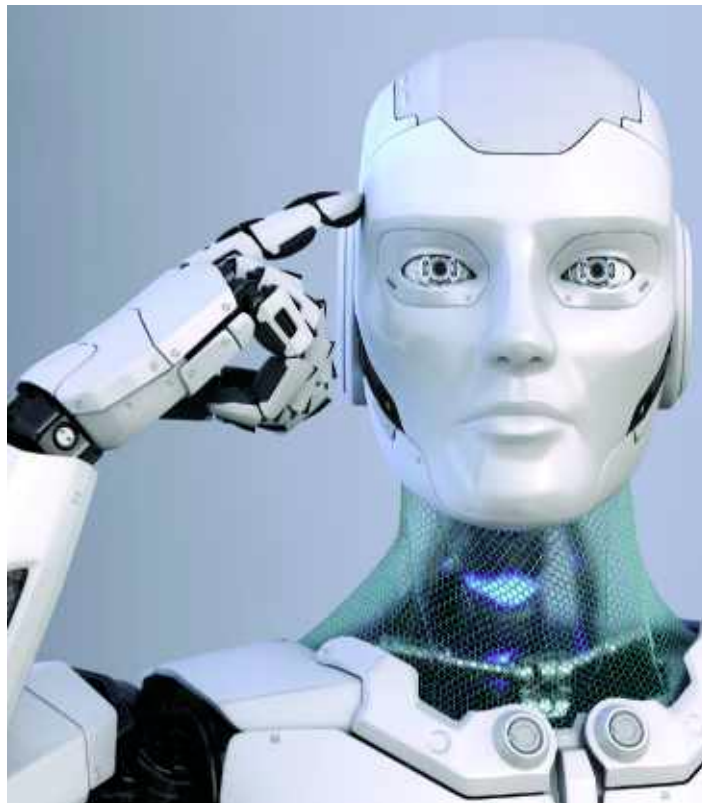# How do you audit a robot?

AI is here to stay: what is vital is how organisations manage and control their 'robots', says Henry Irving

When we talk about 'robots' people might think of humanoid, C3PO-like figures. But the robots taking over many aspects of modern workplaces are better explained as robotic process automation (RPA) – software that can be programmed to do basic, repetitive tasks. This has been part of many organisations for decades, but increasing levels of adoption, combined with the development of artificial intelligence, mean it is now one of the key issues for many businesses to consider. One aspect has hitherto been neglected: how do you audit robots?

The benefits of automation are evident. It can reduce cost, help eliminate errors and increase profitability. As wasteful manual processes are replaced by automated ones, margins can increase. Robots can execute processes that otherwise take up thousands of staff hours – freeing up skilled employees to work on more complex, added-value work – but are also scalable, meaning it is easier to cope with increased demand. For example, they can be deployed 24/7 if necessary. Moreover, automation offers a secure alternative to outsourcing or offshoring as it does not create potential supply chain problems and is more easily subject to internal controls. But there are inherent risks to increasing automation, and auditors need to develop ways to provide assurance they are being managed to an appropriate level.

One issue is how many robots an organisation can realistically manage. Multiple departments creating and maintaining their own robots, with varying standards of risk and control, could mean a fragmented – and potentially vulnerable – business, and IT departments cannot be responsible for them all. Strong internal governance frameworks, perhaps with centralised oversight, would be key to ensuring this does not become a business risk.

Another is how to decide which processes are suitable for automation. Internal auditors need to consider areas where levels of subjectivity, complexity or variability mean it is better to have people in charge. Even the best AI cannot yet 'think' like humans, mixing instinct and intuition with logic. They can't make 'common sense' checks, and do not assess irregularities or anomalies in the same way. Nor can they spot where something operationally useful might be socially or ethically disastrous.

Finally, there is the issue of what happens when things go wrong. Robots strictly adhere to the 'garbage in, garbage out' principle. They operate as instructed, but if the information input is flawed robots can behave in surprising and unwelcome ways. This is amplified if there are not enough humans to operate processes manually when they go down. Automation acts as a form of leverage, enabling one person to oversee what would otherwise be the work of several, but if things go awry this can quickly become a business continuity issue. And afterwards, robots – unlike humans – cannot be interviewed retrospectively as to why they did what they did. All of this means it is it vital to have data governance and technical controls to ensure data integrity and security, and also that there is a 'kill switch', regularly tested, to immediately halt things in the event of a problem.

Underlying all of this is how auditors can see how the robot is operating – in particular if it is learning. Data analysis, modelling and IT technical skills are becoming crucial for auditors to do this effectively. As RPA is increasingly implemented auditing around the computer is becoming less and less viable.

Advances in robotics can drive businesses and boost productivity – a key worry for UK plc at the moment – but also raise challenges for auditors. RPA is in use right now. If auditors are to remain relevant they have work to do to keep up. **PQ**

• **Henry Irving is head of ICAEW's Audit Faculty**