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Dear Jason,

Re: TECHNOLOGICAL RESOURCES: USING TECHNOLOGY TO ENHANCE AUDIT QUALITY

We appreciate the opportunity to comment on the discussion paper from the Financial Reporting Council (FRC) on the topic of 'Technological resources: using technology to enhance audit quality'. This is a pivotal time for the audit market and product. Audit quality is critical to progress and rebuilding trust, in particular in the UK.

The use of technological resources by auditors is rapidly increasing in firms of all sizes and will progress much further in the coming years. The FRC's discussion paper is timely and looks to shine a light on some of the topics most keenly discussed in the profession.

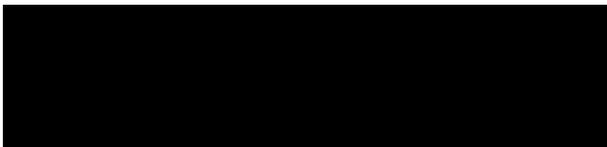
Inflo was founded by former Big 4 auditors with the objective of making advanced technologies available to audit firms of all sizes, to improve the quality and value of the audit process.

Many accounting firms falling under the scope of the FRC's regulation utilise Inflo as a third-party solution to enhance their audit services. Our work with these firms, as well as the Professional Accounting Organisations and international networks these firms are often members of, provides us with a unique perspective on the UK and global audit market.

The sharing of knowledge for the betterment of the profession we serve is a fundamental principle of ours. This response letter articulates our views based on our team's deep experience and specialisms. It also includes the views and opinions of customers we work closely with to solve the challenges tabled by the FRC.

If you would like to discuss any of our comments, please do not hesitate to contact us.

Yours sincerely,



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Request for Input - Inflo

Technological resources: Using technology to enhance audit quality

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?

Yes, we believe the use of technological resources enhances the quality of audits.

Technological resources provide auditors with the ability to gain access to and analyse, every transaction which constitute a set of financial statements.

Such an ability allows auditors to enhance their understanding of the company, business risks and audit risks. This means auditors can bias their time towards the areas of the audit posing greatest risk and requiring the attention of more experienced auditors or specialists.

Technological resources can also provide a greater level of expertise or diligence when performing tasks. As an example, a contract reading technology can read and analyse a contract, comparing to a library of similar contracts to identify unusual clauses. An auditor performing the same task manually can only compare to a far smaller library of personal experience. Further, their diligence performing the task might waiver to a greater extent than a machine.

More holistically, where efficiency gains are realised by audit teams, it is highly common that this time is re-invested as additional time spent on key risk areas, stepping back from the detail and applying professional scepticism.

Indicators of enhanced quality can take the form of audit quality indicators (AQIs). An example of which we have utilised with audit firms relating to technology is obtaining transactional data from the company at least 3 months prior to the year end. This being an indicator the audit team is performing planning activities suitably early in the audit cycle and on robust, detailed financial information.

The recent work performed by the FRC, and other organisations across the world, in relation to AQIs is strong basis for considering the role technological resources do, or could play, in direct relation to commonly utilised AQIs.

Other indicators might be focused on the output of the audit process. This being an increased number of control observations or adjustments being reported to the client, although this does not necessarily correlate to the quality of the audit process.

The content included within an audit findings report can also be a barometer for audit quality, although qualitative in nature. Auditors can also often take some indication from the more informal feedback provided by clients regarding the audit and the client's perspective as compared to prior years.



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?

It depends on the specifics of the discussion as to whether challenger firms are currently disadvantaged in the use of new technology.

There is no significant issue regarding the availability of new technologies. In recent years there has been several new entrants to the audit technology market, bringing new solutions and a more agile approach to technology development than incumbent providers.

There are multiple third-party solutions which are as good as, if not better than, the in-house technologies developed by Big 4 firms.

Some of the Big 4 firms have been utilising “new” technologies such as data analytics in their audits for close to 10 years. Challenger firms are therefore playing catch up in relative terms when it comes to effectively using technologies

Progress in implementing new technologies in audit is typically incremental. A firm might implement technology solutions to first address fraud (or journals) testing, before progressing to areas such as risk assessment, then to perhaps revenue testing.

This is because both establishing a repeatable process for obtaining data from clients, and honing the skills auditors need to perform the most advanced techniques, are gained through first focusing on more foundational areas of the audit process before building towards greater complexity.

It is also because technology development takes time, thus agile approaches lead a firm to develop modular solutions for specific tasks, rather than a single, complete application.

As a result, at this time it should be considered highly improbable that challenger firms would be able to remedy this technology gap by following a comparable in-house development strategy. Big 4 counterparts executed such strategies many years ago, wielding far larger budgets.

Instead challenger firms should remedy any potential disadvantage through partnering with third parties to expedite their development. This applies not only to technology, but also experience and skills. Grant Thornton's [Digital Accountant pathway](#) partnership with BPP is a good example of such a strategy.

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?

The single biggest challenge auditors face as the utilisation of automated tools and techniques increases, remains change management. It is one thing for such technologies to be available, it is quite another for auditors to move away from traditional audit techniques they have performed consistently for many years.

There are multiple moving parts which add to the complexity of change management.

Often, the focus is on individuals at the very start of their careers. Leaders hypothesise whether new recruits will have the skills needed to utilise new technologies. Whether auditors need to have coding skills. And whether professional qualifications remain relevant to the modern audit world.

Yet these individuals are often the most open to technological innovation. Initiatives such as the ICAEW's [incorporation of emerging technologies into the ACA qualification](#) also demonstrates progress in this area.

From our experience there are two other groups where the greatest change management challenge exists.



The first is with experienced, qualified staff, including Responsible Individuals. For some, the audit process has seen limited change throughout their entire professional career. This can cause inertia, slowing adoption and putting leadership in an uncomfortable position where they must initiate and drive change across their organisation.

The second group is clients. Adopting new technologies might involve client contacts changing the way they interact with their auditors. Exchanging information in new ways. Requests for data rather than files. Providing information earlier in the process. Clients can be equally resistant to change, but this is often due to understanding and perception.

Greater education of audit committees, non-executive directors and other audit stakeholders would also benefit these areas.

Effective communication has a pervasive impact across change management, both internally and externally. Whatever a technology can do, its perception and impact is reliant upon communication by those implementing or utilising it.

A further challenge more specific to auditing is the alignment of new technologies to existing audit methodologies.

The lack of reference to data analytics and other more advanced technologies within auditing standards is often cited as a challenge prohibiting the greater adoption of such techniques. Yet auditing standards do not, in our opinion, significantly hinder the adoption of technology. Instead, audit methodologies provide a greater challenge.

Audit methodology is the single largest differentiator in audit quality. The Big 4 firms have made significant investments in developing tailored audit methodologies to enable the adoption and incorporation of technology. And the largest challenger firms have more recently made similar investments in global methodologies

But many challenger firms remain reliant upon audit methodologies produced by third parties. These methodologies are commonly regarded as inferior to those of the largest firms and suffering from a significant lack of investment since the adoption of Clarity ISAs. Such methodologies include little innovation and do not incorporate the impact of technology on the audit process.

In terms of remedy, third-party audit methodology providers need to significantly advance their content to reflect the impact of technology, supporting firms in understanding how technology can be integrated into the audit process. New entrants should be welcomed to this space to create competition and improve audit quality.

It would also appear challenging for standard setters, regulators, and other stakeholders such as professional accountancy organisations to maintain a current knowledge of technology given the increased pace of change. Yet this is integral to effective evolution of the audit profession. Inflo run multiple initiatives globally to share knowledge and maintain dialogue with such groups.



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?

The auditing standards do not represent an obstacle to technological innovation to the extent often discussed within the auditing profession. It can be too easy for firms to hide behind the minimal reference of modern technologies within auditing standards as being the reason not to adopt such technologies.

Auditing standards provide a framework for auditors to apply their professional judgement as to how they should gather evidence to address an identified risk. Technology is a tool which auditors can utilise to support them throughout the audit cycle, while staying comfortably within the existing auditing standards.

There is some credibility in the argument that auditing standards may prohibit the most progressive innovation, such as how AI might advance in the future to fundamentally challenge the current concept of auditing. The audit profession would require a far deeper searching of the soul to redefine the audit product should such a product be desirable, rather than the standard setting process being that driver.

There are perhaps elements of the assurance model which while not an obstacle to technology innovation, certainly do not promote it. As an example, the existing concept of liability and risk management within an audit mean that there is strong incentive for an auditor to attempt to limit their liability by restricting the scope of their work and not extending that scope.

Like a high-jump athlete, auditors could be seen to aspire to clear the bar by as little margin as possible.

Thus, the current assurance model may cause lower adoption of technologies which could expand the scope of an audit, even if that were positive for stakeholders.

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?

We feel there is always more to be done when it comes to the level of training given to auditors to ensure they can understand and deploy technology with efficacy.

This question, however, is highly firm specific, so we can only share more general observations regarding training. Training is inherently important in our profession, but the style and format of training is evolving.

The demand for relevantly skilled, job-ready accountants, coupled with the observation that today's learning is best consumed in bite-sized, nano-training content, real-time, means that technology solutions that support the audit process are well placed to deliver active, authentic learning experiences to all users.

Anecdotally, there is a risk more experienced staff and RIs view the understanding and deployment of technology resources as a junior staff activity. We have seen firms benefit in adoption and quality where there has been a strong tone from the top.

While not specifically training the work of PAOs, such as the ICAEW, forming relationships and partnerships with technology providers is building greater awareness and access to technologies. The inclusion of practical use of emerging technologies in the ICAEW's ACA qualification is a clear example of this, helping to increase technology familiarity and potentially initiating a reverse-mentoring concept.



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?

A key control is the collation, review and monitoring of management information.

Often when technology is deployed across a firm, those leading the initiative have agreed the acceptable ranges of uses, responses or other interactions their audit teams might have with a technology.

Modern technologies, particularly cloud-based systems, collect detailed meta data regarding how a technology is being used. Each click a user makes of the mouse, every decision they make, the justifications they add to the technology.

An example might be recording the level of exceptions, or notable items, observed on every routine performed on every client. Thus, high exception levels or inappropriate user application can be identified in real time. This is sometimes referred to by firms as “the analytics on the analytics”.

Central monitoring of such management information can identify users requiring further training, or flag inappropriate decision making for central teams to step in and provide direct support. This data can also help inform future technology deployments or identify opportunities to advance audit methodologies to improve audit quality.

Other firm-wide controls include establishing a robust support network and triage system. This typically includes local office champions, commonly at an audit manager level, with an RI accountable for the overall area of technology and innovation in audit. This can also be complemented by technology providers who offer a Software-as-a-Service (SaaS) offering rather than simply technology.

We have observed the greatest success where talented, junior staff are removed from client facing roles to provide dedicated support to the implementation of technology. These individuals directly support audit teams and clients in adopting and utilisation new technologies. We would advocate this is one of the most critical implementation controls, as it ensures both feedback and support are proactively provided, and challenges are identified as early as possible.

We also believe robust controls are needed wherever less experienced staff are involved in preparing data for use in the audit process. See question 9 below.

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?

No answer.



Question 8:

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

We believe the main ethical implication is a positive one, supporting a clearer segregation between auditor and company.

One of the challenges Big 4 firms have shared anecdotally with us has been receiving client demand to use their technology solutions. Clients have been impressed with the analysis tools shown to them in pitches or during the audit process and have requested access to the same tools internally.

However, with such tools being developed and maintained in-house, providing access to such tools has not been possible. Independence could be quickly breached where management would place reliance on a technology developed by their auditor.

This issue however is not present for challenger firms using third party solutions. The development and maintenance of the technology is clearly the responsibility of the third party. The challenger firm is not involved in this area. Thus, it is possible to navigate the management risk and for the client to receive more dynamic, relevant outputs from the audit process.

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?

US data standards are comprehensive but voluntary and are understood to have very low adoption levels.

Having multiple data standards which are inconsistent across the world seems to be counter intuitive, given the objectives and challenges of data exchange are consistent.

However, given US auditing standards are diverged from international auditing standards, different approaches may be required to find appropriate solutions. An international set of standards, perhaps based on ISO data standards, might be beneficial rather than looking to internationally expand existing US data standards, which were developed prior to the recent expansion of the use of data in the audit process.

Ultimately, such initiatives look to achieve 2 objectives. 1) making it easier for companies to share their data with their auditors, 2) providing auditors with consistent data to use in their audits.

While data standards might assist that process, technology providers have already stepped up to this 'data exchange' challenge. Inflo is the market leader in this activity, providing a simple method for clients to upload their data to the Inflo platform, which standardises, validates, and shares the transformed data with auditors. This approach can be utilised on 100% of client accounting systems globally.

The critical step in this process is the transformation from the format of data in the company accounting system to the format the accounting firm needs. A tool like Inflo performs this transformation in an automated and controlled way. But all too often firms take more manual approaches to this data transformation activity.

This might either be utilising junior auditors, who are not data scientists and struggle using desktop tools which require deep expertise. Or utilising data scientists with a limited understanding of how data is used in the audit. Both methods pose different but significant challenges. Both approaches create significant exposure to human error or misunderstanding, creating a risk of inappropriate audit conclusions.

Where firms adopt either manual approach, we strongly recommend robust controls are established to ensure that valid data is used in the audit process before any conclusions are drawn in support of the audit opinion.

Where technology is reliant upon data of any kind, integrity checks over the input dataset are vital to the quality of the audit process. There are two key areas of focus. Firstly, the completeness and validity checks which should be



performed over a dataset before audit evidence is taken from audit tests performed using that data. And secondly, the work or process required to address the risk of manipulation of the dataset, by a client or other party. This second area is sometimes referred to as information produced by the entity (IPE).

Inconsistency exists in how firms are addressing these challenges and what each firm believes regulators might expect of them. This includes firms performing additional activities which add limited value to the process. To provide a specific example, we are aware of certain firms believing they must physically observe client contacts running reports from accounting systems and sending the data to them, when technology can provide a far superior approach.

Clarifying these two areas would provide greater confidence to audit firms that they have performed the appropriate work to rely on data driven auditing techniques.

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?

As with other audit-related activities it is possible. But often this can be used as a reason to avoid delivering something new and more creative from the audit process.

The main risk from our perspective, as discussed previously, is relating to the company seeking to utilise technology which was developed and is maintained by their auditor in the management of the company.

It is important to distinguish between business insights that can be provided as a direct output of the current scope of audit services, and other indirect insights.

For example, an auditor may seek to identify suspense accounts, or suspense entries, as part of their audit of fraud risk areas. Business insights regarding control improvement or financial effectiveness of the finance function relating to suspense accounts should be considered within the scope of the audit.

On a comparable basis, the auditor may compute business KPIs for the purposes of risk assessment in the audit. Yet benchmarking these same KPIs against a pool of relevant peers to, for example, identify working capital improvement opportunities feels beyond the current defined scope of an audit. The question, as Sir Donald Brydon proposed in his review of the audit product, is whether such insights, which companies are often seeking from their auditors, should in future form part of the audit product.

The line of delineation between these kinds of examples is not easy to define, reconciling technology capabilities, the interests of the company and audit regulation.

The rules around independence and the provision of non-audit services vary within the UK market, and internationally. While the current landscape can be navigated to provide business insights desired by companies of all sizes, particularly through the use of third-party technologies, greater clarity on this area would benefit the audit profession.



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.

Audit documentation is challenging whether human or machines are making and documenting their judgements.

It is in fact easier for automated tools to provide more consistent, detailed, and repeatable audit documentation when executing a process.

Ultimately, the documentation challenge is dependent upon on how advanced techniques are being deployed in the audit. In broad terms, there are 3 approaches to use of technology in the audit:

- 1) Technology performs a process for the auditor which remains consistent over time, e.g. the automated selection of an audit sample applying a consistent ruleset to a population.
- 2) Technology provides a recommendation to the auditor based on the company data and decisions by other auditors using the same technology, e.g. a recommended mapping of trial balances accounts to a business process.
- 3) Technology provides an answer for the auditor e.g. selecting transactions considered fraudulent using black box AI developed solely from machine learning techniques.

For the first approach, audit documentation is less complex. As well as the core output of the process (the example above being a sample of transactions) an additional detailed reporting output can be defined which captures the logic applied at every step of the process. This is a clear example of how audit documentation can be produced to a far higher standard by technology.

For the second, while technology is supporting the audit process, the auditor retains the overall application of judgement and decision making. Thus, the conclusion an auditor arrives at should be comparable and justifiable with or without the recommendation by the technology. This remains true even where the recommendation evolves over time (the variation in this example would likely be the system learning from the human overrule and narrowing the gap between the recommendation and auditor's decision).

The third approach is the most challenging and appears the central basis of the FRC's consultation question. Where technologies such as AI make decisions and apply judgement as part of their role within an audit service, creating audit documentation which meets the re-performability requirements becomes more challenging. "Black box" machine learning poses a significant challenge to auditors, with the field of explainable AI rapidly evolving to attempt to address the interpretability problem.

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?

The discussion relating to this challenge appears to be somewhat of a hangover from legacy CAATs approaches and is far less pronounced in modern technologies.

Prior to cloud computing, executing CAATs on companies with even a moderate level of transactional volume challenged the computing capabilities available to auditors. It was common for a script to be designed and then left to run overnight. Only upon returning to work the next day would the auditor learn the results of their query.

Cloud computing now allows that feedback loop to complete in a matter of seconds, thus allowing auditors to explore and advance their techniques in real time.

The quality of data being analysed can also be an issue. On occasion the accounting system, or the way the company uses the accounting system, causes a greater volume of exceptions. A common example of this is often referred to as "batch journals", where data provided to an auditor groups related, or somewhat unrelated, transactions.



This is another example highlighting the importance of the process needed to obtain data from companies. It is critical to extract the right data as well as performing diligent transformation to reduce the level of false exceptions. An example of this is a proprietary technique within the Inflo platform which splits batch journals into the underlying individual transactions, improving the sophistication of data analytics that can be applied.

An important measure to address exception volumes is to run initial routines on interim data sets. This allows time for auditors to review results and discuss findings with client contacts early in the audit cycle. This increases their understanding of the company's business process accounting. It also identifies potential issues with the quality of the data, so remediation can be planned.

Advanced planning like this means the auditor can appropriately incorporate data analytical techniques into the overall audit approach based on the level of evidence these procedures will provide.

Performing data analytical procedures is an iterative process. A routine is designed based on the auditor's general understanding. Running the technique uncovers methods of accounting which were not fully understood. The auditor therefore reflects, understands, and revises their expectation to evolve the data analytic being performed. Rather than considering the downside of having to address the risk posed by large levels of exceptions, auditors should take strength from the new knowledge that alternative testing strategies, such as sampling or substantive analytics procedures, would likely be flawed.

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?

We do not agree that the use of third-party vendors necessarily raises potential additional ethical challenges for auditors. Often technology can provide clearer segregation both between the company and auditor as well as the auditor team and other service teams in the same firm or network.

Yet challenges can depend on the specific technology vendor and the solution they provide. One of the biggest challenges is where third-party technology vendors might be considered to over-market their solutions. This poses a challenge to auditors who adopt such a solution.

Before adoption, auditors must fully understand a technology's capabilities. What it contributes to the overall audit purpose, its limitations and how to proposition its benefits to both current and prospective clients.

By way of example, a technology vendor might make the claim to an audit firm their solution will find fraud 100% of the time when perpetrated in a company. The client of the audit firm might hear that same claim from the vendor, or from their audit firm sharing this messaging. This could create an unrealistic expectation in the eyes of stakeholders of the audit process.

Given such a guarantee would be impossible to achieve (acknowledging the complexity of fraud), the expectation created would be unrealistic and contradict the purpose and scope of an audit per current auditing standards.

This challenge is not limited to third-party technology vendors though. The FRC has previously identified gaps between the audit tender propositions of Big 4 firms when compared against the subsequent audit execution. The profession must be careful not to widen the existing expectation gap through excitable marketing about future technology opportunities.



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?

The greatest challenge is where technology vendors are unaware or unfamiliar with the documentation requirements of an audit and associated regulation.

Technology vendors know their solution's capabilities, but where they are inexperienced in audit services the onus is placed on the audit firm to solve issues such as audit documentation requirements regarding the role of technology. It is here where unexpected challenges can be identified, such as the ability to document "black box" AI decisions a solution is making.

Technology vendors with a strong understanding of audit services inherently design their solutions to operate effectively within the requirements of an audit. This means a greater focus placed on producing documentation auditors can rely upon. Meaning auditors can focus their time on training their staff and implementation rather than making the technology fit for the audit process.



Background to Inflo

Inflo is a high growth fintech company serving the audit and accounting profession. Inflo's technology provides streamlined, secure digital collaboration between accounting firms and their clients. Inflo also utilises financial data from the accounting system of an organisation to enhance the value of compliance and advisory accounting services, using techniques such as process mining, data analytics, advanced visualizations, machine learning and AI.

To find out more visit www.inflosoftware.com

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