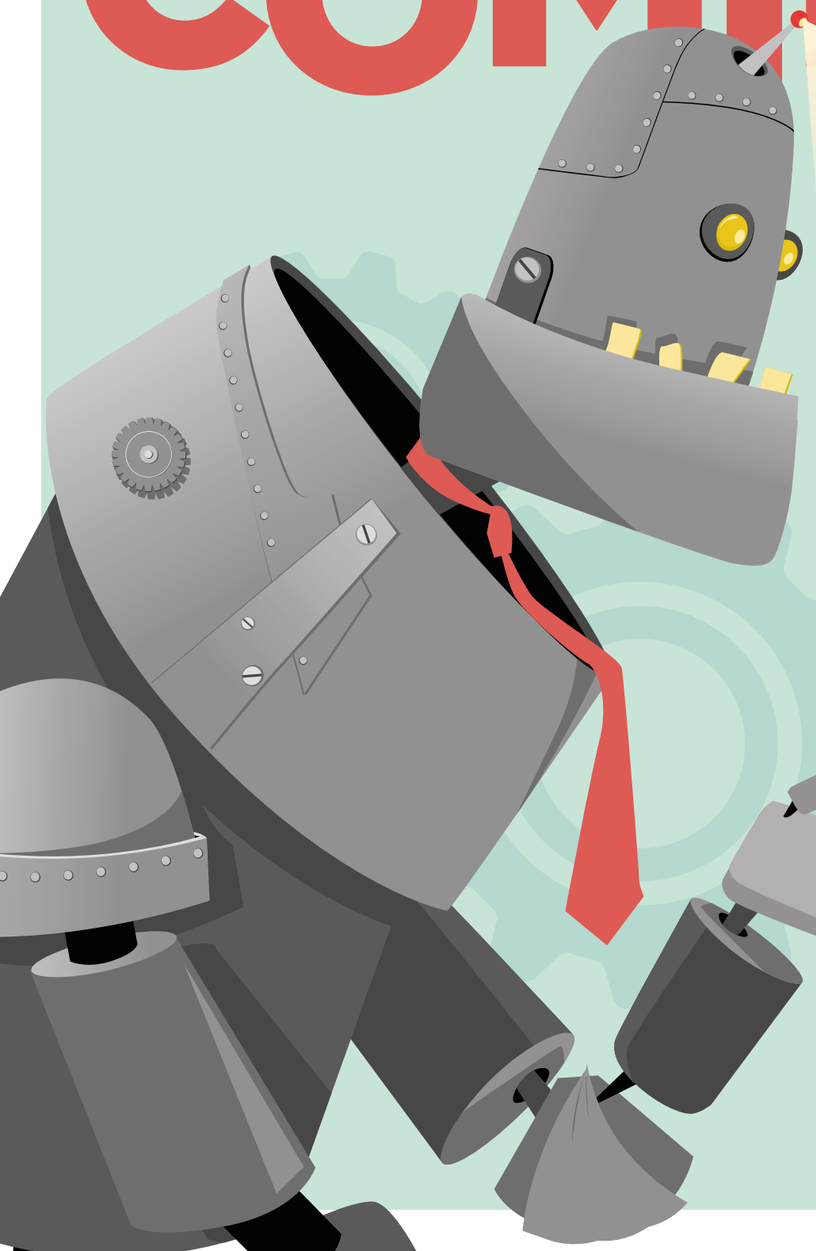
THE ROBOTS ARE COMING



WILL ARTIFICIAL INTELLIGENCE ERODE THE ROLE OF TREASURERS OR BOOST THEIR PROFILE WITHIN BUSINESS? SALLY PERCY INVESTIGATES

Read too many articles about artificial intelligence (AI) and you could come to the conclusion that humankind collectively is heading for a career dead end.

A 2013 paper by academics at the University of Oxford predicted that 47% of US jobs were at risk of being automated over the next 20 years – with the jobs affected ranging from taxi drivers through to accountants.

A year later, a joint report by the same university, together with Deloitte, predicted that 10 million British jobs could be taken over by computers and robots over the same period.

Then, a 2016 study by salary benchmarking site Emolument revealed that nearly half (47%) of people working in financial services in several different countries thought that technological innovations, such as automated trading platforms, were putting their jobs at risk.

With the use of AI within business set to increase dramatically over the coming decades, where does this leave the treasurer? Will the profession even exist in 2030 or will it have been consigned to the history books? Let's find out.

BRAVE NEW WORLD?

There's presently so much hype about AI (see box, right) that you'd be forgiven for thinking that it was something new. Actually, it's been around in various guises since the 1950s, when computers first learned to play chess. One subset of AI – robotic process automation – is already widely used in treasuries today in the form of straight-through processing.

"We programme our treasury management system to look at bank statements and book certain items, such as interest or bank fees, directly to the general ledger with no human interaction," confirms Richard Abigail, group treasurer of engineering firm Arup. "The technology for this has been around for decades."

Yet, in future, AI could be used far more extensively in treasury than it is today, argues Bill North, head of global sales at Pelican, a provider of intelligent payment systems. In particular, he predicts that AI will bring "human-like reasoning" to the automation process as computer systems use historic data to work out which bank a payment should be made to, in what format and in which time frame.

He says: "AI can learn from the past and say: 'This is how I made that payment in the past. Has anything changed? Do we still want to make the payment through this bank? Does the bank have a good history of servicing us? Does it have a high success rate of processing these transactions? Should we make it a two-day payment and pay a lower cost or should we wait another day and pay a same-day, real-time gross settlement cost because that one extra day of liquidity may be very important to us?'"

Data analysis is another area where AI will be able to benefit treasury. Going forward, machines will not only be able to analyse terabytes of data in the blink of an eye, they will also be able to analyse that data and learn from it.

This ability will be even more valuable if the distributed database technology blockchain takes off in the way that many experts predict. Blockchain operates on a consensus basis, where the majority of database users have to confirm that a new 'data block' is valid. Provided that blockchain can be scaled effectively – and this is something that the fintech community is currently working hard on – it has the potential to be a secure source of shared, good-quality data that will complement AI.

"Using AI, treasurers can start to identify patterns across thousands or hundreds of thousands of transactions that they wouldn't ordinarily have the resource or the time to do," says Rohit Talwar, futurist, author and CEO of think tank Fast Future Research. "The tools will get better at spotting issues in real time and providing customised reports without moving data between systems. They will also enable far more

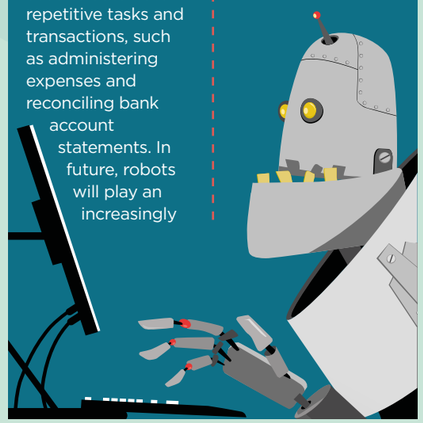
ABOUT ARTIFICIAL INTELLIGENCE

Artificial intelligence (AI) is the robotic technology that enables computer systems to perform tasks that previously required human intelligence, such as making decisions and recognising speech.

The most famous example of AI is arguably the fictional character C-3PO from the *Star Wars* films. AI covers a broad spectrum of technology, however, and in real life robots are more likely to be clever software rather than walking, talking, metallic humanoids.

Today, robotic process automation is already being used to automate repetitive tasks and transactions, such as administering expenses and reconciling bank account statements. In future, robots will play an increasingly important role in data analytics.

Thanks to so-called 'machine learning', they will have the ability to act on data without being explicitly programmed to do so. They may also work as 'intelligent agents' in call centres and other customer services environments.



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automated production of reports and commentaries."

As if its capability in the areas of processing and data analysis was not already enough, AI also has massive implications for organisations' cybersecurity. "A machine has the ability to analyse a huge amount of data and spot anomalous communications changes and requests, for example, someone asking for a payment to a different bank account," says Alex Viall, head of regulatory intelligence at Behavox, a supplier of AI products to the banking and hedge fund industry. "That is something a human might let slip, but a machine would recognise instantly."

He adds: "We have clients who use our system to detect where people internally are sharing passwords, which could lead to a cyber breach. AI can be enormously helpful in alerting organisations to cyberthreats."

THE ROLE OF THE TREASURER

So, with systems potentially able to perform many functions that were previously the preserve of the treasurer, what will be the role of the – er – treasurer in 10 years' time?

> "Technology is going to give treasurers the ability to rapidly advise on how developments in the global financial markets will affect their organisation"

The good news is that, unlike some of their colleagues in the finance function, treasurers will still have a job – and it will probably be an even more interesting and rewarding job than before. "World-class treasury functions will focus on building a deeper understanding of the business, the types of products and services it is developing, the business models it is testing and the implications on cash flow," says Talwar. "They will get smarter at anticipating financial needs and modelling the best treasury strategies to support the organisation's direction of travel."

"Technology is going to give treasurers the ability to rapidly advise on how developments in the global financial markets will affect their organisation – everything from counterparty risk to FX to asset protection and sanctions screening," predicts North. "That will enable the treasurer to really be an adviser, not only to the CFO, management committee and board of directors, but also to every business unit across the world."

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Touching on this theme in a blog last year, former ACT CEO Colin Tyler suggested that it would be a great result for treasurers if they could use technology to enhance their reputation as trusted business advisers. "The best of our type have always been intuitive – lauded for their keen and quick insight to situations as they develop," he wrote. "They are forward-looking, always trying to anticipate where the next financial risk or danger is coming from, often forming this view from an incomplete picture, but yet also have the technical skills and experience to put in place practical actions to manage the best business outcomes."

On a more prosaic note, treasurers will also have a role in making sure that technology is doing the job it is supposed to do and managing exceptions, such as a particularly large payment or a payment to a high-risk counterparty.

"There will always be a role for the human to supervise and oversee what the machine is producing and to perform the role of the analyst," says Viall. "The ultimate defence is where organisations are using these technologies, but they also have experienced analysts who are working with the technologies effectively, tuning them and back-testing the data."

"If you're making a payment to a firm, geographic area or individual that could potentially be sanctioned, you definitely want to make sure you catch that payment and don't send it out before it gets to your bank," says North. "Because once it gets to your bank, it has a duty to report to the regulator. I think that's an area where human interaction will still be there."

"Technology will make treasurers change and adapt," observes Abigail. "Moreover, they can become more strategically focused if a robot is doing the day-to-day stuff. But I don't think technology will replace all the activities of a treasurer."

EMBRACING THE FUTURE

So, if their job is secure, what should treasurers be doing to make the best of an AI-enabled world?

"Firstly, they need to make sure they are using current technologies in the business well and that their team members have the right training to do so," says Talwar. "Secondly, they need to be looking for opportunities to adopt newer technology developments that will enhance the speed, efficiency, effectiveness and cost of what they are doing. There is a range of cloud-based software as a service (SaaS) options emerging that allow treasurers to do low-cost experimentation with new applications without having to buy the software or commit to long-term contracts. Finally, they need to be looking over the horizon at what technologies are emerging and exploring them to understand what benefits they could bring."

North says treasurers need to pay attention to what their banks are doing and learn from how they are applying technologies such as data analytics to crunch vast amounts of data. At the same time, he argues that treasurers shouldn't rely solely on their banks. They also need to do their own research by attending fintech conferences and other events on emerging technologies. This matters since AI increases the ability of treasuries to become more bank-agnostic. "The treasurer has a key responsibility to understand what the emerging technology does and how it could potentially benefit them," he notes.

Talwar is clear that treasury, like every other part of a business, is not immune to change and will be impacted by future technological disruption. "So the question for treasurers," he concludes, "is whether they want to plan and drive the adoption of these technologies in a controlled manner or be on the receiving end of enforced changes."

Sally Percy is a freelance financial journalist and author of ***Reach the Top in Finance: The Ambitious Accountant's Guide to Career Success*** (Bloomsbury)

WILL YOUR BANK STILL LOVE YOU TOMORROW?

Artificial intelligence not only has the potential to change what treasurers do on a daily basis, it could also transform their relationships with banks.

Soon banks will use machine learning to crunch vast amounts of data that reveal everything from the quality of their relationships with clients to the real value of those clients in terms of profitability.

They will also use the data to get more insight into their clients' needs and create new products and services for them.

So, what will all this insight mean for those treasurer-banker relationships that have been so carefully nurtured over the years? Quite simply, it may mean that bankers start to look at some of their clients in a very different light and perhaps realise that they were over-servicing. This could put treasurers on the back foot.

"If your counterpart is analysing data in a way that you're not, they almost have an advantage over you," says Behavox's Alex Viall. "So treasurers will start to wonder, what do my counterparts know about me that I don't know myself?"