

[Our Data, Episode 4—Fit for Purpose: Blockchain Regulation with Syren Johnstone of Hong Kong University](#)

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[Our Data](#) is a podcast from the [Stanford CodeX Center for Legal Informatics](#), in conjunction with the [Stanford CodeX Blockchain Group](#) and [Tech4Good](#) initiatives.

In this episode, Hong Kong University’s Syren Johnstone brings an international perspective to a discussion about blockchain regulation, and asks foundational questions about the relationship between emerging technologies and the law. Are our securities laws the best framework with which to examine cryptocurrencies? How can blockchain and AI help with things like a pandemic response? And, above all, what does it mean for regulation to be “fit for purpose”?

[Syren Johnstone](#) is the Executive Director of the LLM Compliance and Regulation Program at Hong Kong University. His most recent publication in the *Stanford Journal of Blockchain Law and Policy* can be found [here](#), and he will have another article appearing this summer.

[Opening]

Mike Schmitz [0:40]:

Hi folks, welcome back to Our Data. Today we have Syren Johnstone. He is joining us from Hong Kong University, where he's the executive director of the LLM Compliance and Regulation Program in the Department of Law. Syren has published widely in recognized academic journals, and co-authored “Financial Markets in Hong Kong: Law and Practice”, which is regarded as a cornerstone publication in this field. His academic works have been referenced in Hong Kong's Legislative Council and the Court of Appeal. He has also been a member of the SFC's FinTech advisory group since its formation in 2016, which is, of course, the Hong Kong equivalent of the SEC. We're going to talk about a number of very interesting topics. I'll let Syren jump into it, but just to get it going, Syren: Welcome. And let me put it to you [like this]... what got you first interested in blockchain, and tell us why?

Syren Johnstone [1:40]:

Well, I think the beginning was really the appearance of ICOs back around 2015. There had been some ICOs in Singapore, none in Hong Kong. And it just started to hit the horizon for the regulators in Hong Kong, that we had these offerings which were able to attract tens of millions of dollars. They would raise it in half a day, and it was staggering. It was also a time when, if you looked at the white papers on those ICOs, you would see them say things like, “This is not subject to any law.”

Mike:

Which caught your attention, to say the least.

Syren:

Exactly. So we're dealing with something new, and one of the concerns was how that public capital market is being used.

Mike:

Yeah. No different here in the US, and across the world with those. Tell us... so you see that, [and] you've been practicing and looking at regulatory legal matters, particularly with primary and secondary markets, and you decided to dive in. And then where have you gone? Take us on a journey. So you go from there to something in the early days. What does it look like from where you are?

Syren:

Look, I think anybody that starts to dive into blockchain and all things crypto starts off being incredibly ignorant. And I think there's a phase that we all go through (though I shall just speak for myself)...

Mike:

Oh, I'll join. Yes.

Syren:

There's a phase where you start to think you understand what it is. And then you go to another phase where you've opened another door to a much larger room, and then you understand that you have no idea what this is. So one of the things that I started to do was to actually get down to the basics. A long time ago, before I was a lawyer, I was actually a neuroscientist.

Mike:

Really?

Syren:

Yeah. And that context was kind of interesting because as I started to get into all things FinTech, the one of the things that came back was the whole idea of artificial intelligence and machine learning, and then blockchain came along. So is this kind of connection of a whole lot of different lines of things that were happening in technology, which enabled a whole lot of new things to happen. Let me go back to an analogy I like to use sometimes with architects and engineers. I don't think a good architect can build a building without understanding the engineering behind the building. What makes it stay up? Where can I put columns? Where can I put escalators, that make it all function properly? They need to go back to the the girders and the columns of the buildings and so on.

Mike:

Not just Escher, you need something that can work.

Syren:

Exactly. I think there are a lot of Eschers in the blockchain world because I think there's a huge amount of freedom of thinking about what can be done with these technologies, which I think is really important as a creative process. But when you take that creative process and bring it into the real world, much like in a building, things have to happen to be functional and to be safe. So when I started to get into blockchain—my background is, I'm a lawyer, and have been in corporate finance—I actually went back to the programming language. Some of the research that I've been doing has been funded by the OAX Foundation, and one of the things that I asked them to do at the beginning was to please introduce me to a developer so I can sit down with them and and see this process, in the keyboard, writing up the the underlying code. I understand a little bit of that, but not a lot. But what that helped me understand was, a bit like an engineer, how the building is actually ultimately put together. And then, ultimately, how the building functions in society: to bring together people, to serve certain functions. A restaurant is different from a conference center, so they need to be designed differently. So, blockchain involves many layers of knowledge. We've just recently been sitting in a few conference meetings here where we're listening to cryptographers talk about stuff. I'm not a mathematician, but one has to have an appreciation that this technology is essentially based on two things. One is that there is cryptography that allows people to communicate with each other in a safe environment, without actually having to know the identity of the other person. That was something that was first spoken about by, I think, Tim May back in 1989. I think he's sometimes regarded as the father of so-called crypto-anarchy. So cryptography is one, and the consensus mechanism is another.

Blockchain is not something that happens with one person. Obviously, we have public blockchains and private blockchains and these are fundamentally different. But even in a private blockchain, you need to have some mechanism to determine how you can change that immutable record in the blockchain.

Mike:

It's fundamentally a social process.

Syren [7:37]:

Well, it is, that's right. So then, coming back to my original interest because, as I'm saying, I'm not a developer. I'm not a mathematician. I'm not an economist. What I am interested in, though... and this is going back now to 2016-2017, when there was really a massive ICO boom. And we had... I think the biggest offering at that time was the EOS offering, and I think that raised about 4 billion, as I recall. It was massive. And at that point in time, regulatory bodies—agencies—have to think, “well, where is that public capital going?” And it goes back to very fundamental issues, which, in US history, goes back to 1929 and the Great Depression, where you basically had fraudsters coming into the market. And if you had a fraudster and an honest business person competing for a limited pool of capital, it was an unfair process. Hence the Securities Act of 1933, which on one hand protected consumers. But on the other hand, it protected the honest business person, to give them a fair crack at going into the market saying, “Look, I've got this great idea to make widgets. I need the money to build the factory to make it.” And that serves a [socially] beneficial purpose, as compared to the fraudster who's just squirreling away the money. So it's about capital efficiency in the market, and making sure that capital finds its way to appropriately risk adjusted investments. So, at that point in time, the regulators—and not just regulators, but I would say governments—are concerned about how that money is being raised. There was no, or very limited, disclosure. It was very much an insider's market in terms of one needing to rely on white paper information, and read the white papers at that point in time. You know, for any any listeners, I recommend you go back and find some white papers that were written around about 2016 and 2017. And if you can understand them... good luck, because most of them are extremely difficult to understand [in terms of] what it is they're actually trying to do.

Mike:

And [these are] not peer reviewed papers... these are medium posts, and other such things. I mean, these are like—

Reuben Youngblom:

I think a lot of them are medium posts, and then there was also a number that were just sort of generated by AI, right? There were services you could go to, and it would say, ok, well, what does a white paper look like? What sort of project are you doing? Here's something that you can just pop up for your ICO. It was a really interesting time.

Mike:

I remember meeting people who were writing white papers for other folks without really understanding the content.

Syren:

Well, at that time... Taobao is sort of like a Chinese Amazon, and you could go to Taobao and you could order a white paper. I think it would take 24 hours, and I can't quite give you the price off the top of my head, but...

Reuben:

24 hours? So they really put some thought into it, huh?

Syren:

Well, they're pretty smart over there, you know. But if you wanted an English version of it as well, you had to pay a little premium.

Mike:

Of course, I would imagine so.

Syren [11:06]:

And you can imagine what that would read like, having been through an automated translation of some sort. Who knows, it might come out clearer! So, what to do about this situation. Now what we're really talking about is a brand new animal. It was conceived of in the latter part of the 1980s basically, [or] the latter part of the 20th century. And it only really started... I think it was January 2009 that the first Bitcoin was issued, and that's not a long time ago. In a very, very short period of time, we had something which was originally kind of a geeky, nerdy thing, suddenly tapping into billions of dollars of capital. And it's because of that contact with the public capital market that regulatory agencies, like the SEC or the Securities Futures Commission (SFC) back in Hong Kong, launched themselves into action because they felt something needed to be done to protect the market. So what does a regulatory agency do? They have a set of tools which are given to them by the legislature. Those tools limit what they can do. It's kind of like, if you're a woodworker, you don't go and pour cement, and vice versa. So the

one of the key tools that the SEC has, [and] what defines the ambit of their authority, is [determining] whether something is a security or not. And the definition of a security that we have today actually derives from something called the Howey test, which was a court case back in 1946. And it's been modified, developed and evolved since then. But essentially, it is still that 1946 case today that the SEC are applying. And [there are] difficulties in correctly applying that case to some new technological advances that we've got today. And the big question, in my mind, is whether that application of securities laws has been successful in dealing with the underlying problem, and at the same time, allowing the market [and] blockchain developers to evolve toward delivering useful benefits to society.

Mike:

And that case interpreted the 1933 Act. So, in some ways, you're talking about... we're sitting here in 2020, looking at a Securities Act from 1933, in that context. And not just the financial context, but the technology context. And so I want to have the flexibility to figure out what happens. You're suggesting... new legislation? Action? Where do you see this going? And maybe I'm jumping ahead, but it seems like the Howey test is one of those that is ripe, if you will—not to use the oranges in the Howey test—but it's ripe for a new iteration.

Reuben:

Yeah, and just to add to those contexts... I think all of those are accurate, but it was also a very different social environment. You know, one of the things that blockchain has changed is the way we think about something like crowdfunding, which just wasn't even on people's radar in the 30s. So there are all these different factors that are coming into play here. And I'm interested to hear your answer to—

Mike:

...the question of information and, and what kind of information. Both quality and access, [as those] certainly [are] hugely different.

Syren [15:04]:

Well, I think the two characteristics that strike me are that if you go back to the 40s, and one was trying to raise some investment capital, you don't have access into every person's home in America and in Europe. You have to sit in your office and people come to you, or go down to... I think it was the Orange County Club. You have to go down to the country club and get cozied up with the people that have some money and get them on board with your idea. It's a very personal one-to-one kind of process. And then the investors in that particular scheme have something which is not highly liquid. It's not a listed security, so they need to go and find somebody to buy it off them. Now, if we fast forward to today, what we've got is incredible

tradeability and incredible access. So, if we go back to the ICO era, these developers were accessing capital in any part of the world. Every single person in developed economies today have an access device in their pocket. And that's a long way different from the 40's. And the second thing is that pretty much all of these... certainly all cryptocurrencies, and a lot of the (if I can still use the term) utility tokens, these are very highly tradable. Markets evolve. And again, everybody has a devices in their pocket right now where you can go and trade that security. So these two—oh, I've called it a security, right? Guilty.

Mike:

Walk that one back, right?

Syren:

So you can go and trade it, right? But okay, so my slip of the tongue is kind of interesting maybe to comment on, because one of the things that I've been doing some thinking about is, what policymakers think about when they think about policy. And what they do is they come into policymaking with a set of tools that they are accustomed to. They know how they work, they know how to enforce, and so what we do as humans is we fall back upon the things that we are most familiar with. So hence, it's so easy for me to slip into the word security even though I do so much think in writing about maybe why we shouldn't be calling these things securities anymore.

Mike:

So Syren. Let's talk about context and dig in a little bit more. 1933 set the stage with securities (in the US anyway) with the original Securities Act that tried to wrangle some sense and protection over the markets. We're in 2020. And we're looking at new technologies, which are, once again, threatening or [perhaps] creating opportunities to reshape financial markets. Where are we, and what should we do? Do we need an update? Do we need to revamp? What's your sense of where we are?

Syren:

Well, I think at this stage, what we must do is to have a more considered attempt at thinking about whether that fundamental taxonomy or set of regulatory silos remain fit for purpose. The whole issue now when you see, say, some recent cases in the United States—there was the Zaslavskiy case last year, [which was] relatively small, and the guy was probably engaged in some sort of wrongdoing. But now we're looking at the telegram case, which is a very, very large, significant case. It's going to be argued hard in that case that the SEC have not done enough to look at [the] taxonomy or regulatory silo that was established in the 30s, namely securities, commodities and exchanges, [and] that we need to move beyond that into something

that's more fit for purpose today. So what regulators have been doing is basically (what I call) fit to existing regulatory silos or fitting to existing regulation. And there's not, in my opinion, been enough thinking about how to move past that. I think one of the interesting ways that you can look at this is to say, well look, okay, let's call something a security. Okay? Now it's a security, and as an investor in that security you now think, okay, so I'm protected by securities laws. And I can do things with this security that I can do with traditional securities, like stocks and bonds. But guess what? You can't. If we look at what's happening in the secondary market, one of the problems that's happening in many places around the world, and I certainly know this is the case in the United States and also in Hong Kong, is you've got investors from the traditional markets now wanting to get exposure to digital assets. And then they want to go to their traditional broker to help them do that,

Mike:

Right. That's where they get their expertise, their advice and counsel.

Syren [20:39]:

Exactly. However, the much more granular regulations about things like account and audits rules, to separate client assets from your own assets, things like this... these regulations are not currently fit for purpose to enable a broker dealer to be able to do that. Even though the thing—the digital asset thing—has been classified by the SEC as a security per the Howey test. So what I think has happened is that we've got to the point where regulators have had success in de-risking the market to a certain extent, and that's a good thing.

Mike:

By going after obvious fraud and trying to set some kind of standards?

Syren:

Absolutely right. I think in the telegram case I have been accusing the SEC of simply being an enforcement agency using an enforcement stick. And I'll come on to something in a moment about enforcement, but it's been good because the message that's been clearly written out in the sky by regulators is, “don't come to our capital market with some kind of fraudulent scheme because we're going to apply quite rigorous securities laws to you to try to weed out those who are trying to raise capital for the wrong purposes,” for example, just by not disclosing what they're actually doing with the money, or why they're raising money, a very simple thing. But my fundamental concern is that if we're going to, as a society, get something out of blockchain, which is more than just what we can get with stocks and bonds, we need to think about whether this basic taxonomy is still fit for purpose. Blockchain offers a lot of opportunity. So let me talk about taxonomy very briefly.

Mike:

Yeah. And what you think the “more” is that could be [gotten] out of blockchain; what the potential is. Because I think that for the folks listening, [they’re] trying to understand the potential of blockchain in the context of financial markets. What the opportunities [are], and if you have a vision. Or at least seeing around the corner [insofar as] what it could be offering folks.

Syren:

I think the fundamental axis that we're talking about when you break it down is centralization and decentralization. In a decentralized economy, what blockchain allows us to do is a bit like if you imagine a 20 dots on a piece of paper, and each of those dots represents an economic unit. This might be a business, or it might be an individual. Now if you connect every single one of those 20 dots with every other single 20 dots, that's kind of what, to me, blockchain is. It allows us all to interact very much directly with each other. And this is why one of the phrases that you'll often hear thrown around is this concept of disintermediation, because it means that we no longer need to go through a trusted third party in order to do something, we can just go straight to the source, which means that we can establish new kinds of commercial interactions between—pardon the phrase—but economic units of society. Whereas on a centralized model, which is which is the essence of what we've had in the 20th century with stocks and bonds and companies that issue these kinds of securities, is that you are always going through this trusted intermediary. You're going through the company that issues the securities, but you have no particular interest in the company's business other than what the rights are attaching to those securities. If you want to do banking and finance, if you want to lend money, [or] borrow money, you have to go through your bank. And Reuben, you mentioned earlier, the relationship of this with crowdfunding. Crowdfunding, to me, was sort of like the version one of blockchain in that crowdfunding started to get some traction in different parts of the world... I'm not quite sure when to put a date on it, but let's say post 2010. And then when ICOs came along, that was initially understood as being a sort of sexier form of doing crowdfunding, until that sexier form became an abused form. And as a result of abuse, regulators came in, they have applied existing silos, and in my opinion, while they've de-risked the market, they haven't done enough (that is, our legislators and regulatory agencies haven't done enough) to find ways that they can actually promote the development of blockchain. One of the problems for developers is that if they have a legitimate business, [if] they want to raise the money through a digital ecosystem to develop this digital ecosystem, it is not clear to them how they can do it and comply with the law.

Mike:

Right. And I think that conversation is one of the things we've found is the most lacking and the most important: [the conversation] between the regulators, the folks who are thinking about policy, and then the folks who are building (the technologists). And I think understanding that it needs to be not just two-way, but multi-way conversation. This is, in some ways, being built from scratch but it is absolutely real world. So I think what you're talking about is something regulators need to understand: technology, and not just the dangers, but the potentials much better. Maybe they don't have to understand all the formulas that go into a cryptographic encryption formula. However, they do need to understand the fundamentals at a level where policymaking can be informed. And I think vice versa: the folks who are building need to understand what is both the role and the importance of thoughtful regulation.

Syren [27:23]:

Well, as I mentioned, de-risking is good. That's stage one. But it's an incomplete part of the response of legislators and regulators if they don't go on to the next stage of saying, okay, fine. We've imposed some de-risking in a particular market. And mind you, it's not totally de-risking, because what happens is that the issuers who might want to engage in fraud in this jurisdiction simply go to another jurisdiction. As I was mentioning before, this thing about access to everybody's pocket device, that's international. One of the things that I think hasn't received enough attention is if you look at the changed assumptions in terms of what that securities commodities exchange taxonomy established, and what they're actually trying to achieve. Just a couple of changed assumptions: for example, that the actor is centralized. Okay. Think about a stock exchange. NASDAQ is a great story, actually, because NASDAQ was not originally centralized. It was an electronic communications network that was effectively decentralized. The brokers would simply trade with each other, and the way that they were regulated was because they were dealing in securities. This meant that at that time, the SEC—well, the National Association of Securities Dealers at that time—was able to grab a hold of the individuals and regulate them that way. But the network itself was only kind of derivatively regulated. So over time, the NASDAQ ceased to be this electronic communications network and moved into its current centralized format. Now, you have the possibility of decentralized exchanges, where anybody can join onto a common protocol and transact with another person, in the words of Tim May, without knowing who they are, but with absolute certainty that they're not going to trade away their assets without receiving the asset back. However, under the current policymakers frame of mind—and I've heard regulators say this, literally—they say, “decentralized exchanges are not regulatable.” I fundamentally disagree with this. The paper that's coming out in June [2020] in the Stanford Journal of Blockchain Law and Policy actually breaks down the functions of centralized and decentralized exchanges. And you can see, [when they are] mapped against each other, the fundamental functions are the same. A significant difference is that decentralized

functions don't have the same risk of counterparty risk, which in centralized exchanges, we had to introduce these central clearing parties to solve that kind of problem. So, okay... assumption number one: actor is locatable. Not necessarily now, exchanges may be dematerialized. Next is that imposing regulation is going to de-risk a market. Not necessarily. I've already touched upon that point, that enforcement regulation will work. One of the things that I've been also doing a bit of thinking about is that—okay, look, if you've got a bad actor, where you can locate that actor, it's a centralized activity. And [if] you've got a baseball bat in your hand, you can go and find them, and you can discipline them. But if you're talking about actors who are now decentralized, who don't have a clear geographic location, how well is enforcement regulation actually going to work? You simply go somewhere else, or—and this is the other thing that's so interesting about blockchain and what the cryptography allows—is you just go dark. You become absolutely unlocatable, but you can still carry on with exactly what you were doing before.

Mike:

Which is the fundamental concern of the DOJ enforcement approach.

Syren:

Absolutely.

Mike:

And I think that's where it gets down to this question: it's not decentralized versus centralized, but the ability to find an actor, as you said. Whether it's down the road with a warrant or whatever the mechanism, [the crux of the issue is] that there is certainty you can get to the actual person or the entity, where you can find some recourse.

Syren:

Absolutely. We've both taught law students at various points in time, and one of the things that I always teach my students is to say, well, look, if you're thinking about [putting] some new law or regulation in place, you have to think about how you can enforce it, and how enforceable it is. And will the market actually react to it in a way, or are you going to have to go around and enforce every single Tom, Dick and Harry because nobody really likes it? So what I've been trying to focus on, and I've written a bit about it, is the concept of attraction regulation. Now, the thing with attraction regulation is the idea that you create a landscape or a field or an environment which makes it desirable for good actors to come to. So we talk about the digital asset market, now in the billions, but you know what,? That market is still tiny compared to the trillions in the traditional markets. So, if you're now a crypto exchange, and some of these crypto exchanges have staggering daily turnovers, but they're turnovers of that relatively small market. Wouldn't it be great if you could devise a system where it said look, come into the light. Come

over here, and be subject to some kind of regulatory oversight that will encourage the exchange to come on board, and that will provide some better level of protection for persons who are using that exchange. Reuben looks like he's got something on his mind.

Reuben:

I think the way you're presenting this is really interesting, just over the last couple of minutes. In my mind, I was picturing it almost as kind of an evolutionary arms race. And that's a good way, maybe not the only way, but a good way for legislation to evolve, right? There's something that is an anticipated problem, and then there are people who act within the sphere of existing regulation, [and then] the regulation makes an incremental change, and it [evolves] like that. It seems like that is not the case here. Blockchain sort of snuck up on everybody, and it got applied in really surprising ways to the security space. And so now, hearing you talk about the role of regulation, one of the things that is very striking to me is that (I'm if I'm interpreting what you're saying properly) you're presenting it as if the regulators are in sort of a stationary position. And they have an obligation to either change the way that they're regulating, or in some way advance their regulatory agenda. So it's a two part question, which is: where are the friction points, given where blockchain is today? And then the more philosophical question is, to what extent do we as a community have the obligation to meet the regulators halfway? Rather than them staying stationary and [us] saying, "well, we're gonna do this thing. Good luck regulating," are there things that the blockchain community can do to say, we'll help advance this evolutionary arms race?

Syren [35:43]:

Right. If you go back a few years, the common complaint about regulators was that they don't really understand the technology, they don't understand what blockchain is, they don't understand the possibilities offered, and so on.

Reuben:

Which makes it really tough to regulate.

Syren:

Which makes it tough to regulate, if you don't know what you're talking about. But that statement is not true today. I think the SEC—was it two years ago, three years ago?—set up a particular division just to deal with this.

Mike:

And now they take incoming calls from anywhere on all subjects. And they answer in real time in a really sophisticated manner.

Reuben:

It's their FinHub division, for anybody that wants to go look that up.

Syren:

Right. So, individually, regulators have the mental equipment to deal with this. But remember that we're dealing with a statutory body. It's been created, and it has an ambit of authority, and it has tools that it's been given, and tools that it has not been given. And so at the moment, all they can really do is to use their enforcement tools by pointing at stuff and saying, Oh, that's a security. Now we can enforce something.

Mike:

Because to be more flexible would require change of legislation.

Syren:

That's correct, yes. Or new case law, okay? Remember that the definition of security, at least in the US, has not been static. Howey, which is now the guiding piece of law on the definition of security, is not that "laundry list" definition of security in the Securities Act, it's the "investment contract" phrase, which was interpreted. When you go through later Supreme Court cases, I think in the 80s and the 90s, you'll see the Supreme Court arguing about how to deal with the definition of security: this laundry list approach, or the so-called functional approach. And I think that it is quite possible that we will have developments in case law which might help out in this regard. But courts themselves are interpreting existing statute, and my point is that maybe we need to look at something beyond that.

Mike:

Right. It gives the opportunity for some much larger or more thought-through, forward-thinking policymaking.

Syren [38:20]:

Right. Now, what I was just saying a moment ago is that, if you go back a few years, the regulators didn't understand, and if you look at them now they understand. Unfortunately, I cannot say the same for the other part of the equation, and that's the crypto community. It goes without saying, there's a lot of highly intelligent people who are engaged in developing [and] thinking about blockchain and what it can do. But I'd have to say that, in general, I don't think they have actually reciprocated the regulator's efforts. That is, to understand what it is that the regulators policy concerns are. It's got to be a two-way communication. For the last few years, in Asia, when I've been talking at panels, this is one of the messages I keep pounding home: Look,

regulators are trying to understand you guys, and guess what? You guys need to understand the regulators, because the regulators have a role in society that you can't just ignore. And so I think that's an important message for anyone who's listening to this podcast, who's involved on the technology side of this equation. Go and put yourself in the shoes of the regulators and try to understand what it is that they're looking for. And one of the things that we've already spoken about is they're looking to protect the public capital market. That's so essential to do. In terms of what kind of regulators should regulate, blockchain's not just about the public capital market, it's [also] about the benefits that can be brought. If you go back to 2018, the European Parliament passed a resolution on the potential benefits of distributed ledger technology, or DLT. And they had a long list of stuff that DLT can help with. And I think that's worth reminding ourselves. So, one part of the equation for blockchain development is getting the capital together to be able to do the development, but that's not the only thing that blockchain is about. If we only think of it in that way, it's just basically a traders game. What we're trying to do is to build an ecosystem. So you have multiple blockchain developments which are able to speak to each other, and which are able to interact with different parts of human society. That's not necessarily, then, interacting with the public capital markets, but the public capital market is necessary to be able to access to get to that next stage of ecosystem development.

Mike:

Yeah, it seems to me that with the ICO boom, if you will, that period. Like a lot of things, so much of the attention followed the money. And so much of the discussion is focused around that, which is now the exchanges, and just how to access capital markets or not. And to your point, there are a lot of projects and a lot of folks who are looking at the broader implications and applications. But I've found it to be the case that there's a lot less sustained attention on those projects and those applications. And once again, like so many things, the attention is based on—well, it comes down to money too much of the time. So I think there are a lot of tremendously... not just important, but game-changing technology applications that are not being fully explored or deployed. And I think we need to figure out how to take advantage of those things. And part of it is investment, and part of it is creating regulatory opportunities. And I think, that's where the role of government [is]. And I think for technologists who are looking beyond just how to get the next decentralized exchange up, that's where a lot more focus has to be.

Syren [42:45]:

Well, I'd like to give you one example where I think that the way we've applied regulation at the moment has been not helpful to generate the wider focus you've just referred to, and that is the whole shift that we've had from ICOs to STOs. So, an initial coin offering and these things we called utility tokens, they allow you to do stuff... PizzaCoin allows you to spend it, and then a

pizza appears at your door. But these things stopped because of the application of securities laws, which now meant that people wanting to raise money had to instead structure that token offering as a security. One of the things that was happening at the same time is that as investors from the traditional market were getting interested in the possibilities, they would want, for example, a legal opinion. Now, it's quite difficult—I think it was probably around 2017 or early 2018 when US law firms just pretty much across the board said, “we're not issuing any more legal opinions that this is not a security.” That shifted the entire market to saying, well, if we want to raise money within a securities law context, we need to comply with things like Regulation D and private placement offerings, and we need to get a legal opinion. They can't give us an opinion that it's not a security, so hey, you know what? We're going to get an opinion that it *is* a security. And so now we're going to offer these things not to the great unwashed public, but we're going to offer them to basically high net worth individuals, sophisticated investors, and so on. So that means that ICOs have lost the limelight, and we've all gone down this securities token offering route. And now I kind of think that's a bit of a shame, and a bit of an example where because we've constrained these exercises within the context of securities laws, it means these other ideas which might have built interesting parts of a much more, let's say, a broader-spectrum ecosystem have not been able to develop, because we've all been squeezed into the shape of 20th century securities law.

Mike:

It's like Dire Straits... Telegraph Road, bringing the lawyers and then that was the... bad joke, but...

Syren:

I missed that one.

Mike:

No, sorry. Well, so given that, how do you think we can—before things get too set in concrete—how can we create the opportunity? I mean, Singapore is looking at creating a sandbox approach. There are different approaches to try to allow for it, whether it's time-limited, or size of the company, to be able to allow for some innovation in that context. Or is that just tinkering? Where do you think we should start looking? Because frankly, I do think that regulators are engaged, and they're looking at larger things. Central banks are looking at coins for a national digital currency. There is a lot more serious thought going in across the board, and across the world. And I think this is the time to kind of interject some of that thinking, hopefully, that will be taken up.

Reuben:

Right. And that includes the United States. At this point, it's relatively new, and I don't know if you've had a chance to look into Commissioner Peirce's safe harbor proposal, but if you have any thoughts on that as well, that would be really interesting.

Syren [46:40]:

Sure. Well, I think what's been happening to date is what I call "regulatory incrementalism." That is, we keep using the tools that we've got and applying them as best we can until such time, and I think we're at the cusp of that time now, that we have to really ask, how sustainable is that? Thinking about a number of the things we've spoken about today, such as the ability to actually successfully de-risk, or is there any way that this is promoting the development. Thomas Kuhn wrote an interesting book—I can't remember the title, but you know, the paradigm shifts and scientific revolutions—

Reuben:

Structure of Scientific Revolutions

Syren:

Structure of Scientific Revolutions. Thanks, Reuben... yeah, The Structure of Scientific Revolutions. And, in some ways, what we're looking at here is—and this is something that I'm writing about currently—maybe we're looking at something similar to that where, as I mentioned before, we've got fundamental assumptions about the way that securities law works that just don't apply anymore. Maybe we need to say, hey, look, this is some kind of paradigm shift, which requires policymakers to start thinking entirely differently about how we start to allow blockchain ecosystems to develop. Because this is not just about blockchain, per se. This is about actually allowing a much more nuanced ecosystem to evolve, where you have different blockchain rails being able to communicate with each other. Now, Hester Pierce: my perception of her, from a non-US perspective, is that she shakes up the apple cart, you know? Let's rattle it somehow. I think the inspiration point sometimes is very nice, but when you look into the details, or the implementation, or the "how do we do that?", it doesn't hold together. So the one that she mentioned a couple of weeks ago—that would be mid-February [2020]—regarding creating a sandbox. That, to me, is not a fully thought out idea, number one.

Mike:

It's more like a signal to the market.

Syren:

Well, I think it's almost a signal to the SEC and to the [other] commissioners, and hopefully to the policymakers above them, that we have to do something to change what we're doing at the moment. I mean, one of the problems with that sandbox is, step one, is the sandbox kind of assumes that something's got to be a security in order to get the exemption from some securities law. So right there, this is an example of something I was mentioning previously, and that is that policymakers tend to think about things with an existing toolkit. And what we need to do is we need to look at ways of changing that toolkit. And I think one of the best ways of helping them to change that toolkit is actually to get more people in the crypto community understanding what regulatory policy making and policy concerns are all about, so that they can have a much more active input. I'm a believer in, and this is something I've written about in another paper, [the idea that] that regulation should not be introduced too early because it simply risks cramping the ability of the private market to come up with its own public policy solutions. That's another plug for the Stanford Journal of Blockchain Law and Policy. I think that was in January 2019, a paper of mine came out on that. But the point is to allow the private market. You need to allow enough width to the frame lines that the private market can understand what regulators are looking for and understand what regulators are wishing to avoid, and start finding their own solutions. One of the things that's a big topic at the moment, which is an interesting one to think about, is interoperability. At the moment, it's a technical issue, which the technologists are trying to figure out how to solve. If we look at it from how, let's say, a European regulator might think about it, which I'm not a big fan of, they like to regulate from a top down bureaucratic approach where they say, okay, well, we can see that there's an issue there for the industry to develop. This is the protocol you are going to have to follow to get some advantage that works in a European context. One might say it's very, sort of, un-American. And so that's not going to work here. I don't like that European context because it forces the market into a presumption that the policy makers know better than the market. And my personal view is that this is not the best way to react to a novel situation, where we are all trying to understand, and that [even] the technologists are all trying to understand.

Mike:

It's, "how developed, how mature is the market?" If you're looking at a particular thing, if the market has existed for decades and all the—not just the broad brushstrokes, but the nuances are understood—it's fair to say that regulators can come in and offer advice that makes sense in that context. But this is not just new technology. This is a new way of thinking, and of organizing society.

Syren [52:48]:

Absolutely. Yes.

Mike:

It makes a great deal of sense. You were sharing with us, offline, this brilliant example—and I'm just cueing you up to talk about the example that you had from Lincoln to try to get folks to think about how to think about this problem. And I think this applies both to regulators, but also to technologists. And I think particularly technologists who—and there are a lot of folks that now realize you have to deal with regulators, and realize that just because it's online, and you don't think they understand your source code, it doesn't mean they actually are not paying attention. So you need to engage. But tell us, share the example.

Syren:

Yeah, sure. Lincoln was credited with saying that just because you call a tail a leg, it does not mean that a dog has five legs. And obviously, the point that he's making [given] his time and context, which is still very much applicable today, is that you have to look at how the real world *is*, not at how you are applying a label to something. And a completely different set of projects that I'm working on at the moment is ESG: environmental and social governance.

Mike:

Oh, wow. We're going to have to have a follow-up on that.

Syren:

Oh, great. I'd love to. But with ESG, you've got all of this greenwashing. We have large institutions marching around saying, “We’re doing environmental investing,” and they find some very specific metric on which they're calling it environmental without looking at the whole larger picture. So the tail/leg, four legs, five legs... I've asked various people what their answer to this question is, and it's kind of interesting the answers that I get. Some people will tell me. “Oh, well, if you call the tail a leg, then of course the dog has five legs.” Or, “If the dog only has four legs, then it's only four legs—it's just a naming game.” I had one person who told me that, “Well, if you do that, then a dog has only one leg.”

Mike:

That's the coder.

Syren:

Right. But I think that the other way of looking at the Abraham Lincoln quote is to say, well, semantically, he's wrong in that if you decide that a tail is equivalent to a leg, then it does indeed have five legs. And what we need to ask ourselves is, and I think this is why we're talking about this Abraham Lincoln quip, what is the value of naming and categorizing things? What are we trying to achieve? And this takes us back to the taxonomy conversation again. Every taxonomy

relies on certain assumptions, and it is engaged for some particular purpose. There is no point in taking Taxonomy A which is designed for Purpose A and saying, well, let's now see if we can use that taxonomy over here for Group B for Purpose B, because the fundamental assumptions are different. And this is the concern, just to cycle back, that the the underlying assumptions—which gave rise to the taxonomies that we are dealing with with securities, commodities and exchange regulation—those underlying assumptions have changed. So fundamentally, then, I think we need to have a new kind of taxonomy to try to tackle how to group and categorize, with what purpose, the things that are happening in the blockchain space.

Mike:

So you're calling for a conversation that starts with a conversation about where we are. Not the specific rules or applications, but having a common assessment of where the world is and what this thing is trying to achieve... kind of a baseline conversation between policymakers and technologists.

Syren [57:09]:

Well, I think we can ask a question whether securities regulation, and commodities regulation for that matter, too, because of course, the CFTC also regulates cryptocurrencies. But we need to be able to ask the question, is this system still fit for purpose? And if it's not, what might a different system begin to look like? I think we have to ask that. I know that in Europe, a very current issue at the moment is the debate about whether they need to establish a different kind of regulator. Going back to that 2018 resolution I mentioned, that's the birthplace of this conversation that says, "Well, hey, if all of these potential benefits can be derived from this new technology, it just doesn't make sense for a securities or commodities regulator to be in charge of that." Let me give you a—again, it's just stepping sideways for an example, and it's something that is in a lot of people's minds in a lot of parts of the world these days, and that's the coronavirus. So, I wrote quite a brief article at the start of February [2020] in relation to the way that blockchain and AI could have actually changed the coronavirus situation quite a lot. As we know, one of the problems for the spread of the coronavirus globally was the way that it was managed in the Hubei province, in particular in Wuhan. There's a whole lot of cultural and centralized kinds of problems there in terms of the way the problem was managed. But the focus of my particular article was on the way that charities were reacting. There was a direction that all of the donations needed to go to the Red Cross. Okay, so fine. Red Cross, in a fairly short period of time, raised something on the order of 4 billion yuan. And they receive lots of protective gear and masks from all over the world. You can't buy masks anywhere in San Francisco.

Mike:

It's true.

Syren:

They've all been sucked into there. But you know what, the bizarre thing is, while the virus was still in an earlier stage of spreading, the Red Cross was sitting on a massive amount of money and a massive amount of protective gear and it was just aggregating there. It wasn't being released out. And part of problem seems to have been that they had no adequate system, which in any medium sized company... but if we look at the larger logistics companies, SF Express is a very large company in China, FedEx and so on, they have systems which will strictly monitor what comes in, where it's been to and where it needs to go to. A lot of that is automated. There's a lot of machine learning involved in figuring out, "how do I use my resources best." The Red Cross seemed to be unclear about how much protective gear they had. They were uncertain about where it should be deployed. And so, the result: they do nothing. What my article was about is, if you take a blockchain and AI system and put it on top of that, you would have a real time understanding not only of how much [in the way of] masks and protective gear you have now, but you would also be able to predict, "well, I will be expecting to get this much next week, which means I can release this out soon." You would have a system which enabled you to make better judgments about things like, well if I have a limited supply of masks today, and I know I'm getting some tomorrow, is it better for me to send the masks to where the infection is already pretty bad? Or should I send it to the place where the infection is actually not really bad, and stop it there? That's my damming spot. Sorry for the people in the infection spot, but you're not going to get it, because your milk has already been spilt. So if you take this kind of technology and start working with blockchain and AI together in this way, you will have very, very different and much more effective responses. And what I gather now is, since the whole coronavirus incident... blockchain development had been extremely active in China without using public capital. But what's now happening is that the coronavirus has kind of reminded people that we should be using this in all other elements of society just to make things more efficient and, importantly, more transparent. This is one of the fundamental problems that was happening with the coronavirus issue.

Mike:

That's brilliant, Syren. Fantastic. And what a way to bring it full circle. And once again, point to all the things that we have yet to really tackle. This has been an amazing conversation. Thanks so much for taking the time, and we're actually looking to move forward and have follow-on conversations with you about a number of the things we talked about. But we also do want to remind folks that we're going to be having a symposium in April [2020], associated with FutureLaw, which we'll have an opportunity to livestream on April 6. You can go to the Codex website and look for details, but also, coming out of that, [we will] continue this conversation and others. It's been amazing. Reuben, I mean, once again, we were able to sit in and hear from

some of the most interesting folks out there in the space. Syren, we look forward to the next thing.

Syren [1:03:16]:

I look forward too, Mike. I much enjoyed having the conversation. And, as I said at the beginning, one of the draw points of this particular topic is that there is no limit to the depth or breadth at which one can talk about it. But yeah, thanks very much for the invitation, and I look forward to next time.

Mike:

All right. Thanks, Syren.

Reuben:

Thank you, this was phenomenal.

Mike:

All right.

[Closing]

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Contact:

Syren Johnstone: syrenj@hku.hk

Mike Schmitz: michael.schmitz@codex.stanford.edu

Reuben Youngblom: youngblom@stanford.edu