



COPENHAGEN LEGAL TECH LAB — PODCAST

EPISODE 01 – REGULATING OR NOT REGULATING BLOCKCHAIN

In this episode, Alexandra Andhov, Associate Professor at the Faculty of Law, University of Copenhagen and founder of the Copenhagen Legal Tech Lab, and Michele Benedetto Neitz, Professor of Law at Golden Gate University School of Law and the Founding Director of the Blockchain Law for Social Good Center, discuss the topic of Blockchain and how and why we should regulate it.

00:00:00 Intro music

00:00:08,339

Alexandra Andhov

Hello and welcome to the Copenhagen Legal Tech Lab - Podcast where we address innovation and the law from three angles, people, technology, and business. Today we are here and the faculty of law at the University of Copenhagen together with Michele Benedetto Neitz, a professor of law

at Golden Gate University School of Law and the founding director of the Blockchain Law for Social Good Center, the first of its kind in the United States. She teaches Blockchain and the law, business associations, legal ethics, and some other classes.

She has been voted most outstanding professor by the graduating class of GGU Law six times. Wow, that's very impressive. Most recently in 2022.

And what is also very interesting and it's very important for our discussion today, Professor Neitz was appointed to advise the California legislature as a member of the California Blockchain working group in 2019. Welcome Michelle.

So today, what we're going to talk about is Blockchain and why and how ultimately, we should regulate it.

So, my first question is for all of our listeners. I'm sure they've heard about Blockchain about Bitcoin about crypto and and how the world is crumbling down. So, Michelle, tell us what is Blockchain?

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Michele Benedetto Neitz

Sure, well the first thing to know is that Blockchain is not Bitcoin and people often get those two confused. Bitcoin is actually a financial application of Blockchain technology.

So, if you want to start at the very beginning, you can think of Blockchain as essentially a distributed ledger. Picture any ledger that you would use to record transactions and think about a ledger that could be held on computers all over the world. And these we would call nodes that exist all over the world, all over the world. And within the ledger there are literally chains of blocks, right? It's not rocket science, it's chains of blocks that record transactions. So, for example on the Bitcoin Blockchain there are a limited number of transactions that can be recorded that would fill each block and then that block itself would be confirmed would be validated. And then the next transaction once that block is full would create a new block. And the important thing to know about these blocks is that one block builds on the one before it. And so, there's no way to change a transaction without changing all of the transactions that have come before it.

So, I cannot just put in a block in between two different blocks.

And you can't steal my Bitcoin without every single node, every single computer that holds a record of that Blockchain knowing about it. And so, this leads us to Blockchain being transparent, that you can see every transaction that has ever occurred. And in fact, in my Blockchain law class on the first day we look at a Blockchain viewer to see the Bitcoin network and to see every single transaction that has occurred. And so that's the exciting revolutionary part of this, is that the way in which the Blockchain transactions are secured is not through a third-party intermediary.

So, if you think about for example: land title, the reason that we know that the title to my house is legal is because City Hall says that it's legal, but in fact with a Blockchain you don't need that third party intermediary.

There's the use of algorithms that can be used to determine what exactly is this transaction.

And that's a way to reach what we call consensus. The consensus mechanism using algorithms. And so, there are three main characteristics of Blockchain that I think are important for your audience to know the first is that because it is distributed, that means there's no central point of failure.

So, this is important in States like mine, in California, where we have a lot of natural disasters. Any central point of failure means that those land title records, if they were being held on a server that is flooded or that is burned down in a wildfire and is not recorded elsewhere. That creates a problem of permanence. That problem is eradicated when you're using the Blockchain because there is no central point of failure. If my computer and my server burned in a wildfire, yours in Copenhagen will be fully established, ready to show the record.

So that's a really useful thing. The second thing is that it's immutable, it cannot be changed.

So, I'll go back to California for just a moment. There was a big scandal a few years ago in San Francisco where a bank called "Wells Fargo" got in a lot of trouble for creating false accounts for its customers. And the way they were able to do this is by manipulating the records. That's not possible to do as we talked about with a Blockchain because you would have to change all of the records that came before it. And so, the "Wells Fargo" scandal would not have happened had

those accounts been recorded on the Blockchain because someone would have noticed all of these new accounts coming in.

So that immutability can be both wonderful in the like the "Wells Fargo" situation, It could also be problematic if someone is writing something onto a Blockchain for example, that is illegal, right? Like child pornography for example. So, there are two sides to every coin and that's certainly true with the immutability piece.

But practically speaking, it is impossible to change it and that offers something new in the era of distributed ledgers.

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Alexandra Andhov

Okay, maybe I'll stop you here because you know, probably our audience has heard before about, you know, Bitcoin or other Cryptocurrency being stolen.

So, isn't this against the immutability of the Blockchain or how how does that happen? And how does that have no effect on the fact that actually the technology underneath the financial application is still immutable.

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Michele Benedetto Neitz

That's a great question. So, let's keep to financial applications for just a moment. So, most of the really high profile hacks and thefts that we're seeing are happening as a result of someone exploiting a bug in a smart contract.

For example, when it comes to stealing something like Bitcoin, you can try to steal it, but you have to remember, it is transparent, and it can be traced back.

And in fact, that's what recently happened when the FBI in the United States was able to trace back theft of coins that had happened years ago. I feel like maybe I'm thinking 2016-ish, when those coins were stolen, it took five years.

It's very painstaking work to go back through a Blockchain and try to trace those transactions. But even if it's stolen, it can be traced, and this goes to something else.

That's another layer. Let's go up to layer one or layer two here, which has to do with public and private keys. You would have a public key that you use on a Blockchain, but it's not perfectly anonymous. It's pseudonymous. Which means that my public keys can still be traced.

So even if I'm successfully able to divert some of your Bitcoin, it's going to be possible for me to trace it down the line.

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Alexandra Andhov

Okay. So, so that's a kind of Blockchain. And I think, you know, Blockchain has been here for what is it now, 12, 13 years, something like that since Bitcoin, right? Because Blockchain came about the same time as Bitcoin did.

But as you say, everyone kind of interchanged the two; whereas one is the technology, and the other is the financial application.

But we see only now or maybe in the past 2-3 years that regulators instead of prohibiting necessarily or directly and saying "oh this is all bad for us and for the economy" or trying to somehow eradicate the creators of different Blockchain or crypto asset solutions are starting to talk about regulation.

So, why do you think or should we - maybe I shouldn't imply the answer in the question - but should we regulate Blockchain?

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Michele Benedetto Neitz

So Blockchain is a tool, right? Like any technology, it is a tool and the way in which we choose to regulate it if we choose to do so we'll have a lot of differences when it comes to the application of that tool. So, it can be used for good and it can be used for evil.

There are certainly people you could walk out on the street in San Francisco and ask anyone should we regulate? And you're going to find people who say absolutely not.

But I don't believe that we should let the technology run too far without making sure that we have some sort of regulatory framework around it.

And the reason for my theory here is because of what happened with Web 2, with Big Tech and how allowing it to run amok has really created a Frankenstein's monster that we're having a lot of trouble now regulating and so I want to avoid making those same mistakes.

I want Web 3 to be full of diversity and inclusion, and really making sure that we're able to to remedy some of the mistakes from Web 2 and I just don't know how we can do that without regulation.

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Alexandra Andhov

Okay. And maybe for our audience, could you elaborate a little bit? What's the difference between the Web 2 and Web 3?

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Michele Benedetto Neitz

Yes. So, Web 2 is the, what is now see as traditional big tech: Google Facebook, Amazon and Twitter came out of Web 2, which are centralized technologies that have really consolidated into these powerful companies that have an enormous amount of wealth and political power.

And the point of Web 3 is to have a decentralized approach to technology and by its very nature decentralization means we're not going to consolidate power into just a few companies with a lot of wealth and political influence.

And so, the hope, and it's aspirational at the moment, but is that Web 3 is going to be an ecosystem that is less focused on concentrating power and more focused on trying to find applications of the technology that will benefit as many people as possible.

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Alexandra Andhov

Okay, I think now I think that maybe we can understand that, but the question is obviously the Web 2 was so successful because ultimately all these companies, and predominantly these four, were able to monetize on all of the data that they were collecting from us, the users. By the way, that's also an interesting thing. Right? There are only, I think two industries where we don't talk about the clients but users: the drugs ones and the the tech industry right?

And now seeing or hoping, because we have not yet seen that Web 3 coming really in place. We talked about that we see some potential but still the web to all the big players are still really holding kind of the power and I would say possibly eliminating or limiting the transformation.

So how can we, through regulation, or can we through regulation help the Web 3 or help the idea of better, more inclusive centralized systems to actually overtake the Web 2.

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Michele Benedetto Neitz

That's a great question. I think technologies are always changing and to the extent that Web 2 does not change, it will die. And the industry will have to do something to make sure that they're keeping up.

I think what's exciting to me about Web 3 is that we do have the potential to do it differently. And this is why I created the 'Blockchain law for Social Good Center'. We received an initial funding grant from the AI Gore Foundation and launched in February with the idea that we need to show, especially regulators and lawmakers, but also members of the community that this technology can

be leveraged for socially beneficial applications.

And so, one of the problems I think Web 3 has already encountered is that the media is so focused on the scandals.

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Alexandra Andhov

Okay, so, tell us about the scandals and maybe tell us a little bit about how and where do you see this Blockchain for the Social Good actually happening.

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Michele Benedetto Neitz

So, one of the things that I'm worried about with regulation is that lawmakers are only reading about the scams and there are lots of them.

I'm not going to try to somehow downplay the fact that this technology is being used to steal money from vulnerable people. That's absolutely the case. And you don't have to look very far to find a coin that has created what's called a rug pull right? Or they pulled the rug out from under people who bought into a particular coin thinking it was going to make money and the founders just took off with the funds.

But I'm concerned that if that's all those regulators see they're going to do something to try to throw out the baby with the bathwater and what I want folks to know about is that this technology is being used all around the world in lots of really exciting, socially beneficial ways.

And I'll give you a couple of examples. So close to home for me is a company called Levi's Strauss, the company that make jeans. They are really focused on workers well-being and making sure that their employees have high levels of well-being. So, they partnered with Harvard and Consensus to create a Blockchain application for its worker well-being survey, where they rolled the survey out in Mexico in a factory in 2019.

And instead of just doing a regular worker well-being survey, which happens a lot in the apparel supply chain — folks would write down what they're thinking about their jobs and of course it goes through multiple layers of management before it's actually read by folks at headquarters and there's the potential for change which can often happen. The idea behind this was, we're gonna tell our workers that this is an immutable - cannot be changed survey, and we're going to have their results of the survey available to workers within a day or two. And in fact, that's what happened as a result, workers felt empowered to write actual truths on the survey, knowing that that's what's going to be revealed and that there would not be any changes along the way.

And the Levi's Foundation felt like this was a really exciting application to really change things in their factories and so they're hoping to continue to do that. We're looking to partner potentially with them related to that.

But that's just one example. There are so many examples everywhere from refugee camps to carbon credit offset their companies being created to fight climate change.

There are all kinds of stuff happening in this industry that does not make it into the front page of the newspapers and that's what I'm trying to do.

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Alexandra Andhov

Yes, because a lot of the front page is still kind of occupied, one could say, with the financial applications rather than all of the other use cases, how Blockchain can be used.

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Michele Benedetto Neitz

That's right. And I'll be honest, I think that the least sexy applications of this technology are the ones that will stick. I think the applications where governments are going to be able to use this technology, that the department of motor vehicles in California is looking to put driver's licenses on a Blockchain.

There are all kinds of research projects happening at the state and local level.

Berkeley, the city of Berkeley is thinking about putting a microbond on a Blockchain. They're actually in the process right now of creating the Blockchain. There's such exciting things going on. But it's less exciting than the crypto scams for them for general audiences and that's why you don't hear about it.

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Alexandra Andhov

Okay, I think we can talk a lot about this topic, but I have a final question for you, Michelle- In a sense, there are people who would want to see this decentralization happen and the empowerment of the individual rather than the fact that there are a few people with extreme amount of power and influence.

How do we make sure or how do we learn — maybe also to use your comparison from our mistakes with Web 2 — how do we regulate Blockchain? How do we make sure that the potential that there is there is not somehow misused or transformed to something to a monster that we actually don't want around?

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Michele Benedetto Neitz

That's a really good question. And I think the answer is we have to allow for some experimentation. We have to be willing to see where it takes us. So, I'll talk about regulatory sandboxes.

We, in the California Blockchain working group, actually discussed this and talked about creating a Blockchain innovation zone that we could create in California to allow people to experiment.

I spoke with a federal Senator's staff last week and when we talked about sandboxes, one of her staff members told me, you know, I don't like sandboxes because it's just a way for companies like google to experiment and get away with not regulating. And so, I think that if we're going to create

these sandboxes, let's make them inclusive in the sense that we're going to limit the spending potential of the sandboxes.

So, for example, you could have maximum capital cap. So, if your company has capital more than \$100,000 or \$200,000 and you cannot participate in our sandbox. We could target the sandboxes specifically to populations that have been excluded from Web 2 and allow those populations to experiment within the sandbox but keep bigger players out.

And that's a way to make the space more inclusive.

I also think, I don't want to go too far into tax law because I'm not a tax lawyer, but taxes are a really interesting way to incentivize behavior. And so, you could use taxes in such a way that you're incentivizing the development of socially beneficial applications.

I think that's probably more of a state and local tax situation then potentially a federal tax situation, but there's room within that to find ways to incentivize the development of these sorts of applications.

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Alexandra Andhov

I think here in Denmark, you know, this is the place where you come and talk about how you use taxes to incentivize, because there's a lot of taxes to redistribute so for sure.

The entire idea in Denmark is to use foundation as a tool for social good, and it's very present and

I think very valued by researchers, but also general public seeing this as a vehicle for greater good.

00:19:54,059

Michele Benedetto Neitz

Absolutely. And the push in the United States to limit taxes no matter what — I mean. Elon Musk pay \$0 in taxes last year — that push actually is incentivizing the wrong behavior and so there will be a way as we develop regulations for this to try to use taxes to incentivize the right behavior.

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Alexandra Andhov

Yes, I mean, come here to, you know, to get some inspiration on how to raise the access and how to use them maybe. But anyhow, thank you very much Michelle for finding time and joining us and telling us a little bit more about Blockchain and Blockchain regulation.

I'm sure that we'll have you at some point in the future as well.

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Michele Benedetto Neitz

Wonderful. Thanks so much for having me. This was really fun.

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Alexandra Andhov

Great. And to all of you, thank you for listening. My name is Alexandra Andhov. I'm associate professor and founder of the Copenhagen Legal Tech Lab, and this is the Copenhagen Legal Tech Lab Podcast.

00:20:50,740 - outro

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