ICAEW
REPRESENTATION 44/20

ICAEW RESPONSE TO TECHNOLOGICAL RESOURCES: USING TECHNOLOGY TO ENHANCE AUDIT QUALITY

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ICAEW welcomes the opportunity to comment on this consultation published by the Financial Reporting Council on 25 March 2020, a copy of which is available from this link.

This response of 3 July 2020 has been prepared by the ICAEW Tech Faculty and the Audit and Assurance Faculty.

The Tech Faculty is responsible for ICAEW policy on issues relating to technology and the digital economy. The Faculty draws on expertise from the accountancy profession, the technology industry, and other interested parties to respond to consultations from governments and international bodies.

Recognised internationally as a leading authority and source of expertise on audit and assurance issues, the Audit and Assurance Faculty is responsible for audit and assurance submissions on behalf of ICAEW. The Faculty has around 7,500 members drawn from practising firms and organisations of all sizes in the private and public sectors.

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For more information, please contact: representations@icaew.com

ICAEW Chartered Accountants' Hall Moorgate Place London EC2R 6EA UK
T +44 (0)20 7920 8100 **icaew.com**

We welcome the FRC's interest and focus on the area of technology and audit, as we see technological advancement and development as key elements of how the profession can evolve and adapt to the challenges of 21st-century business. Our response outlines our thoughts on the key questions and reflects input from our Tech Faculty (as lead authors), Audit & Assurance Faculty, Mid-Market Tech Forum, and many volunteer members of our various committees. As always, we are happy to discuss our responses further with you.

ANSWERS TO SPECIFIC QUESTIONS

Question 1: Do you agree that the increasing use of technological resources, including AI and other advanced tools, enhances the quality of audits, beyond the benefits derived from efficiency gains. If so, what are the indicators of enhanced quality?

1. Increasing use of technology certainly has the potential to increase audit quality. Concepts such as materiality and sampling-based testing are inventions of necessity, concessions to the fact that time and resources are not sufficient to make a full review of all of a company's records and transactions. As technology improves, the possibility of a meaningful 100% audit comes closer to reality. While no human or team of humans will ever be able to review all of the transactions for an entity of any meaningful size, use of tools such as data analytics, machine learning, and robotic process automation might allow more and more of an organisation's records to be tested. What is more, efficiency gains from technology can allow auditors to spend more time considering the complex and judgmental areas of the audit.
2. All of this could certainly be expected to lead to an increase in audit quality. However, these automated tests are by their nature different from a human auditor. Machine learning can detect statistical outliers and patterns in data at high efficiency, but humans are better suited to understanding human behaviour and using understanding of context to judge information. So, while a machine learning-trained system might be highly efficient at, say, identifying bad debts, it could well overlook a transaction that a human observer would find obviously suspicious or erroneous. Audit quality isn't necessarily increased because of technology – it has to be properly considered and well-implemented, and integrated with a modern audit function that includes tech experts and skilled auditors who have familiarity with the technological tools they are using and how to best use them.

Question 2: Do you believe that challenger firms are currently at a disadvantage in the use of new technology? If so, what remedies would you suggest?

3. Before answering this question, it is important to question an assumption inherent in it: That audit firms are divided into the current largest firms – the Big Four and perhaps a few more below that – and challenger firms. In preparing our response to this consultation, we spoke with members from firms on our Mid-Market Tech Forum (firms generally ranked 10th-50th by turnover), as well as volunteer ICAEW members from an even wider range of smaller firms. Many of these firms are deeply interested in the effect technological development is having on their businesses and their clients, but most would not identify themselves as "challenger" firms in the sense that it is meant here. Most do not have the resources to compete for audits against the largest firms or would not see the returns on investment for taking up technology at the current time because of a lack of economies of scale. While increasing competition in the audit marketplace is certainly necessary, the market is more complex and any solutions will need to work for firms of all sizes.
4. That being said, it is certainly true that larger firms, with their ability to finance extensive in-house development of technologies, have an advantage over challenger and other smaller firms. Some of the leading third-party audit technology providers have in fact spun out from these in-house projects, which naturally means that they come after the largest firms' use of them is well-established. No straightforward remedy exists: Having a lead in technology is one of the benefits that larger firms' resources affords them. What can help to mitigate this advantage are things like open data standards and third-party technology offerings. However, whilst these are developed, the larger firms are likely to be pulling ahead on the

next wave of technological development. Furthermore, while third-party analytics offerings do exist and are becoming more affordable and powerful as time passes, these are usually not written with statutory financial statement audit in mind and may need considerable reworking to be appropriate for auditors' needs.

5. The one factor pushing in the other direction is with unforeseen teething issues and risks associated with the adoption of new technologies. Larger firms, being more likely to be on the cutting edge, are more likely to encounter these kinds of difficulties – whereas the more developed versions of the technologies taken up by challenger firms later on, whether from their own development or from third party suppliers, might be more developed and better understood. Despite not necessarily looking to implement some of the more cutting-edge technologies themselves in the near future, many of the firms we spoke to are still interested in the issues that surround those technologies and are looking to stay ahead of the curve in terms of understanding those issues, so that they can ease the process of adopting them once the costs and benefits become right for them.

Question 3: Other than investment, what do you believe are the key challenges auditors face in the increasing utilisation of automated tools and techniques within the audit process? Again, what remedies would you suggest to overcome these challenges?

Question 4: Does the current assurance model or the auditing standards represent an obstacle to technological innovation? If yes, then what specific standards, objectives, requirements or guidance cause practitioners particular difficulties?

6. In our 2016 publication Data Analytics for External Auditors, one common thread of response from the firms was that they felt that regulation and standards had been slow to adapt, and that their attempts to improve efficiency with automation and data analytics were often viewed with suspicion by regulators – seen as cost-cutting exercises first and foremost. The change in perspective that this consultation represents is a promising sign. Updating of standards to more explicitly consider the place and use of analytics, and removing the default assumption of the use of sampling, will help to support the adoption of data analytics and focus the conversation more on the development of best practice for their use.

7. I also here quote part of ICAEW's response to the Brydon review on this subject:

   In our publication, Data Analytics for External Auditors, we encourage auditing standard setters and regulators to embrace the value added to audit by data and analytics. If their approach acts as a drag on the use of data and analytics, the value of audit in general will be diminished and the statutory audit will be 'hollowed out' and marginalised, which is not in the public interest. 218. The IAASB decided not to address data and analytics in detail in its recent proposals for revisions to its standard on risk analysis. In our response, we noted our fear that this was a lost opportunity and we will be strongly encouraging the IAASB to address the issue in more detail in its upcoming audit evidence project. If it fails to do so, the ability of firms to use technology to its full potential and add value to audit will be compromised.

Question 5: Do you believe the current level of training given to auditors – both trainees and experienced staff – is sufficient to allow them to understand and deploy the technological resources being made available?

8. In ICAEW's own syllabus for the ACA qualification, we have for several years begun to incorporate more and more technological concerns into what students are expected to learn and what they are examined on. In recent years ICAEW has added "technology" to the titles of several papers, recruited a qualification-wide Technology Moderator to oversee tech content in much the same way we do for ethics, and have begun to bring real data and real analytics into our examinations.

9. Despite these changes, what we hear from our members, their firms, and our training provider partners is that still more technological knowledge and capability are needed. Larger firms recruit more technology specialists now, and smaller ones identify the tech-adept

among their intakes and push them towards specialisation in analytics, automation, or similar. The call is usually not for chartered accountants to become AI specialists or data scientists, but for them to gain an appreciation of the strengths and limitations of these approaches, and an idea of how they can best be put into practice and how to mitigate their shortcomings, and this is generally the approach that we have taken and that we see gaining traction in our accredited universities and elsewhere.

10. Likewise, while again ICAEW offers CPD and courses in these areas already, the demand for these skills is increasing. We have recently launched our Data Analytics Community and are developing more offerings in this area, but the market is clearly thirsty for additional knowledge and guidance in these areas; whether it be for more senior auditors to gain confidence in reviewing their juniors' analytics-based work, or for those looking to add technological skills to their own portfolios. While this does not necessarily indicate that current staff are not sufficiently trained, it does show that the expectation is that technology-supported audit is to grow and that these skills will become increasingly vital.

Question 6: What firm-wide controls do you believe are appropriate to ensure that new technology is deployed appropriately and consistently with the requirements of the auditing standards, and provides high quality assurance which the firm can assure and replicate more widely?

11. We have recently released a report entitled Risk and Assurance in Emerging Technology (www.icaew.com/techrisk), examining these issues for AI and other cognitive technologies in a wider business context. Some of the key recommendations on the implementation of new systems follow.

12. Development of cognitive solutions is often complex and involves stakeholders from multiple parts of the business. But simple machine learning can be experimented with via off-the-shelf packages and small datasets by individual users. Applying a consistent standard to all projects is key; to do so, a clear policy for development of cognitive automation should be created, starting at a comprehensive inventory strategy to identify and understand any existing or new cognitive projects. The policy should include guidance on acquisition and storage of data, consideration of bias and error, guidance on building explainable models, and other such general design principles.

13. In the area of operational controls, the role of the auditor's expertise and judgment are key, and front-line auditors making use of AI tools need to be trained and empowered to challenge the outputs of the models that they use. Keeping real human decision-making in the loop is an important control, and this must be meaningful review rather than rote rubber-stamping.

Question 7: Are you aware of the use of new technologies in analysing and interpreting information provided by auditors – including, for example, auditor's reports? If yes, then do you foresee implications for the form and content of auditor's reports?

14. Referring once again to our Brydon response:

    The extended audit report can reveal a range of value-relevant information, particularly where it is not disclosed elsewhere. There is therefore advantage in analysts reading it, and comparative advantage for those analysts that do make use of it if others do not. The degree to which audit reports are read and used lends itself well to academic research, as does the usage of AI in the analysis of audit reports. In 2018 ICAEW commissioned Craig Lewis, Professor of Finance at Vanderbilt Law School and former Chief Economist and Director of the Division of Economic and Risk Analysis at the SEC) to present a lecture, Fad or future? Automated analysis of financial text. This presentation examined the ways in which textual analysis can provide new sources of information to investors and other stakeholder groups, as well as exploring opportunities for its use in the long term.

15. There is as always a tension here: Greater analysis and consideration of auditor's reports can make them more useful and powerful to investors and other stakeholders wishing to

learn more about the company. But that same attention can pressure auditors' reports, out of fear of litigation or similar, and lead to more boilerplate, indistinct text being used.

Question 8: What do you see as being the main ethical implications arising from the greater use of technology and analytics in an audit?

16. The largest issue is that it is easy to get into a habit of not questioning the output of a complex and expensive technological review tool. Front-line audit staff must remain challenging and sceptical of their tools' outputs just as they must be of their clients' answers, in order to maintain professional care and competence.
17. Auditors are already accustomed to holding sensitive data – both commercially sensitive client data and personal data about clients' employees and owners – but as most modern technological processes use data as their raw materials, this will only increase. Data protection in general and the GDPR in particular are the relevant regulatory concerns, but proper safeguarding of data is not merely a regulatory matter but an ethical responsibility.

Question 9: Do you believe there is value in the UK having consistent data standards to support high quality audit, similar to that developed in the US?

18. Yes. In practice, the largest challenge for most users of data analytics or machine learning is getting a hold of high-quality and well-formatted data, as well as related issues such as being able to document how that data was extracted from the client's systems. With many hundreds of client systems in existence, extracting and parsing client data are significant areas of investment for firms, as we have found through our discussions both with the largest firms and through discussions at our Mid-Market Tech Forum.
19. We are involved with the Engine B project, which is seeking to create such a data standard for accounting data, with wide cross-industry support. We hope that this project could help to both improve the quality and efficiency of audit and other engagements based on accounting data, but also improve competition by removing the disincentive to switch auditors that having to rework data exports creates. The FRC's support of a common data standard such as this one would help to reduce switching and market entry costs, and hence improve competition. If shared audits are to feature in the future of the UK audit market, then an inter-operable open data standard would substantially support that model.

Question 10: Do you agree that threats to auditor independence may arise through the provision of wider business insights (not as part of the audit itself) drawn from the interrogation company data? If so, what measures would mitigate this risk from crystallising?

20. It is certainly possible that these threats could occur. Audit firms frequently audit companies smaller than themselves, and who may therefore have less advanced technological capabilities than the audit firm does. In these cases, once the work of extracting and formatting the client's data is done, there is relatively little additional effort to analyse that data for commercial insights, rather than to support the audit engagement. In fact some audit tests may be close to commercial insights already – for example, performing a predictive analysis on which debtors are unlikely to pay would be a reasonable audit test over the valuation of trade debtors, but the outputs of that test would be of interest to the credit control function of the client.
21. Of course, existing rules over the provision of non-audit services to audit clients already provide strong disincentives to blurring the line between auditor and advisor. But certainly there could be additional risks here – for example around informal situations where a client wishes to see the results of an analytical procedure performed for the audit for their own commercial ends. The individual member of audit staff on the ground is placed in a difficult situation where they have to judge whether or not sharing the results crosses independence rules, or threatens the future usefulness of the test – and balance this against a potentially awkward conversation about their decision to a client that may not appreciate the issues at

hand. This is particularly complex as client's management are often called in to help provide the data for these tests, only to have the results of said tests withheld from them.

22. Ultimately these are not new threats to auditor independence, but they may occur more frequently and in a different character than before. The most important measure is for front-line auditors who are putting these procedures into action to be properly trained on these ethical threats, and well-equipped to handle these conversations with clients. Auditors should also at the tender and planning stages make clear to their clients what they can and cannot share.

Question 11: Do you agree that audit documentation can be more challenging when an audit has been conducted with automated tools and techniques? If so, please identify specific areas where is a problem.

23. Potentially, but it could also become simpler. Where reliance has been placed on the outcome of an automated tool, then naturally the documentation of the audit would have to make reference to that tool and its design, application in this instance, and how its results were interpreted and used. The potential difficulties arise in documenting rapidly changing and/or opaque systems, qualities that many cognitive systems based on machine learning share. It can be hard to show exactly how these systems reach their conclusions, and the version used in testing may no longer be the live version at the time of a later review of the audit file.

24. On the other hand, it is likely that these will be common tools that are shared among many or all the audits of one firm – or, in the case of third-party tools, even multiple firms. So while documentation and explanation may be harder, to a certain extent firms may be able to rely on central documentation as a standard element of all audit files. Of course, this central documentation must be of a very high standard, and where tools are being frequently updated, archival copies of older versions should be kept for reference later on.

25. Documentation can also increase in complexity as more and more client data is taken in and used in the audit. Not only is this a challenge in sheer volume of data that must be kept on file, but data protection and security also add an additional layer of risk for the auditor to consider.

Question 12: Have you encountered challenges in dealing with the volume of 'exceptions' arising from the use of more complex or comprehensive data analytic procedures?

26. We have seen a good amount of discussion around what is often termed the "5,000 exceptions" problem – where an automated review finds an outlandishly large number of exceptions. Realistically, this will usually indicate that the sensitivity of the automated process is set too low, or that some aspect of the audited entity has been overlooked or misunderstood. In these cases, reconfiguring the automated review will make sense. However, there are rightly concerns about allowing auditors to twiddle with the thresholds of their testing in order to generate the number of exceptions that they expect to see – or, worse, that their budget gives them the room to explore.

27. While this is unlikely to be an explicit aim of most auditors, the temptation to set the sensitivity of a test to suit the ability of the auditor to follow up on all the exceptions produced is strong. Many auditors would probably dismiss a large number of exceptions as an error in the analytical procedure – and, again, they would most likely be correct – but giving these cases proper professional care and scepticism has to feature in training and in regulation. Distinguishing between false positives and true positives is not a trivial matter.

Question 13: Do you agree that the use of third-party technology vendors raises potential ethical challenges for auditors and, if so, which potential safeguards would you see as effective in reducing this threat to an acceptable level?

Question 14: Do you agree that the increasing usage of third-party providers presents challenges in audit documentation and, where relevant, how have you dealt with this?

28. Yes, the use of third-party providers raises ethical and documentation questions. Auditors should be reminded that the same standards apply in such cases, and that they need to clearly understand that technology, and the models, methods and assumptions used, and be prepared to demonstrate that understanding that to audit regulators. On the other hand, audit regulators should assume not that the use of third parties is an attempt to cut costs, or to abdicate responsibility, or apply higher standards in such situations than they would to proprietary auditor technology.