

Is Blockchain changing banking for the good?

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Speaker 1: Tech Reimagined, redefining the relationship between people and technology brought to you by Endava. This is Tech Reimagined.

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Bradley Howard: Hello, and welcome back to Tech Reimagined. I'm Bradley Howard, and I'm very pleased to welcome you to a new episode of our show. In season three, we look at how technology is influencing the fabric of our society, the way we work, the way we live, and the way we do business. Join us every Thursday and listen to the stories that our subject matter experts have to share this season. And speaking of expert guests, I'm glad to introduce you to our guest, Stephane Malrait, MD global head of market structure and to innovation for financial markets at ING. Hello, Stephane, how are you?

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Stephane Malrait: Hi Bradley. Thank you for the invitation.

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Bradley Howard: And I'm also joined by a colleague of mine, Wynn Davies, SVP of strategy at Endava. Hello, Wynn how are you?

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Wynn Davies: Hi, Bradley. Hi Stephane, great to meet you.

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Bradley Howard: Today, we're going to be taking a closer look into blockchain and distributed ledger technologies and what they can do for the banking and capital markets industry. Stephane, before we begin, do you want to give us a bit of a background into your career?

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Stephane Malrait: Yes, of course, happy to do so. So I started probably 20, 25 years ago in banking. I was starting in technology, where I was working on risk management system and pricing system. And then after 10 years in technology, I moved to what we call the front office environment, on the trading floor, working with sales and traders on the automation of those markets. And in the last three years, I spent more time working in innovation and try to prepare for the future. What's going to happen in the three to five year horizon for the bank? And this is where we started to look at distributed ledger technology, crypto asset, AI, machine learning, and others, looking more at how the disruption will happen and what can be the positive or negative impact for the bank and its clients.

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Bradley Howard: And Wynn, I know you're really interested in blockchain DLT and the associated technologies, do you want to give us a background to your career?

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Wynn Davies: Yeah, quite similar to Stephane. Stephane started in technology, I started on the business side. I started originally when people booking tickets, paper tickets, and I would take a paper ticket from a trader, try to understand what their bond was that they'd

actually booked, have to go and talk to them, understand their handwriting, go back. So I've loved technology and the adoption of technology from that. I've worked on the buy and the sales side within the industry, and I started off as a real cynic around DLT and blockchain technology. I thought it was a fad. And then, as I saw the things that the Singapore Monetary Authority are doing and the DTC were doing, proving out DLT technology and blockchain technology, I became a convert. I love technology, I love where it's taking us, and I'm really looking forward to this conversation.

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Bradley Howard: Great. Thank you and welcome to the show, Wynn, it's lovely to have you here. So whilst DLT, remember, that's distributed ledger technology, and blockchain have gained a lot of traction together with tokenization, DeFi, that's decentralized finance, and the cryptocurrency trend, and they might hold great promises for the future of banking, they're still in their very early days. A bit like the internet was in the 1990s. Now there's a growing interest from people, but banks appear at the moment to be tiptoeing. Stephane, what's been the biggest value that blockchain brings that's tangible in the banking and capital market space?

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Stephane Malrait: I think that there's more than one value it can bring. And as Wynn says it, a lot of people were like you Wynn, a few years ago to doubt that the technology could deliver on those promises. So one of the value could be the certainty of the execution, how the distributed ledger validates the content on the validity of the transaction. The second one is instant transaction acceptance in a way, right? So when you talk about bond trading, so settlement of a bond is over several days. If you use a digital ledger platform, you will have instant settlement. If it's for payment, you'll have instant payment. So faster, more secure speed of access, but also transparency.

So you have different type of distributed ledger technology, but since it's distributed, you can say that the regulator for example, could have a view of the transaction on the ledger as well. So you could use that for transparency model to be able to validate that those transaction are compliant with what a regulator expects. So it's more than one values, it's a set of values that will bring, but the adoption is going to be the challenges.

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Bradley Howard: I think we're going to talk about the adoption a little bit later in the show. Wynn, what's your view about the value that blockchain and DLT can bring?

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Wynn Davies: So I completely agree with the point Stephane made about the certainty piece. The one thing that blockchain really does, it removes friction from the industry. And when I talk about friction, I'm talking about, there is one version of the truth that exists there. So we don't have reconciliations, which is a huge part of what we do in financial services. We are always reconciling what we know against another party. And now there are other ways of doing that, but blockchain does it in a way which is clean, which is sophisticated. And as Stephan does, it allows us to do it in real time, removing risk.

The thing that I really get excited about blockchain, which I think is the benefit and also one of the drawbacks about it, is the excitement and the ideas that people have about what can be done there. I think it's forcing us to, encouraging us to think in new ways, think about what the things are we could do with technology. I think the drawback about that is a lot of people get over excited about it and run off down rabbit holes around things which don't actually add benefit to what we're doing. Like Stephane, I'm quite opinionated about this, I'm going to try and be quiet. I don't know where your thoughts are on that.

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Stephane Malrait: No, but you're probably right. It's true that for the first time in my career, normally the technology is automated manual process. So when you said we used to record manual tickets, then we just record those manual ticket into a database. So we just replicate the way of working from a manual process to an automated process. When you think about DLT, you have to rethink the whole workflow completely because you may not have the same actors, the same function, et cetera. And that's what is going to be difficult to do. But in a way you can simplify the organization model, you can simplify the process you go through to make a transaction, all the way from pricing, trading, settlement, and make it more cheaper to run for the whole industry. And we are not used to that, so that's why it's complex as well. Because we are not used to be able to have a blank sheet of paper and say, "This could be a new way of working a new way to process a transaction."

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Bradley Howard: Wynn, back to you. Do you think that the financial ecosystem of banks, clients, regulators, and state agents, are they ready to embrace these new technologies at such a large scale?

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Wynn Davies: I would say regulators, very definitely. If we look at the regulators, all of them have made statements around blockchain about where we want to go. I think from an industry perspective, it comes down to the adoption question that Stephane mentioned earlier as we were talking. Until such time as the cost of adoption is a no brainer, it's going to be very difficult for our industry to take forward. As an industry and across all the financial services, not just within capital markets, there's a huge amount of legacy tech built. And quite often it is across multiple different products and multiple different silos.

When we have a solution that attacks one part of that problem, the cost benefit to a bank, who has multiple silos dependent on a piece of tech or has capitalized that piece of technology is not there. So once we get the cost benefit right, that's when we're going to see adoption. And Stephane made the point about it's about reducing cost to process transactions to do transactions, and that's the piece we've got to get right before we get large scale adoption.

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Bradley Howard: And Stephane-

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Stephane Malrait: Yeah, can I add to that? The challenge, we see that in the business analysis and the cost benefits analysis on that is not evident. And probably because five, six years ago, we promised to senior managers that working with DLT will be much cheaper than the existing model. While it's probably true, it does not replace the existing model right away. So I use a lot, the analogy of moving from the checkbook to the debit card, right? When the debit card started or the credit card started to exist, we didn't turn off the checking book process within the bank, we did not replace it. And in fact, it's still (inaudible) while there is a lot less check are processed within bank, but the system still exists. But a new type of system arrive was faster, cheaper to maintain.

And I think that's where it's getting a challenge, it's for the amount people say, "Yes, but if you use DLT, what are you going to turn off?" Well, you cannot turn off anything yet, but you can have a new system, which is faster, cheaper to process in parallel, and over time, your legacy system will be less and less relevant and your new system will be the one who takes majority of your transactions. And I think that's a challenge is it doesn't

remove costs right away, but it prepare you for a much cheaper way of working in the future.

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Bradley Howard: And Stephane, where does ING stand today on DLT and blockchain?

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Stephane Malrait: ING started quite long time ago to look at DLT, so probably five to six years now, and was quoted on rankings by Forbes Magazine as one of the bank with the most innovative in DLT. So we did quite a lot of experiment quite early on. And this was at the time where other larger bank were not investing at all in DLT. But what we found from those experiments is what I was saying before is that while we can see some benefits, it's hard to do it alone. It's going to be a market evolution where cannot be alone on a distributed ledger. For the distributed ledger to succeed, it has to be distributed, you have to have many nodes. This is what you see.

The other lesson that we learn is it doesn't apply today to a very large high throughput number of transactions. So high frequency trading inequities in FX doesn't need to go in DLT today, but processes who are still very manual, like trade finance, repo transaction, et cetera, you could start to automate that and use DLT technology. And that's the experiment that we did to work with platform models using DLT technology, because we see the value as an industry to automate the trade finance processes, for example, and this worked pretty well.

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Bradley Howard: And Wynn, what are some of your favorite implementations of DLT?

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Wynn Davies: So I think there's some really interesting ones at the moment. If we go back to principles we've talked about, things which are giving you a cost and giving you a saving, and I think the multiple nodes piece that Stephane just talked about is very good, I think it's a very true one, I think the HSBC's FX- Everywhere offering is a very, very good offering. So what HSSBC has done is they have built initially an internal blockchain for all the different legal entities and banks within HSBC. HSBC is global organization, multiple global legal entities. HSBC crosses FX internally, which means it saves money for itself and for its clients, therefore increasing its profitability. They build a blockchain that allowed them to do that. It's been very successful. They've seen great benefits from it. They've now signed an agreement with Wells Fargo to do exactly the same thing. So Wells Fargo has become part of that network. That is multiple nodes, reducing cost benefit case immediately from doing that. So I see that as a very good implementation.

I think the work that ASX, so the Australian Stock Exchange, is doing is fascinating. This is taking over the complete ecosystem for securities bonds and digital securities in Australia. As the exchange, they own the clearing house as well, called CHESSE, and the value that's going to be delivered to the Australian ecosystem by taking that on is absolutely huge. Now, they've suffered a couple of delays as they've moved forward, but I think everybody's got to understand the complexity of what the ASX is doing is huge. And I think there's a lot of assumptions that blockchain is a very quick, easy solution, but if we look at the complexity that's been built into every single one of our financial services processes, replacing that with blockchain and DLT technology takes a long time. So I think the ASX is hugely exciting. And I'm going to take one more, Bradley. Sorry. I know I'm going on a little bit here, I'm going to take one (inaudible).

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Bradley Howard: Please do. For the record for all of our listeners, Stephane and I have been nodding with each of these examples.

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Stephane Malrait: Yes, yes, yes.

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Bradley Howard: Please carry on Wynn.

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Wynn Davies: So I love what the DTCC has been doing. So the DTCC in the US is basically the back engine for the whole of the US capital markets industry, and they do the processing of huge numbers of the transaction, everything goes through them. Jennifer Peve and Rob Palatnick have been driving the blockchain agenda there incredibly well. They have two offerings out at the moment. One is Ion, which is realtime settlement. There are other people doing it, but I think as an incumbent, providing that capability to the industry is exciting. I'm looking to see in the next six months of people sign up to that. It officially went live in August of 2022. We have seen it in pilot up until now. And I think Whitney, which is their private equity offering, is very exciting as well. Having a blockchain where you can list and transact private equities, I think is a very exciting piece as well. We're going to wait to see if those get adopted, but for me, those are exciting areas where we're bringing standardization and cost savings to the industry.

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Stephane Malrait: Yes, I agree. And there are quite a lot of other examples as well. What Wynn was saying, for me, I see it in three different level and three different phase. A lot of those example are using DLT as a technology to optimize processes, either internal processes, as you explain in HSBC case, or external with the stock exchange in Australia, and then expand from that. And probably those initiatives started probably four or five years ago, and now are going through production and thing.

The second phase is tokenization of existing assets. So it's more what SDX is doing in Switzerland. So how do you create trading revenue on tokenizing existing assets? So this is more recent activities, probably the last two, three years. And so we don't have the same maturity yet on level, but there is a lot of very promising experiment on that and how we can tokenize existing assets. And this value from that is we will link the back office processes with the front office trading activity through the same ledger.

And then the third level is crypto assets, which are already used and live in the retail type of environment, but not traded yet in a institutional type of environment. And this probably is next wave who is going to arrive pretty soon because there are demands for people to say, "I want to have some exposure in those crypto world and I want to be able to do that with my funds management who is going to provide me money." So this is going to happen as well and that's part of that.

Also, between those two I forgot to mention, but there is also the central bank digital currencies. So even regulator and central bank, who are quite nervous about DLT and the crypto world a few years ago, now are quite interested to see what they can do with it, how they can tokenize cash or fiat currency in a tokenized form, but still regulate it and still safe to thing. So it's very interesting to see those three wave and how they are going to evolve, but it's true that the example as Wynn says, the first wave was how do we automate some of the existing processes to get the true value of DLT through our institution.

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Bradley Howard: Wynn, do you agree with those three phases?

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Wynn Davies: I couldn't not agree with them more. I think those are fantastic examples. I think tokenization is an absolute game changer. Once we can tokenize assets and processes in a standardized way, the ability to process becomes cheaper, the ability to tokenize anything and be able to trade anything and have value and transfer value in every single way is core. I think the work being done on central bank digital currencies or CBDC is fantastic, and I think it's accelerated hugely. I totally agree. Four years ago, everybody was slightly standing back a little bit in horror, and looking at this and saying, "Oh, we don't want to go there." And we got stable coins, which were meant to take the place of fiat currencies in many ways, linked to fiat currencies. So fiat currencies, the US dollar, Sterling, the Euro.

But I think now the acceleration, the focus on that is fantastic. And the benefits we'll have from a payments infrastructure, from a risk perspective is just huge for the world as a whole. And so I'm very excited about tokenization of fiat currencies and tokenization of any kind of security and any kind of asset out there. I think it's where the technology is allowing us to go in our thinking.

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Bradley Howard: Definitely, completely agree. Lots of nodding there on that conversation. I've got one last question, Stephane first. Do you think that the crypto crash... So I should probably say that we are recording this after the summer in 2022, so do you think that the crypto crash and recessionary concerns might influence the adoption of some of these technologies and the industry as a whole? I'm talking about DeFi, decentralized finance, and the central bank digital currency that Wynn just talked about?

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Stephane Malrait: Yeah, so this is a personal view, but I don't think so to be honest. Because one, it's not the first crash that we see in crypto, and after every crash there was a big rally so we probably see another one and then everybody's going to be excited again. The good thing of (inaudible), I want to be positive on these crash is that it puts a pause of people who try to set up the infrastructure to be able to trade those crypto asset at a much more institutional level. But I think everybody I see is still preparing themselves for that, even regulators. So that's probably one. And one example is I made a bet a few years ago that bit Bitcoin was not going to go above \$ 400. Probably I lost that bet, so it's still way ahead of that. So yeah, we have to wait and see, but I don't think it's going to... The crash is not going to go to zero, it's going to put a new reality, a new base of what the crypto world will be. It's a wake up call for people that those are very risky assets today and they have to be extremely careful the way they trade it. But yeah, it's not the first crash that I see in my career.

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Bradley Howard: And Wynn, what's your view?

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Wynn Davies: So I separate the crypto world from the technology world. So I think the benefits the technology are giving us, so blockchain is a concept and DLT is a private permissioned blockchain, the benefits they're giving us are irrespective of cryptocurrencies. They are both using the same underlying technology. Crypto is an asset which is created and used on a chain. Chain technology is bringing benefits to us and allowing us to expand our thinking irrespective of crypto. And I think people have made that adjustment. I think there's still some confusion between people. People think crypto and blockchain are the same things, they're not. One is an asset, one is a technology. And I think the technology has got to the point where it's got momentum and it's continuing to drive value for all of us.

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Bradley Howard: (inaudible) , fantastic. Stephane, if people have got more questions and would like to get in contact with you, where's the best place?

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Stephane Malrait: Yeah, I will love to hear from them and what questions they have. Maybe the best place for me is to be on LinkedIn. I'm quite active there, so people can find me there, or on Twitter at SMalrait.

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Bradley Howard: Thank you. And Wynn, how about for yourself?

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Wynn Davies: Best place to get a hold of me is actually through Endava. So you'll see my name on the website, so Wynn.Davies@endava.com. And then you can also find me on LinkedIn as well. I am active on LinkedIn, but you'll get a quicker response if you reach out to me at Endava.

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Bradley Howard: Thank you very much. To both of you, thank you so much for this really interesting discussion on the latest technologies that are being used in banking today. To all of our listeners, thanks for joining us today, looking forward to joining you next week as well. If you enjoy today's episode, then please recommend us to your colleagues, friends, and family. Until next time, I'm Bradley Howard, and this has been Tech Reimagined.