#001 - Blockchain: Blockchain 101 - The Basics with Rasmus Schioenning - Episode 001 – In The Loop Podcast

ANDREW TRAVERS / RASMUS SCHIOENNING

Andrew 0:10

Hi there in this podcast Today my guest is Rasmus Schiønning. Many of you know the name of course because he's a speaker and event attendee at the Zurich Networking Group. Rasmus is here today to share his blockchain knowledge in a non-technical, easy to understand way.

He will cover a little bit of history, share some of his thinking and thoughts, and hopefully give us a few pointers as to why blockchain is important for the future.

Rasmus, it's great that you can make time for us today. Welcome.

Rasmus 0:39

Good to see you. Thank you, Andrew and thank you for inviting me to the show.

Andrew 0:44

It's good to see you and before we start, give us a little bit of an insight and introduction about yourself. So other people that do not know you can learn a little bit more.

Rasmus 0:53

Well, I've done business transformation for over 20 years with large corporates. It's very much the fine line of moving companies and showing them this new technology and new ways of working. I think blockchain is one of the technologies to talk about.

Andrew 1:11

So we will start off with the first and most obvious one, why is blockchain important?

Rasmus 1:18

I think we have to see in the market now, there are different technologies and blockchain is actually one of the very interesting technologies because it solves three different things. It is going to be more and more important going forward, the trust issue, then it also helps in terms of simplifying systems and finally, it's going to be one of the enablers of a digital economy.

Andrew 1:45

So what is blockchain? Well, we often hear the words but what is it?

Rasmus 1:51

Blockchain has some some interesting features, which I'll try to explain.

Many people misunderstand what a blockchain is and to put it very clear.

First of all a blockchain is a distributed ledger, it means that you have some digital information, which is a block that is stored in a public data base, which is the chain, then you have tokens. A token is something that people often relate to like a Bitcoin with a coin. That's actually a bit more as it represents value or utility.

You have something called nodes where the blockchain lives. I mean, the actual distributed ledgers, how many places are you actually replicating this? Then two other points, which are also important in terms of how blockchain actually uses the smart contracts, which is self-executing contracts, a piece of code that is actually very important going forward and something called atomic swap, which is something I'll come back to in a later example as well.

Andrew 2:58

It sounds complicated already. Can we go back a little bit and say, you know, token, and now it's got nothing to do with the car park? It's got nothing to do with sort of shopping trolleys at Migros or anything else like that. What does it mean in a sort of an easier way to know?

Rasmus 3:17

Well, as I said, most understand token as a Bitcoin, it's actually the coin that's represents value. So whenever we have bitcoins, which is part of the early blockchain technology that's a way to tell it and also a way to say it is a container. It is a container that can hold a value or utility, when I talk about utility that could be time on a machine, that could be a calculation effort, meaning anything else than actually representing a coin or currency.

Andrew 3:47

Right. Okay. So, it's something that is identified as being something of value.

Rasmus 3:52

Yes. Right. Something that you that you want to exchange.

Andrew 3:55

So, we don't all have to go and rush and go and buy bitcoins?

Rasmus 3:58

No, definitely not.

Andrew 3:59

So, how and where do you see this blockchain being used?

Rasmus 4:03

Well, where are we, it's already in use, it is still in fairly early stages, it's very much in the supply chain and the transportation area, where you actually have the possibility to solve some of the current problems and other areas prone for blockchain technology. The government, everything from notary services to voting, health care and regarding patient information, it's the digital identity.

Nowadays we have a lot of identity theft, how can you get around that? I mean, as mentioned, our supply chains are international and how would you actually build trust during those supply chains?

Andrew 4:49

So, from the corporate side of things, moving away from government, is it really something just really for the banks and the insurance companies or do you see it in a wider context?

Rasmus 5:02

I do see it in a wider context, I want to give a couple of examples here so people can actually see what it is.

Corporates as such, are looking for ways of earning money. I mean, they're learning and looking for business models. If we look ahead, and with the actual development that's happening now, I want to give you an example of how blockchain is practically used.

Let's say you have a house and you have a buyer and a seller. This example is often widely used by blockchain experts. You can see the house today, a notary, when it was built, when it was enlarged more in a way and if it was torn down.

Now, if you apply blockchain on top of that, you can record more information that would take some risk out of the actual transaction.

So what if, let's take the example, you made an improvement, year one, and then year two, you had a fire which damaged the house, you will never ever know about the damage whenever the seller tries to sell you this if you are using the current system.

If you're using the future system, there would be a recording that is undisputable, in terms of this house had a fire, and then the buyer would take out some risk and you will accede the lifespan of the house.

This is a way to explain very directly, everyone purchased a house probably or an apartment at one point of time. You don't want to buy something that is damaged or if there's debt or anything else. That is an example. I also have an example that a car, which is also very good but I'll come back to that when we go a bit further in the podcast.

Andrew 6:51

From my side, I hear a lot of talk of blockchain, I hear a lot of it in terms of trying to make things secure, and trying to make things visible, or let's just say, the reason for saying it's the banks or the insurance companies, because they're the ones that are always trying to control risk or price risk or, at the same time, stop people with fraud.

That of course requires trust and for me personally, I don't think I'm at a level where I would trust something if somebody gave it to me with blockchain. It's a bit like a driverless car. I might jump into one if it's only a short journey, but I am certainly not going to go from here to Stuttgart in a driverless car.

Yes, there's a lot of talk, possibly some hype, a lot of money being invested in it. I am not actually seeing a lot coming out of it now.

Rasmus 7:53

Andrew I think it's a quite interesting question because the trust part.

I mean, if you look at the western civilization, we do have a trust with the government. We have trust in corporates between corporates and between people.

If you get a little bit further out in terms of trade, cross countries, trade with people you don't know, you kind of start putting in extra securities, like payments up front, like you don't want to give away any security, you are not the one that actually trusts the other person.

If we need to go to the point with the trust, and you talk about the car, I would rather say we today have systems for trade, which is very complicated that's not really going to help the actual supply chains or the actual trade.

Secondly, we have to think outside the US association saying trust. I mean, in many countries, you do not trust the government, you do not trust your neighbour and that means how can I get some verification or ensure things happen like a smart contract, which is a piece of programmable code, saying, If this happens, this also must happen. That means if you pay me money, the goods have to be released to you. I can't stop it, because it's on the actual blockchain. These things will change and actually enable the digital economy.

Andrew 9:19

Right? interesting you say that because one example I'm aware of, which is another reason why I don't necessarily give it so much value is a similar thing to TripAdvisor or Yelp as a restaurant review. How were you there to have that meal at that particular point. I do know, in the hospitality industry, they're actually working with the EPOS people to make sure that is part of that whole transaction validation, but I've not seen it anywhere.

Rasmus 9:52

No, and I also think that you will see probably the first cases in more places. I mean other places where it will be benefiting more people, like you see, it will benefit the restaurant and will benefit you as a consumer going to the right restaurant you like. But keep that in perspective with your whole medical history being online and not disputed for every person in the country. That's a different perspective, much larger, it's going to save a lot of information there.

Andrew 10:25

You know, you've touched on the privacy angle without the medical information. Now, isn't that just a gateway to have higher medical insurance premiums.

Rasmus 10:36

Look at that upside for the companies.

But you can see there's also the fact that if you are healthy, you're not going to do these tests, you're not going to do a lot of things and you can also see progress.

You would actually also have lower premiums for some people. So I do get people saying, oh, but then we have surveillance or we are like, everyone knows everything about us. But in a way, what are we looking at if we're not doing things like that the people can just cheat.

Andrew 11:07

I don't think it's about cheating. It's more to do with the fact that you get to a certain age, you might pick up something that could be hereditary. You're actually penalized for it because this particular technology has been in existence now for 10 or 15, 17 years and then strangely, you find things getting loaded.

In Switzerland, of course, you get your annual phone call, which is would you like to change your health insurance? And in which case, that may not actually happen anymore because they just go to this directory or this resource and say, Oh, no, forget it we are not going to give him 100 francs.

Rasmus 11:43

Then I think you're touching upon a very important point. You own that data, that means that insurance companies would not have access to it. And even more important that also with your identity, if you go to a doctor, you would on a case by case allow the doctor to see your data.

Now the data is not disputed and can't really change it but nobody will have access you do not actually allow. That's the big difference. So, you still get the phone call people asking whether you want to do this, have the yearly review on your insurances, but the data is yours, it will not become publicly available.

Andrew 12:20

Okay, so where is blockchain going? Now at the moment? If we were to look around, do a search on the internet? Where will we see it going?

Rasmus 12:30

I think that some of the background important information is changing.

If you look at the latest development, the laws governing blockchain are changing in Switzerland, also in Liechtenstein and also Germany.

There are now changes to the civil law and orders to ownership agreements. What is? How do you value? How do you secure it? If we now have a digital economy, we also have a problem within saying it doesn't exist necessarily as a physical asset.

How can I actually take it from you if you are not paying?

These things actually happen now, so very much on the legal. The second one, which I think even is more important here is that, you know, governments didn't like blockchain and bitcoins and all this economy for a long time.

Now they're actually trying to embrace it with e-currency. That means like the US government is looking at how we can put the dollar as an e-currency. EU is trying to do that and why is that important? Because going forward, we won't pay in bitcoins, we will pay in e-currencies governed by the state.

They will still like their hand on it and enable a lot of transactions because suddenly we have something that's secure, reliable, and actually something people will want to use.

Andrew 13:59

Is it too late to get into the work around blockchain?

Rasmus 14:03

No, definitely not. I mean, they are of course, pouring money into it and if you look at Gartner's prediction on this one, they say, well, from 2018 to 2024, that's really where you have some of the growth, the scaling.

I mean, making it go from frontier to normal tier and making it more accessible. That's also where we are straight down the middle of that trying to see how the user cases are. But from 2025 and onwards, we will see much more commercialised commoditised blockchains being used,

Andrew 14:39

Right and does that mean we`ll be in the world of blockchain where it's another Google or Facebook? In terms of there's only three or four companies that dominate the market, or do you see it being sort of wider?

Rasmus 14:51

I mean, right now there are what 70 different initiatives, seven different coins or a blockchain in this initiative.

There's only two there are large, that's Ethereum and then there is Bitcoin, the larger lower ones will come eventually because there will be special purposed. You will see a consolidation of these, but there will be consortiums working for industry. For example, in banking, insurance, supply chain, health, these may share a blockchain, because that would be easier for them to actually interact on that.

Andrew 15:30

So when you actually look at the start-up situation, there's thousands of companies. All small mom and pop types or they got an investment in there, maybe 30 or 50 employees. How do you see that going?

Rasmus 15:49

There is a bit more. I mean, the JPMorgan, for example, is, well, they carved out their blockchain unit now, but otherwise, it was JP Morgan running this.

Citibank has its own set up as well. You have Swift which is the large organization in Belgium, that is for standards, the ISO standards.

These people have it so there are the PropTech, FinTech and different small companies or start-ups. The larger ones say, okay, we're not going to stay behind and be overtaken by small companies.

We even have internal disruptions, even in banks, now that's a different discussion, they have different money and they also actually set up these.

Let us take the world's largest transportation company Maersk, Walmart is running blockchain and that's not coming from a small company that's coming from one of the largest retailers in the world.

Andrew 16:46

So how are they going to actually interface?

Rasmus 16:49

Well, that's where I am actually happy you asked about that because that's the atomic swap I am coming back to.

10 years ago, they found out well, they're going to be different blockchains It's going to be different coins and at that point it was coins.

Now it can be whatever token we're talking about. How do you make sure that you can actually exchange between these two? How would you go from blockchain A Society to blockchain B Society?

There you have now digital and also programmable atomic swaps. That means I can jump from one chain to another one by securing that if you do this, you automatically unlock it for me to do my part.

This all happens electronically layered. So, let's say you wanted to exchange some time for some money. You have a time block, and I have the money block, that exchange that you get my money block and I get your time to work is done by an atomic swap.

Andrew 17:54

Right. Okay.

Rasmus 17:55

So that's actually going to help the discussion. One thing is the harmonisation of the blockchains but also how fast can we progress?

You will be needing different services, which is not on the same blockchain yet. If we had one universal blockchain fine, then we everybody would participate on that one, but it is not likely.

Andrew 18:15

So the actual terminology atomic swap, effectively is like an interface.

Rasmus 18:24

It is a programmed exchange.

Andrew 18:26

Right? So that means A can talk to B. Do you see that name staying around or possibly changing into something else?

Rasmus 18:38

They will probably take away the atomic because people will think that,

The guy that actually invented it is more on the blockchain geek side. The atomic represents the fact that this is a fraction, it's really down to the lowest level that you can exchange. That's the representation of it, not the hazardous radiation part.

Andrew 18:58

And that is going to blow up in your face

Rasmus 18:59

Exactly.

Andrew 19:02

Well, that's brilliant. Well, Rasmus, thank you very much for your time. Thank you very much for explaining about blockchain, its technology, the fact that it's here to stay, and that its actually moving and unlike my point about the driverless car, I will probably be using it in the next few years.

Rasmus 19:21

I think so

Andrew 19:23

I am also very grateful for the fact that you've actually explained that it's not Bitcoin. That it is actually a way of extending and enhancing a business relationship.

From my side, I see it as being very important, especially on the supply chain, because provenance, you get to know exactly where your meat on the table comes from.

Rasmus 19:45

Correct

Andrew 19:46

Yeah, which cow which farm property and how well it was looked after, etc.

And with regards to following up as well. It's going to be an enabler of the digital economy and it's good to have a stuttering start, like all new technologies. A bit like the old VHS and Betamax tapes, which got replaced by DVDs, which I don't think anybody buys anymore. It's part of that evolution of technology. So, from my side, thank you very much for turning up and explaining this.

Rasmus 20:18

Most welcome

Andrew 20:19

For anybody that want to get in touch with Rasmus, either to connect with him on LinkedIn or to send him an email. We will actually provide that information in the show notes and all you have to do is just scroll down, hit the link and follow along with the conversation with him there.