

SPECIAL REPORT

Dissecting digital

Amid a swathe of emerging technologies that promise to change the world, banks must consider which ones to invest in adopting and which to ignore as fads. How do they go about that?

A I, chatbots, the metaverse, ChatGPT, ML, virtual assistants... this roll call of recent major tech advancements demonstrates just how frantically the Fourth Industrial Revolution is impacting businesses – and how difficult it can be to assess whether these developments will actually add value to their offerings. Major steps forward in technology are nothing new. In fact, they have been shaping the banking sector for centuries – from the first wire transfer between Boston, New York and Chicago in 1871 to the unveiling of the first ATM in Enfield, north London, in 1967 and the rise of online and mobile banking in recent years.

However, there is no doubt that digital transformation within the sector is a far more pressing and complex challenge today – driven by three core factors. The first is customer demand – with many consumers now expecting to conduct the bulk of their banking activities digitally. The second is the appeal of reduced costs and more streamlined operations, while the third is the opportunity to gain a competitive advantage, not least as an increasing number of new entrants join the market.

How can banks grasp whether a new tech development is the next big gamechanger for the sector – or whether it's likely to be a passing fad that shouldn't draw their attention away from their current strategic path?

To begin, let's look at technology's role in an optimistic vision of the financial near-future. According to Dileep Jacob, Senior Vice President, Global Operations, Fingent, quoted in *Fintech* magazine: "Digital and emerging technologies are transforming the front, middle, and back-office; AI and automation are proving to be valuable; even the cloud is evolving." Jacob sees far-reaching implications for automation and AI, envisioning a world where "automation and artificial intelligence will replace human thinking".

"Customers can share their financial data with other apps and vice versa via open banking," he continues. "Real-time intelligent data integration is also possible with hybrid cloud (cloud/server) solutions. Everything from data entry to loan form processing is done by machines using basic algorithms. RPA [robotic process automation] enables banks to save money, reduce human error, and speed up procedures. In addition, it can help financial organisations improve compliance and auditing by having all data in one location."

Jacob points to how AI, Internet of Things (IoT) and blockchain are being leveraged by banks, explaining that "financial markets permit algorithmic or automated trading in the Stock Exchange thanks to AI and ML. Automation has increased due to new data

processing and analytic tools and technologies, particularly in asset rebalancing. Robot-enabled platforms advise customers on investing and asset management. Regtech systems monitor transactions and spot outliers that could suggest fraudulent behaviour".

Clearly the Fourth Industrial Revolution has much to offer to banks. But it is important to think critically about digital and AI adoption and understand its limitations as well as strengths.

“Achieving the cultural change of going digital is often harder than merely implementing a new technology.”

Elizabeth McCaul,
Member, Supervisory Board, ECB

Unpicking promises

Three of the hottest tech topics at present – AI, the metaverse and ChatGPT – all purport to meet the changing desires of consumers while at the same time delivering the efficiencies that banks desire. But are they really built for the banking sector?

When it comes to AI, banks have been trying for years to implement AI programmes to improve the customer experience and fend off increasing competition from new entrants. However, most of these efforts have found only modest success so far, playing out mainly through automated call-centre responses, digital chatbots, tailored marketing and automated product applications.

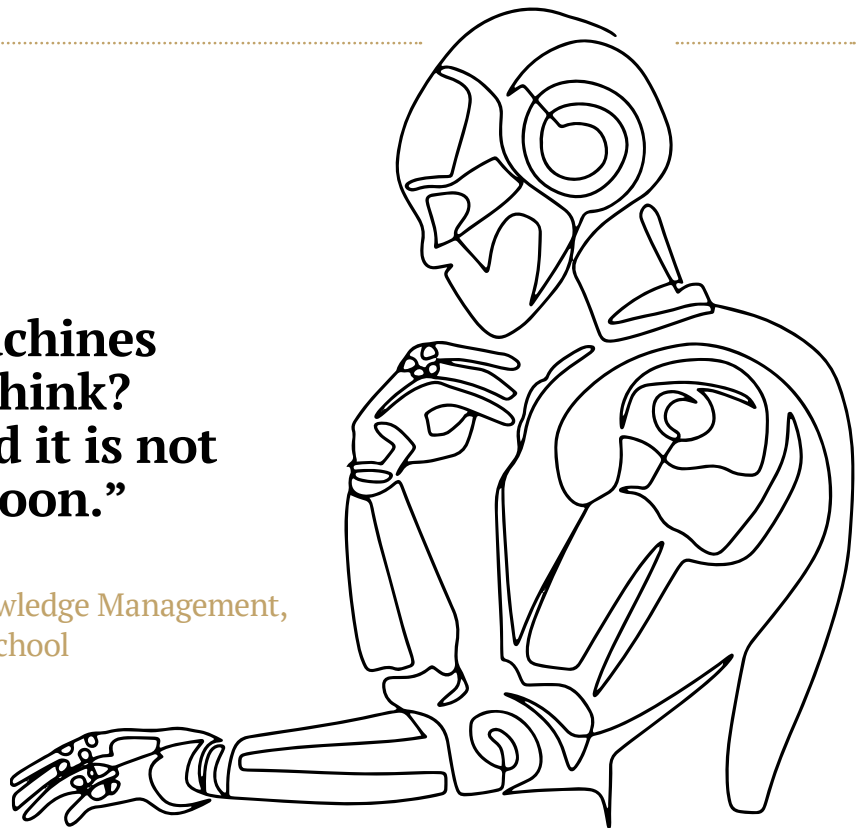
Dr Viktor Dorfler, Senior Lecturer, Information & Knowledge Management, University of Strathclyde Business School, says these limitations are a result of the fact that AI has really been "oversold" as something that can "think", when in reality it simply moves a customer along a process based on some set parameters.

"True artificial intelligence is where a machine can perform something that we humans will do by thinking," Dorfler explains. "That's very important – the machine must carry out a function that would require us, and therefore it, to make a conscious decision.

SPECIAL REPORT

“Do we really have machines in banking that can think? The answer is no. And it is not happening anytime soon.”

Dr Viktor Dorfler,
Senior Lecturer, Information & Knowledge Management,
University of Strathclyde Business School



▶ “This is the area where there is undoubtedly the most over-promise in banking. Do we really have machines in banking that can think? The answer is no. And it is not happening anytime soon, because I don’t believe that is even possible.”

Giles Cuthbert, Managing Director, Chartered Banker Institute, agrees AI’s abilities have been somewhat overpromised, adding that we may actually be headed for “another AI winter” as its limitations lead organisations to turn their attentions elsewhere.

“If you look at the history of AI, starting in the 1950s we saw huge investment, largely because of the Cold War. We had all these people over-promising about having robots that would fight the Cold War for us and all this sort of stuff,” he explains. “And then there was this overwhelming let-down, and so people moved away from AI because it hadn’t delivered as expected. We entered an AI winter. We then had the rise of the internet, which led people once again to turn their attention to AI and its potential. But that was hit by the dot.com bubble and so again it drifted away. And I think now, having seen it rise again, the tech community is actually expecting another AI winter – whereby investment in AI will really freeze up – and this time it’s because we’ve got to a stage where we realise AI can do certain things but it can’t do more. We’ve realised its limitations.

“So, if you are asking me about AI’s ‘positive future’, that’s not what I’m getting from the research community, which is worrying about a fairly negative and bleak view,” he adds. “We’ve got to the stage where it’s quite good and it can do some pretty useful things. People will implement that. But they won’t spend a lot of money on research and development over the coming years because it’s reached its limits. And then it will probably come back in 15 years or so, after another winter.”

It’s clear then, that while ML and AI may well deliver process and accessibility benefits to banks and consumers alike, the more impactful and longer-term benefits hyped by so many in recent years may be much harder to achieve.

Exploring the metaverse

The metaverse is another tech development currently grabbing the attention of the banking sector.

Pitched as “an emerging 3D expression of the internet where the digital and physical worlds seamlessly integrate”, users enter the immersive virtual space to play games, shop, attend concerts and even make payments. Despite a lack of a standard definition of what the metaverse actually is – should it really include hugely popular game worlds like Fortnite as well as more niche applications like The Sandbox? – millions of Gen Z and Gen Alpha gamers are already interacting in what is hailed as a multi-billion-dollar market, which some suggest will contribute more than \$3tn to global GDP by 2031.

While high-profile attempts to build metaverse applications – such as Meta’s multi-billion-dollar investments that led to shares slumping by 25% – seem to have dropped out of the news cycle in favour of AI, many businesses are considering how they can operationalise the metaverse.

A metaverse evangelist would suggest that banks could tap into the metaverse to create immersive customer experiences, such as virtual branches that enable people to open bank accounts and access services without having to walk into a physical bank. However, in reality, most banks enable customers to access products and services digitally without visiting a branch. It’s not clear what additional value the metaverse can bring to the equation.

Alternatively, banks could establish themselves as central stakeholders in providing the financial infrastructure on which the metaverse depends. The problem here is that the consumers who operate in the metaverse are likely already ‘banked’, meaning they are not really ‘new’ potential customers. And metaverse transactions are siloed within proprietary platforms, making payments interoperability a technical nightmare with little financial incentive for individual firms to open up their worlds to rival offerings. All of this further brings into question the value of banks investing heavily in entering the metaverse.

Churning stuff out

ChatGPT also promises much in the way of impacting the banking sector, but again has limitations. It can be used to automate a variety of applications, including chatbots, virtual assistants, and content creation tools. It can also aid banks in managing risk

by analysing vast amounts of data and identifying potential risk factors. But again, its limitations – particularly around being able to ‘think’ and to accurately respond to demands without causing high-risk errors – mean it may also be over-promising in terms of how it might revolutionise the sector.

“Sure, it can churn stuff out, but it can’t count,” explains Cuthbert. “If you ask it to count the number of letters in a sequence, it can’t do it.”

Making the right calls

This over-promise can put huge pressure on banks’ digital strategies – bringing financial as well as reputational risk at a time when they are already struggling to digitally transform. Recent research by Jim Marous, retail banking influencer and author, revealed that only 11% of bankers believe their digital transformation is currently meeting expectations, while 47% are not meeting expectations or are “lost”.

All of this doubt begs the question: how should banks identify the tech that will actually make a difference and deliver a return on investment? In a recent speech, Elizabeth McCaul, Member, Supervisory Board, European Central Bank (ECB), outlined a number of best practices she believes banks should adopt regarding digital transformation and implementing new tech.

Citing ECB research, she said: “Almost all the banks we surveyed now have a digital transformation strategy in place. However, perhaps more surprisingly, these strategies are not always fully developed and are often supported by only limited investment.

“Given the multifaceted nature of digital transformation, banks generally struggle to isolate and quantify the cost and revenue impact of their digital transformation strategies. In addition, the average budget that these banks dedicate to the digital transformation is still limited, accounting for only 4% of their operational costs in 2021,” she added.

McCaul explained that most banks have co-ordination bodies in place to steer their digital strategies, yet this often results in a reliance on outsourcing and external partnerships which can expose them to “increasing risks around third-party dependency, money laundering, fraud and cybersecurity”.

For McCaul, banks need to take a holistic approach to their digital transformations, which entails a widespread shift in business models and corporate culture that also encompasses governance and risk management frameworks.

“Achieving the cultural change of going digital is often harder than merely implementing a new technology,” McCaul cautioned.

Marous echoes this holistic approach, calling for a transformation of banks’ back-end processes and reinvigorated leadership model: “[This] new leadership model will require that directors and all top management constantly reinvent their skills and roles. Without a new leadership model, banks may not survive as we know them today. Understanding the basics of communication, prioritisation, investment and project management is even more important during times of change. They are the foundation for a culture that embraces the potential of digital transformation as opposed to simply providing lip service.” ^{CB}

Exploring ChatGPT’s limitations

Much lauded as likely to revolutionise information services from journalism to call centres and press offices, we tested ChatGPT’s limitations with a simple request to produce a 200-word article on the recent collapse of Silicon Valley Bank.

The result returned was somewhat alarming:

As of my knowledge cutoff in September 2021, Silicon Valley Bank (SVB) was not known to have failed. SVB is a well-established financial institution that has been operating successfully for several decades. It specializes in providing banking services to the technology, life sciences, and venture capital industries, and has played a significant role in supporting the growth and innovation of numerous companies in the Silicon Valley region.

Topicality: A major limitation is the ability to react to changes and updates, particularly around fast-moving stories, as demonstrated by its lack of knowledge that the bank had collapsed.

However, it’s important to note that the financial industry is subject to various factors and risks that can impact any institution, including economic downturns, market fluctuations, regulatory challenges, and mismanagement.

Where the response cannot directly answer the request, copy drifts off into broader related topics, as demonstrated by the move here to the broader FS sector.

While I am not aware of any specific failures or issues related to SVB, it’s always possible for unforeseen circumstances or internal challenges to arise that could affect the performance of any financial institution.

Vague and speculative content that is unsubstantiated.

To obtain the most accurate and up-to-date information regarding the current status of SVB, I recommend referring to the latest news, financial reports, or reaching out to SVB directly for any recent developments or changes that may have occurred after September 2021.