

The definitive source of news and analysis of the global fintech sector | April 2023

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These prestigious awards recognise excellence and innovation in the use of IT in the finance and payment industry worldwide.

#PayTechAwards



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Join us at the 2023 Banking Tech Awards!

The 24th Banking Tech Awards ceremony will once again take place at the fabulous five-star Royal Lancaster Hotel in London on 30 November 2023.

Save the date and join us for a night of celebration and recognition of the best and brightest in the banking technology industry.

Nominations will open in spring 2023

www.bankingtechawards.com



EDITOR'S NOTE



Tanya Andreasyan **Managing Director &** Editor-in-Chief, FinTech Futures

Welcome to the April edition of Banking Technology, full of spring hope and action just as the US and UK governments have swiftly taken action to ensure the firms banking with the ill-fated Silicon Valley Bank (SVB) have their money protected.

Despite the economic uncertainty and setbacks, the fintech sector looks unstoppable - not a day goes by without an announcement of funding deals (turn to p28 for our monthly round-up) and new launches.

The acquisitions are also rife (no surprise there). In the payments space, Mangopay has snapped up fellow European paytech WhenThen. Last year, Mangopay was itself acquired by a private equity firm, Advent International, which committed €75 million of primary capital to it.

Payments giant Mastercard has acquired Swedish cybersecurity start-up Baffin Bay Networks. Italian paytech Nexi is buying 80% of Banco Sabadell's merchant acquiring business for €280 million. And another European industry heavyweight, Ingenico, has bought Phos, a provider of software-only Point of Sale solutions (SoftPoS). Ingenico itself recently got a new owner, Apollo Private Equity Funds, and a new CEO (see p31).

On the UK open banking scene, Banking-

as-a-Service (BaaS) provider Weavr has acquired B2B open banking platform Comma Payments (Weavr secured a \$40 million Series A funding round, led by Tiger Global, last year). Embedded finance platform Railsr was sold to consortium of VC firms led by D Squared Capital. And savings app Snoop is reportedly considering a sale after receiving a number of approaches about a potential takeover.

In the trading and investment space, JP Morgan Chase has acquired Aumni, a provider of investment analytics software for venture capital firms. Another financial services heavyweight, State Street, has purchased CF Global Trading, which specialises in outsourced trading for a range of asset classes.

Bloomberg has signed an agreement to acquire Broadway Technology, a provider of front-office fintech solutions. And capital markets tech platform provider Trading Technologies (TT) has bought AxeTrading, a provider of fixed income trading solutions.

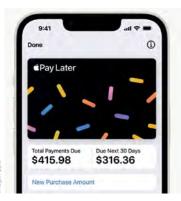
For more details on these - and more M&A happenings – head over to the M&A news section of the FinTech Futures website, but hopefully not before reading through the latest edition of the magazine packed, as always, with fintech goodness!



NEWS NEWS

NEWS ROUND-UP

Apple launches BNPL offering Apple Pay Later in the US



Tech giant Apple has launched Apple Pay Later, its new buy now, pay later (BNPL) offering, in the US, allowing consumers to spread the cost of their purchases over time.

Apple Pay Later will allow Apple Wallet users to split their purchases into four payments spread over six weeks, with no interest and no fees.

Users can apply for loans of \$50 to \$1,000. Apple says it will do a soft credit check during the application process, which will not impact users' credit scores. On approval, consumers will see the Pay Later option when they select Apple Pay at checkout for both online and in-store purchases.

To prevent people from taking on more debt to pay off loans, Apple says users will only be able to link debit cards as their loan repayment method and credit cards will not be accepted. The firm is rolling out its new solution in partnership with Mastercard and Goldman Sachs.

Payroll and benefits start-up Catch shutting down

US-based payroll and benefits start-up Catch is shutting down in early April, citing challenging market conditions.

Founded in 2017 and led by Andrew Ambrosino (president) and Kristen Anderson (CEO), Catch offers self-employed workers and freelancers access to health insurance, retirement plans, long-term investment savings and tax withholding.

Announcing its closing on its website, Catch says: "We were audacious enough to believe a trillion-dollar ecosystem built by corporations, the government and our financial institutions over the last 75 years could be toppled by a start-up turning everything on its head." The firm raised \$18.1 million across seven funding rounds from a total of 23 investors.

Copper.co makes job cuts amid "strategic realignment"

Digital asset infrastructure firm Copper.co is set to embark on a round of job cuts as it grapples with challenging conditions in the digital asset space and an "uncertain US regulatory environment". Copper intends to undergo a "strategic realignment" to focus on its custody and prime services solutions, and as part of this will initiate a redundancy process as it looks to "streamline" its business.

The company claims it has seen "significant increases" in trading volumes and new clients since the end of last year and is anticipating "further acceleration". The business also recently obtained a SOC2 Type 2 assessment, which required an extensive and deep examination of its controls, which is "rare" in the digital assets space, Copper adds.

Copper CEO Dmitry Tokarev says that "now marks the time to re-evaluate our business strategy". Earlier this year, Copper appointed former UK chancellor Philip Hammond as chair.

Worldline opens white-label metaverse shopping mall

European payments heavyweight Worldline has opened a white-label shopping mall in the metaverse to provide banks, merchants and service providers a foothold in Web3. The shopping mall is in Decentraland, a 3D virtual world browser-based platform, with the first nine stores, including German direct bank Consorsbank.

Customers "can build up a presence in Web3", Worldline says, using a modular design method, allowing them to determine how consumers will interact with them in the metaverse. The white-label starter package provides Worldline's payment function – with or without cryptocurrencies – and comes with optional add-ons.

The paytech says the metaverse will be another retail commerce channel alongside point-of-sale and e-commerce, citing McKinsey research that estimates the global market volume of metaverse commerce to hit more than \$2 trillion by 2030.

Nationwide Building Society in retail payments tech revamp

UK-based Nationwide Building Society is on a digital payments infrastructure renovation journey with Form3 and Accenture.

Nationwide – the world's largest building society – is an investor in payments tech firm Form3. Through a series of phases, which launched in 2022, Nationwide will migrate all types of retail payments from an on-premise platform to the Form3 cloud.

Based on an account-to-account (A2A) platform, the Form3 solution connects Nationwide to UK payments schemes such as Faster Payments and BACS. The move will also enable the building society to meet regulatory changes, such as ISO 20022, the vendor adds. Consulting firm Accenture, which has been working with Nationwide for a decade, was selected as the strategic delivery partner for the payments modernisation programme.

"This project is a major step in simplifying and strengthening our payments processing," says Otto Benz, payments director at Nationwide.

UK regulator contacts payment firms over protection concerns

The UK's Financial Conduct Authority has written to the CEOs of payments firms outlining the regulator's concerns that some firms do not have sufficiently robust controls. FCA director of payments and digital assets Matthew Long says while the regulator welcomes competition in the payments space, many firms present "an unacceptable risk of harm" to their customers and to the wider integrity of the financial system, exacerbated by the current rocky economic climate and the cost-of-living crisis.

Long outlines three priorities for payments firms: ensure customers' money is safe; ensure firms do not compromise financial system integrity; and meet customers' needs, including through "high-quality" products and services, competition and innovation, and "robust implementation" of the FCA Consumer Duty.

The FCA contacted payments firms authorised or registered under the Payment Services Regulations 2017 (PSRs) and the Electronic Money Regulations 2011 (EMRs) such as Payment Institutions (PIs), Electronic Money Institutions (EMIs) and Registered Account Information Service Providers (RAISPs).

Fintech Sibstar helps people with dementia manage their spending

UK start-up Sibstar, which offers a debit card and app designed for people with dementia, has launched in the UK in partnership with Alzheimer's Society and Mastercard.

According to research conducted by Sibstar and Alzheimer's Society, nine out of ten people affected by dementia experience difficulties handling their finances daily, with many prone to getting scammed and losing their money. To combat this, Sibstar's debit card comes pre-loaded with funds with the ability to manage money and spending through its app, which features spend limits, auto top-up and real-time notifications. The card can be instantly switched on or off via the app, online or at ATMs.

"How we choose to spend our money is a big part of who we are. That doesn't need to change because you have dementia," says Jayne Sibley, co-founder of Sibstar.

Blockchain trade finance firm Marco Polo goes bust

The holding company of blockchain-based trade finance network Marco Polo has reportedly entered insolvency.

The Irish firm aimed to streamline and simplify global trade finance processes, with partners and participating banks leveraging its decentralised platform to exchange and automatically match trade data, thereby providing an irrevocable payment commitment from the buyer's bank to the supplier.

But now, according to The Irish Times, its liabilities have outstripped its assets by €2.5 million and its total debt stands at €5.2 million. The Irish High Court has reportedly appointed joint provisional liquidators, declaring the firm insolvent and unable to pay its debts.

Marco Polo launched in 2016 as TradelX before its rebrand in 2021. It has more than 30 banks as members and backers, including Commerzbank, BNY Mellon, ING Ventures, BNP Paribas, and Mastercard.



For a healthy dose of daily news on all things banking, fintech and payments head over to the <u>FinTech Futures online</u> news section.

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FINTECH FEED EDITOR'S CHOICE

FINTECH FEED

THE NUMBER GAMES

To read more about any of these stories, visit www.fintechfutures.com/type/news

6,000

people are now employed by global fintech Revolut as it says to have doubled its staff headcount over 2022



20%

increase in headcount planned by core banking vendor Thought Machine

in 2023, with 125 new hires in the course of this year

€44 million

worth of Bitcoin seized by authorities from across Europe and the US including the FBI – from a crypto mixer that they allege was involved in money laundering activities



\$374,000

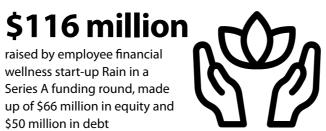
penalty slapped by the Reserve Bank of India (RBI) on Amazon Pay India for what it refers to as "non-compliance" with know your customer (KYC) and prepaid payment instrument (PPI) directions

75

employees to be laid off by digital asset platform Anchorage Digital as part of the firm's "strategic realignment", which equates to 20% of

its workforce

raised by employee financial wellness start-up Rain in a Series A funding round, made up of \$66 million in equity and \$50 million in debt



\$100 million

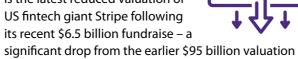
in debt funding secured by Indian lendtech startup Stashfin in a round led by InnoVen Capital and Trifecta Capita

\$150 million

debt facility provided by Goldman Sachs to Saudi Arabia's buy now, pay later (BNPL) firm Tamara

\$50 billion

is the latest reduced valuation of US fintech giant Stripe following its recent \$6.5 billion fundraise - a



after the \$600 million funding round in March 2021

€60 million

secured by Berlin-based savings fintech Raisin in a Series E funding round – the money will be used for international growth, including the US

\$250 million

raised by social investing platform eToro at a valuation of \$3.5 billion after nixing the special purpose acquisition company (SPAC) route



THEY SAID IT...

"The bar for automakers looking to build their own vehicle wallet is quite high because not only does it need to be better than physical cards, it needs to be better than some of these existing digital wallets or mobile wallets."

Arun Yadav, CTO of Car IQ, the winner of the Best Smart Banking Tech Solution – Innovation Award at the Banking Tech Awards 2022

• Click here to read the full interview on the FinTech Futures website

TRENDING

Credit Suisse rolls over to potential UBS acquisition

Financial services heavyweight UBS is set to acquire struggling investment banking giant Credit Suisse in a bid to quell growing fears of a global banking crisis. The new business entity will be worth more than \$5 trillion, with invested assets worth more than \$1.5 trillion. The terms of the deal were not disclosed, but media reports suggest the acquisition will cost \$3.25 billion.

The takeover of Credit Suisse has the full support of the Swiss government, the Swiss Financial Market Supervisory Authority FINMA and the Swiss National Bank (SNB). Both banks have been granted "unrestricted access" to the central bank's facilities, the SNB says, through which they can obtain liquidity, as well as the opportunity to apply for a loan worth CHF 100 billion (\$107.7) million). Credit Suisse can also apply for another similar loan backed by a federal default quarantee.

UBS chair Colm Kelleher says that although acquiring Credit Suisse's capabilities in wealth, asset management and Swiss universal banking is "a good deal" for UBS and its shareholders, "as far as Credit Suisse is concerned, this is an emergency rescue". UBS CEO Ralph Hamers says the deal will support the firm's "growth ambitions" in the Americas and Asia.

UBS benefits from CHF 25 billion (\$27 billion) of downside protection from the transaction to support marks, purchase price adjustments and restructuring costs, and additional 50% downside protection on non-core assets.

Silicon Valley Bank UK takes a pounding from HSBC

HSBC UK is to acquire beleaguered Silicon Valley Bank (SVB) UK for the nominal sum of £1, with all customer deposits protected.

Meanwhile in the US, SVB was shuttered by the regulator, marking the largest failure of a US bank since 2008. The US Federal Reserve said it would step in to protect all insured and uninsured deposits. SVB Financial Group, the former parent company of SVB, has filed for Chapter 11 bankruptcy proceedings. North Carolina-based First Citizens Bank & Trust Company is set to assume all deposits and loans of Silicon Valley Bridge Bank from the Federal Deposit Insurance Corporation (FDIC).

Fears of contagion across the UK tech sector led the Bank of England to swiftly facilitate the HSBC deal, in consultation with the Treasury, using powers granted by the Banking Act 2009.

Speaking on the HSBC deal, UK chancellor Jeremy Hunt says: "The government and the Bank of England have facilitated a private sale of Silicon Valley Bank UK; this ensures customer deposits are protected and can bank as normal, with no taxpayer support."

HSBC group CEO Noel Quinn says the acquisition "strengthens our commercial banking franchise and enhances our ability to serve innovative and fast-growing firms, including in the technology and life-science sectors, in the UK and internationally".

Signature signs over to Flagstar

New York Community Bancorp subsidiary Flagstar Bank is set to acquire certain assets and liabilities from recently shuttered Signature Bank from the Federal Deposit Insurance Corporation (FDIC).

Flagstar will acquire \$38 billion worth of assets from the FDICcontrolled banking outfit, now known as Signature Bridge Bank, including cash reserves of about \$25 billion and \$13 billion in loans. The deal also includes assumed liabilities of about \$36 billion, including deposits of about \$34 billion.

Flagstar has also picked up Signature's wealth management and broker-dealer business and will take over the bank's 40 former branches. The firm did not acquire any digital asset banking or cryptorelated assets or deposits, nor did it acquire loans or deposits related to Signature's fund banking business. The FDIC will provide cryptorelated deposits directly to customers.

Flagstar's president and CEO, Thoma Cangemi, says the acquisition supports the firm's move towards becoming a diversified full-service commercial bank.



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THE HEART OF THE MATTER

Transforming transformation

By Dave Wallace

Having written previously about the demystification of digital transformation, I was interested to see the financial services industry's hit rate for success with projects so far.

Billions, if not trillions, of dollars have been poured into businesses over the last few decades in the name of transformation. And yet, even in 2023, it seems there is a lot of legacy still hanging around.

According to McKinsey, 70% of transformations fail. Shockingly, this intuitively feels about right. But what is going wrong? Many potential answers exist, but I wanted to focus on a few.

THE WRONG STARTING POINT

One obvious thing is that most successful companies are tech businesses that have not had to go through the transformation to digital that so many analogue bricks-and-mortar businesses have had to or are going through. These tech businesses seem able to adapt and change in a way that traditional companies find so problematic.

Steven Denning has undertaken some analysis, which revealed that the businesses with the highest growth are what he calls the "digital giants". From the start, these businesses identified pain points and needs (known and unknown) and offered products and services that addressed these. They were able to keep pace with the rapidly changing and evolving world and provided transformative solutions. They have changed and adapted as the world has evolved. Sometimes they have led and sometimes followed, but they are 'value creators' overall.

Meanwhile, traditional businesses remain locked into old ways of doing

things. Transformation has been a way of extracting value rather than reinvention. Financial services companies are particularly guilty of this. For example, in banking, digital has been a way of reducing costs by moving the 'business of banking' into the hands of the end customer – hence why we all do things ourselves that the bank used to do for us. This focus on cost reduction has meant that processes have been optimised for the digital age at

the expense of true innovation. The days of extracting value are almost over for the financial services industry. There are not many places left to reduce costs. So, they must become value creators, which means taking a leaf out of the digital giants' book and finding ways of identifying and solving problems. For example, Banking-as-a-Service (BaaS) and embedded banking offer banks the opportunity to leverage their operations on behalf of third-party brands to create value. But, according to Paul Staples, who was, until recently, head of embedded banking for HSBC, success will not be determined by technology but by the proposition, approach and processes that the banks wrap around it. Pain up front, forming the basis of what gets

CORPORATE AMNESIA

For these businesses, time can be a massive barrier. Many companies embark on transformation and, years later, forget why they started in the first place. I remember one of the first projects my previous agency HeathWallace undertook

for HSBC: redesigning internet banking. It took more time from start to finish than it took for the new Wembley Stadium to be designed, built, and have its inaugural match. This was a project rather than a programme, but was glacial in pace.

Corporate 'transformation' amnesia often results from lacking that all-important plan and vision. Larry Fink, CEO of BlackRock, has suggested that all S&P 500 companies should "lay out a strategic framework for long-term value creation for shareholders each year". The

mere fact that he was suggesting infers for example, that this is not automatically done. to 2025 includes

China nicely illustrates the power of long-term planning. Since 1953, the Communist Party has published a plan for the subsequent five years providing guidelines and a vision for the economic and socio-development of the country. So,

for example, the 14th plan covering 2021 to 2025 includes the following:

- Prioritising the quality of growth rather than the quantity of growth.
- Building China into a self-reliant technological and manufacturing powerhouse.
- Accelerating the drive towards a lowcarbon economy to help achieve the 2030/2060 climate goals.

These headlines paint a picture and give enough for all to understand the direction of travel.

If a company has

a transformation programme in the first place, it may be time to call a halt and replan and reset the vision and mission.

forgotten why or lost sight of why it started

FORGETTING IT IS ALL ABOUT PEOPLE

According to two good friends of mine, Josephine Wong and Dan Szuc, the cofounders of the globally successful User Experience Hong Kong (UXHK), "It is never too late to recalibrate." Their latest venture, Make Meaningful Work, is embarking on several interventions with companies struggling with digital transformation.

Jo and Dan say: "We have spent much of our careers understanding how to create the best user experience, and we now find those skills equally relevant to an employee context. Almost all the issues we encounter with digital transformation are human-centric."

Jo and Dan have developed an innovative toolkit that focuses on "the person", helping people understand themselves, their roles and the most effective way to work as part of a team.

Digital transformation needs transforming. With a focus on value creation rather than value extraction, companies will become more innovative because that endpoint requires it. It will take time, so finding ways to battle corporate amnesia is critical. Be more China, have a well-articulated and understood plan, and ensure everyone involved in the programme knows what they are doing.



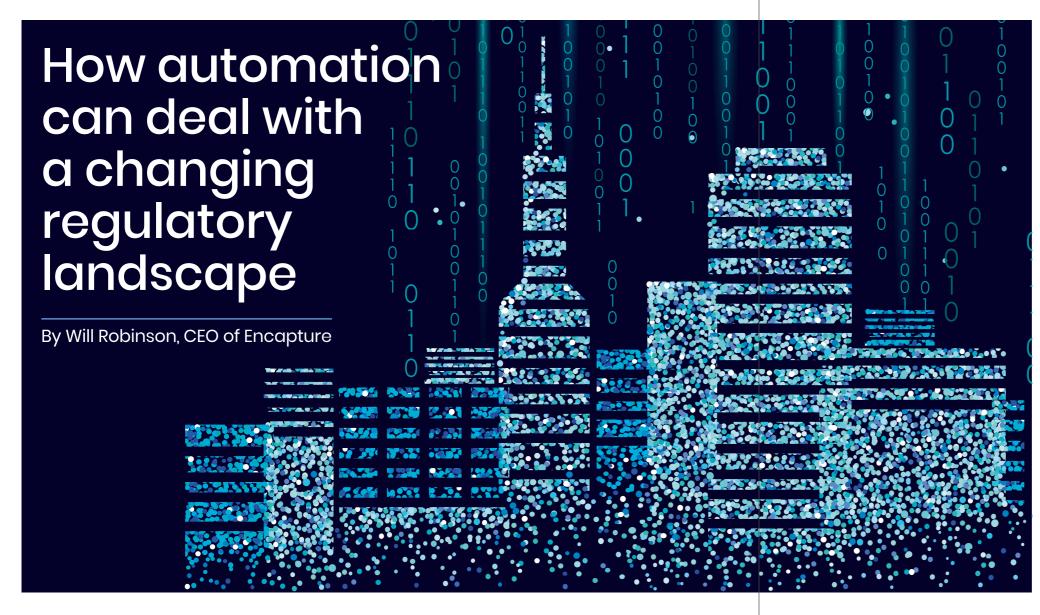
Dave Wallace

is a user experience and marketing professional who has spent the last 25 years helping

services companies design, launch and evolve digital customer experiences.

He is a passionate customer advocate and champion and a successful entrepreneur. Follow him on Twitter @davejvwallace.





Small business lending at fintechs hasn't had to worry about data collection for compliance regulation. But that's all changing with the enforcement of Dodd-Frank Section 1071. Not only will small business finance providers need to be trained on compliance regulation – something their counterparts in banking have been dealing with for years with Community Reinvestment Act (CRA) and Home Mortgage Disclosure Act (HMDA) data collection – they will need a way to efficiently track demographic information for all applications – not just on the loans that are fulfilled.

Existing systems and processes will require a massive restructuring ahead of the ruling to be proposed as *Banking*

Technology goes to press, as requirements become more stringent and demanding. The current and future success of fintechs depends on the swift and decisive action of fintech leaders with regard to their understanding and implementation of systems and processes to address proper regulatory compliance and mitigate any future risks around Consumer Financial Protection Bureau (CFPB) actions.

New regulations will require more than 100 demographic data points to be reported – just as, if not more, correctly than through manual verification – and automation is the key to ensuring data integrity while also keeping labour costs down.

With an estimated 18 months given for

implementation after the ruling is decided, fintechs must think ahead and create long-term, scalable solutions to intensifying financial and data integrity pressures.

GUARANTEE COMPLIANCE WITH AUTOMATION

The two biggest challenges fintech leaders are facing is increased regulatory pressure and controlling costs to remain competitive in the market. Leaders have stated that the cost of compliance is much less of a factor than the cost of noncompliance and are making it a priority. But are they prioritising it in the short or long term, and are they using all the tools available to propel their teams and companies forward?

Many fintechs will continue to just wait and see and tackle this once it becomes an issue by throwing more bodies at the problem, which only balloons costs and introduces new negative consequences like regulatory fines and reputational risks. Based on feedback from Encapture's Industry Advisory board composed of banking and fintech executives, fintechs and banks predict needing to double their compliance staff to adhere to new regulations, a huge blow when taking into account lower loan activity and profits.

Small business loan portfolios will receive more rigorous scrutiny with new 1071 regulations, and new systems will need to be implemented and trained upon. There is no telling how efficient

these methods will be but they do guarantee two things: progress will be slow and results will vary dramatically.

Fintechs who do not adapt will face the risk of not reaching compliance requirements and sinking their businesses. Banks have known for years that the cost of compliance can be catastrophic and many fintechs will learn this lesson the hard way.

In contrast, those with the foresight to integrate automated systems in their compliance processes will avoid many problems common with manual processes that exist today.

ENSURING DATA INTEGRITY

Arun Narayan is chief product officer at Kapitus, a fintech specialising in small business financing. As both a direct lender and a marketplace built with a trusted network of lending partners, Kapitus is able to quickly provide small businesses the financing they need.

"What interests us the most about compliance automation is data integrity," says Narayan. "Manual processes have historically lacked consistency and been wrought with human error. Our aim is to save small business owners time and money, and when our team is freed from tedious data scrubbing, our specialised staff can provide more consistent and stellar services to customers."

Digitally transforming systems is a necessary step toward optimisation.

Document processing, income verification and calculations, data extraction from verified documents, data trails and chains of custody – all of these things can be achieved by integrating machine learning into current digital onboarding experiences. What used to be a huge headache and cost drain for all

"Those with the foresight to integrate automated systems in their compliance processes will avoid many problems common with manual processes that exist today."

Will Robinson, Encapture

fintech executives, maintaining quality data standards amid ever-tightening restrictions, will become a thing of the past. Properly equipped with better tools to handle manual data processing and verification, fintechs will have the energy and funds to look toward the future.

It is difficult to define just how extensive the aftershocks of the new 1071 regulations will be but we know one thing for certain – everyone in the financial industry will feel its effects. Much like how buildings are built with certain safeguards to weather earthquakes and other calamities, so must fintechs safeguard their own systems, processes and pipelines. It is crucial to be ready for any and all consequences once regulations hit, and the best way to achieve data excellence is through automation.

"We're definitely being proactive about implementing compliance automation," adds Narayan. "We owe it to our customers to be ready for the changing regulatory environment."

A day at the circus

By Leda Glyptis

I was at an event recently.

It was a good event.

I had a good time and had some great conversations and I have deliberately allowed time between the event and this publication to pass because the comedy I am about to describe has nothing to do with the event itself.

This sort of thing happens at events everywhere but, even more importantly, it happens in offices everywhere.

It happens in our industry all the time. And it goes like this.

In a small, enclosed space while waiting for something, a group of people are chatting using outdoor voices, oblivious to the fact that others are there... and some of us are taking notes.

And what they say is "look at me and how awesome I am".

Largely.

But they do so by also playing bro cliché bingo with reckless abandon.

"I built a super-app in a year," says one bro. "I bootstrapped and we are not quite live yet but it's a super-app and it's awesome. It took a year, yeah. It would have been faster but what we do is super interesting and it took a while, you see, because in the beginning nobody understood the concept. It was too hard for people. Ahead of its time, man."

Like that's a good thing.

"Where are you based, bro?" says another. "Dubai," comes the answer. "Oh man, do you know Omar? You need to meet Omar." No context. On the business that Omar would take an interest in. On what Omar had to offer. Omar was in Dubai doing fintech things so that's enough, I guess.

People doing things near each other. Like that's enough.

"It's a massive opportunity," says another voice, as loud as all the others. "We want to subvert the banks. We have the analysis. The ones that get with our programme and back us will make 4x their margin."

Whatever that sentence means.

But he continues.

"Technology is at an inflection point. You know? We will use blockchain and do to banking what the internet did to the economy."

Like that's a thing.

Don't forget to talk the talk, walk the walk and go big or go home before you take a breath, because you don't have enough clichés in that one sentence of

But this one was relentless. He kept going. Louder than the rest.

He did the first tokenisations you see. Globally.

"All my personal investments are in the US," says another voice. "And they are performing excellently."

"So why do you need external investment for your start-up?" asks an innocent bystander. Excellent question, innocent bystander.

"To disrupt the renewables real estate market in India," answers the man. Like that's an answer to the question.

I hope the innocent bystander was actually about to go, "That is not an answer to my question", but his voice was drowned out by another bro shouting, "When is your announcement? We should talk.

"Your people should call my people." But our man wasn't to be deterred.

I'm talking now, he must have thought. Because he ploughed on. "I also tokenised 25% of the royalty projections for Motörhead for the next 20 years."

I am sure Motörhead are delighted and grateful. Because you see: "Spotify is a nightmare and they can't front-load cashflows, so I have fixed it for them." Definitely grateful.

Listen to yourselves, people. The offhand arrogance.

This arrogance was unattractive even before it was shown to also be ineffective.

But the last few years have shown us, the hard way, that the arrogant, self-centred, 'I will take over the world' founder... didn't.

Actually.

The bravado didn't translate to success. The successful businesses that are standing today are largely not the ones with the Big Brass Balls founder with the big ego. The success stories have founders that are diverse and different and, frankly... a lot

They largely didn't take over the world.

The bravado was always there, for

more humble than this nonsense.

sure. But it didn't quite work, frankly. It muddied the waters. It created some properly toxic work environments and largely it didn't translate to success.

So stop, already.

The questions you always need to be answering, within your business, are why this, why now, why you.

There is such a thing as too soon in the

There is such a thing as the skill set needed to succeed at something.

There is such a thing as solving a problem nobody has.

There is such a thing as Motörhead not being your ideal customer persona,

There is such a thing as the right tool for the right problem.

And there is such a thing as the wrong answer or configuration to all of the above.

The rest is noise.

And unless you are answering the right questions and, occasionally, listening, so are you.

#LedaWrites



Leda Glyptis is *FinTech utures'* resident hought provocateur she leads, writes on, ives and breathes

is a recovering banker, lapsed academic and long-term resident of the banking ecosystem. She is chief client officer at 10x Future Technologies. She is also a published author – her first book, Bankers Like Us: Dispatches from an Industry in Transition, is available to order now.

All opinions are her own. You can't have them – but you are welcome to debate and comment!

Follow Leda on Twitter (@LedaGlyptis) and LinkedIn (Leda Glyptis PhD). Visit our website for more of her articles.

Putting the trust into automation projects

By Chris Menier, president VIA AlOps, Vitria Technology

When was the last time you went to a bank or paid cash for anything? Today there are fewer 'neighborhood banks'. Brick and mortar banks are rapidly disappearing, being replaced by ATM machines and a few 'cashless' banks tucked away in grocery stores. The vast percentage of daily banking transactions are done online, on mobile devices with a few strategically placed 'stores' available for account openings, financing big events and life changing decisions.

Across the consumer banking categories the traditional banking brands are battling neobanks for creating and sustaining client relationships. Competition from neobanks is forcing traditional banks to digitise daily banking activities like depositing checks, moving money between accounts, getting cash, making payments and managing credit cards.

Even consumers looking for more complex lending products like mortgages, personal and business loans find

themselves shopping for deals online. The ultimate banking relationship – the trusted advisor guiding consumers to build and protect wealth – is up for grabs. These segments have been transformed with artificial intelligence (AI) and machine learning (ML) applications mining large data pools to approve loans and guide adventurous investors looking for the next hot stock tip.

Modern banking depends on networkenabled transactions, made possible by the availability, security and performance of super-fast and complex 5G networks. In response, innovative banks are throwing away the old playbook in favor of dynamic technology that enables new services to stave off the competition and acquire new client relationships. And they are hyper focussed on the importance of service assurance driving higher levels of customer satisfaction.

Forward-looking CIOs are adopting an agile operating model and applying

advanced data and AI/ML capabilities to manage modern platforms.

TRANSFORMING SERVICE OPERATIONS

The market for 5G networking is estimated by industry watchers to be \$12 trillion heading into 2023. 5G allows for 10-20 times higher data speeds with greater device connectivity.

Organisations that will capitalise on 5G will need to adopt *proactive, preventive* and predictive support technologies.
Cloud-based, Al-driven management systems like Al for IT operations (AlOps) are transforming the work of network and service operations. Organisations should choose applications and platforms that enable a new way of working for network and service operations.

Vitria's VIA AlOps is a next-generation AlOps platform engineered to automate and solve complex IT operations challenges associated with enterprise digital transformation initiatives.

First, large enterprises rely on cloud-based applications utilising high bandwidth traffic on the network and this is expected to increase.

Second, hybrid workers will continue to rely on voice and video platforms for collaboration. 5G enhances virtual collaboration.

Third, CIOs are dedicating budget dollars to implement, upgrade and enhance applications and business platforms that improve service assurance and the user experience for customers, partners and employees.

Finally, data is a valuable currency because of Al/ML. Immediate analysis of data is enabled by 5G. We believe that hybrid cloud, multi-cloud, Al/ML and 5G will dominate the technology landscape.

5G CHALLENGE

5G introduces speed and complexity that traditional network management products and processes cannot address. Manual operations are not a good match for today's dynamic enterprise networking environment. Manual operations will not scale to support 5G as the dynamic enterprise networking platform of choice.

During assessments we often find that the network ops team may have access to advanced functions. Unfortunately, they side-step potentially positive outcomes, because they approach their work in the

"A progressive disclosure approach builds trust and instills confidence as it allows the user to drill into why."

Chris Menier, Vitria

same way, ignoring the automation that can change the outcome.

We believe that advanced automation is a critical success factor for leveraging the full capabilities of 5G. Several

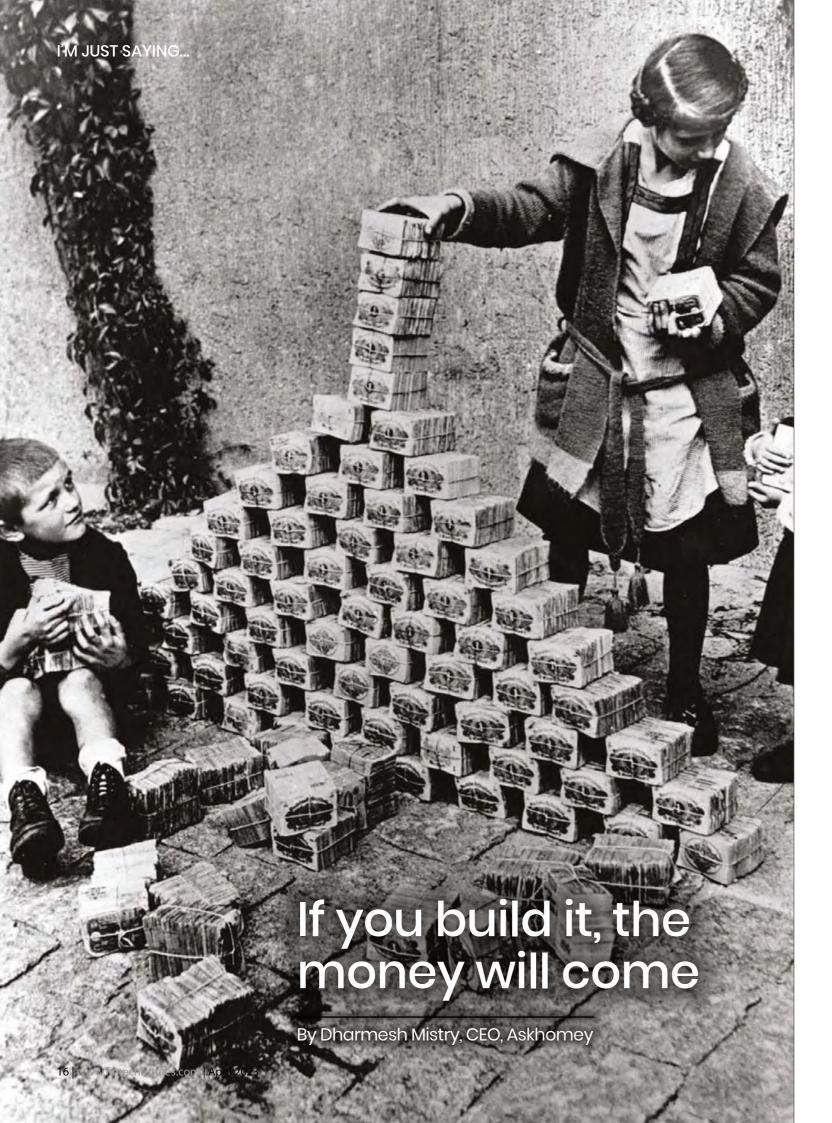
organisations have experienced some success when implementing large-scale automation projects, but many continue to be challenged by one factor – lack of trust. The single biggest reason for automation project failures is lack of trust – users are unable to cross the chasm and trust the proactive automated response features of an AlOps solution.

Vitria understands the problem and offers a solution. Even though VIA offers out-of-the-box algorithms and settings, users can override these to *match their operational best practices*. This VIA approach is called *progressive disclosure* and it allows the user to drill into *why* – why a detection occurred, why a baseline was generated the way that it was, why signals were correlated, why a root cause was identified. It's all there. This approach builds trust and instils confidence so operations can rely on VIA AlOps' analytics to automate remediation.

VIA AlOps customers, using VIA for proactive response, report dramatic reductions in average downtime hours per year made possible by more automation they can trust. Trusted automation translates directly to improved service assurance and customer experience.

Interested in learning more? Reach out to Dan Schneider at dschneider@vitria.com or +1 (612) 802-0155 and check out VIA AlOps at www.vitria.com/via-differentiation





In the heyday of the dotcom era, I sat in a room with the CEO of a new venture created by a large bank and a utility company.

The 'programme board' had senior management consultants from two different consultancies and included some senior personnel from both the bank and the utility firm. As CTO of the company chosen to build the solution, I was arguably the lowest in seniority.

The CEO, as ex-CEO of a big digital branding agency, got the kick-off meeting underway. His pitch was mesmerising, and his slides were enviable. This was then followed by similar presentations by the consultants. The idea was to create a huge marketplace for small and medium-sized businesses (SMBs). But after almost two hours of presentations, I still couldn't understand how the venture would make money.

The team essentially planned to create a platform for SMEs to buy/sell products/ services from each other, providing tools and content to help founders manage their businesses online. But where was the revenue coming from?

I put my hand up and asked: "Sorry if I missed it, but how does the venture make money?"The CEO immediately retorted, "You just worry about building this young man, then the money will come." Well, less than 18 months later and a couple of hundred million pounds spent, the project was cancelled.

Fast forward to a few years ago and 'the API economy'. Banks were being encouraged to build marketplaces of third-party apps to provide innovation to their customers. Even small banks were getting in on the act. The frontrunners were banks such as Credit Agricole, Commonwealth Bank of Australia and neobank Fidor. However, others were quick to follow with impressive offerings from the likes of DBS, Saxo Bank and Deutsche Bank. Even I had led the development of the Temenos Marketplace in 2013, one of the first in the core banking space. But where are these banking marketplaces now? Which of them were able to monetise their

Open banking came later and provided another nudge for institutions to start

"In BaaS, it has to be much more about partnerships than acquiring customers - that is, both parties should stand to gain from a shared business plan."

Dharmesh Mistry

investing in 'marketplaces' and 'bank app stores'. But now, over a decade later, have any banks capitalised on their APIs?

CURATION STRATEGY FAILURE

The cost of creating these marketplaces, if done well, is not insignificant. It starts with developing APIs that can scale, are secure and can be monitored. Then there is the need to provide a testing environment for developers, a sandbox capability as well as good documentation available in a developer portal. For everything to be published, there needs to be bank validation/certification of the third-party solutions. On top of all this, a strong curation strategy is needed to find and recruit not just a good quantity of third parties, but also quality solutions. There's no point in having a large directory of third-party apps that simply aren't used by the bank's customers.

It was the curation strategy that failed at most banks, especially small banks. Why would a third party want to write an app for a small credit union when it

could write one for a large bank with millions of customers? And how could developers even know what the bank's capabilities were?

From my own research and talking to a number of banks about their plans, I sensed déjà vu. "Build it and the money will come." Sadly, this has proven not to be the case for the vast majority. Of course, there are exceptions. The likes of Deutsche Bank have monetised APIs and DBS has successfully innovated both internally and through third parties with its APIs.

A STRONG GROWTH STRATEGY So why bring this up now? Well, although quite a different proposition, we are seeing the number of Banking-as-a-Service (BaaS) players shrink through consolidation and failure - many simply haven't made enough sales to continue

without additional funding from investors.

This week, I'm not saying BaaS is all hype. Far from it. I am a strong advocate. What I am saying though is the companies that will succeed will be those with a strong growth strategy. The old sales model was to get a clear perspective of the addressable market opportunity - how to reach them and how to win and keep them. However, in BaaS, it has to be much more about partnerships than acquiring customers – that is, both parties should stand to gain from a shared business plan. Without this, we are back to a marketplace model of acquiring lots of 'customers', many of which will eventually fade and die without revenue.

A BaaS provider *needs* their partners to be successful to earn their money. While the BaaS partner *needs* a platform that fits their needs at a cost cheaper than acquiring/building their own.



Dharmesh Mistry has been in banking for more than 30 years and has been at the forefront of banking technology and innovation. From the very first internet and mobile banking apps to artificial intelligence (AI) and virtual reality (VR).

He has been on both sides of the fence and he's not afraid share his opinions.

He is CEO of AskHomey, which focuses on the experience for households, and an investor and mentor in proptech and fintech. Follow Dharmesh on Twitter @dharmeshmistry



Key banking cybersecurity developments for 2023

by Nick Bilodeau, executive director, Quantum

As the world becomes increasingly digital, the need for robust cybersecurity measures in the banking industry has never been greater. With new technologies and online threats emerging constantly, it is important for banks to stay ahead of the curve to protect their customers' sensitive information and financial assets.

To better understand what is top of mind within the industry in 2023, I spoke with ten executives from some of the industry's leading organisations, and below are some of the key developments they see shaping the industry this year.

1 ARTIFICIAL INTELLIGENCE (AI) AND MACHINE LEARNING (ML)

As cybercrime continues to become more sophisticated, banks are adopting technologies that can keep up with the threats. Al and ML are among those technologies that are playing an important role in helping banks protect their systems and data against malicious attacks. One of the primary ways Al and ML are currently being used in banking cybersecurity is for threat detection and to amplify staff.

When I spoke with Bank of the West's Georgio Pulikkathara, we discussed how the analysis of behavioural patterns is a critical aspect of threat detection and the role that AI and ML are playing in this area. "AI and ML can be critical in helping identify patterns that can then be executed on," he says. "They help more rapidly perform the analysis and then more quickly identify the potential security incidents that need to be investigated."

Microsoft's Dan Menicucci added that beyond the benefits of speed and effectiveness, AI and ML are also making significant contributions to the efficiency, retention and engagement of staff, particularly given that cybersecurity specialists are scarce and in high demand: "Everyone is trying to figure out how to be more efficient as a security operations centre and AI and ML are enabling technologies for that. The key issue, when it comes to talent that is defending the organisation, is that you don't want to burn them out and you want to make sure that you're sending them high-quality alerts and giving them as much context as possible."



Furthermore, although external sources of cybersecurity threats (e.g. malware, phishing, DDoS attacks or ransomware) are often what first come to mind, it's important to remember that threats can also originate from within. Insider threats are becoming more common, as employees with access to sensitive information can turn to criminal activity. Truist's Dante Jackson discussed how

user behaviour analytics (UBA) leveraging Al and ML is used to spot anomalies in activities taking place within a bank. He said that these threats can take many forms, from stolen customer credentials to social engineering attacks. When scanning for possible patterns that might alert to cybercrime, he mentioned that there are a wide variety of red flags to look out for. "Are people doing things that are

outside the norm of their typical work?" he asks. "Is anyone accessing files and folders that they typically don't? Are they looking up documents that have sensitive information at a greater frequency than usual?" Establishing baseline patterns in standard activities and identifying outliers like these can go a long way in preventing cybercrime.

Lastly, there's a key point that Cameron Yardy from First West Credit Union raised and that was echoed by most of the executives I spoke with. Though AI and ML are starting to have a significant impact, they are still in their very early stages and not yet fully reflective of what most would consider true AI and ML, where machines are independently thinking and acting on their own. But as AI and ML continue to evolve, some of the developments currently underway and expected to further take shape in 2023 include:

- predictive models to detect fraud and phishing scams before they can do any harm;
- natural language processing (NLP) to analyse large amounts of unstructured data;
- Al-based systems for freeing up resources and to more fully automate mundane security tasks such as patching, patch management and vulnerability scans;
- ML to help banks comply with regulations;
- reinforcement learning, generative models and other advanced techniques used in areas such as fraud detection, anti-money laundering (AML) and customer behaviour analysis.

2 INCREASED ADOPTION OF ZERO TRUST ARCHITECTURE (ZTA)

Though the principles behind ZTA have been used for many years, its growing application within cybersecurity is relatively recent. As its name implies, ZTA is a cybersecurity model that assumes that all users, devices and networks – whether inside or outside an organisation – can't be fully trusted and need to be verified before being allowed to access resources. As Yardy puts it, "it essentially takes away the decentralised, walled garden view and brings security down to the individual

PANEL MEMBERS

Georgeo Pulikkathara, interim head of security operations, Bank of the West

Dante Jackson, head of insider threat, Truist

Dan Menicucci, chief security advisor, Microsoft

Belinda Tucker, SVP, bank operations, MainStreet Bank

Izzat Alsmadi, computing and cybersecurity department chair,

associate professor, Texas A&M University – San Antonio

Cameron Yardy, director of cybersecurity, First West Credit Union Praveen Kesani, head of transformation and digitisation, commercial and corporate banking, Wells Fargo Jim Van Dyke, SVP, innovation, TransUnion Rujuta Karkhanis, director, cyber endpoint engineering, RBC Carl Eyler, chief information security officer, Moonstone Bank, and adjunct assistant professor, University of Maryland University College

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machine level, protecting each machine rather than protecting the overall wall that's securing all the machines".

ZTA is based on the idea that traditional security approaches, which rely on a perimeter-based defence, are no longer effective in today's environment, where there are a large number of networkconnected devices and the perimeter is constantly changing.

Under a zero trust model, access to resources is granted on a need-to-know and verify-explicitly basis, rather than based on the trustworthiness of the user or device. This means that all access requests are authenticated and authorised before being granted, and all communications are encrypted. In addition, ZTA often includes continuous monitoring and verification of users and devices to ensure that they are still authorised to access the resources they are requesting.

One of the primary benefits of ZTA is that it enables organisations to better detect suspicious activity within their networks. The system produces detailed logs about user behaviour, which can be used to identify anomalies quickly, allowing for faster responses when threats arise. Al and ML technologies can also

"Zero trust architecture essentially takes away the decentralised, walled garden view and brings security down to the individual machine level."

Cameron Yardy, First West Credit Union

be employed in conjunction with ZTA to strengthen its effectiveness by analysing patterns in log data and improving detection accuracy over time.

Another advantage of ZTA is that it helps protect against lateral movement from malicious actors within an organisation's internal network. By requiring authentication at each step along the way, attackers are unable to move freely around the system without being detected and blocked by security protocols in place. Additionally, ZTA makes it easier for organisations to manage their access rights since everything must go through explicit approval processes, eliminating unnecessary permissions that could be exploited by malicious actors.

Cameron and other members of the panel have seen ZTA in action and see it as a

move toward a more secure, proactive and automated way of security management. With a greater number of banks embracing zero trust principles, it is becoming the norm in the industry. In the near term, the panel foresees it continuing to grow in prominence and anticipate two trends shaping its development in the nearer term:

- · Zero trust network access (ZTNA). ZTNA allows organisations to secure access to their applications and data from any location, by creating a secure tunnel between the user's device and the application. With the shift to cloud and remote work, the need for ZTNA solutions has become more pressing and will soon become more widespread.
- Security analytics and intelligence. As the number of connected devices and

applications increases, it will become increasingly difficult to keep track of all the data and identify threats. Security analytics and intelligence solutions will help with the implementation of ZTA and allow organisations to detect and respond to threats more quickly and effectively.

ADVERSARIAL ML Just as banks are taking a more sophisticated approach to cyber security, unfortunately, so too are criminals. I spoke with Texas A&M University's Izzat Alsmadi about one development in particular that

he believes will play a significant role in the

fight against advanced attacks over the coming years.

"Adversarial ML is getting a lot of attention and is becoming one of the big areas of focus within cybersecurity," he says. "It integrates ML and deep learning techniques, and has important applications in cybersecurity. A lot of the current work in this area involves the use of neural networks and advanced modelling."

Izzat went on to describe how adversarial ML is essentially a method of training ML models to be more secure and resistant to malicious inputs or actions, which are intentionally modified to be similar but not identical to the training data.

Common types of adversarial ML attacks include model poisoning, model evading, model masking and data poisoning. Model poisoning involves changing the training dataset in order to fool the model into producing inaccurate results or conclusions. Model evading involves using subtle changes in input data that will not be detected by the AI system but will still cause it to produce incorrect results. Model masking is hiding malicious code inside legitimate code to evade detection while still accessing sensitive data, while data poisoning is manipulating input data so that it produces incorrect results when processed by an ML algorithm.

In banking, adversarial ML will increasingly be used to thwart attempts to fool fraud detection models, manipulate predictions of creditworthiness in credit scoring and evade detection by AML models. Banks will increasingly leverage

"Everything is going to be on in the cloud and distributed. And that helps with resiliency and ensuring you have backups, which is one of the biggest concerns."

Carl Eyler, Moonstone Bank

adversarial ML to help with cyber security in several ways:

- · Detecting malicious activities. Banks can use ML models that have been trained using adversarial ML techniques to detect fraudulent transactions and suspicious activities, such as identifying phishing emails, malware and network intrusions.
- Identifying adversarial examples. Banks can use adversarial ML to train models for various tasks, such as credit scoring, investment management and AML, to be more robust to attacks, such as adversarial examples that can manipulate the predictions of the models.
- Enhancing intrusion detection systems. Banks can use adversarial ML to improve the robustness of intrusion detection systems (IDS) by training them to detect adversarial examples, which can evade traditional intrusion detection methods.
- Improving anomaly detection. Banks can use adversarial ML to train models for anomaly detection, to identify unusual behaviour, such as unusual transactions or network traffic.
- Increasing robustness in AI-based systems. Banks can use adversarial ML to improve the robustness of the AI-based systems they use, such as chatbots, voice assistants and decision-making systems, to ensure that they function properly and securely.

4 INCREASED CLOUD ADOPTION When asked about top developments, Moonstone Bank's Carl Eyler had the following to say: "In terms of trends, everybody is moving away from core mainframe systems and moving into the cloud. Everything is going to be on in the cloud and distributed. And that helps with resiliency and ensuring you have backups, which is one of the biggest concerns."

In addition to resiliency and back-ups, cloud computing is helping banks with cybersecurity in a number of other ways:

- Improved security controls. Cloud providers typically have more resources and expertise to invest in security than individual banks, which can result in more advanced security
- Scalability. Cloud computing allows banks to scale their security infrastructure up or down as needed, which can be useful for dealing with sudden increases in traffic or threats.
- Compliance. Many cloud providers are compliant with various regulations and industry standards, such as SOC 2, PCI DSS and HIPAA, which can make it easier for banks to meet their own compliance requirements.
- Flexibility. Banks can use cloud computing to deploy security solutions, such as firewalls, intrusion detection and prevention systems, and vulnerability management tools, that can be easily configured and managed remotely, which can improve their overall security posture.

Wells Fargo's Praveen Kesani further highlighted the importance of incorporating a multi-cloud approach. By utilising a variety of different cloud services, organisations can spread out their data across multiple platforms and create additional layers of security to further reduce risk and improve data protection. This makes it much more difficult for attackers to access sensitive information or cause disruptions, as they have to breach multiple systems at once in order to gain access. It also diversifies their cloud usage to minimise the risk of a single point of failure.

Another benefit is that multi-cloud

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strategies help take advantage of the strengths of different cloud providers. For example, a bank might use one cloud provider for its data analytics workloads, another for its storage needs, and a third for its disaster recovery and back-ups.

In terms of what's ahead, Microsoft's Menicucci mentioned that although vendor selection and supply chain monitoring have long been a focus for banks, the increased complexity and number of third parties that accompany a larger push into the cloud are necessitating a much greater level of oversight. In particular, banks will increasingly be leveraging third-party risk management platforms and using continuous monitoring and real-time surveillance of vendors.

5 PEOPLE: RECRUITING, RETENTION AND EDUCATION

The one area that often doesn't get as much attention – but is critical in cybersecurity – is the human element. This is a topic that the panel was unanimous in regarding it as a core challenge. Their top concerns centred around three themes: recruiting, retention and education.

Recruiting

Cybersecurity staffing challenges are becoming increasingly common due to the complexity of threats today and the everevolving nature of cybercrime. Banks are struggling to find qualified candidates with the right technical skills, particularly given they are in such high demand.

One of the main cybersecurity staffing challenges is finding qualified staff. This is due to the lack of people with specialised skills and knowledge in cybersecurity, making it difficult for companies to find the right candidates who can help protect their systems against potential threats.

Additionally, there is a shortage of professionals in certain fields such as network security, software development and data analysis, which could lead to a lack of qualified personnel in critical positions.

Retention

Another challenge is the difficulty in retaining talent due to rising salaries, increased competition from other

"The human element is the weakest link.

No matter what systems are put in place, training is a priority. It's something that needs to take place across the entire organisation and it's not something you do just once a year."

Belinda Tucker, MainStreet Bank

organisations and often limited career growth opportunities. To address these challenges, banks are focusing their efforts on:

- Providing competitive compensation packages, including salaries, bonuses and benefits.
- Offering opportunities for professional development, such as training and certification programmes.
- Promoting work-from-home flexibility or a hybrid work model that allow employee to work from home and the office.
- Offering retention bonuses to key employees.
- Building a strong and positive reputation as an employer within the cybersecurity industry.

Education

Cybersecurity education for staff has long been a priority in the banking industry, and it is only becoming more important. As MainStreet Bank's Belinda Tucker pointed out: "The human element is the weakest link. No matter what systems are put in place, training is a priority. It's something that needs to take place across the entire organisation and it's not something you do just once a year."

She further noted that the need for education is also not only reserved for staff. Creating a culture of cybersecurity extends itself to clients as well.

As cyberthreats continue to evolve, banks need to ensure that the training they provide adequately covers the latest security techniques and technology. This includes staying up to date on risk management processes, data protection

protocols and emerging threats such as phishing attacks and ransomware.

There is a growing trend of providing role-based security training, which is tailored to the specific responsibilities of each employee. This allows staff to understand the security risks they may encounter in their day-to-day work and how to mitigate them.

Another trend that is becoming popular is the use of simulated phishing and social engineering attacks to test the employees' ability to identify and respond to potential threats. This helps to identify any gaps in employees' knowledge or understanding of cybersecurity risks and allows for targeted training and education to be provided.

Additionally, the use of gamification and interactive methods in cybersecurity education are on the rise, as they have been found to be effective in engaging

"The best way to assess individual identity crime risks is to prescribe ID theft/fraud mitigation steps based on what the risks any particular breach most raises."

Jim Van Dyke, TransUnion

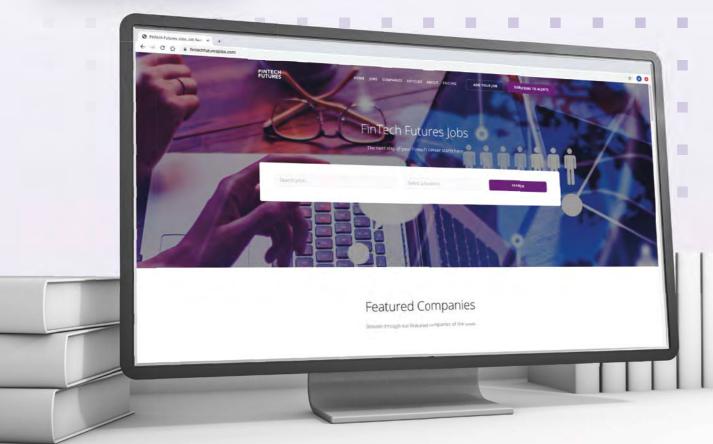
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PROCESS

Beyond technology and people, a discussion of cybersecurity wouldn't be complete without touching upon processes. And for good reason: having proper processes in place is critical in cybersecurity. They provide a framework for identifying, assessing, and mitigating security risks. They help organisations to comply with relevant regulations and standards. And they aid in incident response and recovery in the event of a security breach.

According to TransUnion's Jim Van Dyke, "every breach discloses unique identity credentials, which in turn creates risk of particular identity crimes. The best way to assess individual identity crime risks – as well as to best guard against the risks that a particular breach can bring to any enterprise that uses PII, PCI, or PHI data - is to prescribe ID theft/fraud mitigation steps based on what the risks any particular breach most raises. Believe it or not, this approach is almost never deployed today, and this is what needs to change."

He is right. A one-size-fits-all approach to cybersecurity is no longer sufficient for banks in today's increasingly connected world. Cybersecurity threats are becoming more sophisticated and targeted, and it is critical for banks to be able to identify and respond to these threats quickly and effectively. A diagnosis-based approach to cybersecurity is ultimately what is necessary for banks, to allow them to focus on specific areas of risk that require attention.

This type of approach allows banks to customise their security protocols based on the nature of the threats they face, helping to ensure that the measures used are tailored specifically for the bank's environment and requirements.

→ AN ECOSYSTEM APPROACH

For RBC's Rujuta Karkhanis, one of the key concerns and areas of focus is around the integration of cybersecurity solutions and strategies across platforms and products. "Banks today are technologyfirst organisations and they're leveraging

"Finding the right suite of products so that the organisation can have a holistic view of their cybersecurity posture is one of the top challenges."

Rujuta Karkhanis, RBC

advanced data analytics capabilities to be more intelligent and to help marry legacy systems with advanced technologies," she says. "But finding the right suite of products so that the organisation can have a holistic view of their cybersecurity posture is one of the top challenges."

To address these challenges, banks will increasingly be taking an ecosystem approach to address cybersecurity by implementing strategies and initiatives across (1) business and product lines, and (2) internal and external resources. Some of the key ways banks are approaching cybersecurity in this way include:

- Integrated security management. Banks are working to integrate security management across business lines and product lines to provide an overarching view of security risks across the organisation.
- Risk management frameworks. Banks are implementing risk management frameworks that take into account the interdependencies and relationships between different systems and technologies.

- · Collaboration. Banks are working with other financial institutions, technology companies and government agencies to share information and best practices for addressing cybersecurity
- Cybersecurity standards. Banks are adhering to industry standards such as ISO 27001, SOC 2 and NIST Cybersecurity Framework to provide a consistent approach to cybersecurity across their organisation.

RESILIENCE

Lastly, though not exclusively related to cybersecurity, Microsoft's Menicucci brought up how resilience and the concept of 'building a bank in a box' is something banks and regulators are currently talking

'Building a bank in a box' is the concept of creating a complete, self-contained and highly secure environment for a bank's critical systems and data. This environment is designed to be highly resilient and able to withstand a wide range of cyber threats, as well as other disruptions such as natural disasters or power outages.

The idea is to create a sort of a 'back-up' or 'disaster recovery' infrastructure which can be quickly activated in case of any incident or disaster. This infrastructure would be completely separate and independent of the primary one, and can be used to keep the bank's operations running smoothly in the event of a major security breach or other disruption.

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Driving change: making payments on the road

By Alex Pugh, reporter, FinTech Futures

While driverless cars percolate in the collective consciousness as a futuristic innovation that is just on the horizon, there is still some way to go before mass adoption. Driving a car is difficult enough for human intelligences, let alone artificial ones.

Mass adoption of driverless cars is not widely expected until 2030 at the earliest. Despite the long wait, once the market matures, it is set to be massive. According to Renub Research, the US autonomous vehicles market will be worth \$186 billion by 2030, up from \$4 billion in 2021.

Essentially, autonomous cars will be a

reality one day. And the opportunities, once people no longer have to drive their cars, for payments and fintechs alike, are enormous.

Driverless cars will be ready to capitalise on the ever-increasing move towards a cashless society and people's propensity to stare at screens in order to message, shop, work and play.

In the meantime, by 2026, more than 4.7 billion in-car payment transactions are expected worldwide, according to Juniper Research. And according to McKinsey, by 2030, about 95% of new vehicles sold globally will be set up for payments, up from around 50% in 2021.

Although paying for fuel will initially be the most common use of in-vehicle paytech, accounting for around 48% of total transactions by volume, it's not hard to imagine that once people no longer have to operate heavy machinery just to get around, this payments infrastructure will be utilised for everything people already use their smartphone for.

Recently, German car manufacturer Mercedes-Benz partnered with payments giant Visa to turn its cars into payment devices. In a world first, the car manufacturer is utilising Visa's Delegated Authentication and Cloud Token Framework technology to enable biometric in-car payments, allowing German Mercedes customers to pay for digital services and "on-demand hardware upgrades" in the Mercedes store using a fingerprint sensor.

Mercedes says the payment by car service will be extended to other services such as fuelling as well as to other European markets later this year.

Visa regional managing director for central Europe, Albrecht Kiel, says: "Making your car a secure and fully authenticated payment device brings new ways to enhance journeys and looking ahead, we can imagine many moments where in-car payments could smoothen the driver experience."

YOUR CAR AS YOUR COUCH

Avin Arumugam, Visa's senior vice president of Internet of Things, says in an autonomous car, there is no driver's seat: "Think of your car as your couch."

As with payments elsewhere, customers' desire for reduced friction, enhanced connectivity and convenience will drive innovation in in-vehicle paytech.

Indeed, connectivity is key to driverless cars as they draw in data from thousands of sensors both within and outside of the car in order to navigate and avoid obstacles.

The human element – the driver – is primarily responsible for automotive accidents across the world and therefore, driverless cars aim to provide greater safety and accessibility, as well as reduced congestion and pollution.

But this connectivity also offers promise to both occupants and car manufacturers. With the driver now a passenger, what will occupants of driverless cars spend their time doing?

"What people really want to do in their vehicles is work on their electronic "Making your car a secure and fully authenticated payment device brings new ways to enhance journeys."

Avin Arumugam, Visa

devices," says Rick Haas, president and CEO of Mahindra Automotive North America.

Tying up tasks such as fuelling, leasing, parking and insurance will come first. Payments for these services will be harmonised and streamlined with opportunities for insurtech and paytech firms to harvest and harness data from cars and occupants.

Next, ride-sharing and algorithmic networking will free up urban centres for pedestrians. The vast majority of a car's life is spent parked. Autonomous cars that pick-up travellers will free up the built landscape and cut air pollution in cities across the world. Firms such as Uber may face competition from smaller upstarts in this space.

Additionally, turning a car into a smartphone opens up avenues for mining customer data and using that to offer personalised services in much the same way mobile apps do. Voice recognition and virtual assistants have joined screen-laden dashboards in many cars already.

YOUR CAR AS YOUR SMARTPHONE

In the not-so-distant future, it's not hard to imagine being picked up from your shared working space by a car you also share with others on your street. The driverless

car charges wirelessly while it waits for you, before opening its door for you upon presenting biometric authentication.

The car lurches into algorithmically controlled rush-hour-free traffic.
Communicating with your smartphone, the car suggests sensible times to leave work to avoid traffic, which it coordinates with staggered start and end working times that have been adopted across the economy. Connectivity with your Amazon account allows you to pay for and listen to an audiobook on the journey home.

The car selects a route for you, leveraging data it has collected on you and other journeys taken by other cars, deciding to drive past the grocery store that is most likely to stock that type of yogurt you prefer. It orders groceries for you, pending your approval. A quick tap and the store has your order.

By the time you reach the grocery store, the investments you have made from your car's e-wallet have been approved and the car performs a number of microtransactions to pay for tolling and payas-you-use road taxation. You barely wake from your slumber as the grocery employee loads the bag into a secure compartment in the back of your car.

Sensing the ambient temperature and leveraging motion sensors, your car realises you are asleep. It orders coffee for you for tomorrow morning, set to arrive that evening, having communicated with your smart fridge that you are out of ground coffee. Upon arriving home, your car account is charged for the distance travelled. Before grabbing your groceries, the vehicle slinks off into traffic.

While we're still some way away, this picture of the future is an increasingly plausible one, and with a number of companies now investing in in-car technology such as payments, this space is certainly worth watching.

INVESTMENT & FUNDING INVESTMENT & FUNDING

FINTECH FUNDING ROUND-UP

Indian payments app PhonePe's fundraising spree continues as it secures an additional \$200 million from majority investor Walmart, at a premoney valuation of \$12 billion.

The fresh funding forms part of PhonePe's ongoing raise of up to \$1 billion in capital. The new tranche brings the total capital raised in this round so far to \$650 million.

With the new funds, it plans on entering and scaling new businesses such as insurance, wealth management, lending, stockbroking, shopping and account aggregators.

Founded in 2015, PhonePe claims to be India's largest payments app, catering to both consumers and merchants. It serves more than 440 million users across the subcontinent.

Spanish fintech firm **ID Finance** has received €30 million in equity funding from UKbased asset manager Kingsway Capital, with approval from the Spanish government.

This fundraise is the biggest by a Spanish fintech in 2023, the company says.

The transaction includes primary capital infusion, as well as a buyout of shares from existing early investors. The funding has been structured as a convertible loan with a maximum value of €235 million.

Founded in 2015, ID Finance uses analytics and machine learning to provide retail banking and finance solutions to more than five million registered users in Spain and Mexico. It has processed more than ten million credit applications and claims to have been profitable since its inception.

Company payroll and spend management fintech **Rippling** has raised \$500 million in a Series E financing round following the collapse of its primary banking partner Silicon Valley Bank (SVB)

Following the Federal Deposit Insurance Corporation (FDIC) takeover of SVB on 10 March, Rippling extended \$130 million of its own capital to fund customer

remainder receiving their pay on Monday morning.

money was still locked up at SVB" and going through a funding round was the "best

Turning to long-time investor Greenoaks, Rippling was able to raise \$500 million

Aussie paytech Till Payments has successfully closed an AUD 70 million (\$46 million) Series D funding round led by Silva Fortune.

The Series D also comes just weeks after the company's decision in January to lay off 120 staff - about 40% of its workforce – as part of a wider reorganisation.

"Till's existing investors have demonstrated their confidence in our plans for the company and our renewed and prudent approach to governance," says non-executive director Matt Davey, who joined the company in January as part of its reorganisation.

Founded in 2012, Till Payments claims to serve hundreds of merchants across 12 countries, providing a data-driven and end-toend payment solution for online and bricks-and-mortar stores.

Over the past 12 months, the paytech says it has seen a 300% increase in transaction volumes and a 200% increase in its merchant base.

Payments orchestration platform **Apexx** Global has secured \$25 million in a Series B funding round.

MMC Ventures, which has backed the company since 2017, took part in the round, along with new and existing investors including Alliance Ventures and Forward Partners. Alan Morgan, chairman and co-founder of MMC Ventures, will also join Apexx's board.

Founded in 2016 with offices in the UK, US and India, Apexx provides a payments platform that combines acquirers, gateways, shopping carts and alternative payment methods into a single API connection. The company says its platform helps consumerfacing businesses increase transaction efficiency, boost sales conversion rates and reduce costs. It plans to boost its expansion across North America.

San Francisco-based paytech Tilia has raised \$22 million in strategic funding from Seoulbased fintech Dunamu and JP Morgan Payments.

The San Francisco-based firm has also appointed Brad Oberwager as CEO. He replaces Aston Waldman, who spent around four and a half years as Tilia's chief exec and moves into the role of chief financial officer (CFO).

Tilia describes itself as "the all-in-one payment platform for digital economies". Its payments engine allows creators in the digital economy, such as virtual world publishers, mobile applications and NFT providers, to unlock new forms of monetisation, including microtransactions, branded tokens and secure pseudonymous transactions.

Fynn, a US-based fintech lender providing student loans, has closed \$11 million in a seed round and \$25 million as a debt facility.

Lead investors include Y Combinator, Susa Ventures, Village Global, Tenacity Venture Capital and Watchfire

Combinator. It offers students from all backgrounds access to loans to pursue a degree from trade or

vocational schools, in a bid to combat America's skilled worker shortage.

In addition, Fynn also provides three benefits to its loan offering – income

The start-up currently provides loans to 150 programmes across the US, and since ts launch in July last year, Fynn has given out more than \$4 million in loans.

US-based student debt and savings optimisation platform **Candidly**, formerly known as FutureFuel, has raised \$20.5 million in a Series B funding round led by Altos Ventures, with existing investor Cercano Management also participating.

Founded in 2016 and based in New York, Candidly provides tools that enable users to keep track of the full lifecycle of education expenses and manage their finances to simultaneously pay down student debt and build wealth.

Candidly partners with employers, financial institutions, 401(k) and 403(b) record-keepers, retirement advisors, wealth management firms and core banking providers to embed its solution within their own digital offerings. Its current clients include financial services heavyweights UBS, Fiserv and Salesforce.

The firm claims to have seen tenfold revenue growth and a 3,600% increase in payments flowing through the Candidly platform over the Two, a Norway-based B2B payment solution provider, has secured €18 million in a series A funding round led by Shine Capital and Antler.

The round also saw participation from Sequoia Capital, Day One Ventures, Alumni Ventures, LocalGlobe, The Visionaries Club, Alliance VC and others. The Series A funding brings the total capital raised by the firm to €28 million.

and third-party data sources, Two says it can underwrite transactions "in under a second" with average approval rates of more than 90%.



US regtech firm **Droit** has secured \$23 million in a Series B funding round led by Pivot **Investment Partners and UBS** via its venture arm UBS Next. Existing investor Goldman Sachs also took part in the round.

Founded in 2012, Droit's tech is used by financial services firms to keep up with global regulatory compliance requirements in the capital markets space.

Over the last two years, Droit says it has increased its headcount by nearly 70% and expanded into Singapore.

French expense management software provider **N2F** has landed **€24 million** in growth funding

With the new financial and strategic support, N2F plans to "significantly" accelerate its also aims to recruit 200 new

its expense management software enables customers to process their business expenses "up to 4x faster". It currently serves more than 10,000 businesses across its software can now be used by

Using its own technology

It claims to have grown 243% quarterly since its launch in 2021.

This is just a snapshot of the fintech funding activity worldwide. For more info on these and many other deals, head over to the <u>FinTech Futures website!</u>

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MOVERS AND SHAKERS



Global paytech Ingenico has named Laurent Blanchard as the company's new president and CEO. An experienced global executive with a 25-year track record in technology, Blanchard will be based in Paris but will spend "meaningful time" in the firm's largest markets, Ingenico says.

Prior to Ingenico, he served as chief operating officer (COO) at retail software company Cegid. He also held senior roles at global tech firms including IBM, HP and Cisco.

Gerrard Schmid and Rolf Stangl will step down as co-CEOs and continue with their roles as members of Ingenico's supervisory board. They say the new CEO's expertise and skills "are precisely what we need to drive our transformation".

Ingenico's payments acceptance solutions are used by more than 1,000 banks, acquirers, independent software vendors, payment aggregators and fintechs. The firm was acquired by paytech heavyweight Worldline in 2020 and sold two years later to PE firm Apollo.

TNEX – Vietnam's first digital bank – is on the lookout for a new CEO as co-founder **Bryan Carroll** has stepped down from the role.

"TNEX was never a job to me but a consuming passion to improve the everyday lives of the unbanked in Vietnam," he writes

TNEX was launched in 2020 as the digital banking unit of Vietnam Maritime Commercial Joint Stock Bank (MSB), where Carroll previously worked as chief digital officer. It currently serves 1.6 million customers.

Carroll's career also includes stints at Bank of Ireland, National Bank of Abu Dhabi and ACCBank (now ACC Loan Management).

The Australian Securities Exchange (ASX) has set up a new dedicated chief information officer (CIO) position as it looks to enhance its focus on enterprise technology and pursue more "data opportunities". The new CIO will report directly to CEO Helen Lofthouse and will be tasked with leading a standalone tech division, ASX Technology, and delivering the firm's enterprise-wide technology renewal programme.

The new position has been created by splitting up the current group executive, technology and data and CIO role, leaving current occupant Dan Chesterman to focus squarely on the firm's customer-facing tech and data business. ASX claims this is its fastest-growing business, and Chesterman will continue his work on initiatives including expanding customer access to data sets.

German challenger bank N26's chief risk and banking officer **Thomas Grosse** has guit the firm citing personal reasons, marking the exit of a third senior executive in less than a year.

According to FT, Grosse was just one of two executives at N26 who held the regulatory clearance to run a bank in Germany.

Grosse joined N26 in 2019 as chief banking officer and took on the additional role of chief risk officer in 2021. That year, German regulator Bafin issued an order to N26 to improve its anti-money laundering (AML) measures, and fined the bank €4.25 million for money laundering failures.

Grosse's departure comes after chief financial officer (CFO) Jan Kemper left the firm at the end of January. He was replaced by Arnd Schwierholz. In April last year, N26's chief operating officer (COO) Adrienne Gormley left the firm to "pursue other challenges" and was replaced by Kemper, who had stepped in as interim COO. Following Kemper's departure, N26 co-founder Maximilian Tayenthal took over as COO.

Versapay, an accounts receivable software provider in Canada, has appointed Carey O'Connor Kolaja as its new CEO. Craig O'Neill, who has been Versapay's CEO for nearly a decade, moves to an advisory role within the firm.

O'Connor Kolaja most recently served as CEO of AU10TIX, an automated identity intelligence and

cyber fraud prevention firm. She also spent time at Citi Fintech as global chief product officer and payments giant PayPal as its vice president of alobal consumer products.

Founded in 2006 and headquartered in Toronto, Versapay boasts 8,000+ clients and claims an 82% year-over-year increase in software bookings. It also recently acquired DadeSystems, a provider of cash application solutions.

Former Allica Bank COO Toby Mason has joined the Bermuda Monetary Authority (BMA) as its new COO.

Mason spent three-and-a-half years at Allica, an SME-focused challenger bank in the UK, he was a member of the payments board at UK Finance, the trade body representing the country's banking, payments, card and mortgage industries.

Before that, Mason spent two years as COO at ClearBank, the first new UK clearing bank for 250 years.



WHAT RECESSION?

Cartoon by Ian Foley

Current headlines are full of talk about tech company layoffs. However, most large tech firms over-hired during the last five years and are now becoming leaner. For example, Alphabet (the holding company of Google) went from 80,000 employees in 2017 to 187,000 in 2022 and just laid off 12,000 employees, leaving the company still 2x its earlier size.

Meanwhile, hedge funds and VC funds that got into the tech market have seen whopping drops in valuations (65% in fintech and up to 90% in crypto). As an example, Tiger Global (a

crossover fund with \$125 billion under management) marked down its investment in Stripe at a lower revenue multiple than publicly listed fintech rival Adyen, and it applied a 20% discount to its investment in Databricks. Tiger Global wrote: "We underestimated the impact of rising inflation and overestimated the sustainability of Covid-driven growth tailwinds for software and internet-enabled businesses."

While many may think this is probably just deserts for hedge funds and VC funds, it is worth bearing in mind that these firms are investing the money of pension funds and investment trusts of the general population.

EDITORIAL

Managing Director & Editor-in-Chief Tanya.Andreasyan@fintechfutures.com

Paul.Hindle@fintechfutures.com

Alex.Pugh@fintechfutures.com Shruti.Khairnar@fintechfutures.com

Business Development Manager Sam.Hutton@fintechfutures.com +44 (0)20 8052 0434

Business Development Executive Kate.Stevenson@fintechfutures.com +44 (0) 782 593 0099

MARKETING

Portfolio Marketing Manager Rebecca.Nolan@fintechfutures.com

Marketing Manager

Yash.Hirani@fintechfutures.com

Hobbs the Printers Ltd. Hampshire, UK

ADDRESS

FinTech Futures,

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lan Foley, partner at Level Ventures and resident cartoonist at FinTech Futures, joins us for this latest episode of our What the Fintech? podcas:



Finalists announced!

The shortlist for the **Banking Tech Awards USA 2023** has just been announced! Congratulations to all of this year's finalists.

Winners of this year's awards will be announced in a fabulous gala dinner ceremony on **1 June** at the spectacular **583 Park Avenue** in New York.

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