Interview: Blockchain and Digital Transformation in Financial Services

With Maryanne Morrow and Matthew Midson

Part I: Transformation and Adoption of DLTs, Technology and Innovation, Markets and Money Management

> *"Harnessing new technology can be accomplished without a "rip and replace" exercise."*
>
> Maryanne Morrow

This interview on "Blockchain and Digital Transformation in Financial Services" between 9th Gear Technologies, Inc., CPQi and the TIM Review took place on April 22nd and 29th, 2022. The interviewees were Maryanne Morrow, CEO, Founder, and Chairman of 9th Gear, and Matthew Midson, CEO, North America, CPQi. The interview was conducted by Gregory Sandstrom, Managing Editor, TIM Review.

Gregory: OK. Then I will start with the topic General Blockchain and Digital Transformation, as that's the title of this special issue. How do you categorize your market offering: is it Software-as-a-Service, is it Blockchain-as-a-Service, or something else?

Maryanne: So, I want to frame this discussion by saying that markets operate in a primitive way. We have gone from pen and paper to digital incarnations of those, actual manual writings in ledger books; and we have now have digital representation. However, they still operate in a primitive way. You take your money, you put it in repos overnight, and then during the day it just sits around doing nothing. Also, trade and settlement cycles don't always line up and sometimes they take a long time and money is tied up. And so things are not harmonized in the way they should be.

So, as we think about these things, how do we modernize this market without upsetting everybody? We sought a solution that was not a "rip and replace" exercise because money is in motion. 9th Gear powers real-time settlement in capital markets. We ensure finality of funds by employing liquidity (either prior to or at the time of execution, rather than post-trade) and distributed ledger technology (DLT). And we're inserting ourselves initially into the FX market, but that's just our insertion point. With the way we have built our technology, anything that's digitized we can put through our systems. I think about being at the intersection of institutional finance and technology. What can we do to modernize this area because there are a lot of legacy systems that are in place and they are really embedded; and there is a lot of inertia, because things have been done the same way for decades.

I think part of being here in Silicon Valley, is that I no longer just see something and find it interesting. I ponder "why does it happen that way and what can we do to fix it?" I have a lot of courage and conviction in this mindset. But being in this particular space in the Bay Area of California, it's not "running fast and breaking things" like Mark Zuckerberg says; because it's not "Monopoly money" that we're dealing with. So, we need to get it right the first time that we're doing it. To dimension it, FX trades around $6.6 trillion per day. That is the kind of market we need to insert ourselves into without breaking things.

And so, I look at 9th Gear as a Silicon Valley software-as-a-service (SaaS) company. I have started to hear blockchain-as-a-service, but when I talk about

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blockchain inside the walls of a large financial institution, they still ask, 'what is it?' and often conflate it with bitcoin that is so volatile. I have some people that say never did they ever think that they will be talking about doing something with blockchain. I usually say distributed ledger technology (DLT) to discuss cryptographic methods. Nobody ever asks me how TCP/IP works and yet we use the internet every day. Do you ever think about how Zoom works? No, we just expect it to come on, and to work and I chat with you on the side, and it just works right. But with blockchain people are still like, 'what is it? How does it work? What does it do?'

Gregory: Translation is a key then, and raising people's awareness?

Matt: I have spent my life working in institutional finance. We live in a world these days where I often hear the word called "atomic settlement". We want everything from making a payment to buying goods and services to happen right now [i.e., at atomic speed]. But in reality, if you go into the financial services industry, and I think that's one of your questions here, then why is it they are holding back on widespread adoption of blockchain distributed ledger technology?

I think there's some personal opinions and controversial views I have around the adoption of it. But in general, if you go to financial institutions, there is still a lack of clarity over the terminology and perceived immaturity of the technology, which is not fair, that there's a perceived risk. Who is going to be the early adopter? What is this disruption going to do to fundamental industry practices, which is what Maryanne is saying. How is that going to be governed by the lack of clarity? Although, I think there is a lack of understanding with any technology that pops up these days. People run around, they talk about things, but they don't necessarily understand the reality of what it is and what it can do and what it can achieve. I think as you go through some of the questions, there's an enormous level of benefit with the types of technology that Maryanne is developing, that if you don't move towards that, then you will never keep up with the Joneses. We are in a world now, where it shouldn't take two days to settle a securities or foreign exchange (FX) payment, when we can go on and send each other money, as I said using the toothbrush analogy. You can get it right now, for sure. And you know, that's what technology is meant to do as an enabler.

Gregory: Maybe I'll pause there, as I had a second general question for you as well, that takes us back to the beginning of "blockchain". And I didn't put it in the list of questions previously sent to you. So, I'm surprising you a bit with this question. Do you have any guess about who Satoshi Nakamoto is or was since this is the person that got the blockchain DLT ball rolling?

Maryanne: I have some ideas, but I am not going to speculate. And it is one of those things where it doesn't matter. It is a brilliant idea and it will fundamentally change every business on the planet, from digital identity to the way that we buy a house. And so, I can't wait for it to hit the Department of Motor Vehicles (DMV) because I have to go there next month in person. In 2022, why are we still doing things the way that we always have when we can have trustless transactions, and ultimately that will make the world more efficient? And as Don Tapscott says, who is Canadian, like you Gregory, this technology will be more transformative than AI, robotics and machine learning. It is so transformative. It's much bigger than the Internet. And as Matt was saying, this tech is very nascent right now and we are just starting to come up with the networks of what can happen. So, what else in our world is going to be fundamentally changing because we have this new technology?

Gregory: It's a social technology?

Maryanne: I think we are just scratching the surface as to what can be done by using it. We are so early we are like the internet 1994. We are not even in the [internet] 2000s with blockchain yet. We are just scratching the surface as to how to monetize and commercialize some of this technology. I'm really interested in the networks that are starting to happen and what the actual rails of this technology are starting to look like.

Gregory: We will come back again to the network and ecosystem question later. Matt, would you like to answer that. Again, as a sort of a general warm-up question about this person or persons, is it the same or a different answer?

Matt: I don't have much of a view about it, to be honest.

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Matt: In layman's terms, blockchain can solve the following things which is what financial institutions need. They need to be compliant because it's highly regulated. They want to make sure that everything is secure. They care about costs, and they need the scalability of stuff. Now, fundamentally blockchain and the types of technology that Maryanne is building addresses, it's like sheep. Someone is going to lead this stuff and you'll know; you'll see it. As I said, that relates to a lot of things that we said about why people aren't adopting as quickly given that Amazon is able to achieve what they have achieved.

Gregory: What is the basis for hesitancy that some financial services companies and everyday users have with blockchain distributed ledger technologies? The question of the hesitancy is a bit different than the challenges themselves. The hesitancy might be fear of the unknown, lack of awareness, unprepared for new technology, things like this.

Matt: I think because of the cost of money and time, and you know, banks, as I said, they've got so much legacy garbage [technology], like how do you switch all that off and move to the new world [with blockchain]? That's half the challenge because you've got to keep moving forward. You have a business to run. How do you adopt this new stuff in parallel to what you are doing at the moment? But you know, when people finally really wake up, for example, KYC know-your-client or -customer, offers a blind example of banks paralysing themselves or collecting data off people and storing it all? All asking the same people for the same piece of information were fundamental, yet if it is on the blockchain, that all goes away. I think about all the costs that humans are doing and manually all this faxing paper is barbaric, but again, when you're talking about evolving a technology and financial services, you're dealing with trying to move tanker ship rights in terms of its direction, not a speedboat.

Maryanne: Let's think about the inside of things. Bank operating hours often do not coincide. So, when you're moving things around the world, you have to think about when things are daylight (the global clock) and when central bank windows are open. We will move to a 24/7 cycle, but it is starting to accelerate how fast we're moving there. I think COVID has been an accelerant or catalyst for change, but we are not there yet. And there has been this wake-up call from institutions. For example, how do we put everybody in their homes for two years?

Gregory: Okay, then I want to connect that with something a little bit off script here. Matt, you talked about "evolving a technology". I'm assuming you don't mean that in terms of biology, right, where it's a random mutation and natural selection, but rather some kind of guided intentional innovation with a pathway? In other words, it is not just "environmental pressure" that makes things "evolve" because there are people who are taking the initiative to build a technology, to innovate, or to try to create or enable a new network. Could you maybe unpack what you mean by "evolving a technology"?

Matt: I mean getting everyone to adapt to it. There is a product that Maryanne is building that basically everyone should use, but you've got to get everyone to buy into it. With blockchain, everyone needs to use it. … I think it's how fast you can bring everyone else to the trough to actually start drinking from the same place. … When I talk about adoptions, I mean the maturity of organizations, people's readiness to adapt and use all of this innovative technology that is starting to be built and exist.

Maryanne: It also makes me think about anytime someone has an advantage in capital markets in particular. How to take the system and remove milliseconds off the transaction settlement time? We're taking 48 hours out of the settlement system and sometimes, I still receive pushback from people that are like, "we have always done it this way; it works". Unless you understand the entire daisy chain, you do not comprehend how transformative some of these things are.

And when working in a bank, people are not always incentivized to do it better or faster because banks, keep in mind, make money by tying up people's money. When they tie up a corporation's money for 48 hours, who is incentivized to make it happen immediately? Certainly not the banks that are making money on the float. Thus, we have to make sure that interests are aligned. Fundamentally, it makes sense because it shortens time, reduces many different types of risks, adds transparency, and reduces costs that we can quantify to at least 38%. I think that the savings is probably double that. But who really benefits? That's one of the fundamental things: it's not broken, so why

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are we fixing it? So those are pieces that are just part of the rubric of adding new technology into a space. So, the angle of attack is something that we refine all the time.

Gregory: That's a good bridge to the next question in the category of Technology and Innovation. I found one of the things that you wrote about blockchain DLT, saying "DLT is just one piece of the puzzle". What impact did it make on you when you first discovered blockchain distributed ledger technology and "cryptocurrency"? Was there something that went off for you?

Maryanne: Well, no. Initially, I had seen blockchain technology in 2009. And I went to what now is considered a meetup in Boston. I walked out of the meeting halfway through because the talk was about overthrowing monetary authority and I said to myself, "it's just not going to happen". I tossed blockchain into my rear-view mirror.

But later I was out on the back deck of a Plug and Play Tech Center at one of the large accelerators here in the valley, and I watched a batch of FinTech companies go through and do their pitches. One out of every three or four of them said the word "blockchain". Why is that? I had to think and unpack it.

And when I was sitting on the back deck, we were having a chat about it. Somebody explained it to me in a different way. And when I really thought about what it was that he said, the light bulb went off because I realised, if I can harness this technology, it will fundamentally change the way a transaction moves through institutional finance.

There has often been a conversation about "straight-through processing", which I have always thought was kind of a myth. I mean, how can that be possible: there's always somebody that has to touch something along the way? How can we make a transaction go through without breaks, without reconciliation errors, and without corrections? Harnessing this blockchain technology can do all three of those things. As I was thinking about what could we do with it, I always kept coming back to the word "settlement" because of when I first entered the market; it was T+7 (today + seven days), then it went to T+5, and then went to T+3, then it went down to T+2 on September 5th, 2017. And since then, there has been talk of going to shorter cycles. In particular, SIFMA has been trying to make it go to T+1; why are we stopping at T+1? When we can get it to T_0 why can't we just all get there? So, it will take some different ways of thinking about it. But if there is fundamental technology that enables sending this transaction through, then we can make a lot of changes using an immutable record with a single source of truth. So, that's when I started to really wake up to the fact that we needed to make it happen.

Gregory: Then I'll move on to the next question: What made you recognize DLT as a business opportunity to apply this recent innovation to the financial industry?

Matt: I'm helping Maryanne build. She is the one that has the product. I certainly can give you a technology person's point of view. But basically, we have the honor of helping her build her product. So, we are her IT team. We are an extension of her organization. And as I said, we're actually building it. So, look at me as the technology person and someone that has seen an opportunity in the market that's out there. What we are doing is helping facilitate her vision.

Gregory: So, for both of you, it wasn't so much bitcoin itself, but rather the distributed ledger; the technology that can be applied in a variety of ways?

Maryanne: It is a cryptographic method that solves fundamental problems that are just these legacy issues, like settlement risk. Settlement risk is the most challenging problem for foreign exchange (FX). It is also called Herstatt risk. If you're a scholar of the market, in 1974, the Herstatt bank, a German entity on the eve of bankruptcy, took in Deutsche Marks (DM) and never gave back the dollars.

I ran into a woman last year who was on the desk the day that Herstatt Bank went under in 1974. The bank she worked at lost over $34 million (~$200MM in 2022) the day Herstatt Bank went under. Recent examples of settlement risk are the Lehman Brothers failure. Companies sent their money to Tokyo and they never got their dollars back and it's because of the global clock. In an FX trade, there are 2 legs and you have to send one currency before you receive the other back. More recent examples are January 15, 2015 when the Swiss peg broke,

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a lot of trades were volatile. During C19, I've seen a company where one of their largest clients went bankrupt and had a really hard time with processing their FX trades. Liquidity has been contracting globally and settlement risk are on the rise; it is not going down, it is going up.

We are fundamentally doing as much as we can to eliminate settlement risks, mitigating it to the point where it is negligible. We are solving a real-world problem. We are not a crypto play. We are working capital markets. One thing that is NOT in our favor is that females just don't raise money. Less than 2% of all the money raised goes to women-led startups. We do not receive the spotlight on some of this stuff. Money is pouring into some companies, but not women-led ventures. We solve a fundamental issue that exists; we are not looking for a problem, this problem exists.

Gregory: What did you need to build that did not exist at the time when you discovered blockchain DLT could create a new market offering?

Maryanne: The way that I think about our tech stack is that while we do some things with relational databases, we need to use DLT to ensure finality of funds for payment (solving the double spend issue). I don't want to say too much about it because we are pre-revenue and about to launch into the market; so I won't talk about anything that pierces any trade secrets about what we are doing.

The way that we are applying DLT is fairly unique. It is the way that we are putting together the credit capacity on these transactions. If you're trading one type of currency for another, and you need to swap these things in the transaction, there is a trading and credit component. We are applying the technology to the credit part of the equation as we deconstruct the transaction of trading and credit. Currently, it is very opaque as to how that all happens just like in a black box inside of a bank.

Gregory: Did you need to create a digital platform and engage in or develop a new online ecosystem and network of partnerships or was it already out there?

Maryanne: Yes, when we first started, we started to think of building an Electronic Communication Network (ECN). There are a lot of those in existence today. Several of them are owned by large institutions or exchanges (for example, CME Group, London Stock Exchange, Deutsche Börse, and State Street). Originally, we were trying to become one of those and then we decided, instead of becoming one, why don't we just partner with them because the world doesn't need another ECN. We changed our angle of attack from the way we were thinking about them in 2020.

Gregory: Would you like to say anything about the role of open source in what you're building? I ask partly because the TIM Review started out as the Open Source Business Resource (OSBR). What role does open source software play, if any, in the development of financial technology, given that bitcoin, the first distributed ledger, was designed as an open source project?

Maryanne: I think open source is really interesting and you see things like the Linux Foundation now looking at IBM's Hyperledger Fabric and overseeing that. J.P. Morgan created Quorum on Ethereum, and then open sourced it; one of the most altruistic things that Jamie Dimon has ever done was to put Quorum out in open source. And then there's ConsenSys, the company that Joe Lubin created, which is now looking after Quorum and building its community. We are very plugged into that world.

Originally, we built things in-house. As CEO, I'm responsible for running the business, and while I love to code, it's not what I should be doing as a CEO. When we found Matt and CPQi, one of the things we did was made the decision to stop with the revolving door of developers and figure out a way to look for a tech shop that really gets what we do. … One of the key reasons we decided to work with CPQi is that they understood what we were talking about from a business perspective, which is a nice overlay on top of their technology prowess; also they are near shore in our same geographic time zones (developers in Halifax and South America with headquarters in Toronto). I'm pleased to report that we are ahead of schedule.

Gregory: What roles do "smart contracts" play in the financial industry and financial exchange? What are they used for? How important are "smart contracts" for the emerging FinTech market and in your company offerings?

Maryanne: If you think about a smart contract, one of

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the key things is the way that it is an atomic transaction; it goes all the way or not at all which is lends itself well to capital markets because we want these transactions to go through and have finality. We want to ensure that there is finality of funds for payment; a construct on which you can rely, and that they are immutable. Having a "single source of truth" is really important core piece of distributed ledger technology.

Matt: At the end of the day, going back to risk reduces the risk. For me I have always seen them as they are transactions that are governed. Their self-regulation, in many ways, it is pretty much the same as what Maryanne sees, and the benefit of that is a reduction of losses to intermediaries and that type of stuff financially. So, I think you will see more and more of that.

Gregory: Moving forward with our Markets and Money Management section, we turn to look at Decentralized Finance (DeFi). It has become a kind of buzz word, the idea that finance is moving away from centralized companies and into the hands of users. How important is decentralization in the work you do with financial markets and how does it impact the way you reach out to customers and clients, including banks, credit unions, lenders, borrowers?

Maryanne: I'm working in institutional finance, there's no such thing as "decentralized finance" or "DeFi". Let's pop that bubble right now; it just doesn't exist. I think about things with 3 core tenets: there needs to be safety and security, obfuscation of trades, and low latency. Those are my three fundamental principles as I build this startup. And obfuscation of trades is really important because if two people are trading, no one else should be able to know about that transaction. A lot of times in foreign exchange, people are amassing a currency so that they can buy something (for example, an M&A in foreign jurisdiction), and you don't want to tip off anybody. You don't want that activity to affect the stock price. There is no DeFi in this area. There are applications in a retail or individual space and that is appropriate, but with institutional financial clients that's not the case.

Gregory: What role can we then say that "intermediaries" play in DeFi? Is it a question of replacing all intermediaries to enable entirely Peer-to-Peer transactions, or more about creating a new set of intermediaries that operate based on decentralized principles applied to finance?

Maryanne: At some point corporations are going to be able to trade with each other and not go through a financial intermediary; we are not there yet. That is an end state and it will happen. But even so, do not believe that we will have it as a pure DeFi solution in the public domain.

Gregory: It was mentioned that there needs to be trust between certain clients and customers and there are certain things that should be protected. That seems to be partly what a distributed ledger solution with a private permissioned format involves. Moving forward in our discussion then, What are some of the differences and similarities between "cryptocurrencies" and "stablecoins" and how do these both fit into your business offerings? What do people need to be cautious about regarding NFTs? For example, is it mainly the on-chain vs. off-chain status of NFTs, or are there other factors involved also?

Maryanne: At some point, we will have cryptocurrencies, CBDCs, and fiat (currencies backed by sovereign national governments) all converge into fungible instruments; but we aren't anywhere there quite yet. I just think that some of these things will need to be tethered into the real world with true on/off ramps. How much can we trust certain things that are not backed by a sovereign government? We have gone from the gold standard (the "pegging" of the Bretton Woods Agreement in July 1944), now into this era when things are backed by the full faith and credit of the US government. But who is backing some of the cryptocurrencies? At some point, there will be economic stress and like a house of cards they will go down.

Stablecoins are interesting, but they are not regulated. … People are always talking about stablecoins as the next big thing. They are a digital coin with approximately a one-to-one, but never actually one-to-one fiat currency peg. They are not backed by a currency. They are tradable, fluctuate, and there is no real accounting mechanism for them. So fundamentally, I have problems with stablecoins. I don't think they are all that stable.

[*In timely fashion, since this interview was conducted,*

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economic stress has fallen on algorithmic stablecoins (TerraUSD / UST, and their sister company Luna went into a deep spiral on May 12th, 2022); billions of financial value vanished.]

Matt: I couldn't agree more. I look at stablecoins when I look at bitcoin. Then I look at NFT's. It's like the Wild West. The reality is NFT's are illiquid, speculative investments. It's not like a core asset. It is a new asset marketplace. There's volatility. It is unique in the sense that it is kind of what are you prepared to pay. The applicability of that in financial services for me is still a long way off.

Maryanne: A piece of sand is unique but what makes a piece of sand valuable? And what's going to happen with these things, Matt? … I'm curious as to what we can use the NFT technology to do. … Maybe I would pay for one of those pretty pictures, but I am not going to pay $5,000 for that because what utilitarian value am I going to receive?

Matt: I struggle with it all at the moment. I think a lot of people are going to get burned on it as well. I don't see how bitcoin could be correlated. So really, a currency of any form is just vulnerable. It still has the level of exposure and volatility alone.

Gregory: How are NFTs going to make an impact in the financial services industry?

Maryanne: I look at how NFT's work and the way they can be applied to financial problems; can we take the technology and address them. On some of these tokens you can put attributes on it just like in a cryptokitties. … So, you know they are built on different types of tokens. There is ERC-20s, ERC-21s and there are things that you can put through that have attributes. So, for this NFT type of transmission, we can put on attributes and look at some of the instruments that go through financial transactions from the derivatives market, global bonds, loans, even from mortgages. We can put attributes on all of these types of transaction-specific tokens, so that they work like NFTs, but we are now applying it to a different vertical. This is where I think the commercialization and monetization will come through in the financial industry by looking at how the networks can utilize the technology.

Matt: The only skeptical side of me is how soon they will be adopted in financial services. The earliest part of this conversation was that it still takes T-2 days to settle foreign exchange transactions on blockchain. So NFT's, bitcoin, all of the likes of them. It still comes back to the maturity and the applicability of those, and in what sectors.

Gregory: In the next question on foreign exchange, specifically, let us presume that DLT-based solutions are becoming ubiquitous. In that case, how do you see the present of FX and envision the future of FX when DLT solutions are ubiquitous? How will competition among financial services providers be impacted by DLTs?

Maryanne: There is still a very long tail on this technology and we are just getting started. … It's really interesting how many companies are starting to take DLT seriously and advertising for someone with a background in cryptographic methods to be put on their payroll.

When I first started in 2017, before I even incorporated this company, I asked 100 financial institutions two questions: What are you doing with blockchain? And what are you doing with crypto? Everybody laughed at me except for Fidelity who said that you can use cryptocurrency in our cafeteria. Abigail Johnson, CEO of Fidelity, is really very much at the forefront of many things. She put a bunch of servers in her office because she wanted to understand how mining worked. There is a very slow adoption of new technology especially with financial services but let's all watch Fidelity being a maverick like how they recently released their rooftop metaverse where you are able to have your avatar interact with people. I think it's really groundbreaking.

At Stanford this past week, Microsoft was talking about how they are using avatars throughout their organization. On this Zoom call, we could have our avatar be present instead of our actual images. If I was speaking French, you would see it printed out underneath my avatar and you could immediately comprehend what I'm saying so that we can have an interesting conversation. Things are starting to develop, but in 2017/2018 there were so many skeptics out there. We moved to a point in our conversations when I would say the word "blockchain" and there would be a BIG pause, and the dialogue would shift to: "We can't do this right now" or "We have to think about this".

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Now, when I go into financial institutions, people are no longer sitting across the table with their arms crossed because they are starting to say, "oh … YES!" Folks are actually dipping their toes in the water. But are they using it yet? The answer is mostly no with limited exceptions.

Matt: Take a look at two examples in terms of industries. We all know that Jamie Dimon called bitcoin worthless all of a sudden. Most recently, we need to adopt this to get involved with it. But then on the counter side of that, you can go on an AMC app and buy tickets with Dogecoin or with Bitcoin. Look at the adoption of that versus the example I gave you before by the head of a big bank. And that as I say ties back to what we said earlier on. How soon are all of these innovative technologies going to be adopted in financial services? There are many different factors why that would be fast, slow or medium. But when you compare it to other sectors, people are driven and motivated in different ways.

Gregory: There are a number of names that have come up with Jamie Dimon's. You mentioned Abigail Johnson. I also had in there Blythe Masters.

Maryanne: Blythe has always been a pioneer first with credit default swaps at JPM and then with Digital Asset Holdings. She fundamentally saw the future. We should watch developments with the Australian Stock Exchange to see if it has more broad adoption. A lot of the corporations were not ready for it on the Australian Stock Exchange. A lot of the corporations were not ready for it on the Australian Stock Exchange. And she's now on the board of Credit Suisse. When I think of Credit Suisse I think of what happened to them recently with Archegos. Blythe has joined Motive Capital Partners.

Archegos highlights the importance of the global clock. Some of the traders in New York could unwind their positions after Europe was closed for the day. Credit Suisse couldn't unwind things fast enough and they were left holding the bag. If they had real-time settlement views they could have been alerted earlier.

Matt: If you look back, Maryanne. Look at DTCC and how that thing arose. It was a result of the financial crisis. The reality is maybe that will accelerate things. God forbid there is another financial crisis.

Maryanne: There will be.

Matt: There will be, and this will accelerate because there will be enforced regulation to use these technologies. That is my personal belief and I think that there are great examples of that site with DTCC. I have spent my life building our structured credit products only to see the whole thing collapse. And that forces an acceleration, whether it is an industry or utility. I do think the adoption of those technologies will come faster as a result of that.

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About the Authors

Maryanne brings more than 25 years as a corporate veteran in the financial, marketing and advertising industries to her role as founder and CEO of 9th Gear Technologies where she is responsible for leading corporate strategy, scaling the company and investor relations. She is a capital markets specialist, launching a family of mutual funds and architecting fee-based asset management platforms for banks, broker dealers and insurance firms. Maryanne previously served as CEO of SurgeXLR, a boutique accelerator she founded that focused on faster paths to monetization. She was also involved in two successful exits (to Standard & Poor's and BNP Paribas), and consulted on the custom content and advertising efforts of many financial firms while working at The Wall Street Journal. Maryanne is an active angel investor and an expert on distributed ledger technology, ICOs and cryptocurrency. Maryanne was educated at Cornell University (Material Science Engineering), LeMoyne (Finance) and Whittier Law School with continuous learning at Stanford University (Scaling Blockchain, Valuation Modeling, Angel Investing and part of the Blockchain Club).

Matt leads CPQi North American practice and is responsible for all aspects of the IT consulting business. Matt has over 29 years of combined industry and consulting experience in the Financial Services Industry. Prior to his more recent management consulting roles, Matt held long tenures in several large Global Banks (HSBC, Société Générale, Deutsche Bank, RBS), managing all aspects of Technology and Business focused heavily on Global Capital Markets and Global Banking sectors. Matt has a proven record in delivering business and technology strategies to support growth of business revenue plans, operational effectiveness initiatives, while balancing the demands of today's highly regulated environment. Matt's extensive financial services career originated from hands-on execution roles, through middle/upper management to an experienced CIO. His senior leadership roles have involved leading large diverse direct and non-direct teams in the Americas, Europe, and Asia.

Interview - Lessons Learned

1. General Blockchain and Digital Transformation

• FinTech addresses the inertia of legacy financial service systems and hesitations about dealing with the innovation of distributed ledger (blockchain) technology (DLT)
• This impacts banks and financial institutions that collect data from customers and clients (KYC)
• A distributed ledger connects consumer financial services through technology in a new way driven by developer teams and projects

2. Technology and Innovation

• Recognising the impact of having a distributed ledger on how transactions move through institutional finance can be like "the lightbulb went off"
• Reducing transaction settlement time serves as a key business indicator in finance
• DLT uses a cryptographic method that solves fundamental problems and legacy issues, like settlement risk, the most challenging problem for foreign exchange
• Smart contracts bring value via atomic (speed) transactions that go through with finality

3. Markets and Money Management

• Decentralized Finance (DeFi) is largely if not entirely a misnomer in terms of institutional finance -> "It just doesn't exist"
• Stablecoins are an interesting idea, but are still unregulated in most jurisdictions
• Non-fungible tokens (NFTs) are "illiquid, speculative investments" that designate "a new asset marketplace"
• Most intriguing is that tokens can carry "attributes", meaning information exchange linked to users and transaction events that is valuable beyond just finance

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