t a time when stakeholders and clients are running out of patience with financial failures and flawed statements, the pressure is on to utilise technology to produce outputs and forecasts that are 100% error-free. Auditors are feeling the pressure – those that don't embrace automation could lose clients and ultimately their jobs. If they do embrace it, they need to find the finances to fund it.

The Big Four are investing huge sums of money into automating and streamlining audit, to create what they hope will be a highly efficient, error-free system. For example, Deloitte's Argus platform uses natural language processing (NLP) and machine learning to can scan documents for inconsistencies, flag up concerns and present findings as working papers. EY has rolled out a cloud-based portal to clients and audit teams worldwide, featuring a number of advanced analytics tools.

A recent ACCA survey revealed that the audit profession is still at the very

early stages of automation, and has not embedded it as deeply as it should. In addition, 70% of the general public believe that the audit should evolve to prevent corporate failure – technology and automation will inevitably play a key role to facilitate this.

"Technology offers the ability to both improve the quality of audit and to add value to it. Audit is moving from being a reactive, backwardlooking exercise to a proactive, predictive, forward-looking one, working in real time," Maggie McGhee, executive director of governance at

ACCA, said at the time. For Eli Fathi, CEO of MindBridge Analytics, automation and its many guises



AUTOMATED AUDIT: DOES IT COMPUTE?

With growing pressure on auditors to increase their accuracy, it might be the tipping point into a fully automated approach to audit. How will it work?

WORDS ANNIE MAKOFF-CLARK

- artificial intelligence (AI), machine learning, NLP, data analytics and robotic process automation (RPA) - has the potential to revolutionise the auditing process. Blockchain, by automating the ledger and reducing the audit trail, also presents a huge opportunity - though it's nowhere close to being ready for adoption. In addition to automating complex and time-consuming workflows, AI in particular has the ability to continuously adapt to vast amounts of data, finding new ways to make complex decisions.

"AI supports human intelligence in ways that were not economically feasible or practically possible before," Fathi says. "Rather than being limited by the constraints of human cognitive capacity to analyse large amounts of data, AI provides insights on what's unknown across all transactions. This could be reports on anomalous financial transactions that traditional audit sampling techniques can't detect, or it could be insights into risky behaviour that fall outside the currently accepted detection techniques."

Fathi's Ottawa-based analytics firm launched the world's first AI-powered auditing platform, Ai Auditor, in 2017. It now has nearly 300 customers across 14 countries. Several UK government departments, The Bank of England and accountancy firm Kingston Smith are among its UK users. According to Fathi, automated auditing processes can provide deeper insight and higher risk assurance using sophisticated artificial intelligence and machine learning techniques.

However, Ercan Demiralay, partner at Wellers Accountants and automation fan, insists it's really only the Big Four who are making any progress.

WHAT'S THE BIG IDEA?

Using automation. machine learning and NLP to completely digitise audit, while human auditors do the final review and analysis

WHAT'S GOOD ABOUT IT?

It removes human error from the process. Every single line of data is reviewed and processed. WHAT'S BAD ABOUT IT?

An over-reliance on software can create new forms of sloppiness from the humans that work with it.

"The audit is very timeconsuming, compliance-heavy and risk-heavy, so it makes sense that bigger firms with the time, money and resources are the ones investing in audit automation," Demiralay explains. "We've come a long way from transactions with pen and paper and random samplers to look for certain trends or anomalies. Now auditors can pick much bigger samples in quicker time frames, pick up certain criteria and drill down further. It's much more targeted and much more efficient."

"You need to be able to question the audit. Just because a computer says 'jump off a cliff', doesn't mean you should do it."

Yet Demiralay warns against over-reliance on software which he says creates its own problems. "As an auditor, you need to be able to question things independently of technology," he says. "Just because a computer says 'jump off a cliff' doesn't mean you should do it."

Demiralay advises an 80:20 split as the ideal between automation and human input. It's why people like Fathi do not think that automation will spell the end of the auditor role. Instead, automating large, mundane tasks can free up auditors to do more.

"By allowing AI to perform the labour-intensive data analysis,

professionals are freed up to focus on the consultative and advisory parts of engagements that clients would rather pay for," Fathi says.

ACCA's McGhee agrees. She points out that AI and machine learning can add value to the work auditors and accountants do, from generating valuable insights for business decisionmaking to fraud detection to understanding complexities in taxation.

"It does not appear to be the case that human oversight can be done away with completely or that technology can take into account human factors such as building client relationships or leading successful teams," she says.

But for those who refuse to embrace automation, Fathi has a warning: "It's clear that AI and automation will not replace accountants and auditors, but accountants and auditors who use AI will replace those that don't."

At a time when stakeholders and clients are running out of patience with financial failures and flawed statements, the pressure is on to utilise technology to produce outputs and forecasts that are 100% error-free. Auditors are feeling the pressure – those that don't embrace automation could lose clients and ultimately their jobs. If they do embrace it, they need to find the finances to fund it.