different, like self cancellation campaigns with just like, really like [01:20:00] a boring stuff.

Um, that like somebody will pick up on and just be like, this is terrible. Uh, but I don't think that any of it's actually true and they're just putting out like really like shocking cancellation stuff. Yeah. Like, you know, basically what, you know, the four chan idiots Behind Feels Good Man Did when like their meme, their pride and joy was getting too popular.

**Marty:** I mean, I'm for that in the sense that like, people, I do

**Thomas:** think that, that's funny. I like jokes. That's like a funny like, you know, cultural phenomenon. Like built for like four chan Reddit and

**Marty:** Twitter. Yeah. But I think like male lady and Pepe should live in like telegram sticker packs. You don't need them as NFTs.

I

**Thomas:** don't disagree.

You don't? I don't disagree. I, I think that that's fine.

**Marty:** I don't think you need to attach mine. I think it's, I should think it's against the ethos, like meme culture is to try to attach economic value to this thing.

**Thomas:** Yeah, but look, collectors, they're collector, they're, they're collectors items, right? Like what's the [01:21:00] difference between a trading card and like a digital representation of, you know, that, that, you know, trading card iq.

I pulled a Michael Jordan baseball card out of a pack of upper deck when I was eight years old, seven years old. Best day of my life. He was playing minor league baseball for the White Sox. You know what card I'm talking about? They're kind of worthless. It's probably worth like 21 bucks, but like, I felt like a billionaire that day.

**Marty:** Yeah, it's only worth like 21 bucks.

**Thomas:** Uh,

**Marty:** it's the memory of that thing. Maybe it's just not for me. I don't know. That's fine.

**Thomas:** I think that the, I mean, the funny thing is that I, I'm like a big supporter of the ordinal stuff. I do think that like 99.9% of it's complete garbage. Like, I, I don't disagree. I don't have ordinal holdings. Like, you know, I've dabbled with like, some stuff, uh, from like a, like, you know, curiosity.

Um, [01:22:00] but like, yeah, like the vast majority of these things are completely fucking worthless. Like worthless. They're negative because you're gonna get tax consequences too. Yeah. So like, I, like, don't get me wrong, I think the inscriptions and embedding data is really fucking fascinating and impactful. Uh, in a broader Bitcoin context, you know, looking specifically at the rare sat ordinal N F T projects, like great, like user adoption, but everybody's gonna get fucking burned.

And I hope, you know, a decent percentage of them stick around to be like, I wasn't totally wrong. I wasn't wrong about the Bitcoin stuff, but I was wrong about, uh, this eight bit mushroom that I purchased for $10,000.

**Marty:** Well, that's, I mean, maybe I'm a curmudgeon. I'm maybe not able to have as much fun as people should be able to have, but I'm like, I take it from like, what we're working on is way too fucking serious to get distracted by this bullshit.

No,

**Thomas:** no. I, and it pisses me off, like, you gotta have fun with [01:23:00] it. It, it has to be fun. Like, that's one of the main things. Why? That's one of the main things behind Pup Key, like, because if it's fun, it's inviting and you're gonna save more people. You wanna have a fun church, you wanna be like clapping. Yeah.

Well, in the aisles

**Marty:** you wanna be like, well, that's the problem is like people are too much focused on the fun, where they're gonna buy something for 10 grand and realize they have like six Satoshis in a wallet.

**Thomas:** Speaking of, uh, CK from Bitcoin Magazine is still the only person to do the trifecta. Orange pills.

Oh, he got the whale, the dolphin and the pleb. During Twitter spaces, is it,

**Marty:** are those drinks or

**Thomas:** hot dogs? They are drinks, yes.

**Marty:** I told you I had to drive tonight. But you're. We will figure it out. We gotta text my wife. See if I can sleep on your couch.

**Thomas:** Oh man. And your wife. How are we doing? Yeah, exactly. Look, you know, Lucy, Lucy and Raya will be thrilled to see you. Um, so how are we doing on [01:24:00] time? Is

**Marty:** Alex Lauren coming here? Yeah, we're good. I mean, we're not scheduled to, uh, talk for another 20 minutes. Okay. What else should we talk about? Look at this.

Look at this strapping, young yuppie in the corner over there.

**Thomas:** It's my favorite thing about Key is when somebody like Christian just like, walks in and sits down and laughs at his, at his phone. Are you looking

**Marty:** at your tings? Huh? Are you looking at your tings?

**Thomas:** He's got some, he's got some really noxious and vile tings.

**Marty:** Reddit.

**Thomas:** They're all Reddit

**Marty:** approved. Is Reddit dead? I thought Reddit died,

**Thomas:** man. I haven't been on Reddit in a long time. Fantasy football. Do you do fantasy

**Marty:** football? No. I, I mean, I do, but I'd never, I actually just got a text from my college buddies last night. They're like, you're outta the league. You got, you've [01:25:00] been

**Thomas:** removed.

I've been removed from Why you weren't setting your light up. Yeah. All I see, I see.

**Marty:** Or long live national nightmares over. It's exactly what my, my buddy

**Thomas:** texted. I think the last time I've used Reddit was probably for like our fantasy football. Um, just because I don't follow anything football related in the off season.

Um, and, uh, it's more of like a monkey throwing darts approach. Mm-hmm. To like a draft. I mean,

**Marty:** it is, it was always fun coming back for the summers to spend the summers down the shore and fully immersed in like the Philly, colder, like the shore's essentially. Philly East. Yeah. Where I, where I live at the

**Thomas:** shore south of, south of L B I.

It is Philly

**Marty:** heavy. It is crazy how much the sports drive the culture in Philadelphia. Yeah. It's not crazy. I mean, I love it. There's an endearing side of it and

**Thomas:** Well, it's that, it's the cheese steaks, the tran like what else? Theran,

**Marty:** the Frank Ferel. [01:26:00] We're gonna say Philly.

**Thomas:** I love Philadelphia.

Philadelphia's a great city. The, the, you know, um, the restaurant and bar scene has always been good and I think that it's incredible. It has gotten so much better, which is high praise because it, again, it's always been very, very good. In Philly food, food

**Marty:** is always like Philly's restaurant culture 'cause it's one of the few like major metropolitan cities that's got a big b y o culture.

Yeah. And I really appreciate

**Thomas:** that. The dive bars are still amazing. Yes. Um, still a lot of, you know, just, uh, really, uh, terrifying Philly bros fighting to smoke cigarettes inside. Um, we're,

**Marty:** we will die on that. Hell cigs inside is

**Thomas:** a hell there. My dive bar map has a lot of Philly hits. What's your favorite? I like Oscars and Dirty FRAs.

Dirty Francs. Um, I forget there's another one that you, Bob and Barbara's. Bob And Barbara's, yeah. Thank you. Um, also, also quite good. I haven't gone to a lot of the Fishtown ones. What's the, [01:27:00]

**Marty:** Johnny Barber's is Fishtown. Which one? Birthday bar. Birthday bar. Birthday bar. Yeah. That's in South

**Thomas:** Philly though.

Birthday bar, south Philly. No, there's something in this town. It's on Second Street Town that's supposed to be truly Johnny, Johnny Brenda's noxious and vile. Johnny Brenda's

**Marty:** isn't

**Thomas:** noxious and vile. No, no, no, no. I forget that. It's Fish Town's got a great Irish bar. Laurenti or something. There was, there's something.

I don't know. I

**Marty:** gotta look it up. Fish Town's got a great Irish bar that serves some of the best Italian food. Like, uh, there you go. Murph's. Go check out Murph's. Murphs do. Yeah. A comfortable place to sit. Yes. They've got like pennies on the bar. Yes.

**Thomas:** Awesome. Um, how are the beagles this year? I think they're

**Marty:** gonna be good.

Yeah. It'll probably be good. I mean, be Eagles. Yeah. They got their Kelly Green jerseys. That's what everybody's been talking about the last couple weeks. I don't act like I love the Eagle. I watch the Eagles. We have gatherings. I just don't get too immersed in it. Yeah. I used to cry during the games,

**Thomas:** like middle school fucking AED out.[01:28:00]

I think AED out still secretly cries during Philly's game. Philly Eagles games.

**Marty:** Yeah, it was very emotional in middle school.

**Thomas:** Um, I'm excited for it though. You know, football coming back, soccer's coming back. Ah, real Bedford yesterday. Are you into real Bedford? All,

**Marty:** uh, I haven't watched a game yet, but I'm supporting them.

It makes

**Thomas:** me so fucking happy. I really, I really, truly, truly about Same game yesterday, I saw, yeah. They won one Zero against Milton Keynes Irish. They played

**Marty:** Milton Keynes. Like Keynes

**Thomas:** is, yeah. Keyes, whatever. Yeah. Well, no, I think like the town is like named after 'em. So the Bitcoin team beat, you know, the king That is poetic.

It's great. I I just love the whole thing. Um, yeah, pure joy. I

**Marty:** did what Bitcoin did three weeks ago and Peter was

**Thomas:** talking. Yeah, you and Grant did. Yeah. Yeah. I haven't listened to that one yet and I I, I'm sure it was good though, very

**Marty:** bullish. No, but he was talking about like real Bedford, and I'm really, it is really impressive what they've done.

**Thomas:** It's awesome. I want to go see a game so bad. Like, [01:29:00] and seeing like the live stream, like the, the, the field, like the whole thing. Like you get like a lot of like carpenters and plumbers, like going maybe a couple pints before the game and play a Tuesday night game. Maybe get into a fight. That's the way to do it.

It's awesome. The whole thing is so cool. Um, also just thinking ahead, because like Peter has a very like bitcoin builder mentality about this. Like what if they do just rip through, you know, call it like four or five seasons and they are somehow able to advance for four or five seasons straight. We're starting to get to, you know, somewhat robust leagues in the, in the English like, you know, you know, football series.

I think you said they're,

**Marty:** they're now in like the sixth league step

**Thomas:** six, but step six, it's technically the 10th

**Marty:** level. Yeah. 'cause you have Premiership obviously then the one below that. Yeah. Champions and then [01:30:00] champions and then two more. Yeah. So they're probably a decade away from champions. Yeah,

**Thomas:** for sure.

But like, you know, a solid five years of, of progressing, you start to get a little bit like, oh shit. Like, it'll get bigger each year. The stadium has to be able to, you know, uh, uh, host like a certain amount of fans there. It's actually quite regimented as you move on. You have requirements in terms of like, you know, the, the stands have to be covered and you have to host, I don't know, call it like 10,000, like, you know, um, uh, fans, um, as like requirements for advancing.

So I think it gets quite costly, but like imagine if 10 years from now we have a grassroots Bitcoin soccer club, like that would be fucking incredible. It would be,

**Marty:** I would

**Thomas:** definitely go to a game. I wanna go to a game this year. I, I gotta figure out the time. Well, he

**Marty:** said he is doing, uh, he's staying put in Bedford, January to April.

He's trying to get a lot of people to come out.

**Thomas:** Ah, that sounds like [01:31:00] fun. Are you gonna Amsterdam?

**Marty:** No. We have a 10 31 event.

**Thomas:** What, what's on your conference circuit for the rest of the year? Nothing, nothing. Uh, for Tapco, I've gotta go to Tapco. Oh, Atlanta. Yeah. Nice. I'd like to go to that one as well. Um, I love Rega.

I don't think I'll be able to make Rega. I may go to Amsterdam. Um, I love Amsterdam. Um, good town. There's, there's, I love

**Marty:** the conferences people, there's just a lot of them, too many conferences. It's the same people usually.

**Thomas:** Uh, quite

**Marty:** echo Chambery and I find myself asking like, does anybody get any work done?

Like, no. Everybody get back Yeah. To the office. We got a lot of shit to do.

**Thomas:** Yeah. Um, I think that we have hit a little bit of a, uh, a, a a saturation point for the conferences. Um,

**Marty:** I like what they're doing at Bitcoin Park in Nashville. Like dedicated, like, structured events. Two days. Like the Lightning Summit, the mining summit.

Yeah. [01:32:00] They'll do noster later this year. It'll be

**Thomas:** interesting. There's also, I think the, the Bitcoin conference is moving to Nashville as well. Yeah. Middle

**Marty:** of July.

**Thomas:** It's gonna

**Marty:** be toasty. I was there a couple weeks ago, middle of July. It was toasty. It's humid. I hate the heat.

**Thomas:** I love the heat. I hate it. I'm a, I'm a winter person.

I hate the cold. Ugh.

**Marty:** Makes you feel alive. Did five winters in Chicago. Definitely makes you feel alive. But it also,

**Thomas:** there are no real like cold weather conferences. Rigas, like Riga gets there a little bit, but the Baltics, the Baltics in, um, in September, uh, are actually like quite nice. Yeah, it gets a little chilly at night.

**Marty:** But yeah, the first year I went it was pretty cold. Last year was nice.

**Thomas:** I wanted to do a pub key popup, um, in Riga

**Marty:** when Pke Philly. That's the big question. Pub

**Thomas:** key. A, a kick in the Baltics. I like that would've been the

**Marty:** just ripping balsams

**Thomas:** strap on some Balsams strap on some

**Marty:** [01:33:00] Balsams.

**Thomas:** Um, how many balls? Pub Pke, Philly Pub, key dc Um, you know, we, uh, we're gonna, we're gonna look to expand.

Um, probably accelerate it, um, by end of year. We have a couple of things that we need to sort out.

**Marty:** Um, where are we looking to Philly? We're still looking like Rittenhouse area. Fishtown.

**Thomas:** Fishtown. No, I mean, where it has to be,

**Marty:** stay as far away from Kensington as possible. Where, where,

**Thomas:** where's uh, you Penn?

**Marty:** That's University City. So West Philly. West Philly. Um, it's too far, too. You need something? Yeah, it's too far. You need like Old City Rittenhouse.

**Thomas:** So one of the, one of the requirements that we have when we're looking for like future locations is, you know, we're effectively, we're very well located in Manhattan, but we're also on NYU's campus, um, you know, west Village in between financial district and you know, the Midtown sort of financial hub.

Um, so location's really key, particularly for pub Key, um, because, [01:34:00] uh, about 70% or so of our total clientele are not Bitcoiners. So we want to continue to push that. I think that that's the right like ratio where we're providing sort of like a blue ocean opportunity. Um, and just by having, you know, a cool bar with good food and you know, the right vibe and aesthetic, um, by attracting a lot of pre coins.

Everybody's a bitcoin coiner, they just don't know it yet. Like by, by getting them in the door and enjoying a bar where there's not a lot of Bitcoin iconography, there's like some, but like, you don't, it doesn't like hit you in the face that it's like overtly a Bitcoin bar. You're

**Marty:** not got like the Bitcoin embassy

in

**Thomas:** fight.

Yeah, exactly. It's more like in the d n a and we have like events and people like, they're like, so what's that event in the back? And it's just like, oh, please come join our cult. Have you heard of the Church of Satoshi? You'll have to cut, you'll have to cut the palm of your hand open for access.

**Marty:** Yeah.

Kiss the shrine of Michael Sailor.

**Thomas:** No, but like, by making it [01:35:00] accessible, like, you know, that's one of the, the, the. That was one of the driving forces, uh, behind Pub Key was, you know, the conferences are great if you know what you're doing. I think that the conferences are hard and the, there's a high barrier to entry.

There's the cost, there's the travel. You're sitting, you're listening to panels and you know that you're not like going to the fun parties or the dinners or like, stuff like that. Like, I think, you know, these third places, you know, the commons, the park, you know, the pub keys. Like, they provide something that is a little bit more like permanent and always on, um, that, you know, the conferences, you know, simply aren't able to provide.

And this is, this is all in the physical, like meat space, right? Like if, if you're trying to access the virtual town hall by like, you know, eating at people on X and like fucking Reddit and like, you know, just reading about it in Wall Street Journal and New York Times, like, [01:36:00] it's, it's a. Horrible, horrible, horrible way to get introduced and ask questions for this tech.

Like, you need to have a human touch. Completely agree. Yeah.

**Marty:** And you guys are doing great. Thank you. The, the touch that you guys have. You guys are touching many. Thank you. Thank you.

**Thomas:** Many lives. Yeah. We have some. Um, so we, we, we basically have, you know, New York empties out in the summer, um, which was like our little pub key bear market.

You know, July and August is a really good time to retool and build. So, you know, we launched back in October. Um, we've added some, um, uh, really good team members recently, and we have a bit of like a relaunch coming. Um, and like September is like the, the true, it's not quite a relaunch, but that's really like from, um, what is it, alpha to beta or whatever?

Beta to, to full production. Whatever. Beta. To alpha. Yeah.

**Marty:** Beta to alpha. Alpha comes first. Wait, alpha comes. Yeah. Pre-product. [01:37:00] What is it called? Uh,

**Thomas:** Christian. Is it Alpha and then Beta? Or Beta Then Alpha,

**Marty:** you're, you're hitting the main, you're hitting the main net.

**Thomas:** Yeah, exactly. So like, we're, we're, we're, um, we're launching, you know, pub key productions Yeah.

To Alpha First and Beta. Yeah. Uh, we're, we're launching Pub Key Productions and then we'll be starting to really like, uh, accelerate into, uh, into, into new markets, new cities. We'll, lot to talk. We'll lot

**Marty:** to talk. Maybe we can link up here. Yeah, for sure. This is a bit fascinating. Always a pleasure. Are you gonna make me drink?

**Thomas:** Am I gonna yelled at by my wife? I don't make anybody drink. It's against the law. Uh, but you know, I think, uh, I think that we've, you know, we'll, probably it's up to you, man. You don't have to drink if you don't want. Lemme text my wife. All these Zoomers are putting New York City hospitality outta business.

They don't want to drink anymore. What is up with that? It's, it's

**Marty:** a great

**Thomas:** shape. We got a lot of, uh, non-alcoholic options [01:38:00] here though. We throw, we throw different looks in this soundboard. We, uh, I was hoping to have this live, but like we're gonna, um, we're gonna start to play with the soundboard more, uh, for like a little reaction things during like the Twitter spaces.

We had a put the N p C meme on it. We,

**Marty:** we had a, uh, ooh ice cream. We had a recording of me saying, come Rocket on one of the r r that was on our soundboard for a while. I think Matt lost the file. Never talk about Shitcoin. It's just me going, come Rocket.

**Thomas:** That's great, but

**Marty:** egregious. Oh yeah. Agree. Like, come rocket. There was as coin. Again, I'm a Mudge. I'm, I saw

**Thomas:** that, that video of Portnoy, uh, remember he was doing one of the pizzas Yeah.

**Marty:** On the street and the hex guy came up to him. Yeah. The hex guy probably like, around all time highs.

**Thomas:** And Portnoy is actually like, kind of nice.

He, he like [01:39:00] listened to him.

**Marty:** I think Dave gets it. I, I've spoken, I've spoke to Dave, like probably like, not this Bitcoin conference, but last Bitcoin conference. We got lunch. I think he gets it. Yeah, I think he's just a made man now.

**Thomas:** He's a smart guy. Um, but yeah, that hex video and shout out to Ledger for leaking all, um, you know, mailing addresses of their clients.

Did you ever receive one of those? Um, I got like a hex and pulse chain, like one pager in the mail.

**Marty:** I, uh, never bought a ledger, so No. Good for you. I was not in that data dump. Good for

**Thomas:** you. Yeah. No, like three apartments ago. I've since moved. Yeah.

**Marty:** No, never bought a ledger. I was always a treasure maxus and then went straight to cold card after

**Thomas:** that.

Cold card's. Great. I like passport. I think the passport device is quite nice too. Um, without, uh, creating, uh, a screaming match on Twitter. I [01:40:00] do think that the device is nice. It's cold carts, um, software. Um,

**Marty:** I'm not getting into that.

**Thomas:** Uh, I love the stuff that Coin Kite is producing though. Um, high barrier to entry.

I would say these, these devices, all of 'em, even like re stores, I think are, are like kind of daunting and that's what Ledger Ledger really dumbed down the experience, I think quite well. I thought

**Marty:** Treasure was better than Ledger. Like Huh? I never owned a ledger, but I've like played around with one. Yeah.

I thought treasure's UX was better.

**Thomas:** Yeah, some of them Le Ledger's ledger makes it really easy to get into the, the deep, dark, you know, shitcoin stuff. Yeah. That's, um, you know, if it's Bitcoin Yeah, I agree with you. I think that the, the ZOS did like a really good time, uh, a, a really good job. Um, during the, the, uh, fork wars.

You get your Bitcoin diamond, you get your Bitcoin gold out, your Bitcoin cash, your sv nice little dividends, plow it back into [01:41:00] Bitcoin. I like that. It was good. They made it, it kind of easy and they discontinued. No, I don't like that. I

**Marty:** was just,

**Thomas:** you didn't like that. Are you still holding your Bitcoin cash?

You don't like dividends?

**Marty:** No, I'm not holding my Bitcoin cash. I had to use like Jimmy Song made like a key splitting tool that I use. Yeah,

**Thomas:** yeah. Um, if I recall correctly, I think that that's what Tray or actually is. Yeah, I think so. I could be wrong about that. Um, those were the days.

**Marty:** Are we, what? What are we gonna be talking about like at 2030?

Looking back

**Thomas:** when we're all in jail?

**Marty:** Yeah. Are we all gonna jail?

**Thomas:** Just in Gimo? Do you remember Sunlight Marty? Remember the sound of the birds?

**Marty:** Remember we were eating sludge every day? Uh,

**Thomas:** what are we gonna be [01:42:00] talking about in 2030? I think, um,

**Marty:** superconductors, well, how they destroyed Bitcoin in any,

**Thomas:** I think it's gonna be the global south and I think it's gonna be an American resurgence almost like simultaneously.

Um, I wanna be

**Marty:** clear, I think the global south vernaculars. Terrible. What happened to emerging markets? What's bad with those?

**Thomas:** Yeah. You also get a bunch of, like, you get the Aussies and Kiwis looped into it and nobody's talking about them when they're referring to the

**Marty:** global Yeah. There's, there is this like, there is this like, uh, hierarchal, uh, yeah.

Vision. It's like sad. It's like you were below me. Yeah. Many different connotations, or It's ambiguous.

**Thomas:** Yeah. Um, the global south, uh, there are a lot of changes happening. I feel like Africa is, uh, having a pretty, um, see, I'm serious moment. What's happening? Agree with that. [01:43:00] Azure?

**Marty:** Uh, I'm more, I'm, I'm very bullish on

**Thomas:** South America.

I think it's gonna be Oh, south America. Yeah. Uh, Argentina has, has a, has historically had a difficult time getting out of its own way. Um, there was some unrest in Chile. Uh, Yeah, a couple years ago, but I think that that's largely calmed down. Chile is, I think, underrated. Yeah.

**Marty:** They were going back to socialism.

Mm-hmm. I do think recent elections have brought back more of a conservative leaning party, if I recall correctly. Mm-hmm.

**Thomas:** Yeah, it's gonna be really interesting. I mean, there's a tremendous amount of power. There are tremendous resources. Uh, you know, the Paraguay, is it Paraguay? What's the isu? Uh, hydro.

It's Paraguay. Paraguay. And, but they sell a fair amount of that electricity into Brazil, and they're using that substance like a hundred year contract to mine, Bitcoin. Um, uh, [01:44:00] so I think that there's gonna be, you know, just a lot of moving pieces, particularly around Bitcoin mining and, you know, Bitcoin adoption.

**Marty:** Yeah. I was talking to somebody the other day that lives in Columbia and apparently. In South America, like a lot of people on the ground. He was talking like an Uber driver and he was asking about like, what do you think about El Salvador, what they did with Bitcoin? He's like, I don't really care about the Bitcoin thing, but I think we need more bouquet leaves around South America to just come in, stomp

**Thomas:** out.

It's such a fuck. It's such a fascinating thing where like Americans who really have no cultural context, no historical context, are able to sort of like, you know, get preachy about some dictorial, dic, dic,

**Marty:** dic, dictatorial, dictator dictatorial.

**Thomas:** Yeah. Stuff that can be perceived as like being authoritarian and you know, there, there definitely have been, I would say, elements of that.

But you also have a [01:45:00] situation where, um, You know, the, the sovereign debt is actually performing like quite well. Yeah. For El Salvador Andries down and crime is way down and it's fixing some, you know, long standing systemic problems. Um,

**Marty:** every once in a while you need a dictator to step in. Hey,

**Thomas:** imagine if he just gets a proper Bitcoin rip.

Like we own a 500 K. So he's, he's gonna look like a, like a genius. Yeah. Um, and then, you know, you also have the mining bonds. I'm, I'm looking forward to the, the James Bond villain volcano mining operation. I don't know if that's still moving forward. I've also heard that the, the proper Bitcoin city has, has, I don't know, stalled, but it's been sort of like deprioritized.

I don't think that was a good idea. The Bitcoin city

**Marty:** thing. Yeah. Cities need to be emergent. You can't just

**Thomas:** build one. You can't just build one. What about the line? That's exactly. You don't wanna live in a line? No, I don't wanna live in a line. That thing is [01:46:00] weird. I hope they build it like just out of like, from like a pure weirdness curiosity perspective.

It's just like that thing looks really

**Marty:** weird. Yeah. Yeah. I mean it's, it's 15 minute city.

**Thomas:** Hmm. What if it's really just Noah's Ark in the middle of the desert? Yeah. What if they know and it's actually protecting against aliens. Oh God. The aliens. Because the aliens can't see the line. I can't

**Marty:** Or something.

I can't believe how many people have fallen for the aliens I have. So Matthew Pines. Yeah. He is a

**Thomas:** big one. He, he was, he's like

**Marty:** really into it. He's really worried about it too. I'm like, dude, come on.

**Thomas:** Come on. Do you believe in aliens? Do you think that they're

**Marty:** aliens? Yeah, probably. Yeah. I don't think our gov, they crash landed on government property.

And Jody Foster are only talking to our government officials.

**Thomas:** Terrible waste of space. Matthew McConaughey.

**Marty:** Great movie aliens. Could be demons, you know?

**Thomas:** Yeah. They could be. They're probably [01:47:00] just looking for natural resources like everybody else. Yeah.

**Marty:** Water. Thank God we have superconductors.

**Thomas:** What's your favorite alien movie?

Uh,

**Marty:** I thought Predator like the most recent. Not Predator. Uh, like the one where they went into the Anki. Oh yeah. That's, it's like a recent, uh, aliens. No, that's a predator. That's aliens. Verse predators. That's what it was.

**Thomas:** Alien verse Predators. No. The one where it's like, it's like ancient Columbia or something.

That's Prey.

**Marty:** Prey. That's prey. No, they're on a different Planet. Predator two. Huh? He had the same

**Thomas:** answer. Predator. I'm a big aliens two guy. They're on a different, different planet. Who? The humans. Yeah. Alien versus Predator. Yeah. Uh, district nine. Fantastic. Dish nine was really good. Uh, I like Alien and Aliens.

Huh? [01:48:00] Starship Troopers. Starship

**Marty:** Troopers. That's a good one. It's a great one. Good meme came outta that one. Yeah. I'm doing my part. They're afraid. It's afraid. Mm-hmm. One time I slapped Janet Yellen's face on that big monster. It's afraid she's afraid of Bitcoin.

**Thomas:** Um, yeah. Aliens are probably real. What if they're

**Marty:** already here?

Uh, I mean, yeah, there's people.

**Thomas:** What's your, what's the deepest, darkest conspiracy theory that you fundamentally believe in? I can't

**Marty:** say it all.

**Thomas:** I know the answer. I can't say it

on

**Marty:** air. Um, I don't think you do know the answer. I don't think you do. I've never told you this.

**Thomas:** If it's worse than the one I'm thinking of, I really would like to know as soon as we stop rolling. Okay. Um, But this has been great. You wanna take a break before you ha you talk to Alex?

Yeah, let's do it.

**Marty:** Peace of love freaks

**Thomas:** to king. Thanks you guys.[01:49:00]