

**Demetri Kofinas:** 00:00 Today's episode of Hidden Forces is made possible by listeners like you. For more information about this week's episode, or for easy access to related programming, visit our website at [hiddenforces.io](http://hiddenforces.io) and subscribe to our free email list. If you listen to the show on your Apple Podcast app, remember, you can give us a review. Each review helps more people find the show and join our amazing community. And with that, please enjoy this week's episode.

**Demetri Kofinas:** 00:48 What's up everybody? My guest for this week's episode is Michael Casey. He's a writer and a researcher in the fields of economics, finance, and digital currency technology. He currently serves as CEO and founder of Streambed Media, an early-stage video production and technology platform that seeks to optimize capital formation and creative output in the digital media industry. He's also chairman of Coindesk's advisory board and a senior advisor at the MIT Media Lab's Digital Currency Initiative, where he spearheads research projects that employ blockchain technology to achieve social impact goals. He's also a senior lecturer at MIT's Sloan School of Management, and an adjunct professor at Curtin University's Center for Culture and Technology. He's also the author of a giant stack of books that I have not read, and he's also here in studio right now. Michael Casey, welcome to Hidden Forces.

**Michael Casey:** 01:44 Hi Demetri, thanks so much for having me.

**Demetri Kofinas:** 01:46 It's great having you here. You're one of those guys who I meet, and it turns out, the more we speak, the more we have in common. That's been my experience so far with you in our conversations on the phone and even just now.

**Michael Casey:** 01:57 Absolutely, that's my sentiment as well.

**Demetri Kofinas:** 02:00 We were just talking about Shoshana Zuboff's book. You said you did a review of the book?

**Michael Casey:** 02:04 Yeah, so I write a regular column for Coindesk. Obviously Coindesk is a cryptocurrency-type of publication, focusing largely on blockchain themes, so I approached the book from that lens, from the perspective of what might be different in a world that doesn't have these large, centralized data management, data aggregating beasts in the middle of our internet. I think it was one of the most powerful books I've read for a very long time. I think it's going to be one of the most important books of this age, to be honest.

**Demetri Kofinas:** 02:31 So interesting you said that. I completely agree. I've been saying that since I read it, I felt that so strongly about it. What was it about the book that resonated so much? By the way, for listeners who aren't familiar or haven't heard the episode, this was our episode, I think it was 79, with Shoshana Zuboff on her book, Surveillance Capitalism. What was it about the book that really spoke to you so much?

**Michael Casey:** 02:53 In different layers, I think. I think probably the most important one simply being the fact that she was able to identify and name the functionality of it, the idea that we could identify this process of surveillance capitalism, and to break down the, I would say, myths that have been perpetuated about what our experience as users of internet services has been, the idea of the freemium model, as if we're getting something for free.

**Michael Casey:** 03:21 I think she took it to another layer. We've all become familiar, of course, with Bruce Schneier's idea that we are not Facebook's customer, we are Facebook's product, but she takes us to another level and talks about us being its resource, that we are being, essentially, mined. I say that we're its quarry. I've been using that word a lot now. We're actually the quarry of surveillance capitalism, because it's our data that gets mined and then this other idea that it's not only about how we are having that data extracted from an analytic perspective, but then being turned back on us because it's behavior modification.

**Michael Casey:** 04:01 Just everything about it, the idea, that core concept of free will. What it is to be human, what it is to have, and you made this great point in the episode as well, a free market requires that free will, and the idea that we would actually be diminishing that and effectively becoming part of the machine, or the matrix, right, is a way to destroy the market itself. Yeah. Many levels, many layers. My one critique of it is that I think, and I'm not sure it could be avoided, but she kind of personalizes a little too much the causes of this. I'm not saying that Sheryl Sandberg and Larry Page and Sergey Brin-

**Demetri Kofinas:** 04:37 She calls Sheryl Sandberg the "Typhoid Mary of the ad model."

**Michael Casey:** 04:41 Yeah, that's pretty harsh. I think there's clearly blame that has to go around, but I think that what, she gets at it, but I see this more as a function of the system. It's an IPO. You're a public company, you've got quarterly demands upon you, and the very structure of modern capitalism and the requirement to meet quarterly returns, to meet bonuses. There's this very systematic problem here as well as just individuals, and that's the sort of

thing that we need to grapple with if we're going to fix this. It's not just do things differently, but what is the incentive structures that we have in place that are driving us to do these incredibly destructive things?

- Demetri Kofinas:** 05:18 You mentioned the Matrix. I think you and I were talking on the phone about this and I mentioned that scene, which I probably mentioned before to my audience where Morpheus is getting interrogated by Agent Smith. Was that with you I was talking about that?
- Michael Casey:** 05:31 I don't think it was but-
- Demetri Kofinas:** 05:31 Point is, I've used this often since my episode with Cal Newport on digital minimalism. I don't know if you've heard that one, but this idea of rejecting the program. In the Matrix, the idea was that the system was too perfect. There was too much control, and it didn't resemble a human world. It wasn't imperfect enough, and the problem was free will. Life's messy. So humans rejected the program. They rejected the perfect world, and now to feed it back to your point about Shoshana Zuboff and the fact that it isn't just that the behavioral data is the resource to be extracted from our lives' experiences, but that it's turned back against us, and it's used in order to manipulate our behavior, because behavior that is controlled is more easily predicted, and that the natural state of the system is zero unpredictability. It's absolute certainty.
- Michael Casey:** 06:19 Which is death, right? What is it to be alive if not to have randomness and the capacity to create? Just as an aside, that I think is nonetheless relevant, at Streambed, the company I'm working on, we have a tech component and we have a content component. We're working on a video series about musicians, and what we're doing with those musicians is every episode we're throwing together different genres, like a hip hop artist with, say, a cellist from Julliard or something, and just to see what magic happens when you bring that random connection of ideas and content together, because creativity emerges out of those edges, right.
- Michael Casey:** 06:55 The fringes are where we get growth and innovation and change, and if we have conformity we don't innovate. We can't create. The purpose of what we see as the very modern existence gets completely, essentially destroyed if we bring everything down to some kind of machine-led conformity.

**Demetri Kofinas:** 07:17 Life happens on the margin. In a quite literal sense, physical life on earth sprung from a primordial stew. A mixture of solids and liquids.

**Michael Casey:** 07:29 And accidents. Randomness.

**Demetri Kofinas:** 07:30 And accidents. Asteroids.

**Michael Casey:** 07:31 Yes, asteroids. Evolution is just the story of atoms colliding in the most unpredictable way and then ultimately figuring it out as to what the next step is to move within that randomness. I think the analogy with biology and with the broader physics of life forms is a perfect one for what's happening here, because the network is like an organism, and it thrives if it's allowed to have that constant change and impact and competition and everything else. If that network suddenly just looks monotonous and uniform, that organism dies. The organism has to be this living force of change.

**Demetri Kofinas:** 08:13 Of course, mutations are what lead to evolution. This is really interesting. This is opening up a whole can of worms that I hadn't anticipated, but let's go with it a little bit. There's a larger trend in our society: as we become more and more intelligent, we try to control more and more of the world, and the same is true, I mentioned evolution, mutation, genetic engineering, genomic sciences. We're looking to optimize ourselves to our environment, but that lowers our resiliency to change. This is the same problem as well in markets. We see this also in markets, with a lot of the growth in passive. We see it also in precision engineering and the use of AI and robotics in airplanes. We've seen cases where the autopilot goes down on airplanes and pilots don't know what to do.

**Demetri Kofinas:** 08:57 I was recently having this conversation with a hedge fund manager. We were here in New York, we were walking around, and we were having this exact conversation. We were sort of wondering: what happens as this trend continues? Do we get to a place where, if we live long enough, that we get a president who is also of this mindset of "what do I do if my car breaks down?"

**Michael Casey:** 09:22 Right, there's no capacity to-

**Demetri Kofinas:** 09:25 Everything's automated.

**Michael Casey:** 09:26 -To actually deal with anything. This idea that the greatest insecurities that we have are to work within a system that is

perceived to be perfectly secure, because the minute that it's not, everything is unworkable. You have to have the capacity for failure to be able to learn and grow and prepare for the worst. I think there's serious risk in this. I think it also gets back to how we optimize for gain for that network, because if we are going to have multiple modes that are able to fail at times, it is the place from which, again, all this idea and creativity comes from. If instead we're just driving everything through this one single algorithm that's just pushing out the same content for everybody, there's just no way for us to deal with the threat from outside.

- Michael Casey:** 10:20 We've seen markets do the same things. When the quant machines get turned off, suddenly there's flash crashes and things like that. Dependence upon an algorithm to do everything is dangerous precisely because of those moments when we can't use it.
- Demetri Kofinas:** 10:36 Did you ever read Ted Kaczynski's Industrial Society and Its Future?
- Michael Casey:** 10:40 No, I didn't.
- Demetri Kofinas:** 10:41 The Unabomber, the Unabomber manifesto.
- Michael Casey:** 10:43 Manifesto, yeah.
- Demetri Kofinas:** 10:44 Bill Joy referenced it in his article for Wired, "Why the Future Doesn't Need Us." I think he says something along the lines of how, as society and our problems, or the problems we face, become more and more complex and machines become more and more intelligent, that people will let machines make more of their decisions for them, since machine-made decisions would be superior to human ones, and that at some point the machines would effectively be in control. That people won't be able to just turn them off, because they'll be so dependent on them that turning them off would basically be tantamount to suicide.
- Demetri Kofinas:** 11:29 Now, bringing it back to the Matrix again, there's that scene, I think it's in the second one, where Neo is talking with the head of the Council of Zion, and he's down in the machine area. Remember that scene?
- Michael Casey:** 11:42 Yeah.

**Demetri Kofinas:** 11:43 He says to Neo, "You know, I like to come down here to be reminded that this city survives because of these machines," and Neo says, "Yeah, but we control these machines. They don't control us." And the Councilor says, "Well, sure. But if we shut these machines off, we die." It makes one wonder: what is control? What is the margin of control? We talk a lot today about AI and these futures where the machines will control us, maybe they'll kill us, maybe we'll create a world of paperclips a la Nick Bostrom, but in a sense, have we already passed that threshold? That's sort of what we're talking about here.

**Demetri Kofinas:** 12:29 If we're at a place where people don't know what to do when the autopilot fails, or they don't know what to do if their Google Maps goes down and they don't know how to get home, are we already kind of there? What would society look like if everything went down and we had to live without computers, without software, without the internet?

**Michael Casey:** 12:50 It won't be that hard to test it at some point. We've got vulnerable grids and things like that that could shut down.

**Demetri Kofinas:** 12:55 Do you worry about that at all?

**Michael Casey:** 12:56 I do, I think, because the way that you've described it does seem understandable. Yes, we're all dependent upon our GPSs. We're all dependent upon all this tech. The minute that the internet is down in various places, you really feel it, so the idea that we wouldn't be able to run, essentially, society or the economy without it seems real. But I do think, one of the things that was, I think, positive, about particularly the episode you did with Shoshana Zuboff is that she did turn it around to say once we identify these problems, there is a way out. There are things that we can do. We still have the power we have, we have governments that are better in some places than others at representing the will of the people, but do have power to make change. It's just very important that we identify these things.

**Michael Casey:** 13:42 The other thing is to say, and I think she made this point in the episode as well, that the data extraction model, the surveillance capitalism model doesn't have to be the technology model. We can build this tech as a service provider, and you pay for that service, for what you want to do with it. It doesn't have to be that I'm paying for it with my data and enabling this subterfuge as to who I am and how I'm using it. We can build good machines that do good, useful things. The thing is: how do we basically re-engineer the system? That's the challenge. How do we mandate that people don't use the internet for this or don't use it for that? There's going to have to be some return to, I

wouldn't say necessarily analog, but a disconnected world that, hey, it wasn't that long ago. We lived perfectly fine with maps that were physical, not that that has to be it. There's a lot that we could possibly just peel back.

- Demetri Kofinas:** 14:39 A return of control to the user.
- Michael Casey:** 14:42 Absolutely.
- Demetri Kofinas:** 14:43 Over his and her data and over his and her life. To bring it back to Kaczynski, Kaczynski's approach, his solution was to bring down the system. In his view, there was no other way. So he quite literally lived his truth. He sent pipe bombs to people. He was a terrorist, and now he's sitting in federal prison in Colorado. I've been in touch with the warden. I've tried to get him on the program.
- Michael Casey:** 15:06 Interesting, wow.
- Demetri Kofinas:** 15:06 Yeah, that was one of my early interview attempts, didn't get very far on it. The other option is to reform the system, which you just mentioned Shoshana talks about. Also, something else that came to my mind, and this kind of feeds into both of these. In Bill Joy's article, he talks about two possible paths. One is that, in both cases, automation makes our work obsolete, and at the limit we get to a place where human beings don't need to do anything. Before, his view was, I think, as he articulated in the article, that humans would also build AI, but before they got to the point where the AI took over, human beings would have control over, a small cadre of elite would have control over it, and they would decide either to kill off this population, or to create a brave new world where they pacify them, basically. I don't know that those necessarily have to be the outcomes, right? I think Shoshana does a great job of talking about that.
- Demetri Kofinas:** 15:56 I also was encouraged, in the research that I did for my episode on digital minimalism with Cal Newport, to see a thriving community of people that are switching off, that are rejecting the program. I've seen that also in myself. There is, of course, also the other risk that she identifies, which she calls instrumentarianism, and it kind of comes back to this point about this cadre of elite. It's super chilling when she talks about Niantic Labs and Pokémon Go. How did that feel? By the way, you were saying, when I was asking you what did you find most disturbing about it, I'll tell you what I found most disturbing about it. It was the language she used, and the emotions that it conjured in me, which is why I wrote that intro talking about

Henry Hudson and the natives and the Spaniards, because that's what it felt like.

**Michael Casey:** 16:40

Right. That we, unwillingly, unwittingly, are the agents of our own destruction. By not knowing, by not being able to identify the problem.

**Demetri Kofinas:** 16:48

Not being able to identify it.

**Michael Casey:** 16:50

Absolutely. It's a very powerful way to think about it. In terms of all those scenarios, I think I'm encouraged, yes, by the fact that we could reject the program in certain ways. I think that has to be part of what the solution is. I'm not a nihilist. Some people think that the reason why Peter Thiel and so forth supported Trump is because they see Trump as that agent of destruction that brings the system down. I do think that you certainly need ruptures of some sort, but the pain could be so big.

**Michael Casey:** 17:19

The other thing that I think is really important in this is the wellbeing of the planet itself. We can't separate this moment of concern for our own being in this digital existence from the actual wellbeing of the planet itself within this crisis moment in terms of the climate. It's interesting, because there is a bit of a tech for nature movement that's out there. I was the MC of a conference in Berlin, this thing called Event Horizon, sponsored by a company called Grid Singularity and the Energy Web Foundation. It's a decentralized energy solutions concept that's built upon blockchain. It's about how do we encourage systems of energy that will promote renewable systems and so forth.

**Michael Casey:** 18:03

Anyway, they had an art exhibit there that was these techies that were integrating what they're calling nature 2.0, so that nature kind of owns itself, the idea that it can extract from, not a lot, but from plants, a certain amount of electricity and you can charge phones. It was just an art experiment, but at the same time the idea was what if-

**Demetri Kofinas:** 18:24

This come out of Media Lab? This sounds like something Media Lab would do.

**Michael Casey:** 18:27

No, this was all done out of Berlin. It is kind of Media Lab-ish, yes, but this is all out of Berlin. Berlin's become a wonderful hotbed of innovative ideas, particularly on the Ethereum world, but a lot of AI and stuff as well, and the thing was, what if plants have rights as ownership? There's this concept that they are able to somehow, because of the programs that we might write for them, enforce those rights, particularly if they have assets,

like cryptocurrencies to do things. Then you get this thought experiment. What would happen if they were then able to basically make decisions? You start to say, "Essentially wouldn't the first thing that they would do would be to kill all the humans?" If you think about what it is that you want to do to manage the biggest threat to your existence, and you had that superior intelligence to figure that out, the first thing you'd do was kill all of us.

- Demetri Kofinas:** 19:17 That's interesting. Or a lot, maybe not all actually.
- Michael Casey:** 19:19 Not all, but the reason why this matters is because I think that a lot of this comes down to hubris. The idea that we could build what we think is the perfect system and the perfect machine to manage everything is also hubris, given the complexity and the enormity of the universe.
- Demetri Kofinas:** 19:37 Although that does assume that plants have the same aggressive, selfish tendencies of chimpanzees and humans. Humans are one of the worst animals in terms of how we treat each other and the environment. We look at a chimpanzee troupe, right, which I think is also one of the frightening things about human beings creating artificial intelligence, because if we're the ones who are imbuing the machine with values-
- Michael Casey:** 20:03 What values are we putting in there?
- Demetri Kofinas:** 20:03 We don't have very good ones, right? We don't have a great track record on that. I want to put a pin in this conversation. We're going to continue it, but I really want to roll the tape back a little bit, and get a start on who you are, how your career got started. I've got a picture of you here in a Toyota pickup truck in a village in what looks like southeast Asia?
- Michael Casey:** 20:25 It's actually on the border of Thailand and Burma. It's across the border in what was then called Manerplaw and it used to be the headquarters of the Karen National Union. The Karen have been fighting the longest war in history against the Burmese. This is the hill tribes that always exist around the border, the peripheral areas of Burma. The British, in their divided rule, essentially created a lot of tensions within these Burmese hill tribes, and the Karen were fighting this war. I went, that was my very first overseas assignment, basically went there on my own dime. That other guy in that Jeep there, I just find it very amusing, that kind of already started to slowly gray hair, this guy there. Do you recognize who that is? Look closely.

**Demetri Kofinas:** 21:04 Oh my God, it's hard. This is a grainy picture.

**Michael Casey:** 21:07 Do you know who it is?

**Demetri Kofinas:** 21:08 I can't tell from the picture.

**Michael Casey:** 21:09 It's Anderson Cooper.

**Demetri Kofinas:** 21:10 No way.

**Michael Casey:** 21:11 Anderson Cooper, at that stage, was working for Channel 4, which was this kind of high school, and to his credit, he did this on his own. He had his own camera, he had his own tripod, and we were going up to this refugee camp, and he would just plant the tripod in the ground and to camera he gave this very stern, he was a very serious kind of guy, I remember thinking how serious he was for his age. I was actually impressed with him. Did this on his own.

**Demetri Kofinas:** 21:36 They say that.

**Michael Casey:** 21:37 Sure, he comes from wealth, but he was out there proving himself.

**Demetri Kofinas:** 21:39 100%, that's what they say about him.

**Michael Casey:** 21:42 We met, we've been in contact a bit since, and those other guys have all been lifelong friends ever since as well. A bunch of Canadian journalists. I won an award for that, it was my first big feature for a publication called the Western Australian, which was my first newspaper job.

**Demetri Kofinas:** 21:57 This was, this looks like it was taken in the early '80s. When was this?

**Michael Casey:** 22:00 Not quite that old, but I am getting there. That's actually 1991.

**Demetri Kofinas:** 22:05 Sorry.

**Michael Casey:** 22:05 That's okay.

**Demetri Kofinas:** 22:08 How did you go from being an adventurous Aussie, right at the end of the Cold War, and how did you end up covering markets and the economy?

**Michael Casey:** 22:19 Interesting. I actually love the fact that you highlighted at the end of the Cold War, because I think that, 1999, for me, was an

absolutely formative year. That was when I first started traveling, and this is the Aussie experience, the walkabout, which is a term we've obviously borrowed from the Aboriginals, but the idea that, at a certain age, you chuck it all in and go traveling.

- Michael Casey:** 22:38 I had had, when I tell people this, they look at me and think, "What the fuck?" I was an accountant. I actually worked as an accountant for about one year of my life at Deloitte Haskins & Sells.
- Demetri Kofinas:** 22:51 Before you started journalism?
- Michael Casey:** 22:53 Before I started journalism.
- Demetri Kofinas:** 22:54 And you realized what a miserable existence that would have been.
- Michael Casey:** 22:58 I absolutely hated it.
- Demetri Kofinas:** 23:00 I worked in internal audit for three months, wanted to kill myself.
- Michael Casey:** 23:04 There you go, yes. I wanted to kill myself as well, so that forced me to think outside the box and start traveling. I find it quite ironic now that I'm in the blockchain world, because a blockchain is just a ledger. Ledgers are now at the center of what I do.
- Demetri Kofinas:** 23:13 You're an accountant again.
- Michael Casey:** 23:16 Yeah, it's kind of this weird circle that I've done. The point is, I just split. I just went traveling, and I lived in London for a while, and the Berlin Wall came down while I was there, Tiananmen Square happened while I was on the road, and I just remember thinking, "These people are my generation. This is my age. This is change." I started to get very interested in global affairs. Globalization had become a really big thing for me, and it did after that for quite some times.
- Michael Casey:** 23:39 That was that, I then decided I wanted to go back to what I always wanted to do. I lived in Thailand for a year as an English teacher, which is where I got interested in this. Then went back to Perth, got a journalism degree, started out at the West Australian, that led to that story. Ultimately I was obsessed with Asia. The very long story short is I ended up in New York, went to Cornell, did a master's in Asian Studies. The weirdest place to

be studying Indonesian, on the edge of the Cayuga Lake with the frozen, frigid northern air coming down, nothing like southeast Asia. Set myself up as a correspondent in Indonesia, but brought my then-girlfriend, who was an American I'd met in New York, with me to Jakarta. We got married, came back to New York, so the whole Asian thing disappeared.

- Michael Casey:** 24:20 One thing led to another, I was at Dow Jones. The smartest way to get on with what I was doing was to cover finance, but I was also very lucky because at that moment it was the financial crisis in Asia and I was flown back out to Indonesia to help cover it, and I realized that in fact finance and economics was a fascinating way to understand the political realities of the world. She was doing a master's in Anthropology at NYU that then led us to go to Argentina, where I became the bureau chief for Dow Jones and the Wall Street Journal down there in the wake of the financial crisis that they'd had. Everywhere I go, I kind of chase crises everywhere.
- Demetri Kofinas:** 24:56 There's a correlation.
- Michael Casey:** 24:57 There's something there. Bet against wherever my travel plans are, I suppose. That was, I think, almost the most formative of my experiences, and that led to things like bitcoin and blockchain, because I started to understand the failure of societies when there's a trust breakdown and to start to understand that we have this core problem of dealing with trust. Stumbled across bitcoin a few years after that, in the wake of the other big crisis of our time, the biggest of all, the 2008 crisis. One thing led to another, and a couple of books later, I'm immersed in this stuff.
- Demetri Kofinas:** 25:29 There are a lot of American Libertarian expats in Argentina. I don't know if you've met any of them. Guys like Doug Casey, Bill Bonner, folks like that.
- Michael Casey:** 25:36 I hadn't met them, but I'm not surprised. It's a strange choice, because obviously at a governmental level it is the last thing you would ever describe as libertarian.
- Demetri Kofinas:** 25:46 But for an expat it is.
- Michael Casey:** 25:47 It is, because it's kind of random, precisely because it does thrive on anarchy. Because no one trusts the government, there's an entire system around to enable anarchy. There's different rules. It's not like there's no governance. The governance is social and local, and it's a coordinated effort, the

ring arounds of the government itself. But yeah, you can get away with a lot.

- Demetri Kofinas:** 26:09 It's a beautiful country. It's one of my favorite countries. It's one of the countries in which I feel most at home. I think we were talking about this. I've read a number of books on Argentina, one of which was Paul Blustein's book. We both know Paul. I had Desmond Lachman on my old radio program who was the head of the Rio de la Plata reason for the IMF during the crisis. Paul's book was called *And the Money Kept Rolling In*, a great book.
- Michael Casey:** 26:32 It's a line from Evita, isn't it? I think.
- Demetri Kofinas:** 26:34 Is it?
- Michael Casey:** 26:35 I think it is, yeah.
- Demetri Kofinas:** 26:36 He has also "And Out." Because that was the big problem. But of course he talks about the Corralito and Cavallo, Domingo Cavallo is featured in there, as is Menem, Carlos Menem. What a character. Okay, there are so many things I want to talk to you about. I almost want to chain you to the table. I'm so upset that you have to leave during the normal time today. Let's take just a quick note of something, which is I've seen that you've written a lot of stuff on stable coins, hopefully we'll have a chance to discuss them. How did your experience, both in Thailand in '97, '98, and then also in Argentina in 2001, no, you weren't in Argentina in 2001, but you were afterwards?
- Michael Casey:** 27:18 Right, and I was in Indonesia in '97, '98. I was in Thailand before that, but '97, '98 was Indonesia which is even a better example of this.
- Demetri Kofinas:** 27:23 Right, Asian Financial Crisis, exactly. Are those experiences part of what you describe when you talk about, for example, loss of faith in government as having played a role in your understanding of the value of bitcoin. How important have currency crises been to both bitcoin and to your interest in stable coins?
- Michael Casey:** 27:42 The two come together really quite powerfully, and this is the moment, by the way, in which I think there is this convergence of these two big themes. We've got people talking about getting off the dollar standard is out there as a concept. I think the financial crisis of '97, '98, and also some aspects of how the Argentine crisis was dealt with and its aftermath really taught

me about the power of the international monetary system, and the centrality of the US in that. The US Treasury's role through the G7, its influence on the IMF. But also, just as importantly, the very powerful place that the dollar plays in essentially being this liquidity provider to the world, that whenever there's a crisis it's because there's a shortage of dollars in whichever country is at stake, and that you get these huge swings in exchange rates whenever there's some loss of confidence, because the natural movement of any foreign investor is to retreat to dollars. As that happens, as the dollar rises, other currencies as well get hit and the competitive crisis starts to happen.

- Michael Casey:** 28:43 The Indonesian crisis was described at the time as the third domino in the domino effect. We had Thailand, and then we had Korea, and then we had Indonesia. Essentially you start to see how the system, when all the money comes rolling in and rolling out, when there is this pro-cyclical trend and everything is on the up, and the dollar is essentially-
- Demetri Kofinas:** 29:09 Funding currency.
- Michael Casey:** 29:10 Is the funding currency.
- Demetri Kofinas:** 29:10 The carry trade.
- Michael Casey:** 29:11 It's the carry trade. The carry trade is exactly it. You borrow at low rates in the US, and you take the stronger position and the higher returns, the higher yields in the emerging markets. All that happens in unison. The minute that one of them falls, now you have a competitive problem, because Thailand is now expensive, or rather Korea is now expensive and Thailand's not, so the pressure gets put on all those positions that the carry trade suddenly has to get, it's a margin call. You've got to actually bring the funds back home again, and there's a domino effect, because everybody's in it together once that standard is being broken.
- Michael Casey:** 29:45 I basically felt like I got to see both the systematic problem, the systemic problem, really, of the dollar and its centrality to it all, and then the power, the absolute raw geopolitical power and how it's exercised. I almost wrote a book, when I was in Argentina, about the debt crisis. It never quite got sold.
- Demetri Kofinas:** 30:04 The raw geopolitical power, are you talking about in the aftermath, with things like the IMF?

**Michael Casey:** 30:08 Yeah, that's where it manifests itself. That's where you see the gunboat diplomacy that they couldn't have, now it takes its form. In Argentina, that aspect of it was clear in the fact that you had what was framed as a battle between these, they called them fundos buitres, vulture funds. Elliott Management.

**Demetri Kofinas:** 30:29 Elliott Management, right.

**Michael Casey:** 30:30 Elliott Capital Management, these guys, who were juxtaposed against, they would call them the Italian widows, because there were 400,000 of these people in Italy who had owned Argentine bonds alongside these massive hedge funds. Both of them were thrown into the mix as investors that had been defaulted on. You kind of got this visceral description of whose rights are we supposed to be protecting here?

**Demetri Kofinas:** 30:55 But didn't Elliott come in and buy the debt after.

**Michael Casey:** 31:00 They did.

**Demetri Kofinas:** 31:01 They came in afterwards and bought the debt when it was already distressed.

**Michael Casey:** 31:01 They did, but then took it to the New York court. The court just looks at the pari passu rights, that everybody has to be treated equally. It doesn't matter when you come in, whether you buy at 30 cents or 100, these guys are treated in the same way by the court, but of course, politically, they're not. You had the Italian government get involved and then you had the IMF doing its usual thing of trying to hold the country to account, using funding as a way to extract change. Was that change the appropriate one? It's always going to be austerity is the way to deal with this stuff, there's a very textbook like way that they deal with these things, and the damage is extremely hard to go through. But ultimately yeah, it's like the machine we were talking about before, in a way. If we don't have the machine on, everything falls apart.

**Michael Casey:** 31:46 In this case, the machine is the money. Without that, the place collapses. So with that power, they can turn things on and off. That's not to say that Argentina was in the right in their battle with the IMF, because it went on for years, the fights between the two sides.

**Demetri Kofinas:** 32:00 It wasn't until recently that Elliott Management got paid out, right? A few years ago, wasn't it?

**Michael Casey:** 32:05 It was very recently, and they were seizing boats, they were attaching assets.

**Demetri Kofinas:** 32:08 If I remember correctly, it was because they seized money through the SWIFT system that went through Belgium, if I remember correctly, right?

**Michael Casey:** 32:16 It may have been. I'm not exactly where it went through, but at the end of the day they started to realize that there was-

**Demetri Kofinas:** 32:19 They really pressed them over many years. They were relentless.

**Michael Casey:** 32:23 They were constantly looking for places where there were vulnerabilities. Argentina was trying to bring all of its assets home so there was no way to get attached. It was an ongoing battle for a long time.

**Demetri Kofinas:** 32:31 So much to talk about. I should do an episode on the SWIFT system. You talked about gunboat diplomacy, dollar diplomacy, I don't know how you referred to it, but the power of the US government to levy sanctions over the decades has been an enormous force in diplomatic relations, somewhere between diplomacy and war. That kind of brings us into Mark Carney's speech and stuff like that.

**Demetri Kofinas:** 32:52 For listeners, I want to mention: we've done a bunch of episodes where we've talked about these various crises. One that comes to mind is with Barry Eichengreen, and another is with Robert Johnson. We discussed his and Stanley Druckenmiller's and George Soros's short on the British pound and breaking the Bank of England. You should check those out.

**Demetri Kofinas:** 33:14 So you're in Argentina after the Argentinian economy has collapsed, and the year is, again, you said 2004 to 2008?

**Michael Casey:** 33:25 I was in Argentina from 2003 to 2009, six years.

**Demetri Kofinas:** 33:25 2009, so you were there for the great financial crisis, but it was different-

**Michael Casey:** 33:30 Yeah, it just started while I was there. I moved back to New York, it was well and truly still in the throes of it when I moved back to New York.

**Demetri Kofinas:** 33:36 So when did you discover bitcoin?

**Michael Casey:** 33:38 I didn't discover bitcoin until 2013, and I had helped set up a new currency coverage service at Dow Jones, and I was writing about currencies as a columnist, and that was the lens through which I saw bitcoin. Oh, what's this thing? It's another currency belonging to what? They just had the Cyprus crisis, if you remember that, assets were frozen and there was a 10% haircut that was imposed on all deposits.

**Demetri Kofinas:** 34:02 Capital controls.

**Michael Casey:** 34:04 Capital controls were in place.

**Demetri Kofinas:** 34:06 A bail in. That was the first bail in.

**Michael Casey:** 34:07 Right. At that moment, bitcoin started spiking. Cause and effect, who knows. I always think that it's still very early to make these correlations, but that was the narrative that was going around, so I took some attention to it. I wrote a very ordinary column about it. It wasn't very good, not very well informed. Then was taken out for dinner by a bunch of folks, along with some other journalists, guys like Jeremy Allaire and Barry Silbert and Jim Breyer and Raj Date, who'd actually just left his post as the head of the CFPB that Elizabeth Warren had created, so I was like, these guys are all into this bitcoin thing? What is it? Then got the basic rundown about what it was, and as we say in the Commonwealth countries, the penny dropped. The light bulb went off.

**Demetri Kofinas:** 34:53 What caused the light bulb to go off? What did you all perhaps have in common that allowed for that experience?

**Michael Casey:** 34:58 It was very much, this is where the Argentina stuff comes in. I realized that trust was something that was tenuous, and that without it everything breaks. Therefore the fact that we might be able to model a system that essentially allows us to transact, to engage, to do what economies need to do without having to trust an intermediary in the middle was a mind blowing idea, so I saw everything through the lens of this trust failure that Argentina had always represented to me. When I wrote The Age of Cryptocurrency, I have in there a story about me trying to take money out of the country, what was then called the Cepo. I'd already left the country and they were putting new forms of capital controls. This was like the 10 year cycle had come to bear. They're now introducing it again, by the way, in Argentina, more controls.

**Demetri Kofinas:** 35:46 Yeah, that country's a mess.

- Michael Casey:** 35:47 I used that as a way to talk about trust failure, because to get the money out you had to use these things called casa de cambios, which, outside the banking system. It only worked because you had this relationship of trust with the guy who's moving the money for you. It's because there's a breakdown of trust in the monetary system that you can't use the banking system, because the banking system has to be beholden to the regulatory framework. To see the idea that citizens' rights to actually engage in commerce is being restricted by these entities because of the breakdown in trust, to then have a system that might allow us to resolve that, that's what got me excited.
- Michael Casey:** 36:21 I also was very interested in addressing poverty through different approaches. My wife is an anthropologist, and we'd studied the impact of property rights as a failure across Latin America. I was very close to Hernando de Soto, the Peruvian economist who's written some excellent work on what he called the mystery of capital, and the mystery of capital is this dependence upon paper, and paper being certificates, being rules and titles and anything that proves rights to things. The idea that, perhaps, a blockchain could be a way in which you could imbue trust in rights, in ownership, in title, became something that also was very appealing to me.
- Michael Casey:** 37:01 All that Argentina experience suddenly coalesced at this moment and I just realized that this was something exciting, at the same time that I think, and this is where the Carney speech gets really interesting-
- Demetri Kofinas:** 37:13 Maybe you can give our listeners who don't know about this speech, I think I talked about it in one of our recent episodes, but in case I didn't, maybe give them a sense of what that speech was.
- Michael Casey:** 37:24 This was a speech at the annual Jackson Hole gathering that the Kansas Fed puts on, the Federal Reserve Bank of Kansas, which ultimately is the biggest gathering of central bankers in the world. It's every year in Jackson Hole, so it's a stage to say something big. Mark Carney is the outgoing governor of the Bank of England. He basically stood up and cited the elephant in the room. I think this is the most important part of the speech, by the way, not the proposal per se, but was to simply point out why relying on the dollar as the global reserve currency, as the centerpiece of our international monetary and financial system is so fundamentally harmful to the way the global economy functions, and to highlight all the problems that go with those cycles I was talking about.

- Michael Casey:** 38:07 So he lays all that out, and it's kind of a nice outgoing governor's thing to say. Guys, let's talk about this elephant in the room. This is the issue, but then he says we haven't been able to figure out how to get out of that, but now for the first time we have a technology that may help us do that. He was pretty thin on details, but he raised the idea that you could have what he called a synthetic, hegemonic currency, that would, I supposed, be some sort of collaborative, basket-base, clearing currency that would be controlled by central bank run digital currencies. That there would be a mechanism by which these digital currencies would formulate a basket amongst themselves that could become the reserve.
- Michael Casey:** 38:51 It's kind of a modern day version of John Maynard Keynes's idea of the bank hall, which is what, in fact, Bretton Woods was supposed to have become, until the Americans got in there and basically said no, it's going to be the dollar.
- Michael Casey:** 39:05 That's the way he floated it. What I'm most interested in, and I wrote a column about this, is not that we need necessarily another reserve currency. What I think is really interesting about stable coins and just cryptocurrency generally is that it is programmable money. Once currency has the capacity to also be software, and we can imbue it with rules, it can essentially turn things on and off. Money is no longer just the settlement vehicle for the trade on the other side, it is one and the same thing. Why that matters is because if you can build, I believe, and this is something that certain people are working on, and it's very early days, but if you can build a system that has an interoperability protocol, so you have to stick with me here, because it gets a little confusing.
- Michael Casey:** 39:54 Essentially, if there's one protocol that two separate digital currencies both agree to use, you can establish smart contracts that allow these currencies to talk to each other. What I could do, there's timing issues around this, but if we could do it, you're the exporter, I'm the importer, we lock in, right at that moment of our trade deal, the price at the exchange rate at which we've got it. It's then pushed into a decentralized escrow, so neither you or I can touch those funds. It's sitting here in the currency, if you're the exporter, it's in your currency. I've put it in those terms. At the time that the contract is complete, the goods have been delivered, the funds get delivered to you. If they're not, then it gets reverted back to me.
- Michael Casey:** 40:36 What's interesting about that is I don't need to intermediate through another currency. I'm protected, because all I care about is that I'm paying at that rate at that time.

**Demetri Kofinas:** 40:44 You eliminate the exchange rate risk without having to rely on a reserve currency like the dollar, which is one of the central roles the dollar plays in global trade and commerce.

**Michael Casey:** 40:54 In fact, I would argue that the only reason why we have such huge capital flows into the dollar is because it's all a hedge against the risks-

**Demetri Kofinas:** 41:02 The liabilities.

**Michael Casey:** 41:03 The liabilities that come with the current account, which is the trading side. If we were to remove this part of it, all the rest of it goes away as well. Of course, that would be phenomenally harmful if it was just to happen like that, but at the end of the day, if we can figure out how to engineer to something along those lines, I think it gets interesting, because we're not talking about controlling the money supply of these currencies. Central banks still have autonomy to produce and print and do whatever they want with their money supply, and they can do bad or good policies, whatever it is. Then the currencies themselves float against each other, but when you and I enter into a transaction we can lock in what we have as that exchange rate.

**Michael Casey:** 41:36 That, to me, is something that's really quite powerful as a potential way to change the world. That's the thing we need to think about as much as anything else, is the programmability that we can actually build into the system.

**Demetri Kofinas:** 41:49 What you're talking about there, in terms of the US dollar and what Carney alluded to, is the exorbitant privilege. That isn't just a privilege, in some cases you could argue it's also a burden that certainly certain parts of the American economy bear, particularly the export sector. But that opens up a really interesting question, which is if this is actually going to happen, I know you also heard our episode with Raoul Paul on Libra and being the commercial-

**Michael Casey:** 42:17 Yeah, he took a very interesting take on Libra, I hadn't heard his version of it as something that would be a solution to, in a post-debt jubilee moment, that would resolve some of the concerns about the currency war risks that would emerge.

**Demetri Kofinas:** 42:30 And also the idea that corporations can bypass the government and commerce in a world where dysfunction begins to grow among sovereigns, right? I wonder how, in practice, the United States government, the Congress, the executive, etc., would

react to all of this. We're already, kind of interestingly enough, the US is, certainly with this administration, pulling back from the international order. Pulling back from taking a lead. You could certainly envision a situation where the rest of the world decides to go their own way, and this is one way in which they go. The US, what kind of a say would it have in that?

- Michael Casey:** 43:10 It's funny, a couple of weeks back I was on a BBC interview with another one of your guests, Gillian Tett.
- Demetri Kofinas:** 43:16 Oh, she's great.
- Michael Casey:** 43:18 We were specifically asking this question. It was myself and a couple of other people. Former Greek Finance Minister, Varoufakis.
- Demetri Kofinas:** 43:20 Varoufakis. Varoufakis was on the panel, huh?
- Michael Casey:** 43:28 He was on the panel briefly. He came in and came off, that was pretty interesting. Anyway, despite the fact that I think our politics spread right across the spectrum there, almost unanimity across all the panelists that yes, the dollar was a problem and it had to go, and then we would get back to the question that you just asked. Would the US ever allow this? It is very hard to imagine that it would. Not just because the damages would be big, because you're right, there's actually huge gains to be had as well. Export industry would potentially benefit, but just as importantly, I would argue that the drug, if you like, of low interest rates, it creates all the wrong incentives, and I think it was the biggest driver of all behind the financial crisis. All that goes away and you can build viable systems and you can become less dependent on finance. All the stuff that you want to happen to your economy.
- Michael Casey:** 44:20 But we've built an entire, not just economic system, but a political economic system on that, and that centrality of the dollar is the hegemon. If we take it away, all of those incumbent interests are threatened. Wall Street plus Washington, plus I don't know, Silicon Valley. All these interests get caught up in that, and ultimately it's very hard to imagine the political system would go against it.
- Michael Casey:** 44:46 Now, having said that, the other thing we talked about is yes, would you ever do this? You mentioned Barry Eichengreen, another person I've also interviewed a number of times, and read his books. He makes the consistent point that reserve currencies always have a lifespan. They die at some point.

**Demetri Kofinas:** 45:03 I think one of his books was called Exorbitant Privilege.

**Michael Casey:** 45:05 It was, yes. Inevitably it goes away. If you go back and look at the Athenian coin, I can't remember what its name was, but then, of course, the Roman coin, and then the British pound at the turn of the century. Eventually the empire implodes, and so what we want right now is an awareness at least that we're going to have to go to something else. How do we make that transition? This is where Carney's speech is important, because regardless of whether he has the solution per se, he's making the point that we have the technology A. To make the change, and that B. That technology's not going to stop. The development of stable coins, the development of ideas like Libra. We know that Walmart is looking to build something similar. This is not going to stop, so change is happening regardless. What Washington needs to wake up and figure out how we're going to make that transition, even though that transition is going to be phenomenally painful.

**Demetri Kofinas:** 46:00 So many things. I did an episode recently, I haven't released it, where I told my guest, "I'm writing furiously," and I'm writing furiously as you're talking. There are things that I want to say to you. There are things I also want to say to our audience. Have you read the book *The Storm Before the Storm* by Mike Duncan?

**Michael Casey:** 46:15 No, another one [crosstalk 00:46:16].

**Demetri Kofinas:** 46:16 Have you heard of this?

**Michael Casey:** 46:16 I haven't, no.

**Demetri Kofinas:** 46:18 It's a history of the Roman republic. In fact, the subtitle, I think, is *The Beginning of the Fall of the Roman Republic*, and it chronicles the period before what we think of as the fall. It's fascinating, I'm in the middle of reading it. I need to get the guy on the show. You mentioned the low interest rate environment. You mentioned all these different stakeholders. There's another stakeholder, which is debt holders. We're recording this today on September 18th, Wednesday. This is, today, the FOMC two day meeting has ended. The FOMC was meeting yesterday and today.

**Demetri Kofinas:** 46:48 Yesterday we saw a spike in the overnight repo market, the money market. I believe that the Fed didn't have to intervene like that in the money market since the financial crisis. The last time I remember that situation, anything remotely similar,

obviously it was much worse, was with Lehman. We may be in the moment of truth now, right?

- Michael Casey:** 47:11 I think we definitely might be. I'm not going to say we are, but I think, and you had Raoul Paul talking about some of the indicators he's looking at. It's very hard to not be pessimistic about the state of the global economy right now. If you look at the PMIs, the Purchasing Managers Index, which is a very important leading indicator of manufacturing, all of that, all around the world, dropping off quite sharply at the moment. A lot going in the wrong direction. People are pointing to that repo market liquidity challenge, the spike up to 10% in the overnight rate, as being the result of a confluence of a bunch of coincidental factors, Treasury auctions coming due at that time and-
- Demetri Kofinas:** 47:53 Corporations.
- Michael Casey:** 47:53 And corporations doing things. But you know what? As you point out, it's the first time since. It's not as if the system hasn't been able to absorb these coincidences in the past. It's what we're not looking at that matters. What is the underlying stress in the system that leads people to pull out their liquidity at that time, because a willing investor's going to take advantage of that moment, if they feel confident the world is what it is. To just say it's because there's a shortage of funds for various other transient situations is to diminish the fact people have got money, they typically put it to use. If they don't put it to use, then they're worried about something.
- Demetri Kofinas:** 48:32 It's also that question, which is, is this a liquidity problem, or is it a solvency problem?
- Michael Casey:** 48:37 A solvency problem, right, yeah.
- Demetri Kofinas:** 48:39 And is the system itself insolvent? That's sort of the question. This is not something that's happening in a vacuum. This is happening amid a multi-year process of Fed tightening and Reserve balance unwinding. The Fed also cut rates today. They announced a rate cut, and they also announced-
- Michael Casey:** 48:57 And the President came out and slammed them for doing so immediately on Twitter.
- Demetri Kofinas:** 49:00 I didn't even see that. They also lowered interest on excess reserves, IOER, so they're trying to get the banks to start to lend more again. This also raises a question, which is: are central

banks, remember, of course, during 2008, when they created this money, they said, well, the same way it went out it'll come right back in. The question has always been will it be that easy, and it's proving, perhaps, not to be.

- Michael Casey:** 49:26 Again, we have to look at this from a high level, and recognize that the levers that are being played here, and I don't mean by the Fed itself, I mean by all actors in this system, are not just financial. They are political and they are microeconomic, in the sense that what the Fed's mandate is to produce maximum employment, minimum unemployment, however they define it. Full employment.
- Demetri Kofinas:** 49:55 That's recent, the last 40 years or so.
- Michael Casey:** 49:56 Right. But that measure now seems to most people to be inaccurate, because if you just poll the average American for the last 10 years, we've had quite consistently, not just in the Trump era, even before, we had quite a healthy economy when it comes to those, I would argue, outdated measures of unemployment, but the average American is going to tell you that life sucks. There's all those polls about happiness and all those polls about do you expect now for your children to have a better or a worse life than you, they're flipping round the other way. In that sense, the central banks have failed in that particular mandate at the same time that they've pumped up asset markets. What's interesting is not just financial asset markets. I was writing a lot in the wake of the crisis when all that QE, that quantitative easing was happening. What was happening to the fine art market. What was happening to Manhattan real estate and London real estate and Hong Kong real estate, but not happening to real estate in Iowa or anything else.
- Demetri Kofinas:** 50:51 Wealth, the wealth transfer.
- Michael Casey:** 50:52 It's the wealth transfer, it's because it's excess funds needing to find some haven to place itself into, and that's not the kind of investment that you need to actually create prosperity, and that's the biggest concern.
- Demetri Kofinas:** 51:03 Also, how about this, Michael. It's created, chronically over years now, a restructuring of our economy, right? How much money has been allocated towards things that are incompatible with a fuller middle class economy because of the way the wealth has been skewed?

**Michael Casey:** 51:22 Absolutely. This also gets, by the way, back to the same point, I would argue, about the drug of the dollar. We've prioritized finance, so what you're talking about here is the incentives are all misaligned. If there is a flow of funds that benefits financial assets, whether it's through quantitative easing, or it's through the low interest rate environments that is created by the prevalence of dollar assets, you're going to have people give up on science degrees and the various other creative fields to learn how to take their math skills and do quant funds and the like. Finance gets prioritized. The UK has dealt with this problem. I would argue the backlash that Brexit became was also a function of that misalignment of interests, and that the city of London was the hugest beneficiary of the European relationship precisely because finance was the vehicle through which that relationship was most powerfully manifest. So you build these political tensions underneath it all.

**Michael Casey:** 52:19 Now, when we laugh about Donald Trump tweeting, whenever I see it I'm just stunned, because having covered central banks for many years now, the very idea that the minute after a Fed decision you would have, I think he called Powell weak, for making this weak decision to cut it by 25 basis points. I'm still stunned. I'm like, "I can't imagine the President is doing this," but yet we still need to step back and say, "How did we get here?" How we got here is the fact that there is a huge swathe of the population who have been excluded from these gains and these activities, and those political backlashes, whether it's Brexit or Trump or everything, is a manifestation of that. We need to grapple with those problems as much as anything else.

**Demetri Kofinas:** 52:59 This kind of brings us back to bitcoin, unexpectedly. I scribbled some other things about the insensitivity of investors after years and years of easy money and what that means in terms of the conversation we were just having, but actually I want to put a pin in that and I want to ask you about, return it to bitcoin and this intersection between bitcoin and the type of despair that you're describing in the population. Have you seen these Doomer videos from YouTube?

**Michael Casey:** 53:27 No.

**Demetri Kofinas:** 53:27 You haven't seen this, this guy here?

**Michael Casey:** 53:28 Oh, I know the character, yeah.

**Demetri Kofinas:** 53:30 Are you familiar with this? Are you familiar with-

**Michael Casey:** 53:33 I'm familiar with the meme, but I don't know about the actual videos.

**Demetri Kofinas:** 53:35 The meme, so you're generally familiar with it. I can't claim expertise on it, I wish I could and I could explain it to my audience, but effectively, what I have come to understand, in a sense, is that, first of all, I think from when I was growing up, when you were growing up, I don't know, it seems to me that money, as a measure of success, plays a much bigger role today than it did when I was growing up. It feels like it's just everywhere. On the one hand, it seems to me that money has become more important, while it has become more difficult to attain. I think what's interesting about bitcoin and some of these other cryptocurrencies is that it put the prospect of riches, now this moves us away from your work to let's say the work of your wife, anthropologist. It offers the prospect of enormous riches for just simply having faith, right?

**Demetri Kofinas:** 54:30 This intersection now of the Doomer, the economic conditions, the promise of riches, and also, I think another interesting thing, and I'll let you kind of respond to this jumbled, half-baked thought, which is that I've relied a lot on myth in my life. You've heard some of the intros of Hidden Forces. Many of them rely on Ancient Greek mythology. I've relied a lot on the work of people like Carl Jung and Joseph Campbell, and mythology as a way to guide me in periods of uncertainty. It gives me solace that others have been here before. I feel like this particular aspect, both of bitcoin and all these coins and all this stuff, is a false promise. This idea that you can resolve this internal despair by just making money, and it isn't just with bitcoin. This is a problem of our society overall.

**Michael Casey:** 55:21 I think your premise is correct in the terms of how it has played out on some level. It's not by any means, and this, I think, is where you were going at the end there, what I would want to see to be the way that bitcoin is perceived and its function in the economy. I think its function in the economy, whether it's bitcoin, some sort of stable coins, or some other blockchain-based exchange mechanism, is to enable commerce. It needs to become this effective way to remove all the barriers to entry to participate in the economy, not necessarily to accumulate wealth.

**Michael Casey:** 55:59 I think that one of the big negatives from the perspective of moving from being a fringe thing to wide adoption is the perception that it's all about Lambos and get rich quick kids and so forth, so I think it's actually a negative in that sense. I do think that if the only story you tell about bitcoin is I bought it at

5 and now it's at 10,000, it's not an interesting story to me, but at the same time I think you're absolutely right. There was this, maybe it's the first use case of bitcoin, in the sense that there is a democratization, it's not even a democracy because the first adopters aren't exactly representative, but nonetheless, the barrier to entry to buy bitcoin at those early level was virtually zero, and you just had to know about it.

- Demetri Kofinas:** 56:45 Or to mine it.
- Michael Casey:** 56:46 Or to mine it, right?
- Demetri Kofinas:** 56:47 I think that's a unique selling point of bitcoin as global money, that it's endogenous, its money supply is endogenous.
- Michael Casey:** 56:54 Right, absolutely.
- Demetri Kofinas:** 56:55 It's a really unique technology, phenomenon, community. I've tried to wrap my head around it. I don't know if you hear our episode with Nick Carter on bitcoin's ontology.
- Michael Casey:** 57:04 I know Nick's stuff very well.
- Demetri Kofinas:** 57:06 Yeah, you know his stuff already. That was really helpful for me. Michael, I want to move it to the Overtime. There are a number of things I want to talk about, I still have them in our rundown. I want to talk about, you've written this article on the internet's original sin, which I think is central to this, and I want to talk about that in the context that we're describing here. I also want to talk about something else that you've written about, which is monetized trolls, and this intersection between what we're describing here, which is the opportunity to make money, and then the ad-driven attention economy, and that intersection. It's front and center in crypto, and also, if we have time, and I think we will, to get maybe into stable coins a bit more, because you've really done a lot of work in that. Maybe we can discuss that a little bit here, algorithmic versus reserve, etc.
- Demetri Kofinas:** 57:51 For regular listeners, you know the drill. If you're new to the program, head over to [Patreon.com/hiddenforces](https://patreon.com/hiddenforces), where you can get access to this week's Overtime, as well as access to a transcript of today's conversation, as well as to the Rundown, which is full of links and pictures and references and quotes from Michael and from others, and of course the picture of Michael with Anderson Cooper will be in the Rundown. I really appreciate you coming on the program, Michael. It's really been a great conversation.

<b>Michael Casey:</b>	58:23	It's been great Demetri, thank you. You have a wonderful podcast. I'm a newcomer to the show, and I've been starting to absorb and get into your episodes. It's a wonderful podcast. Count me in as a regular listener fan, and I'll be contributing to Patreon and getting involved in these longer forms too. Thanks for having me on.
<b>Demetri Kofinas:</b>	58:40	I appreciate it, thank you.
<b>Demetri Kofinas:</b>	58:43	Today's episode of Hidden Forces was recorded at Creative Media Design Studio in New York City. For more information about this week's episode, or if you want easy access to related programming, visit our website at <a href="http://hiddenforces.io">hiddenforces.io</a> and subscribe to our free email list. If you want access to overtime segments, episode transcripts, and show rundowns full of links and detailed information related to each and every episode, check out our premium subscription, available through the Hidden Forces website or through our Patreon page, at <a href="https://Patreon.com/hiddenforces">Patreon.com/hiddenforces</a> .
<b>Demetri Kofinas:</b>	59:22	Today's episode was produced by me and edited by Stylianos Nicolaou. For more episodes, you can check out our website at <a href="http://hiddenforces.io">hiddenforces.io</a> . Join the conversation at Facebook, Twitter, and Instagram <a href="https://www.instagram.com/hiddenforcespod">@hiddenforcespod</a> , or send me an email. As always, thanks for listening. We'll see you next week.