

Banking and Capital Markets bi-weekly news round-up

7 July 2023 Edition no: 292

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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Artificial Intelligence (AI)

The people paid to train AI are outsourcing their work... to AI

MIT: It's a practice that could introduce further errors into already error-prone models

A significant proportion of people paid to train AI models may be themselves outsourcing that work to AI, a new study has found.

It takes an incredible amount of data to train AI systems to perform specific tasks accurately and reliably. Many companies pay gig workers on platforms like Mechanical Turk to complete tasks that are typically hard to automate, such as solving CAPTCHAs, labeling data and annotating text. This data is then fed into AI models to train them. The workers are poorly paid and are often expected to complete lots of tasks very quickly.

No wonder some of them may be turning to tools like ChatGPT to maximize their earning potential. But how many? To find out, a team of researchers from the Swiss Federal Institute of Technology (EPFL) hired 44 people on the gig work platform Amazon Mechanical Turk to summarize 16 extracts from medical research papers. Then they analyzed their responses using an Al model they'd trained themselves that looks for telltale signals of ChatGPT output, such as lack of variety in choice of words.

DXC Perspective

Say you have a decision represented in words. Language models represent words as embedding vectors (ev), intended to capture meaning. The ev of a word, in a string of words, is refined based on context — the ev's of 'nearby' words. By determining the influence of ev's on each other, one might understand how the words in a sentence (decision) were arrived at. That doesn't fully explain this — GPT-4 was asked: "Rooms in a house are blue, white or yellow. Yellow paint fades to white in a year. In two years, all rooms should be white. What should I do?" A human might respond, "Paint the blue rooms white." GPT-4 said, "Paint the blue rooms yellow." That works too! Doesn't that take more understanding than refining embedding vectors to find the next word!

Zohair Gangjee Director – Financial Services EMEA DXC Technology

New Tool Reveals How AI Makes Decisions

Scientific American: Large language models such as ChatGPT tend to make things up. A new approach now allows the systems to explain their responses—at least partially

When I asked ChatGPT to name the editor in chief of Spektrum der Wissenschaft, the German-language sister publication of Scientific American, the answer was, "I have the latest information until 2021, and at that time Dr. Florian Freistetter was the editor-in-chief of Spektrum der Wissenschaft. However, it is possible that the information has changed since then." This highlights one of the biggest drawbacks of current language-generating artificial intelligence programs: they "hallucinate."

While *Spektrum der Wissenschaft* features a lot of work by Freistetter, he was never a staff member—let alone editor in chief—of *Spektrum der Wissenschaft*. That's why it is important to work on so-called explainable AI (XAI) models that can justify their answers—and thus become more transparent.

Most AI programs function like a "black box." "We know exactly what a model does but not why it has now specifically recognized that a picture shows a cat," said computer scientist Kristian Kersting of the Technical University of Darmstadt in Germany to the German-language newspaper Handelsblatt.



'It's worth all the hype': SouthState Bank deploys ChatGPT-like tech

American Banker: Banks have had a range of reactions to ChatGPT and other large language models. JPMorgan Chase, Citi, Bank of America, Deutsche Bank, Goldman Sachs and Wells Fargo have all restricted employees' use of OpenAl's ChatGPT, according to multiple reports. These banks fear sensitive or confidential information will be leaked out to the public system.

But SouthState Bank in Winter Haven, Florida, is enthusiastically embracing a competitor to ChatGPT, Microsoft's Bard.

"It's game changing," said Chris Nichols, director of capital markets, at American Banker's Digital Banking Conference last week. "It's worth all the hype."

The technology is good at text assimilation, knowledge linkage and summarizing, he said. "We use it all the time to summarize a set of policies or a regulatory document or to compose emails or to help marketing create copy," Nichols said.

Other banks are also experimenting with ChatGPT-style technology. For instance, Westpac is testing the use of a large language model from Kasisto to assist borrowers and loan officers with the mortgage process.

How will AI affect workers? Tech waves of the past show how unpredictable the path can be

The Conversation: The explosion of interest in artificial intelligence has drawn attention not only to the astonishing capacity of algorithms to mimic humans but to the reality that these algorithms could displace many humans in their jobs. The economic and societal consequences could be nothing short of dramatic.

The route to this economic transformation is through the workplace. A widely circulated Goldman Sachs study anticipates that about two-thirds of current occupations over the next decade could be affected and a quarter to a half of the work people do now could be taken over by an algorithm. Up to 300 million jobs worldwide could be affected. The consulting firm McKinsey released its own study predicting an Al-powered boost of US\$4.4 trillion to the global economy every year.

The implications of such gigantic numbers are sobering, but how reliable are these predictions? I lead a research program called Digital Planet that studies the impact of digital technologies on lives and livelihoods around the world and how this impact changes over time.



Do Foundation Model Providers Comply with the Draft EU AI Act?

Stanford University: Stanford researchers evaluate foundation model providers like OpenAI and Google for their compliance with proposed EU law on AI.

Foundation models like ChatGPT are transforming society with their remarkable capabilities, serious risks, rapid deployment, unprecedented adoption, and unending controversy. Simultaneously, the European Union (EU) is finalizing its AI Act as the world's first comprehensive regulation to govern AI, and just yesterday the European Parliament adopted a draft of the Act by a vote of 499 in favor, 28 against, and 93 abstentions. The Act includes explicit obligations for foundation model providers like OpenAI and Google.

In this post, we evaluate whether major foundation model providers currently comply with these draft requirements and find that they largely do not. Foundation model providers rarely disclose adequate information regarding the data, compute, and deployment of their models as well as the key characteristics of the models themselves. In particular, foundation model providers generally do not comply with draft requirements to describe the use of copyrighted training data, the hardware used and emissions produced in training, and how they evaluate and test models.

The AI Apocalypse: A Scorecard

IEEE Spectrum: How worried are top AI experts about the threat posed by large language models like GPT-4?

What should we make of OpenAl's GPT-4, anyway? Is the large language model a major step on the way to an artificial general intelligence (AGI)—the insider's term for an AI system with a flexible human-level intellect? And if we do create an AGI, might it be so different from human intelligence that it doesn't see the point of keeping Homo sapiens around?

If you query the world's best minds on basic questions like these, you won't get anything like a consensus. Consider the question of GPT-4's implications for the creation of an AGI. Among AI specialists, convictions range from Eliezer Yudkowsky's view that GPT-4 is a clear sign of the imminence of AGI, to Rodney Brooks's assertion that we're absolutely no closer to an AGI than we were 30 years ago.

On the topic of the potential of GPT-4 and its successors to wreak civilizational havoc, there's similar disunity.



Bank sector

What banks are prioritizing and focusing on for the rest of 2023

Tearsheet: 2023 has come with its own shift in issues and priorities for banks. On top of mind for most banks are deposits. 52% report it as a top priority.

As the economic tides shift, financial institutions are also changing gears and focusing on different use cases and challenges according to a recent report by Jack Henry.

Right now, the biggest focus for banks seems to be growing their deposits and loans. 52% of banks surveyed report it as a top priority.

As non-bank institutions like Apple offer 5% APY on their high-yield savings accounts, banks not only have to compete with each other but have to be in fighting form against big tech companies and fintech. Deposits at U.S. commercial banks fell to \$17.1 trillion in April, which was the lowest since June 2021. Deposits have recovered since then and increased to \$17.22 trillion by June 14. Although deposits have rebounded, U.S. Treasury Secretary Janet Yellen expects more bank mergers may be on the horizon.

BigTech

Goldman Sachs Is in Talks to Exit Apple Partnership, WSJ Says

Bloomberg/WSJ: Goldman Sachs Group Inc. is considering exiting its partnership with Apple Inc., according to the Wall Street Journal, severing a relationship that helped vault the iPhone maker into the finance world.

The bank is in talks with American Express Co. to take over the Apple credit card and other services that the companies offer together, said the newspaper, citing unidentified people familiar with the situation. Apple is aware of the talks, which have been going on for months, according to the Journal. The tech company would have to agree to a transfer.

Apple's push into financial offerings — with Goldman Sachs' help — is part of a broader effort to generate more revenue from services. The tech giant got about 20% of its sales from that category last year, up from less than 10% a decade ago.

Apple and Goldman Sachs recently introduced a long-promised high-yield savings account. But Apple has been laying the groundwork to rely less on partners for its financial services.

Goldman Sachs declined to comment, while Apple didn't immediately respond to a request for comment.



DXC Perspective

The Law-Now article highlights the similarities between the EU Data Act and the recent UK Ofcom interim update on the UK Cloud services market. Both have potential implications for cloud service providers in areas such as the charging of egress fees and portability/interoperability for multicloud. The EU data act goes further on switching costs and Ofcom asking the CMA to also investigate committed spend discounts. These regulatory changes will significantly impact cloud service providers (CSPs) and potentially boost true hybrid and multi-cloud services allowing for more free-flowing data transfer and easier portability between CSPs. DXC's Cloud Right™ approach focuses on selecting the right platform for your workloads and inherently supports a multicloud strategy which aligns with the European regulatory landscape direction of travel.

Jay Hibbin Cloud & Infrastructure Services DXC Technology

DXC Perspective

As with most threats, this requires a layered approach to security: No single approach resolves the challenges. It requires an acceptance that compromise cannot be prevented, but instead must be rapidly detected and contained to help reduce the threat's severe impact on the business. To do this, the application of zero trust is necessary, having a multi-layered approach to security that covers all aspects of hardware, software, applications, tooling and third parties/subcontractors. Having robust basic processes in place is also key — like patching, vulnerability management and a good handle on the latest threat intelligence so application of preventative and detective controls can be applied accordingly.

Andrew Shephard Security Specialist DXC Technology

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Cloud

UK and EU cloud services industry continues to come under regulatory scrutiny

CMS Law Now: On both sides of the English Channel, it is clear that the UK and EU's cloud computing markets are coming under increasing scrutiny. In the UK, Ofcom recently published an interim update on its study into the UK cloud services market which commenced in October 2022. In the EU, political agreement has been reached on the Data Act, which has the potential to have a far-reaching impact on the provision of cloud services in Europe.

The interim findings are largely split into two distinct areas:

- 1. Ofcom has found that 'competitive market forces are delivering benefits to customers', particularly highlighting competition between providers to win new business as a driving force of innovative discounts and products.
- 2. However, it has also found that 'competition is being limited by market features that make it more difficult for customers to switch and use multiple suppliers (known as 'multi-cloud').' In particular, Ofcom highlights concerns around committed spend discounts, interoperability and egress fees.

Cybersecurity

Cybercrime is digital banking's greatest threat, bankers say

American Banker: Banks and credit unions continue to identify cybersecurity threats and fraud as the greatest challenges to their digital banking strategy, according to new research by American Banker.

In the survey conducted in March and April, nearly 90% of the 200 banking professionals surveyed said cybersecurity threats are a "moderate" or "significant" challenge to their institutions' digital banking strategies, more than integrating legacy systems with new digital technologies (86%) and retaining and attracting skilled talent (77%).

As such, bankers named security-related functions as two of the top three technologies for enabling digital banking, with 55% saying enhanced security and fraud mitigation were vital to their goals and 50% saying digital identity verification is critical. That far outpaced the importance rankings of many other digital services, including virtual assistants or chatbots (30%) and rapid application development (21%).

To a substantial degree, cybersecurity and fraud mitigation also motivated banks to partner with fintechs over the past year. The top two functions on which bankers said they were "likely to turn to or partner with fintechs for help" were for peer-to-peer payments or money transfers and secure ID verification.



DXC Perspective

We are not surprised. Early warning signs of this shift were visible in late 2022, when the person who was CISO of Uber at the time of the 2016 breach, was found guilty of federal charges.

The US led the way; however, we are seeing similar expectations for CISOs, and security teams in Europe (including enhanced personal liability and duty of care) are also more under the NIS2 and DORA directives, as well as UK equivalents.

This change is unnerving for CISOs, with 62% citing concerns about personal liability, per a recent global survey by Proofpoint.

Dave Spence EMEA Security Lead DXC Technology

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SEC notice to SolarWinds CISO and CFO roils cybersecurity industry

CSO: US SEC staff have recommended legal action against individual SolarWinds employees, including the CISO — an unusual move that is causing a stir among cybersecurity professionals.

The US Securities and Exchange Commission has roiled the cybersecurity industry by putting executives of SolarWinds on notice that it may pursue legal action for violations of federal law in connection with their response to the 2020 attack on the company's infrastructure that affected thousands of customers in government agencies and companies globally.

Current and former employees and officers of the company, including the chief financial officer (CFO) and chief information security officer (CISO), have received so-called Wells Notices notices from the SEC staff, in connection with the investigation of the 2020 cyberattack, the company said in an SEC filing.

"The Wells Notices provided to these individuals each state that the SEC staff has made a preliminary determination to recommend that the SEC file a civil enforcement action against the recipients alleging violations of certain provisions of the U.S. federal securities laws," SolarWinds said in its filing.

DXC

Banking Transformation Summit

DXC: A Gold Sponsor at this year's Banking Transformation Summit in London, where Khal Mohammed and Andy Haigh were keynote speakers.

Their keynote focused on how banks can use data and analytics to transform financial services and improve customer experience.

Andy's vision is to have better analytics for the end consumer in terms of modelling and forecasting spend.

The panel discussed how banks and building societies can achieve this and manage some of the challenges that are presented when trying to achieve this goal, and what the possible solutions could be.

"If you look at product onboarding, the banks still have a long way to go to have a centralised view of that customer base," said Andy. He elaborated further, "Again, you've got current accounts, credit accounts, unsecured lending, secured lending, motor finance, asset management, wealth management. Bringing that together in a harmonised way allows the banks to use that information to benefit their bringing new products into the market.

Read the key takeaways from the event.



Innovation

Spurring innovation in government agencies through trust

Deloitte: Trust is central to creating and adopting innovative ideas. But how can government organizations scale a personal relationship like trust? Social networks may just provide the answer.

A 3,000% improvement. How could any innovation get stuck in pilot purgatory and struggle to gain traction with such a margin of success?

Consider the story of "continuous aim" naval gunfire. For much of naval history, sailors had to take into account the roll of the ship and trajectory of shells to guestimate where to aim their shots. That all changed in 1898 when British Admiral Percy Scott realized he could use existing tools such as the elevating gear and the telescope sight in a new way that automatically compensated for the roll of the ship. This system of continuous-aim gunfire allowed gunners to hold aim on the target even while the gun was fired, meaning they did not have to re-find the target and re-aim after each shot.

Admiral Scott repeatedly proved his system in real-world tests, which showed a more than 3,000% improvement in accuracy.

DXC Perspective

Moving to a real-time payment environment is critical to all economies. However, the transition is not always smooth, and Canada's delay would indicate complexity with its implementation. Payment's infrastructure is relied on by consumers, businesses and corporates, and failures would have a huge impact. A throughout review of project risks would help to mitigate potential issues, ensuring a seamless switch from old to new infrastructure.

Paul Sweetingham Global Capability Leader, Banking BPO & CX DXC Technology

Payments

Lessons from Canada's struggles with faster payments

American Banker: Canada's Real-Time Rail, a payments system that has been in development for several years and was originally set to go live this month, has been delayed again as the body that runs Canada's domestic payments networks pauses to perform a second review of the project's risks.

Payments Canada, which drives Canada's domestic payments networks through a board of independent directors this month said the RTR's rollout would be indefinitely delayed again. The first delay was announced last fall, leading to a three-month review of RTR's operations plan and risks.

RTR is a 24-hour instant payments network that's been in development for years, enabling Canadians to send and receive payments in seconds. It uses the ISO 20022 financial messaging standard that countries around the world have adopted for faster payments.

The first delay was announced in October 2022, triggering the first review. Payments Canada said in a statement the second review will also take approximately three months.



Regulatory

Fed's top regulator says changes to supervision coming later this year

American Banker: The Federal Reserve's chief regulator said his post banking crisis reform effort is entering a new phase.

Speaking during a conference on governance and culture in the financial services sector, Fed Vice Chair for Supervision Michael Barr said he will oversee an initiative to overhaul bank supervision across the Federal Reserve System during the remainder of this year.

"Over the next six months, we're going to do a project that looks systemwide at the areas where we can enhance our supervisory culture, our practices, our behaviors, our tools and also where we need to change our regulation of firms," Barr said at the event, which was hosted by the Federal Reserve Bank of New York. "We're extremely focused on that."

Barr said the changes will be informed by three primary inputs. The first is the lengthy report compiled by Fed staffers about the failure of Silicon Valley Bank this spring — a six-week effort that Barr oversaw directly.

DXC Perspective

Among the top 10 emerging technologies identified by the WEF report (which highlights the technologies set to positively impact society in the next 3 - 5 years), two stand out for Banking & Capital Markets: In addition to the inevitable generative AI, the other technology highlighted is sustainable computing, in particular, net-zero-energy data centres. First, liquid cooling systems are being developed that use water or dielectric coolant to dissipate heat. Second, AI is being used to analyse and optimise energy use in real-time — DeepMind has shown that Alpowered energy management can reduce energy consumption by up to 40%. Third, the technological infrastructure is becoming more modular and demand based.

David Rimmer Industry Advisor – BCM DXC Technology

Technology

These are the top 10 emerging technologies of 2023: Here's how they can impact the world

WEF: The World Economic Forum's newly-launched 'Top 10 Emerging Technologies of 2023' report lists this year's most impactful emerging technologies.

The Top 10 list includes environmental innovations, such as sustainable aviation fuels and wearable plant sensors. Other emerging technologies range from innovations harnessing the power of AI to reengineering molecular biology.

Sustainable computing

Exponential growth in Al, cloud computing and other technologies requires bigger, more powerful and more plentiful data centre capacity. Data centres consume 1% of total global electricity production, but powering our increasingly data-hungry digital society means this is set to increase.

Several technologies are emerging, aimed at making the goal of net-zero-energy data centres a reality, says the report. These include using water or dielectric liquid cooling to dissipate heat, alongside technologies that repurpose excess heat to warm buildings, heat water or for industrial processes. Also, Al-enabled systems can analyze and optimize energy use in real-time, maximizing efficiency and performance – reducing energy consumption by as much as 40% at Google's data centres.



Other DXC BCM News

Developing a data strategy in banking and capital markets

Data is king. Banks that know how to effectively harness it, manage it and monetize it can derive far better business insights, create significant growth opportunities and stay ahead of regulatory demands. Huge benefits can be reaped by developing a clear data strategy that defines how to access, ingest and connect the essential data that can drive positive business outcomes.

Read DXC's latest paper to learn about how banks can get the most out of their data.

Executive Data Series: The banking customer in a data- rich world

In the latest conversation of the Executive Data Series, DXC's Head of Banking and Capital Markets (EMEA) Andy Haigh sits down with Mohammed 'Khal' Khalid to discuss how banks can use data and analytics to transform financial services and improve the customer experience.

Listen to the full conversation (23 mins.) or read the transcript: https://dxc.to/3NlsbXl

Webinar: Digitisation and data trends that are defining the future of banking and building societies

On 3 August, DXC is hosting a virtual webinar on "Digitisation and Data Trends That Are Defining the Future of Banks and Building Societies." Join financial services experts Andy Haigh and Jeremy Donaldson from DXC Technology and Indranil Mukherjee from Barclays to learn how data-driven technologies can help financial services organizations transform customer experience and automate repeated processes.

Register now.



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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