

S05E06: Is the future of money truly inclusive?



Richard: Hello and welcome to Crossing Channels. I'm Richard Westcott. Is the future of money truly inclusive? That's the subject of the latest in our collaboration between the Bennett School of Public Policy at the University of Cambridge and the Institute for Advanced Study in Toulouse at the Toulouse School of Economics. As ever, we're going to draw on the interdisciplinary strengths of both institutions to explore a complex issue. Whether cryptocurrency is a genuine monetary innovation or a new source of instability? How far greater financial openness can deliver real inclusion in practice? And what kinds of trust, governance and public infrastructure are needed if the future of money is to work for everyone?

To explore these issues today, have Sumeda Deshmukh, the Bennet School alumni and research fellow at UCL and Ada Lovelace Institute. Sumeda, start us off, what does your research focus on?

Sumedha: My research focuses broadly on the economic and societal impacts of digital technologies and I've looked across many technologies including crypto, digital public infrastructure, including digital identity and public option digital payment systems and also more recently artificial intelligence.

Richard: And joining us from HEC and Toulouse School of Economics, have Bruno Biais. Bruno, remind us of your main research interests.

Bruno: So I'm an economist. You know, I mean, in the Toulouse tradition of Jean-Jacques Lafont, I'm interested in incentives. Why do people behave in the way they behave? What are the beliefs they have when they choose their actions? And then this kind of approach can be applied to many things. I've been applying it to finance and blockchain and money.

Richard: Cryptocurrency is often presented as the future of money, more open, more accessible and free from the institutions that have long controlled who gets in and who gets left out. It's a compelling idea, but the reality is more complicated. Cryptocurrencies have also brought volatility, speculation and new questions about who these systems actually serve and whether the people they're supposed to help are any better off. Over the past decade, those questions have become harder to ignore. What started as a challenge to the financial establishment is now forcing a much bigger conversation about trust, about governance and about what money is even for. Because if the future of finance is being redesigned right now, the most important question is not just whether it works, but who it works for. That's what we're exploring today.

So Sumedha, we'll start with you. Your work on digital public infrastructure and digital finance highlights that technology matters only when it solves real problems for people in practice. When cryptocurrency is presented as the future of money, what problem do you think it's actually trying to solve? And does it solve that problem better than the other digital payment systems?

Sumedha: Yes, that's a good question. Maybe right off the bat, I'll make a distinction between cryptocurrency, the technology and cryptocurrency, the industry as it stands today. So if we take a step back, this technology comes out of the financial crisis and people are responding to discontent with the financial system as it stands and they want an alternative. The founder of Bitcoin, Satoshi Nakamoto, creates this technology in order to create an alternative to the mainstream financial system as we saw it at that time. And out of the kind of wild gardens and exclusion that people felt and being taken advantage of by the financial system as it stood. So that was the idea behind the technology. There's a lot of interesting technical details that we don't need to get into for the purposes of this podcast. But I think it's always interesting to revisit that philosophy and think about how the technology has transitioned since that time and over that time. I think when we think about cryptocurrency as an industry today. It actually now mirrors a lot of what crypto was originally trying to solve for and there has been a lot of consolidation in the industry. There are a lot of technical barriers to entry. There's a lot of keeping people out of the system in a way that maybe the original technology was not intended to do. So I always think it's worth keeping that in mind, the intention versus where the technology has evolved to today. Whether it solves the problem better than other digital payment systems, I think it depends on that question that you asked. Who are we building it for? What are the problems that we're trying to solve? And what is the access that we're trying to enable? So I think that there is a lot that we can agree that is very clunky about the current financial system. There's a lot that excludes people. There's a lot of both regulation but also technical and operational elements that leave people out of the system. And I think that crypto was originally designed to solve for some of that. That being said, we're working within the parameters of the policy and regulation environment that has come together over decades of the financial system existing. And within those frameworks, I don't think that crypto as it stands is able to solve for some of the problems that it originally thought that it might. And rather we're seeing a kind of mimicking of the financial system as it was before. And what we're largely seeing is consolidation of power and user base. And in some cases, it's a new form of exploitation for those who don't understand the technology. So while I do think that there's a lot of interesting ideas behind the original crypto movement, I think the way that it has evolved has not necessarily squared with realities. That being said, I think that there are instances when people distrust their governments, need to operate

outside of the formal financial system for whatever reason, where we do see crypto being used, but I think that's on a much smaller scale than the industry as a whole.

Richard: Is there a sense, can you give a rough sense of why it's evolved the way it has rather than the way it was originally intended and was it ultimately inevitable?

Sumedha: Think a lot of the way that it's evolved is due to the regulation of the financial system, which in a lot of ways was designed to protect people. I think that that's important. But at the same time, I think we had a few early entrants that really saw regulation as a competitive advantage or a moat, and they helped shape some of the systems around that. I don't know that the current trajectory was inevitable per se, but I do think that there were industry players that shaped it in a very certain way and the trajectory is informed by the early entrance of this space. So I don't think that it's inevitable. I still think that there's a chance to hopefully shift some of this, but I do think we've moved away from the plurality that I think we once saw in this space towards a much more consolidated picture of entry and exit into the crypto space.

Richard: Bruno, in your work you suggest that cryptocurrencies may be most useful when official monetary and financial institutions are dysfunctional, especially under inflationary or predatory governments. So from your perspective, when is cryptocurrency a meaningful monetary innovation and when is it more hype than solution?

Bruno: You know, if you look at in which countries do people use crypto or hold crypto, there's not a lot in France. There's not a lot in the UK or in Germany or any of these boring countries. People just don't hold or use cryptos. But if you go to Indonesia or Turkey or Lebanon or Nigeria, know, Venezuela, Argentina, there, there's a lot of people for whom crypto is actually a an interesting alternative way of storing value or making payments. So basically, money, it shouldn't go too low, you it shouldn't hyperinflate. Otherwise, it can't be useful to people. So in places where you cannot trust money, you have to use something else. And cryptos are one of the things that people can use in those countries.

Richard: Would that have been dollars as well? So when you know, travelled a bit, I'm sure you have as well. Like actually dollars are so valued around the world and is that changing at the moment?

Bruno: Well, actually, you're right. There's a sense in which it's a bit like dollarization. There are some differences with the dollarization, some pros and some cons. The pros are if you live in Nigeria, it may not be a very good idea to carry a lot of banknotes on you or even to keep them under your mattress. Cryptos are slightly less vulnerable. Also, if you're a businessman in Lebanon and suddenly the banking system of the country just freezes, you can't access your bank account, you cannot make any payments, but you're doing import export with the US, well then you can use cryptos or stable coins to pay or be paid. And it would be difficult to do that with bank notes. So there's this notion that there's a technology out there which is in some ways more efficient, less risky than the old technology. That being said, now if we look at the cons, cryptos are very volatile. you know, it's not very nice when you want to have a store of value or a means of payment to have something that keeps moving around like crazy.

Sumedha: Think this volatility question is why we've seen such a recent uptick in interest in stable coins. And that also relates to your question about dollarization, where I think there was this recognition that people wanted another way to exchange value outside of systems that weren't working for them, but they also didn't want to be subject to extreme volatility. And so I think what we've seen, especially in the last five or so years, is an increased interest in stable coins, which are kind of reserved backed digital currencies. usually the largest denomination is USD. And I think people are seeing this kind of melding of the traditional financial system and then the rails of crypto to try to square the circle on what they like about the technology and then what has presented challenges.

Bruno: If I may, I'd love to come in quickly on that because what Sumedha said is very interesting and it reveals, I think, a very interesting tension. Cryptocurrencies like Bitcoin are very volatile. You know, they are castles made of thin air. Their value is what we believe their value is. And so it's very volatile. It has to be. And so people are a bit. It's not very comfortable. And as Sumedha was saying, a good thing to do is to say, instead of having this very volatile thing, we're going to keep the technology, the blockchain, use something that is more reputable like the dollar. That is very difficult to achieve. And that's also related to something that Sumedha was saying before when she was drawing a distinction between cryptocurrencies and the industry behind it. Because once you want to have a stable coin. You want to have one foot in the blockchain and one foot in the real world. That food that you have in the real world is a financial institution. And as a financial institution, it is exposed to the same kind of problems that generated the invention of Bitcoin. Financial intermediaries taking risk with other people's money, not being transparent about what they do, creating systemic risk. What we see going on there is something that is not unlike what led to the 2007-08 financial crisis.

Richard: So it's ultimately does cryptocurrency then risk doing what everything else does you know promising inclusion but in practice really in the end working for those already better connected and better informed.

Sumedha: I think we do see that risk, right? It goes down to the structures. So as Bruno was saying, what we've seen is that people and the industry players have in the past taken advantage of the technical barriers to entry and kind of used that as a reason to not be regulated or to only be regulated in the ways that they want to be regulated and the kind of line that we hear there is, that the technology is so complicated, you'll never understand how to regulate this technology. Yet we see the structures, as Bruno has said, that really mimic and parallel the financial institutions of the past. And so kind of having it both ways without fully having the oversight that leads to some of the exploitation that we've seen in the past. And I think that's where I get quite worried is that the opacity of some of the technical elements or policymakers not feeling like they understand things that we actually have seen in the past leads to inaction, which then leads to people getting hurt and often the most vulnerable people, right? Because it is a somewhat complicated technology to understand. And so I think those who do understand the technology are very sophisticated in their ability to get in and out at the right times when it comes to pricing. When it comes to making sophisticated trades, et cetera. And it's usually the laypeople that are coming in at the later times that are then receiving the downside of the market shifts and the volatility. And then I think, you know, what is good about what the industry has done is they've tried to make it

more user friendly. And I think that it is a challenging technology to navigate on its own. But I think then you expose more people who don't necessarily understand what they're doing to assets that are very complicated and very structured and very, in very opaque ways. And so I think it's important to pair access to the technology with additional digital literacy, training on potential scams and the potential exploitation that can happen through these new avenues. Because that's what worries me is that, you you get like YouTube influencers, TikTok influencers telling people to buy things that they don't fully understand. And I think that's where we get into problematic areas.

Richard: Well, let's move on to trust and governance and volatility because I think it's a really interesting area, especially trust with crypto. So Sumedha, in your recent work, you point to the importance of public infrastructure, interoperability and governance in digital systems. Crypto is often described as trustless. And my understanding is that as you don't have to trust an institution or a person to make it work, but surely people will need to trust something where their money is concerned. So in your view, where should that trust sit? And how should it be governed?

Sumedha: I will say first, think trustless is a misnomer. As you say, the trust has to go somewhere. And I think with crypto, you're placing the trust in technical elements. You're trusting the code, you're trusting validators, you're trusting the underlying consensus mechanism. There has to be trust somewhere in the system. Or if you're using it via a platform, you have to trust the platform. It has to be there. That's how money works is that we need to feel that it has value and we need to be able to use it for things. So I always push back on that framing. I would say how should it be governed? It's a complicated question as we've been discussing, but I do think there are pretty clear places where you have points of intervention. So on ramps and off ramps where people are moving their normal currency into the crypto system, out of the system. That's where we see a lot of the regulation today. And I do think, again, if you're mirroring financial institutions, there should be stricter oversight of those on ramps and off ramps. I think with payment systems more generally, we're seeing a plurality of options that are coming out right now. And so I think it's going to depend on where we land on what options are kind of chosen. So we see stable coins, which we've discussed, cryptocurrency, which can be run in a number of different ways. And we also see the emergence of central bank digital currencies, which is outside of crypto itself. But now we see kind of governments having interest in giving a digital currency option to their citizens. So I think that's something that's going to require a lot of careful thought and governance. And I think we're seeing the different ways that these are playing out. I think it does as with all money and do you think it requires international collaboration? And I think we're just starting to see that working a little bit more than it in the past. But I do think that we are going to need to see the institutions responding to this cross-border nature of crypto and digital assets.

Bruno: Yes, I agree with Sumedha and if I may, I would like to continue on the theme of trust. Maybe to understand, to think about it, it can be useful to think about trust at three levels. The first level is the blockchain, the infrastructure on which cryptocurrencies are based. The second level is trust in money, in the value of money. And the third level is trust in the financial institutions. So let's take them one by one. Trust in the blockchain. mean, frankly, this is beautiful. Nakamoto was really a genius. The Bitcoin protocol was an amazingly smart thing and it has been working perfectly well since 2008. So that's very, very

amazing. And it has worked perfectly well without, really the point was it should work without any intervention from a central authority. And it has. Just to give you one example, know, the protocol says there should be one block every 10 minutes and all the participants in the Bitcoin network, you know, they don't know each other. are like many, many different places around the world and they have managed to collaborate on that. And it actually has been 10 minutes per block since, you know, 2008. It's amazing. So now, to try to dig a bit deeper into that, how come they managed to do that? How can we have this decentralized coordination? How can we trust that? So with my co-authors in Toulouse School of Economics, we studied the Bitcoin protocol and we proved it was a Nash equilibrium. So basically, if I anticipate the others are following the Nakamoto protocol, then my best response is to follow Nakamoto protocol. So that may be one of the elements that plays a role there. So that was trust on blockchain. The second is trust on money. And that's a completely different ball game. It's a very different question. know, do I trust the dollar? Do I trust the euro? Do I trust the Bitcoin? So one of the elements there is money creation. One of the problems with money is when the government is printing too much money. The beauty about Bitcoin is there's a protocol that says how many Bitcoins are going to be printed and there's no choice. We're going to do it like Nakamoto said. So that's very good for trust in the value of money. On the other hand, it's a revolutionary thing. It's completely different. And some people believe in it, others don't. And I think we're not settled on that debate yet. The diversity of beliefs and the changes in beliefs might well be one of the reasons why we have this volatility of the cryptocurrency. So with my co-authors in Toulouse, we have been working on that also. And then the third point is about trust in the institutions and the industry. And there I would like to come back to something which I liked very much that Sumeda said before. She said, we have to draw a distinction between cryptocurrency and the industry. Cryptocurrency, know, Bitcoin, there is no institution.

Sumedha: Yeah, I really like those three layers and I think that's a really helpful way of thinking about it. And maybe just to respond and put a finer point on what I was saying earlier is I think you see actually a lot that's under the banner of cryptocurrency. So you see a lot of different types of products. You see a lot of different models. So the consensus mechanism that Bruno was describing is one of many. And so I think to answer your question about governance. I think what's important here is precision and being really clear about what asset we're regulating, what certain consensus mechanisms. I think Bruno's framework is really helpful way to think more precisely about what we're governing, because I think where it gets very hard to wrap your head around is when you're thinking about everything at once, because obviously those things are quite different in their structure and they can't be governed in the same way. So, I think now we see with time there's a lot more of a sophisticated understanding of what falls under the banner of crypto and I think in thinking along those different vectors you can come to a better approach to governing them.

Richard: Can you regulate crypto realistically? When you talked about international cooperation, immediately I think of climate change. know, and actually, you know, the world comes together to produce a report regularly saying this is what we need to do universally to bring down the temperatures of the earth and then broadly you see it not happening and it relies on people pitching in and so on. Is it possible to regulate this universally in a similar way? And if you did that, would it take away one of the best things about it? Are you taking away one of the best features about cryptocurrency and why it was introduced in the first place?

Bruno: Frankly, for some aspects of crypto, I hope it's difficult to regulate because regulating it would basically kill the goose that was laying the golden eggs. If you're a citizen of a country in which the government is a bad government, the central bank is printing too much money, the banking system is corrupt, and then people are trying to use cryptos because it's an alternative they have. In those circumstances, I do not want regulation. I think regulation is bad. Very often in those countries that I just described, in a sense, the government is not very good, but it's also not very powerful and not really able to prevent people from doing things with cryptos. So that's one thing. On the other hand, if you're in a country in which the monetary authorities are reasonable, the banks are not too dysfunctional, there I think it's good to have regulation because there. We would like to protect people from spoofing, from people who say, we're going to give you a great return. you know, because this does not exist. That's where we need regulation. And I think, frankly, Europe is doing reasonably well in that respect. You Mika is not perfect, but it's not so bad.

Richard: Sumedha, where do you come in on regulation and whether it's even possible, where it might be necessary and not necessary, et cetera?

Sumedha: Yeah, I agree. And I agree with Bruno. And I think the reason I keep going back to the distinction between the technology and the industry is I think there are a lot of technical elements that you can't regulate about crypto. And if someone is self-hosting a wallet and interacting directly with the blockchain and they're managing the assets on their own, there is actually very little room for regulatory intervention in the way that the government can't regulate exactly the way that we're exchanging cash. Right? There is a certain technical limit to what can be regulated. And I think that that's okay. And I, you know, I'm a big privacy advocate. I think that it's okay to have private transactions between citizens. Where I think regulation is important is where it's touching a lot of retail customers in a mass way. And that's where you see the exchanges and what kind of, what I was saying about the on-ramps and off-ramps where you're touching a lot of people who are not, I mean, if you're doing the technical version, you're quite sophisticated in a way, right? If you're doing the non-technical version or the mass market version, maybe you're not as sophisticated as a user. And that's where I think regulation and governance is important. And then the kind of ancillary elements. So marketing of crypto. You see, I mean, I'm older than I look. I've been in the crypto space for almost a decade now, right? And I've watched market, blatant market manipulation and rug pulls and all of these, insiders kind of selling a dream and then tanking the value of the token and cashing out. that's blatant market manipulation. I think that's a place that we need intervention, right? And with the ICO, or sorry, initial coin offerings, boom, nine, 10 years ago with non-fungible tokens or NFTs, you know, we've seen these fads where people have come in, capitalized on them and taken advantage of people that were not sophisticated users of the technology. And I think that's where governance is quite important. And then again, like ancillary elements, we see a lot more attention now, for example, on mining. And obviously that's intersecting in a lot of ways with broader conversations around data centres and compute resourcing. So I think there are actually, if you break down the problem into its component parts, a lot of places that are worthy of governance and oversight. And then there are some where the friction to that, let's say, is actually quite useful for those that need to use it for specific purposes.

Richard: I only wish I was older than I looked. You're lucky. Well, we always like to finish by looking ahead into the future. Obviously, never easy, but we've covered some of this, I think, but it'd be interesting to get your take on it. So if the future of money is to be truly inclusive, what matters most, would you say, is it building better public digital payment infrastructure, improving regulation and governance around private innovations like crypto, or rethinking more fundamentally what we mean by financial inclusion in the first place?

Bruno: I think, you know, a sense, cryptos was never designed for inclusion. This is not the goal. The goal of crypto is you don't like the government, you don't like the institutions, you can do something without them. It's not a socialist idea. It's more like a right-wing idea, frankly. But that being said, I think that there's a sense in which there might be a form of inclusion. If you live in a country in which the banking system is corrupt. The monetary policy is horrible. Well, you don't have a lot of financial inclusion and that's where possibly cryptos can help.

Sumedha: Yeah, I agree. think crypto maybe wasn't designed to be inclusive. It was designed to be subversive. And so I think that there are specific use cases for that. I think your question was about the future of money more broadly. And I would say, you know, I think as academics, we always want the hardest path, which is, you know, rethink financial inclusion. But I think to me, rethinking financial inclusion and the broader, more inclusive future of money is one that has a plurality of options and that meets people at their needs, right? People around the world have very different needs when it comes to money. The reason that I came into this work in the first place is I felt that there was a fundamental disconnect between the way that I used money in the U.S. and the way that I used money in India when I was visiting my grandparents. And it was just a completely different experience of trust, community, value, all of these things. And so I think the big picture dream or goal for it an inclusive future of money, in my opinion, is to allow for plurality of options that meet people where they're at. And in some cases around the world, that's cash. That is the best option because they don't have the digital connectivity. In some cases, it's crypto. In some cases, it's a digital bank. And I think we see that there are now a lot of different options. And I think that that actually will allow for better products that meet people where they're at and meet them at their needs. I think where the risks are is, you know, path dependency around infrastructure, around consolidation of market players, around integration of financial data with other aspects that people didn't need or want financial data to be integrated with. So I think there are risks that should be monitored closely, but I do think the future of financial inclusion is maybe giving different options that meet different needs.

Richard: It's so interesting the different sides of this. Well that's all we've got time for this episode. Thanks to Sumeda Deshmukh from Bennett School and Bruno Biais from the Toulouse School of Economics. And thank you for listening to Crossing Channels. We'd love to hear what you think. Your reviews help us shape future episodes and make it easier for new listeners to find the show. If you enjoyed this one, why not explore some of our earlier episodes too? Please join us next month when we'll be discussing who we trust to solve big problems.