<u>Transcript for Rewriting the Ledger: Bitcoin and the nature of money: The Clear Crypto Podcast</u>
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Cointelegraph - The Clear Crypto Podcast Host Nathan Jeffay: (00:00)

Hello and welcome to the Clear Crypto Podcast, brought to you by StarkWare and Coin Telegraph. No jargon, no hype, just straight talk on what crypto and blockchain do today and what they will do tomorrow.

Nathan: (00:19)

Now, as I always say to some of us, clear and crypto sound like a contradiction in terms, and if you've ever felt that you are in the right place, this is the podcast for you because we are breaking it all down and making it all make sense. But if you're an OG who lives and breathes this stuff, don't go anywhere because this is a podcast for you. And in particular, today's episode is one that you really need to hear. I'm Nathan, a journalist who's fallen into blockchain and head of media at StarkWare. Now, one of the things that I am loving about doing this podcast is we take a topic that seems to many people to be all about technology, to be all about code. And we're actually really unraveling how it's actually important to human beings, how it will change societies, how it will change the way that we interact with each other.

Nathan: (01:10)

And today we're doing something really special. We are not going talk to a coder, we are not going talk to an investor. We are going talk to an anthropologist. Now, if that sounds scary, don't worry. He's really jolly, he's really fun. He's really interesting to talk to. And this anthropologist that we are going be speaking to is an expert on how crypto and blockchain fit into human society and how they're going to impact human society. And for this episode, I am very pleased that we have a guest co-presenter, Adrian Blust, who is usually in the producer's chair, is actually shifting chairs, changing his hat, and actually going be co-presenting with me and interviewing our guest today. Adrian, how are you doing?

Cointelegraph - The Clear Crypto Podcast Producer Adrian Blust: (01:55)

I'm doing great. Thank you, Nathan.

Nathan: (01:57)

Good. Now Adrian, when we talk, you are always absolutely fascinated by the very topic for today, which is how blockchain is actually impacting societies. And to let listeners into that little secret, we're actually recording this after the interview, which I thought was fascinating. Our guest today is the anthropologist, Bill Maurer. Adrian, what stood out about the interview for you?

Adrian: (02:20)

I think it's really interesting to have an anthropological perspective on the technology of cryptocurrency. It's absolutely fascinating to see the ways that money can shift and how the framework of cryptocurrency, how the technology works, what else it can do to shape the direction or future of money. I found that really interesting, kind of like how we can make the

most out of the technology to think beyond money.

Nathan: (<u>02:48</u>)

So just before we share that fantastic interview with Professor Bill Mauer anthropologist at UC Irvine and Dean of the School of Social Sciences, I will tell you that the part that I really loved was when we get him to discuss how an alien would react to being spoken to about money and about cryptocurrency, which would make more sense where the alien would get stuck. And I can tell you as we were talking to Professor Billers, I'm going call him, I, in my mind's eye, could really see this professor actually having a conversation with an alien. So absolutely fantastic stuff. Let's get started with the interview.

Nathan: (03:18)

Professor Maurer. I always find it really interesting when people look at me and say, I don't understand how crypto works, I don't understand how blockchain works. And I say to them, but wait a minute, do you understand how money works? Is that something that you've had?

Professor Bill Maurer, anthropologist, dean of UC Irvine's School of Social Sciences, IMTFI Director: (03:41)

Yes, indeed. And, and so few people have any more than a rudimentary understanding of what money is and where it came from and what it does. When they think about money, they're still imagining a banknote or a coin getting passed hand to hand, and they rarely stop and, and think about the real magic of that, right? That I can transfer value to you just by handing you a piece of paper or by handing you a coin. And somehow we agree that it works. So yes, I mean, people rarely stop and consider what is money anyway.

Nathan: (04:10)

Yeah, I mean it's fascinating really because when we talk about crypto, we're so often translating ourselves and trying to give an explanation that it's like a dollar bill in this respect. And then you stop yourself and go, but hold on, the dollar bill itself is just representing something else. So, if you walk into a group of students when you are giving your introductory lecture that deals with topics like this of what actually is money, how do you approach it? Do you approach it by starting with history starting today? Where do you begin the discussion?

Bill: (04:44)

You know, I generally begin by going back to history and talking about case studies like ancient Mesopotamia. That's kind of my favorite, especially to lead into a blockchain or crypto conversation. Because there we had the emergence of societies with something that we could call money, but with no token, with no coin, with no banknote, with nothing that was passed hand to hand. Instead, what they had was an elaborate system for keeping records, right? And so I start there, I start with money as fundamentally a system of record keeping. And then inevitably the student will be like, what are you talking about? Here's a dollar bill, right? This isn't a system of record keeping. And then I will just remind them, oh, but how often are you going to use that when you go and buy a coffee? Are you going to use a dollar bill? Are you going to use your credit card? And they're going say, well, I'm going to use my card. They're like,

well, when you're using a card, what's that? Where's the money? And that's where they kind of get stuck, right? And go, uh, okay, and then I can start talking about money is essentially a way of memorializing credits and debts, and that's all that it's ever been.

Nathan: (<u>05:53</u>)

I've often wondered if an alien were to land on earth and need to understand money from the start, and you were to think, you know, which system of money should I explain? Should I explain this thing that used to be linked to gold that isn't linked to gold anymore, that you kind of spend online but you don't quite know how it's working? Or would I want to explain crypto, which is kind of this unified system? That might sound like a bit of a leading question. You know, this is the Clear Crypto podcast. So I guess we do have a bias here, but you know, it feels to me like facing that alien that blockchain would actually be an easier concept to explain, which is counterintuitive to everyone who says, wait a minute, blockchain's really, really complex.

Bill: (06:34)

You know, it, it might be, it might be in that what blockchain gives you is something more like that Mesopotamian system, right? A system of keeping records to keep track of relationships, to keep track of, of credits and debts among humans. And also, presumably you can do it with non-human agents as well. But then I think the alien would get stuck and would get stuck on the metaphors, right? And would say, well, but why are you calling it Bitcoin? And why are you talking about wallets? Why are you talking about keys? First, I'd have to say, look, just believe me, it's a sort of short, short historical interregnum since around, you know, 500 BC, humans have had these coins and then later have these banknotes. And before that, we had systems of bookkeeping on clay tablets, and in other means. In small scale societies, people may not have had writing and written records, but they were using other things to remember their relationships with one another...

Bill: (07:38)

shelled necklaces, you know, giant stones, whatever. And then on this side, if you look at what we humans are actually doing, we're not really transacting with those banknotes and coins. We're transacting with digital records. And then, you know, the other thing that I'd need to kind of disabuse our alien of because of this kind of, as I called it, a historical interregnum of, you know, coin consciousness or banknote consciousness, is that our money has to be passed and settle in an instant. Because it doesn't, and most of it doesn't. Even, even crypto doesn't, right? And now again, the metaphors fail us, right? Money will be transferred from my bank's account to your bank's account, when really all it is happening is the updating of databases held by each bank facilitated by an intermediary, right? So then our alien is going to be like, why are you people so stuck on this idea of money being a thing past hand to hand? And, you know, again, I would be like, well, that's kind of where we've been stuck for 2000 years, even if that's not how we do it.

Nathan: (08:48)

I wanted at this point to bring in our producer Adrian, who is absolutely fascinated by all things

to do with crypto and society and sociology. Adrian, what are you making of this idea of the alien and everything we're discussing so far? What's your commentary?

Adrian: (09:04)

I being involved in AI, I kind of feel like we are already approaching this alien civilization, which is like, the way I think about it is that crypto is going to be the native way to transact value and money for AI. And perhaps this alien invasion is actually already beginning and we're creating an infrastructure for it to easily operate and exchange between agents, agents and humans, and be able to create a more intuitive or accessible way to transact value. That that's the way I kind of the first place my mind goes to. And it's interesting how it's kind of full circle, as you mentioned, where we're coming back to the way money was used before, but now in this completely digital space.

Bill: (09:55)

You know, what's interesting though, with Adrian thinking about your AI is there should be a point at which your society of AI says, why are we still using these human terms? Why are we still even calling this money? For us, it's function as a kind of store of value. It doesn't really matter. What matters to us is a flow of data, a flow of information. What matters to us is the ability to maintain records with one another so that we are tracking our relationships with one another over time. And even calling it money for us AIs locks us into a grammar that from the get-go is shop full of all the wrong metaphors, right? It makes us think that there is money and I am giving it to you instead of, there's a whole sea of data and we are just exchanging requisite data with one another to get certain things done.

Bill: (10:51)

Right? So just for fun, I recently wrote an article in a journal called Economic Anthropology, where I wrote it in the voice of the Automated Clearing House, the US interbank supplement system, as I imagined it would evolve into an artificial intelligence by the year 2050. And it, and it goes through this history and basically it's like foolish humans, why do they think that money is this thing when really money is a system of relationships? Like, that's all I've ever been. That's all it's ever been. And, and I as this, you know, clearinghouse have been around in one form or another ever since the telegraph.

Adrian: (11:24)

Along with what you're saying, Bill. So it reminds me like how does this, how does Bitcoin then fit into this picture, right? Where I love what you said about how AI can even start to realize there is this, with money, this physical thing and a social agreement. And now AI can be like, well, it's no, no longer necessary it be a social agreement, I assume, but more of an exchange of information. So then how is Bitcoin fitting into this new and old model, like coming back to the very beginnings of money and where it is now?

Bill: (11:53)

Well, let me give kind of two answers. One specific to Bitcoin and the other, back to our AI friend. Specific to Bitcoin, I think that it got stuck and continues to be stuck because even

though the Bitcoin, let's just sort of make it into an agent itself, even though the Bitcoin system recognizes that money is a record keeping operation, because that's all that blockchain is, it's still stuck in the idea that it is money in the form of something like a coin, right? It's still stuck there. So the real potential of doing things with distributed ledgers, which don't have to be money things, the way that we've understood money, things in the past, it can be a whole different set of relationships around data and value without having to abstract it out into thinking of it as money, right?

Bill: (12:58)

So it's stuck and, and you see that in the very origin of Bitcoin, in the Satoshi White paper, right? There's a recognition, there's this aha moment that's going on there. The aha is, oh my gosh, money is just a record-keeping system. The only problem we have is that it's being handled by central authority, centralized agents. And as the financial crisis showed us, this could be a problem. So what we're going do is decentralize it. We're going replicate the ledger, every participant, this isn't how it works anymore, but every participant in the system will have a copy of it. When they want to make a change to the ledger, they will broadcast that proposed change. Everybody will then see if this is a change that is valid by going back in the history of other changes to the ledger. We can call them transactions, but we don't have to. And once they've been validated, all the ledgers are updated all at once. So great, they've moved away from kind of the moneyness of money to get into the kind of recordness of money, but then they called it a coin, right? And so instead of calling it, what would you even call it, you would call it sort of rights to a portion of a ledger that is always unfolding going forward in time...

Nathan: (<u>14:15</u>)

Because it's human records, it's the record of human society. And this is why I think we are very used to concepts that do two things at once that that don't seem obvious, but actually are the same thing. So for example, you know, people have great difficulty with the idea of Ethereum. What, hold on, on the one hand, it's tokens, it's money, on the other, it's information. But what I find so remarkable about this conversation, Bill, is that, you know, we've had on this show, I mean, Stark Ware, where I work, is home to all these zero-knowledge proof geniuses. And we've had all these other kinds of crypto pioneers. And, and then it takes you, the, the academic, the sociologist, the scholar, to come along and say, Hey, I, I'm going state it the most clearly, which is we are in a sense all being constrained by our imaginations of what this technology can do by our slightly childlike need to say, well, you know, it's kind of another form of money when it's like, actually it's another way of documenting the interactions of human beings in the global universe.

Nathan: (<u>15:19</u>)

And that is really fascinating.

Bill: (15:20)

Exactly. Yeah, I mean, again, we have trouble with a couple of things. We have trouble with the idea that we are relational beings, even though it's obvious, right? Because we're like, I'm me, I'm an individual, I'm my own self, I have my own thoughts. Like yeah, I do, but here I am

speaking this language. How did I get this language? Where does it come from? How can you understand me? Right? We, we have trouble seeing the path because we're, we're in it. The other thing we have trouble with is time, right? And time is a big thing for thinking about value and information. What money does, what any kind of system of record keeping does, is it allows us to extend our time horizon, potentially infinitely. It allows us to imagine things like a debt that's established in one moment, but only settled to maybe 6, 12, 13, 20, 30 years later. And what money gives us, what any kind of record-keeping system for human relationships gives us is a way of extending time beyond the now and even beyond my own lifetime. We have all these tools that help us facilitate that and that ultimately help us regenerate society as we go on. Because we will all go, but society will endure. How will it do so, what are the technologies that give it that durative capacity and money is fundamentally one of those technologies.

Nathan: (16:46)

To what extent do you see blockchain and crypto as a sociological phenomenon, something that has been born out of sociological changes? To what extent is it something that's actually going to impact how we think of ourselves, think of society, bring about massive sociological change? The two are not mutually exclusive. Tell us how you conceive it.

Bill: (17:08)

Yeah. Oh, well, yeah. I mean it is clearly a sociological phenomenon. Born of a particular moment, right? Born of a moment where people were starting to ask questions about the nature of money, the nature of the state, the nature of society, particularly around the time of the financial crisis. And it's interesting that it went to a money space, right? Instead of going to a strictly political authority space or a more robust critique of say, banking. It went right to money. To me that's interesting because we've seen that happen again and again and again in moments of crisis over the legitimacy of our institutions, people often go to money and open that up for renewed discussion. This happened in my country after the Civil War. And you know, one of the things I do when I teach is try to talk to students about the late 19th century and how the political parties actually defined themselves in relation to what was called the money question, right?

Bill: (18:07)

So money pops up almost as a symptom of a bigger thing. And the bigger thing is what is the nature of the society we would like to have? I first became aware of Bitcoin and of crypto just after the Satoshi White paper came out. And what happened was, a colleague of mine who at the time was with the State Department, emailed it to me, emailed me the white paper and said, what the hell is this? And I was with two of my graduate students, they're now off in the world, you know, being professors at this. But I was with two of my students at the time, and I was like, huh. So they looked at it and read it. One of them started immediately going to all of the discussion boards and just like, you know, scraping all the content, which we later analyzed when I forwarded the white paper to another colleague who at the time was the, was at the Atlanta Federal Reserve.

Bill: (19:01)

She forwarded that onto an intern, and over the weekend, the intern read the paper. There's like some undergrad, some undergraduate student somewhere in, in Georgia, read the paper, wrote up a little analysis and emailed it to all of us and basically really clearly laid out like, here's what this is, here's how it works, here's the proposal. And then she wrote at the very end, and I'll never forget this, this will never rise to the threshold level for it to be of any regulatory concern to the Federal Reserve. And what was kind of great, what's kind of great though is she was right. She was right until just a few years ago, right? I mean, even though there was so much going on in the space and for you guys, right? You're in the thick of it, it's a big huge deal.

Bill: (19:47)

It still was really, really, really, really, really tiny compared to the whole universe of everything else. And it still kind of is. And it was just fascinating that, that she got that. For us, for me and my students, we started asking questions about if this is to be, you know, a trustless system and if this is to be a kind of thing where there's this kind of record of truth and it's agreed to, and you don't need to have humans sort of doing, you know, being in, in the mix so much. You don't need to have interpersonal trust. Well, why are they all talking about it so much? Why is it just an avalanche of words, right? And that ended up being the first paper that we wrote about Bitcoin and crypto was the sociality of it, right? That it is for a thing that wants to kind of divest of money, social trust. It is full of social trust, right? And full of social relationships. Even if the technology itself is not, right? The surround, everything around it is people, people talking, people yapping, people trying to figure out what this thing can be and what can be done with it. And I almost think that it's a shame that where a lot of the people went was toward the money thing instead of toward the what can we do with a distributed ledger together collaboratively, collectively without a central authority thing.

Nathan: (21:11)

Yeah, I mean, I think utility is something that's really important, you know, where I'm sitting because I'm in this company of I guess, geniuses that's involved in trying to scale not only Ethereum, but also to scale Bitcoin and bring utility to Bitcoin. So it not just being about money, but being able to actually build smart contracts and all sorts of other things at top Bitcoin to tap into that usability. And I think that's something that we are going see happening. So maybe it will start to make a little bit more sense to the aliens, and maybe it's about us jumping beyond that sense of, okay, it has to be one thing or the other. Eventually, this conversation we could, I mean, Adrian, I'm sure you agree that we could go on talking to Bill for hours, but we do have a set time for this podcast. And one thing that I want to get to, and I think is actually very logical from everything we're talking about is the notion of who controls, who controls blockchain, who controls crypto. Because we have that very strong sense of, and this is another of these words that causes a lot of people to glaze over, decentralization, which sounds like the most boring thing in the world, but is actually something interesting and radical that I'm going ask Bill about. So Bill, back to decentralization over to you.

Bill: (22:37)

If you recall what I said earlier about how we always think of ourselves as individuals first, and yet we are in a field where we're communicating with language, which clearly is not an individual thing, and we can't survive, we can't live without others. If you start from that point of view, then you start to realize that we are relational creatures, not individual creatures. So we're relational creatures. That means that we already exist in a decentralized social space, right? There's all of us individually, but then there's all of us together, a decentralized system. What we've done is we've created authority systems essentially to verify, to warrant the kinds of relationships we create with one another, to sanction some, to reward others, to achieve a kind of social order. We do this now in the form of law and states, in other contexts, in other societies, people have done it with elders, people have done it with deities.

Bill: (23:46)

But what that does is try to put a kind of frame around what is essentially a decentralized space. And what blockchain has promised is a way of creating that sort of frame, but also doing it in a decentralized way, doing it in a way that distributes governance, that distributes law and order among all of the participants in a social space. And that's something very interesting. You know, we have other examples of it in human history. We have other examples of it all around us. We just don't look at it or pay attention. And I think of the cooperative movement, I think of, and you guys might laugh, I think of credit unions, right? , you think of a credit union as kind of just like a bank, but legally, technically it's not. It is a collectively owned financial institution governed by its members.

Bill: (24:41)

Now the problem is that doesn't really happen anymore, right? They have boards, the boards represent the members, it tends back toward, um, the same kind of pyramidal system or centralized system that a bank operates under or that a government, a city, a municipality operates under. But we have these things, there's kind of a latent potential all around us in coops, in credit unions, in worker-owned enterprises, which if you could just awaken that spark of democratic, participatory, decentralized governance, have it actually operate, and then expand the universe of possibilities for such experiments to exist, well then you have a whole new world in how humans organize themselves. And you know, to me blockchain, blockchain isn't necessarily like the one way to do it. It's a way, what's great about it is it's helped reawaken that spark, right? We, we reawaken consciousness of other ways of organizing ourselves. And once we have that in our heads, then we, then we can start to see it other places. And go, oh, okay, this is kind of like that. We have all these experiments going on, why can't we like figure this out?

Nathan: (25:56)

Talk about ending an interview with a moment of absolute inspiration. Yeah. As I said before, we've had the builders, we've had the coders. It takes the academic, the sociologist, the anthropologist to really get us fired up. Now, before we let you go, people are going be listening to this and want to hear more of you and want to read more about you. Where can they do that?

Bill: (26:20)

The best place to go would be to the website of the institute that I direct at the University of California at Irvine. And that institute is called the Institute for Money Technology & Financial Inclusion. You're not just going see crypto and Bitcoin stuff, you're going see mobile money, you're going see people writing and talking about the ATM, everything from cash to crypto. But it's a nice repository of the work that I've done, the work that my colleagues who have come through the institute have done. And you can find it at imtfi.uci.edu. That's probably the best one-stop shop.

Nathan: (26:57)

And if people are to read one thing that you've published, what should they read?

Bill: (27:02)

Well, my favorite thing at the moment is the article I mentioned in the journal, economic Anthropology is open access, and it's called "A Promise Is a Promise", which is a Thomas the Tank engine reference for those of you who get that. And then the subtitle is something like a "Love Letter from the ACH of 2050". And it's my artificial intelligent Automated Clearing Jouse. But another fun piece, one of my favorite books is a book that I co-edited with Lana Swartz, who was one of the students in the cafe I mentioned earlier when we learned about the Satoshi White Paper, and it's called <u>Paid: Tales of Dongles, Checks, and Other Money Stuff.</u> And what we did is we asked a bunch of colleagues to imagine to take an underappreciated bit of payment technology and pretend that it was in a museum exhibition and then write the catalog entry for that piece.

Bill: (27:58)

So for instance, one of our colleagues wrote about the Square dongle. Remember the little, the little thing you would plug into your phone to then swipe a credit card. His whole piece is about that. I wrote a piece about the signature pad, you know, at the checkout line, yeah, that. It's these sort of odd bits of essentially flotsam and jetsam, you know, e-waste, the detritus of our payment world, imagined as a curated collection with little entries by each author. So that's *Paid*.

Nathan: (28:30)

I love this stuff and what I think I'll do. So if listeners want to go to, <u>@NathanOnCrypto</u>, you will find a growing reading list of the most fascinating links that we come across in putting this show together. So this has been a great interview. I want to thank you, Bill, for joining us. And I want to thank Adrian for co-piloting through this interview. Thank you guys.

Adrian: (28:52)

It's been a pleasure. Yes, thank you.

Bill:

Thank you both so much.

Nathan: (28:55)

Adrian. I think next time on the show, we should invite not just Professor Bill, but also the alien that we've been talking about, what do you think about that?

Adrian: (29:03)

I think that'd be great.

Nathan: (29:04)

Well, I like to think that we have listeners joining us from all over the globe, and who knows, maybe beyond if they're using us to find out about cryptocurrency and about blockchain. Now, whoever your friends are, whoever your family are, whether they're humans or aliens, let them know about this show. We're having lots of fun. We've got lots of great episodes coming up. So do share it with them. Share the social clips as well. Let them know about the back catalog. Now, if you'd like to find out more about Tonal Media, the company that Adrian runs, Adrian, where can people find that?

Adrian: (29:37)

You can find us on Instagram at <u>Tonal Labs</u>. That's where we have our catalog of everything we've been producing. And please reach out and connect with us there if you'd like as well. It'd be great to hear from you.

Nathan: (29:48)

Okay. And if you want to follow me on X, it's @NathanOnCrypto. All that remains is to say from the folks at StarkWare, and the folks at Coin Telegraph who produced this podcast, thank you so much for joining us, and we hope to see you next time on The Clear Crypto Podcast.