

ACCA audit monitoring

The future of audit and navigating the challenges of technological change.

This quarter we are focusing on how technology is transforming the audit profession, from real-time, data-driven corporate reporting to the growing use of artificial intelligence (AI) and cloud platforms. While these developments offer real opportunities to improve audit quality and efficiency, firms are also having to navigate a distinct set of challenges in adopting them responsibly. It is not only important to recognise these challenges, but to take the necessary, well-evidenced steps to address them.

The key challenges

The challenges set out below reflect recent discussions on the future of audit. This list continues to highlight the ongoing task facing most firms in balancing the opportunities of new technology against the practical, regulatory and cultural challenges of adopting it.

1 Keeping pace with faster, more complex reporting

Corporate reporting is becoming increasingly real-time, data-driven and integrated with sustainability and other non-financial information. Technologies such as artificial intelligence (AI) and cloud platforms are automating data collection and reducing manual inputs, bringing both greater transparency and new complexity. For auditors, the challenge lies in keeping pace: continuous auditing may become the norm, blockchain-based audit trails could reduce the need for some traditional verification work, and there is a growing expectation for the profession to provide assurance over data, analytics and system controls, not solely historical financial statements.

2 Barriers to maximising technology use

Many firms face significant obstacles to embedding technology into everyday audit work. Legacy systems and infrastructure – both within audit firms and at audited entities – restrict what is practically achievable. A shortage of technical proficiency among auditors, together with a lack of clarity in regulation and standards around issues such as the explainability of AI-driven decisions, adds further uncertainty. Cultural resistance to moving away from traditional audit approaches remains common, and concerns over data security and confidentiality – particularly with cloud-based tools – mean firms cannot afford to overlook cyber risk assessment and data protection when adopting new technology.

3 Balancing human and technology roles in audit quality

As automated tools take on a greater share of audit testing, a central challenge is ensuring human judgement remains firmly in control of critical decisions such as materiality and risk assessment. Technology should support and enhance decision-making with better data and insight, not replace professional scepticism. Where AI flags unusual transactions, auditors must still critically assess and corroborate those findings, and consider what the tool may have missed. This requires firms to develop clear governance frameworks around the use of AI, to ensure transparency, accountability and appropriate oversight of every tool used on an engagement.

4 Emerging technology-related risks

The use of automated tools and techniques introduces a distinct set of risks that firms must actively manage. These include reliance on 'black-box' algorithms that lack explainability, over-reliance on flagged results without critical review – for example, assuming an AI tool has captured all relevant risks when it may have been trained on limited or outdated data – and the use of tools outside their intended purpose, such as applying a general data-visualisation tool to substantive testing it was not designed to support. Cybersecurity threats arising from handling sensitive client data via cloud-based tools, poor data quality ('garbage in, garbage out'), and bias embedded in AI models trained on unrepresentative datasets all present further risks that auditors need to identify and mitigate.

5 Do quality management principles help or hinder adoption?

Robust quality management frameworks, such as ISQM 1 and ISQM 2, can both support and slow technological change. Applied flexibly, their requirements for continuous improvement, risk assessment and performance monitoring align well with a technology-driven audit environment. Applied rigidly – for instance, requiring extensive documentation to prove the effectiveness of every control before a new tool can be used – they risk slowing beneficial innovation. Firms need quality management systems that set clear criteria for validating and testing new technology, define who approves and monitors its use, encourage phased rollouts and pilot testing, and build in feedback loops to measure and adjust the impact of new tools on audit quality over time.

6 Addressing the audit skills gap

A recurring challenge is the gap between the skills auditors currently hold and those the profession now needs. Many auditors have limited proficiency in data analytics, a poor understanding of AI and automation tools, and only a basic grasp of IT system controls and cybersecurity. The growing importance of non-financial and sustainability reporting, including ESG-related metrics, adds a further area where auditors may not yet be equipped to provide assurance. Beyond specific technical skills, firms also need to foster a broader mindset of digital curiosity and adaptability among staff, rather than treating technology as a bolt-on to traditional audit training.

7 Rethinking entry-level roles and how experience is built

As automation takes over many of the routine and repetitive tasks traditionally performed by junior staff, firms face the challenge of preserving a meaningful route into the profession. Entry-level roles need to be reimagined around interpreting analytics, understanding systems and supporting technology implementation, rather than manual data entry. Apprenticeship-style pairing of junior and senior staff on digital audits, simulation-based learning, and structured rotations across audit, technology and advisory functions can all help rebuild the practical experience juniors previously gained through repetitive tasks, while ensuring core soft skills such as ethics, judgement and communication remain a priority from day one.

8 Evolving accountancy education

Meeting these challenges over the longer term will also require changes to how future accountants are trained. Technology fluency needs to be embedded into core curricula rather than offered as an optional extra, with data analytics, AI and robotic process automation forming part of mandatory professional training alongside case-based learning using real-world digital audit scenarios. Encouraging closer links between accounting, coding and data analytics, and supporting a lifelong learning approach through modular, on-demand CPD, will help ensure the next generation of auditors enters the profession better prepared for a technology-driven audit environment.

Additional resources

ACCA resources

[Policy and insights – Key focus areas > AI and technology](#)

[Considerations when using AI in accounting](#)

[AI-related risks in audit](#)

[Five AI-powered tools to help accountants](#)

FRC resources

[AI in audit: Illustrative example and documentation guidance](#)

[AI in audit: Generative and Agentic AI Guidance](#)

Conclusion

Technology is reshaping the audit profession at pace, and firms cannot overlook the scale of the challenges involved in adopting it responsibly. Legacy infrastructure, skills gaps, unclear regulatory expectations, emerging technology-related risks, and the risk of over-reliance on tools that are not fully understood all require careful management.

Quality management systems have a key role to play, but only where they are applied flexibly enough to support innovation rather than stifle it. Firms that invest in the right skills, governance and training will be best placed to harness technology's benefits while keeping professional judgement firmly at the centre of audit quality. Technology is not a threat, but a tool – the future of audit will be fast and increasingly smart, but it will remain fundamentally human-led.

The ACCA Regulation team present a series of quarterly webinars designed to support practitioners in the UK and Ireland. The core focus of these sessions will be an overview by the audit compliance team of the most recent quarterly article. In addition, we will be inviting speakers from other teams to share their current activities.

Please register for the upcoming webinar on **2 December 2026** and we'll look forward to speaking with you then.