

Banking and Capital Markets bi-weekly news round-up

10 March 2023 Edition no: 284 Welcome to the DXC-curated news round-up.

A collection of technology-related articles for banking and capital markets (BCM). DXC Technology (NYSE: DXC) helps global companies run their mission-critical systems and operations while modernizing IT, optimizing data architectures, and ensuring security and scalability across public, private and hybrid clouds.

With this news round-up, published every 2 weeks, we highlight innovative and emerging news, regulation, and research, as well as including DXC Technology's thought leadership that explores new ideas, technologies and best practices.

To thrive in the complex and competitive financial market, banking and capital markets firms need products and services that work for twenty-first century customers and meet regulatory obligations. Modernise your IT and transform your business with DXC Technology's IT services and robust partner ecosystem.

Should you have any comments or suggestions, please feel free to contact me. Happy reading.



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DXC's Perspective

If you had any doubts about the disruptive nature of artificial intelligence, the arrival of ChatGPT should have well and truly put them to hed

The language processing tool has been a runaway hit since its launch by OpenAI in November 2022 and has sparked conversations about how businesses and institutions could be impacted by its increased use. The premise of ChatGPT is as simple as it is extraordinary.

Trained on a massive amount of text data, it's capable of understanding and generating human-like prose. It answers questions and can assist on tasks like composing essays, job applications or letters. But despite its powerful capabilities, the use of ChatGPT and other generative AI pose several legal and practical risks (such as accuracy and bias, ownership of output, among others), that should be considered before allowing its use within your organisation.

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Artificial Intelligence (AI)

Apple Blocks Update of ChatGPT-Powered App, as Concerns Grow Over Al's Potential Harm

Note: The article requires a subscription

WSJ: iPhone maker asks email app with Al-language capabilities to set a 17-and-older age restriction

Apple Inc. has delayed the approval of an email-app update with Al-powered language tools over concerns that it could generate inappropriate content for children, according to communications Apple sent to the app maker. The software developer disagrees with Apple's decision.

The dispute shows the broad concerns about whether language-generating artificial-intelligence tools, such as ChatGPT, are ready for widespread use.

Apple took steps to block an update of email app BlueMail because of concerns that a new Al feature in the app could show inappropriate content, according to Ben Volach, co-founder of BlueMail developer Blix Inc., and documents viewed by The Wall Street Journal.

BlueMail's new AI feature uses OpenAI's latest ChatGPT chatbot to help automate the writing of emails using the contents of prior emails and calendar events. ChatGPT allows users to converse with an AI in seemingly humanlike ways and is capable of advanced long form writing on a variety of topics.

To tackle data science challenges, think like an entrepreneur

DXC: A paper about how embracing an entrepreneurial mindset and leveraging AI citizen developers can help drive exponential business growth

What's more important than the customer? Nothing, but data and analytics are a close second.

IDC's <u>spending and resiliency survey</u> found that behind customer engagement, executive boards' "second highest strategic area of interest ... is leveraging data and improving decision making to remain competitive and/or seek to exploit changing market conditions."

So why then have many organizations across sectors found the great promise of artificial intelligence (AI), machine learning (ML) and data analytics failing to meet expectations? We've reached an inflection point where Moore's Law and the associated exponentially accelerating power of technology is the baseline for keeping up with a rapidly changing technology ecosystem.

So, if 72% of data and analytics leaders are leading, or are heavily involved in, digital transformation initiatives, why aren't we seeing greater results in Al, ML and applied intelligence?



Bank Sector

OCC Solicits Research on Emerging Risks in the Banking System

Sultan's Substack: The 4 authors are excited to have seen the OCC call for papers as it relates to emerging risks in the banking system.

These kinds of questions are key to the ongoing process of maintaining the most safe and sound banking system in the world and maintaining the leadership of the United States in the global banking system.

This is a massive question and we have tried to focus on a specific set of areas that we believe are both the most critical as well as the easiest to directly address inside of existing statutes and authorities for the OCC.

Fintech Pood - The Future of Banks

Weekly rant: The Future of Banks

It will be a good year to be a bank but a horrible decade.

It will be a bad year to be a consumer Fintech company, but a strong decade.

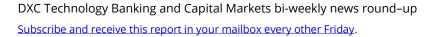
While banks are experiencing short-term success, the long-term outlook is bleak due to profit margin erosion, competition, and stalled growth. Meanwhile, Fintech companies are facing short-term struggles but have massive potential for disruption in the long run.

The future of the financial services market is becoming clearer, and it is one where incumbents ever regain the market dominance they once had.

Take consumer payments preference. Credit and debit cards still dominate, but wallets and BNPL collectively make up 30% of consumer preference. Banks and card issuer's business model depends on being the first choice AKA "top of wallet. But it's hard to be top of wallet when the future of payments could be closed-loop wallets like Venmo and CashApp.

So, what's going on here?

- 1. **It has been a good time to be a bank.** Consumers are still spending, taking on credit to keep spending, and interest rates are high, making lending more profitable. But deposits are getting more expensive; this won't last.
- 2. **Long-term incumbents are not growing, and margins are eroding.** This will lead to the potential break up of banks and create interesting new opportunities for those who want to become banks.
- Fintech companies are facing the toughest test yet, and most might not survive. But those that do have a tremendous opportunity. All Fintech stocks are down, but some are more down than others. Understanding why is crucial.





DXC's Perspective

On the supply side, data centers have become more efficient and sustainable. However, the demand side of the equation has received less attention. GenAlpha may attend environmental marches but do they know – and do they pay for - the carbon footprint of browsing TikTok?

Enterprises may evaluate countless aspects of moving to cloud, but do they realise how much of what they store in the cloud will be dark data that may never be used?

David Rimmer
Technology Strategy Consultant
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Cloud

How green is your cloud?

TechMonitor: 'I really mean to learn' say consumers, businesses and hyperscalers, as our dependence on cloud computing continues to grow.

Every click costs carbon. From the pair of pyjamas you ordered online to the social media post you 'liked' five minutes ago, an increasing proportion of your daily interactions with the internet are supported by massive cloud computing operations. Consisting, in the main, of rack after rack of humming, blinking servers, these forests of steel and silicon are usually powered from the grid, and by proxy the coal and natural gas that make up the lion's share of the global electricity market.

As such, cloud computing contributes between 2.5%-3.7% of all global carbon emissions, according to a 2019 study. That's likely to increase dramatically over the next decade if cloud adoption by businesses continues to trend skyward, with one estimate placing the overall cloud market at \$1.95trn by 2032.

Such figures are the product of an always-on culture for online services, argues Sukhpal Singh Gill, a professor in cloud computing at Queen Mary University, London. "If you want to like or post one comment on Facebook, you want to do it immediately," says Gill. "For that, you need a quick response from the server. And for that, we have to do cloud computing, because we want to create a quick service."

Cyber Security

What banks need to know about the White House's cybersecurity strategy

Note: The article requires a subscription

American Banker: On 2 March, the White House released its long awaited <u>National Cybersecurity Strategy</u>, outlining goals and actions it plans to take to improve U.S. national security by strengthening the cybersecurity of both government and critical infrastructure, which includes banks and credit unions.

The document includes five "pillars" that will help secure cyberspace: defend critical infrastructure, disrupt and dismantle threat actors, shape market forces to drive security and resilience, invest in a resilient future and forge international partnerships to pursue shared goals.

According to three experts in bank cybersecurity, financial institutions should pay particular attention to the first and third pillars, which involve changes to regulation, liability for breaches and software vulnerabilities, new tax incentives and grants, harmonized breach notification rules and a potential federal backstop for cybersecurity insurance.



Fog of war: how the Ukraine conflict transformed the cyber threat landscape

Threat Analysis Group (TAG): One year after the Russian invasion of Ukraine Google TAG, with additional research from Mandiant and Trust & Safety, provide insights into changes in the cyber threat landscape triggered by the war.

Nearly one year ago, Russia invaded Ukraine, and we continue to see cyber operations play a prominent role in the war. To provide more insights into the role of cyber, we are releasing our report Fog of War: How the Ukraine Conflict Transformed the Cyber Threat Landscape based on analysis from Google's Threat Analysis Group (TAG), Mandiant and Trust & Safety.

The report encompasses new findings, and retrospective insights, across government-backed attackers, information operations (IO) and cybercriminal ecosystem threat actors. It also includes threat actor deep dives focused on specific campaigns from 2022.

Are we there yet? 4 ways to make faster inroads against cybercrime

DXC: As we move into 2023, it's a good time to ask: How are we doing on the security front? Are we at all close to reliably securing our organizations against cybercrime?

On the positive side, the security community is getting more organized and sophisticated about how to detect and combat threats. We also see a heightened security awareness in the business and private world, and a willingness to take action. Most boards I interact with, for instance, need no convincing that there is an issue — we're well beyond that. Most companies are taking important steps to shore up their defenses, lower their risk and establish sound strategies.

<u>How Digital Twins Could Protect</u> <u>Manufacturers From Cyberattacks</u>

NIST: Detailed virtual copies of physical objects, called digital twins, are opening doors for better products across automotive, health care, aerospace and other industries.

According to a new study, cybersecurity may also fit neatly into the digital twin portfolio. As more robots and other manufacturing equipment become remotely accessible, new entry points for malicious cyberattacks are created. To keep pace with the growing cyber threat, a team of researchers at the National Institute of Standards and Technology (NIST) and the University of Michigan devised a cybersecurity framework that brings digital twin technology together with machine learning and human expertise to flag indicators of cyberattacks.



How I Broke Into a Bank Account With an Al-Generated Voice

Vice: Banks in the U.S. and Europe tout voice ID as a secure way to log into your account. I proved it's possible to trick such systems with free or cheap Algenerated voices.

The bank thought it was talking to me; the AI-generated voice certainly sounded the same.

I phoned my bank's automated service line. To start, the bank asked me to say in my own words why I was calling. Rather than speak out loud, I clicked a file on my nearby laptop to play a sound clip: "check my balance," my voice said. But this wasn't actually my voice. It was a synthetic clone I had made using readily available artificial intelligence technology.

"Okay," the bank replied. It then asked me to enter or say my date of birth as the first piece of authentication. After typing that in, the bank said, "please say, 'my voice is my password.""

Again, I played a sound file from my computer. "My voice is my password," the voice said. The bank's security system spent a few seconds authenticating the voice.

<u>'Death By A Thousand Cuts' Bleeding Nation's</u> <u>Cyber Defense, CISA Leader Tells MSPs</u>

CRN: 'Our Pearl Harbor is not one event. It is a death by a thousand cuts. Some bigger than others and some smaller. But it is the kind of consistent stream of significant attacks that are very disruptive,' says Brandon Wales, executive director of the U.S. Cybersecurity and Infrastructure Security Agency.

<u>For eight gruelling months Brandon Wales</u> was the acting director of the U.S. Cybersecurity Infrastructure and Security Agency, hopping from one bad cybersecurity headline to the next as digital adversaries landed blow after blow.

"I am not sure that I wish it upon others," he told the crowd of MSPs at Right of Boom on February 23, an MSP-focused security conference in Grapevine, Texas. Current CISA Director Jen Easterly was sworn in July 12. Wales has been executive director of the agency since.

Wales is responsible for leading long-term strategy development, managing CISA-wide policy initiatives and ensuring operational collaboration across the agency. Previously, he was the director of the Homeland Infrastructure Threat and Risk Analysis Center, or HITRAC, an all-hazards analytics resource covering the array of risks facing the infrastructure community.

From 2009 to 2014, Wales oversaw the department's advanced modeling, simulation and analysis program, leading a team of researchers conducting analysis of complex infrastructure challenges.



Mounting Cyber Threats Mean Financial Firms Urgently Need Better Safeguards

IMF Blog: Cyber attackers continue to target the financial sector. What will happen when an attack takes down a bank or other critical platform, locking users out of their accounts?

Tight financial and technological interconnections within the financial sector can facilitate the quick spread of attacks through the entire system, potentially causing widespread disruption and loss of confidence. Cybersecurity is a clear a threat to financial stability.

Among emerging market and developing economies, most financial supervisors haven't introduced cybersecurity regulations or build resources to enforce them, according to a recent IMF survey of 51 countries.

We also found:

- 56 percent of the central banks or supervisory authorities do not have a national cyber strategy for the financial sector.
- 42 percent lack a dedicated cybersecurity or technology risk-management regulation, and 68 percent lack a specialized risk unit as part of their supervision department.
- 64 percent do not mandate testing and exercising cyber security measures or provide further guidance.

ESG

The Circular Economy: What it is, why it matters now, and how it can help your organisation

DXC: Imagine an economy where resources get used, but not used up. Where new business strategies keep products, components and materials in the system, both during their use and after. And where dangerous, dirty waste is kept to an absolute minimum.

You've just imagined the circular economy.

It's called 'circular' in contrast to a more traditional 'linear' economy in which products are made, used and then discarded. Recently, the linear economy has been modified somewhat with recycling, which adds some re-use and removes some waste. But, as the illustration below shows, a truly circular economy goes much further. It creates a virtuous circle around use that includes making, returns, repairs and refurbish, re-use and recycling.

The benefits of a circular economy include:

- Transforming today's 'throwaway economy' by eliminating waste and pollution, and by recirculating resources
- Simultaneously tackling both climate change and biodiversity loss
- Separating economic growth from the consumption of natural resources



DXC's Perspective

The IMF does a reasonable job of outlining the frictions that cause crossborder payments to resemble Rube Goldberg machines. It proposes a single centralized multi-currency, (potentially DLT-based) FX exchange and contract platform. While some of the ideas in the IMF piece have merit (tokenization, the use of privacyenhancing cryptography, programmability), the seductive notion that the world will converge on a SINGLE global platform for crossborder FX looks like a wishful hobbyhorse on a fairground carousel. In fairness to the IMF, the blog aims to "elicit comments and encourage debate."

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Payments

<u>Technology Behind Crypto Can Also Improve</u> <u>Payments, Providing a Public Good</u>

IMF Blog: A new kind of multilateral platform could improve cross-border payments, leveraging technological innovations for public policy objectives

Crypto assets have been more of a disappointment than a revolution for many users, and global bodies like the IMF and the Financial Stability Board urge tighter regulation.

Some of the rapidly evolving technology behind crypto, however, may ultimately hold greater promise. The private sector keeps innovating and customizing financial services.

But the public sector too should leverage technology to upgrade its payment infrastructure and ensure interoperability, safety, and efficiency in digital finance, as we noted in a recent working paper: <u>A Multi-Currency Exchange and Contracting Platform</u>. Others too are <u>advancing similar views</u>.

Klarna Is Not A Buy Now, Pay Later (BNPL) Company

Note: The article requires a subscription

Forbes: OBSERVATIONS FROM THE FINTECH SNARK TANK

Klarna—often referred to as a buy now, pay later (BNPL) company—announced a 71% year-over-year increase in gross merchandise value (GMV) in the US in 2022, making the US Klarna's biggest market by revenue.

The Sweden-based company now has more than 8 million monthly active appusers in the US, a 33% jump from its February 2022 total.

The news from Klarna elicited opposing responses. On one side was the fawning coverage from TechCrunch. An article titled <u>Klarna Wins Over the US</u> touted the publication's exclusive interview with Klarna's CEO, citing his "boyhood dream" of "making it" in America.

On the more sobering side was the Financial Times, who chose to highlight the fact the company reported a \$1 billion loss in 2022, up (down?) from its \$680 million loss in 2021, and Finextra, which commented:

"Klarna last made a full year profit in 2018. Since then, a costly expansionist growth policy has led to spiralling losses in the face of macro-economic headwinds. The company has been forced to undergo a year of painful restructuring which has seen its valuation slashed and the sacking of 10% of staff."

It's a Bad Time to Be a Buy Now, Pay Later Provider

It wasn't that long ago that observers were citing buy now, pay later as the service that was going to kill credit cards (in fact, there was an article here on Forbes titled Inside The Billion-Dollar Plan To Kill Credit Cards about BNPL company Affirm).



Technology

How Rust went from a side project to the world's most-loved programming language

Note: The article may require a subscription

MIT Technology Review: For decades, coders wrote critical systems in C and C++. Now they turn to Rust.

Many software projects emerge because—somewhere out there—a programmer had a personal problem to solve.

That's more or less what happened to Graydon Hoare. In 2006, Hoare was a 29-year-old computer programmer working for Mozilla, the open-source browser company. Returning home to his apartment in Vancouver, he found that the elevator was out of order; its software had crashed. This wasn't the first time it had happened, either.

Hoare lived on the 21st floor, and as he climbed the stairs, he got annoyed. "It's ridiculous," he thought, "that we computer people couldn't even make an *elevator* that works without crashing!" Many such crashes, Hoare knew, are due to problems with how a program uses memory. The software inside devices like elevators is often written in languages like C++ or C, which are famous for allowing programmers to write code that runs very quickly and is quite compact. The problem is those languages also make it easy to accidentally introduce memory bugs—errors that will cause a crash. Microsoft estimates that 70% of the vulnerabilities in its code are due to memory errors from code written in these languages.

Most of us, if we found ourselves trudging up 21 flights of stairs, would just get pissed off and leave it there. But Hoare decided to do something about it.

Other DXC BCM News

Cloud Right in Financial Services Marketing Campaign

Pressured by growing customer expectations and the need to modernize legacy systems, the Banking and Capital Markets industry is at a critical juncture. Many banks are turning to cloud as a catalyst for rapid service delivery and increased agility, and those that execute a well-planned cloud strategy with the right skills in place will have tremendous opportunities to achieve competitive advantages and business success.

Read our paper to learn how and why. Watch the video

Like and share on LinkedIn

ESG Data Marketing Campaign

Making the transition to a more environmentally and socially sustainable world has become an urgent business imperative for financial services institutions.

Read our paper to learn how and why.
Read the blog
Watch the video



DXC BCM Video Series: Future focus areas for Know Your Customer (KYC) in financial services

This video is first in a series of interviews with subject matter expert from DXC's Banking and Capital Markets practice. In this video, Jeremy Donaldson, managing director of DXC Banking and Capital Markets, talks about how DXC is helping the financial services sector address the importance of KYC. Watch and share this video.

DXC BCM Video Series: Financial Services and ESG: rethink your strategy

This video is second in a series of interviews with subject matter expert from DXC's Banking and Capital Markets practice. In this video David Rimmer discusses the importance customers are placing on sustainability compliance in their strategy and the targets they are setting. Watch and share this video.

DXC BCM Video Series: What's the bank of the future when it comes to true data-driven insights?

This video is third in a series of interviews with subject matter expert from DXC's Banking and Capital Markets practice. Unstructured data is currently attracting a lot of interest among banking and capital market innovators. What exactly is it, and why is it important? More crucially, what the does bank of the future look like? In this video, Andy Haigh provides his vision. Watch and share this video.

DXC BCM Video Series: Five steps for improving customer loyalty in the banking industry

Fostering customer loyalty is a fundamental aspect of any banking strategy and is essential for retaining customers and delivering high-quality services that compel them to buy more. Improving the customer experience is a critical priority, yet banks today face many technological and cultural challenges that are holding them back.

<u>Watch the video to learn how DXC</u> helps the financial services sector address this critical issue.

DXC BCM Video Series: Bring Innovation to The Banking Business with the Top Cloud-Based Technology

This video is fourth in a series of interviews with subject matter expert from DXC's Banking and Capital Markets practice. Cloud computing is nothing new. However, cloud has become so pervasive that it is hard to find a single organization that doesn't have some kind of cloud migration roadmap. By taking the right approach to mainframe modernization, financial services companies can maximize the value of existing investments while building an IT environment that is more agile, cost-effective and built for future innovation. Watch and share this video.

DXC BCM Video Series: DXC Technology and Microsoft partnership: Investing in the future of financial services

Microsoft's Marcus Martinez and DXC's Mark Thomas share insights into why financial services organizations must be agile, intelligent, and innovative to win both mindshare and market share in a hyper-competitive market.

Watch to learn how the DXC and Microsoft alliance can help clients in the financial services arena.



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Should you have any questions on the round-up or a particular topic, please feel free to contact your DXC representative.

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About DXC Technology

DXC Technology (NYSE: DXC) helps global companies run their mission-critical systems and operations while modernizing IT, optimizing data architectures, and ensuring security and scalability across public, private and hybrid clouds. The world's largest companies and public sector organizations trust DXC to deploy services to drive new levels of performance, competitiveness, and customer experience across their IT estates. Learn more about how we deliver excellence for our customers and colleagues at **DXC.com**.

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