



Technology Update:

Enhancing Audit Quality using Technology

February 2023

Purpose of this Publication

The purpose of this AUASB publication is to provide a brief summary of the existing technology guidance available on our website and to assist auditors in locating the publications that are most relevant to them.

Background

In our data-driven society, an ever-increasing reliance on technology is impacting entities and their auditors. Entities are becoming increasingly dependent on digital technologies and data as part of their governance and operations, and the application of this technology presents auditors with both opportunities and risks.

Therefore, technology is likely to have an impact on all audits. The extent of which will depend on various factors, such as the entity's industry, its level of innovation and the auditor's own experience and capability in addressing this issue. Audit procedures can be performed manually, through the use of automated tools or techniques (ATT), or a combination of both. ATTs are increasingly being utilised by auditors to analyse, filter, and sort large amounts of data. This may be part of risk assessment or the execution of additional audit procedures via substantive procedures or tests of controls.

Current Application of ATTs in Audits

ATTs are continuing to evolve. There are more traditional tools such as data analytics, or more advanced tools such as machine learning or artificial intelligence (AI) tools. The use of ATTs can be extremely effective and enhance the quality and efficiency of an audit - especially when an audit client deals with large volumes of data. However, it is essential that ATTs be utilised appropriately, or audit quality may be compromised.

Auditors must consider the risk that technology poses to entities as part of their risk assessment process, and they should exercise caution not to over rely on the information generated using technology. The requirements in ASQM 1¹ relate to the technological resources used in the performance of audits.

Recognising this issue, the IAASB, National Standard Setters (including the AUASB), professional accounting bodies and international regulators have issued multiple publications with guidance intended to assist auditors.

The AUASB have a dedicated page on our [website](#) with links to publications offering guidance to assist auditors.

¹ *Quality Management for Firms that Perform Audits or Reviews of Financial Reports and Other Financial Information, or Other Assurance or Related Services Engagements*



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AUASB Publications

For several years, the AUASB has convened a Technology Project Advisory Group (PAG) to advise the Board and AUASB staff on matters relating to technology and the audit process. PAG members are expert practitioners drawn from auditing firms, the professional bodies, auditor-general offices, and other stakeholder groups. The input of the AUASB's Technology PAG has helped develop the following local guidance relating to technology:

- AUASB bulletin [The Consideration of Cyber Security Risks in an Audit of a Financial Report](#) to assist auditors in evaluating the impact of cyber security on their audits.
- Guidance on evaluating the relevance and reliability of information to be used as audit evidence when using ATTs:
 - [Integrity of Data Obtained for the Purpose of an Audit of a Financial Report](#) which focuses on data integrity and addresses matters related to the collection and transformation of data by the auditor.
 - [Evaluating the Reliability of Data Obtained for Use in Audit Technology Tools](#) which focuses on evaluating the reliability of data collected by the auditor for use in an audit technology tool and the reliability of the evidence it provides.
- [ASA 315 and the Auditor's Responsibilities for General IT Controls](#) to assist auditors in understanding the role of General Information Technology Controls (GITCs) in the audit of a financial report and the auditor's responsibilities related to GITCs.

IAASB Guidance and Frequently Asked Questions

Like the AUASB's Technology PAG, the IAASB has a Technology Working Group which have issued a series of publications to assist with using ATTs and compliance with the Auditing Standards:

- [Audit Planning when using ATT](#) – the following FAQs are answered:
 - How does the possible use of ATT in an audit engagement affect planning activities?
 - Who may be involved in planning activities when ATT may be used in performing audit procedures?
- [Using ATT when Identifying Risks of Material Misstatement in Accordance with ISA 315²](#) – the following FAQs are answered:
 - What types of automated tools and techniques could be used in risk assessment procedures?
 - How can automated tools and techniques be used in performing risk assessment procedures?
 - How can automated tools and techniques be used to support the auditor's exercise of professional scepticism when performing risk assessment procedures?
 - Are there any special considerations to demonstrate the exercise of professional scepticism when using automated tools and techniques?

² ISA / ASA 315 *Identifying and Assessing the Risks of Material Misstatement*



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- How can automated tools and techniques be helpful when the auditor is considering the inherent risk factors in the identification and assessment of risks of material misstatement?
- What are the auditor's considerations regarding the use of machine learning or artificial intelligence by the entity when performing risk assessment procedures?
- What are the considerations in documenting the auditor's use of automated tools and techniques in performing risk assessment procedures?
- Audit Documentation when using ATT – provides guidance on:
 - ISA 230³ and other ISAs requirements relevant to audit documentation.
 - ISQM 1 requirements relevant to the nature and extent of documentation when using ATT that are approved by the firm as opposed to the use of ATT that have not been approved at the firm level.
- Performing Audit Procedures – the following FAQs are answered with examples:
 - Can an audit procedure involving the use of ATT serve as both a risk assessment procedure and a further audit procedure?
 - What are specific considerations when using ATT in designing and performing substantive analytical procedures in accordance with ISA 520⁴?
- Addressing Risk of Overreliance on Technology Arising from the Use of Automated Tools and Techniques and from Information Produced by an Entity's System – the following FAQs are answered with examples:
 - What are examples of biases that the use of technology, by either the auditor or the entity in providing information, might create?
 - How can firms help the auditor address automation bias and the risk of overreliance when using ATT?
 - How can the auditor address automation bias or risk of overreliance on the information provided by the entity which is produced by the entity's automated system?
 - How can the auditor address automation bias and risk of overreliance when using their own ATT?
- Investigating Exceptions and the Concept of Performance Materiality when Performing Audit Procedures using ATT – the following FAQs are answered:
 - When performing further audit procedures using ATT, is the auditor required to further investigate all exceptions identified, or are there circumstances when it may be appropriate to only further investigate a selection of the exceptions identified?
 - When using ATT in performing risk assessment procedures or when forming an overall conclusion, is the auditor required to further investigate all unusual items identified?
 - Does the concept of performance materiality still apply when an auditor performs an audit procedure using an ATT on an entire population?

³ ISA / ASA 230 *Audit Documentation*

⁴ ISA / ASA 520 *Analytical Procedures*



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Other Guidance Documents

In addition to the guidance developed by the AUASB Technology PAG and IAASB, the AUASB also collaborates with other National Standard Setters and Professional Bodies to identify other guidance which is useful to auditors regarding the use of technology.

- [Technology in the Audit \(The Canadian Public Accountability Board\)](#) explains how ATT can be used in the performance of an audit and to enhance audit quality by:
 - Analysing entire data sets; and
 - Accessing additional sources of relevant information, beyond entities accounting records which auditors can analyse.

There are practical examples of how ATT can be used in:

- Journal entry testing;
- Risk assessment (for example transaction walkthroughs, or three-way match);
- Substantive procedures (for example analysing data for exceptions); and
- Test of controls (for example assist with General Information Technology Controls testing by analysing how systems are configured and if they have changed over the period under audit).

This publication also includes guidance on compliance with Quality Management Standards (QMS)⁵ when using technology resources.

- [A CPA's Introduction to AI: From Algorithms to Deep Learning, What You Need to Know](#) (Chartered Professional Accountants Canada and AICPA) is an introductory guide to explain key terms, the evolution of data, AI and how it may impact audit.
- [The Data-Driven Audit: How Automation and AI are Changing the Audit and the Role of the Auditor](#) (Chartered Professional Accountants Canada and AICPA) builds on the previous document and explains:
 - The benefits of an AI enabled audit and how AI will evolve the audit and role of the auditor;
 - Auditing in the future and the need for changing skill sets; and
 - Assurance-related opportunities as a result of these advancements.

This publication includes examples of how automation and AI may be used during the audit and how this may benefit audit quality, as well as how this may create challenges for auditors and may reduce audit quality.

- [Addressing Exceptions in the use of Audit Data Analytics](#) (Financial Reporting Council UK) provides general principles for dealing with outliers (exceptions) to respond to identified risks in an audit. A large number of outliers may be due to poorly defined parameters and this publication includes considerations when refining expectations when using ATT and addressing outliers.
- [Auditing Crypto-Assets](#) (CPA Canada and Canada's Audit and Assurance Standards Board) provides guidance on issues to consider when auditing crypto-assets:

⁵ The QMS are: ASQM 1 *Quality Management for Firms that Perform Audits or Reviews of Financial Reports and Other Financial Information, or Other Assurance or Related Services Engagements*, ASQM 2 *Engagement Quality Reviews and ASA 220 Quality Management for an Audit of Financial Statements*.



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- Are tests of controls needed regarding the ownership assertion?
- Relevance and reliability of information from a blockchain

Next Steps

For further information refer to the Technology Implementation Support page on the AUASB Website available at: <https://www.auasb.gov.au/implementation-support/technology/>.

Stakeholders are encouraged to share questions or additional feedback on this topic, including suggestions for additional guidance areas the AUASB should consider regarding the use of technology in an audit. Please send any comments to the AUASB at enquiries@auasb.gov.au.