cpab exchange

The use of artificial intelligence in the audit — balancing innovation and risk

Significant advancements in applications leveraging artificial intelligence (AI) technologies have emerged over the past few years. While these technological advancements have the potential to significantly improve the efficiency, accuracy and insights of the audit, they also create risks that must be effectively managed.

The Canadian Public Accountability Board (CPAB) has observed that the adoption of AI technologies in audit tools is in its early stages, with limited implementations noted in the public company audit files we have inspected to date. We anticipate an increased use of AI-enabled tools in the near future.

This publication offers an overview of our observations on how AI could enhance audit quality and outlines how we expect audit firms and auditors to manage the risk relating to using these tools.

Key takeaways relating to the use of AI in the audit

As the use of AI-enabled tools increases, auditors still need to employ a human-led approach when performing an audit. We expect audit firms to set policies around the responsible and appropriate use of AI-enabled tools, including certification testing of these tools, before they are used in audits. We also encourage audit firm leadership to continue to expand monitoring programs for AI-enabled tools. This could include in-flight reviews and gathering other relevant information to evaluate the overall impact on audit quality.

Auditors utilizing AI should:

- Maintain a heightened level of professional skepticism, and not rely solely on AI-generated conclusions.
- Consider the risks, limitations and potential bias associated with each AI-enabled tool.
- Participate in ongoing training to effectively use and interpret AI outputs.
- Adhere to firm policies regarding AI-enabled tool use.
- Evaluate ethical considerations related to the use of AI.

Potential benefits of AI-enabled audit tools

AI-enabled tools have the potential to quickly process information, enabling auditors to focus their time on the more complex and judgment-based aspects of an audit. These audit tools also enable comprehensive analysis of large datasets that can assist auditors by providing detailed insights into the entire population being tested. Other potential AI use cases[1] include: analytic tools that assist with identifying high-risk transactions; document summarizers or contract readers; first draft creators that utilize firm guidance and templates; documentation reviewers that identify inconsistencies in work performed; and chatbots that can assist with researching standards and other guidance.

Roles and responsibilities relating to the use of AI-enabled tools

One of the key objectives of AI-enabled tools should be to improve audit quality. To achieve this, audit firms must effectively manage risks at both the firm-level and engagement-level. The scope and extent of the monitoring processes will vary based on the nature and circumstances of the audit firm, its engagements and the AI-enabled tools utilized.

Firm-level roles and responsibilities

The Canadian Standard on Quality Management (CSQM) 1 outlines a comprehensive framework for managing quality within an audit firm. The standard mandates that each audit firm establish policies and procedures to ensure that all technological resources (including AI tools) function as intended and generate reliable outputs.[2]

Specific responsibilities of audit firm leadership include:

- Developing policies, processes and guidance on the appropriate use of AI-enabled tools for individual audit engagements, and monitoring compliance. For example:
    - Ensuring that AI-enabled tools are programmed to follow relevant ethical guidelines and frameworks. This could include an assessment of the ethical parameters defined by the programmers and developers of the tool.
    - Establishing guidance to assist auditors to comply with all relevant ethical and professional standards when using firm certified AI-enabled tools.
- Certifying and testing all tools in accordance with CSQM 1 standards.[3] This includes assessing the accuracy and reliability of the tool as well as risks associated with use.[4]
- Managing deployment and use of tools used by auditors, including providing relevant training prior to use.
- Monitoring usage patterns, functionality and ensuring tools used are fit for purpose. This includes

> AI tools lack the capacity for ethical reasoning. As such, AI tools may use incorrect or inappropriate assumptions, creating fictitious citations or support, facilitating unauthorized voice cloning, etc. These risks need to be carefully managed by the firm.

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[1] These examples are not intended to represent a comprehensive list of AI-enabled tools available to auditors.

[2] CSQM 1 paragraph 32(g).

[3] This requirement is irrespective of whether the tool is developed globally, locally or by a third party. For off-the-shelf tools, firms should consider whether a system and organization controls (SOC) 2 report over the information technology general controls is available.

[4] CSQM 1 paragraphs 32(g), A98-A104.

identification of issues or risks that arise when the tool is used by auditors.

- Ongoing evaluation and monitoring of the impact that AI-enabled tools have on audit quality.

Common development models for AI-enabled tools

The development of AI-enabled tools can take various forms. We have observed the following development models to date:

- A global audit firm network may create an AI-enabled tool for use by local member firms. The global network handles development, testing, certification and distribution of updates. The local member firm certifies the globally developed tool before deploying locally.
- An audit firm develops or has a third party develop an AI-enabled tool, that utilizes a third-party generative pre-trained (GPT) large language model.
- An audit firm may license a third-party, off-the-shelf AI-enabled audit tool for integration into its audit processes.

Privacy and confidentiality

The integration of AI in auditing also introduces significant risks related to the handling, access to and distribution of sensitive information. This includes the risk that the AI or underlying algorithm could use data input by auditors without the knowledge or explicit consent of the individuals involved. Audit firms should ensure that they have considered requirements relating to confidentiality, including how to mitigate risks associated with unintentional sharing of confidential information inside or outside of the audit firm. Audit firms also need to ensure that data processed by AI-enabled audit tools complies with the relevant legal, ethical, firm and professional standards.

Auditor roles and responsibilities

Auditors should be able to explain the purpose and function of any AI-enabled tools utilized within their audit files. This understanding is essential to maintain control over the audit process, even if the tool leverages advanced technologies. Auditors using AI-enabled tools should:

- Participate in training to understand the capabilities and limitations of the AI-enabled tool being used.
- Determine whether the tool is appropriate, based on the specific facts and circumstances of the audit engagement.
- Test the completeness and reliability of the underlying data being used by the AI-enabled tool.
- Review the output of the AI-enabled tool to ensure it captures the specific facts and circumstances of the audit and to remain skeptical of any underlying bias that may exist.
- Verify the accuracy of any reference to, or interpretation of, professional standards, firm guidance or other methodology that was obtained by querying a GPT language model.

> **Example: Using AI in an audit**
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> An auditor uses an AI-enabled tool to summarize a revenue contract, compare the terms to the related accounting standards and the audit firms' interpretive guidance.
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> To manage the risk associated with using the tool, the auditor should compare the extracted data to the original contract, ensuring completeness and accuracy of the information and that all relevant information has been appropriately captured. They should also review the guidance referenced and consider whether other standards or guidance are appropriate, given the facts and circumstances. The auditor should determine whether consultation with the audit firm's subject matter experts is needed.

Risks associated with the use of AI-enabled tools

Audit firms using AI-enabled tools need to ensure they have a clear understanding of the underlying technology. This includes understanding the AI-enabled tool's limitations, bias, and interpretive nuances. In CPAB's Audit risk alert – Use of artificial intelligence applications in the audit, we highlighted that firms must implement safeguards to manage risks such as reliability, explainability and confidentiality to maintain audit quality.

Risks that should be considered by auditors using AI-enabled tools inlcude:

Overreliance and bias

Canadian Auditing Standards (CAS) define professional skepticism as "an attitude that includes a questioning mind, being alert to conditions which may indicate possible misstatement due to error or fraud, and a critical assessment of audit evidence."[5] Auditors using AI-enabled tools could become overly dependent on the technology, leading to decreased critical thinking and professional skepticism.

Audit firm leadership needs to emphasize the importance of human oversight and that AI-enabled tools are designed to enhance, but not replace the professional judgement that is applied by auditors. Professional development should be provided to on how to exercise professional skepticism when using AI-enabled tools and how to effectively challenge conclusions reached.

> An AI-enabled tool may perform inaccurate or inappropriate analysis due to bias that were present in the training data. For example, a fraud detection tool might disproportionately flag transactions from certain demographics if the underlying training data was biased to do so.

Explainability and transparency

The explainability of AI algorithms continues to be an area of concern. Many AI models operate as "black boxes" where the decision-making process is not transparent. This can make it difficult to understand and explain AI-driven decisions. Since continuous learning is a staple of many large and small language GPT data models, we

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[5] CAS 200, paragraph 13(l).

expect audit firms to obtain an in-depth understanding of how the AI algorithm was trained, tested and how it comes to conclusions reached. Audit firms will also need to have effective monitoring to assess how programming changes, new data or additional learning by the underlying GPT will be deployed into the audit tools and applications that use them.

Looking ahead

The integration of AI-enabled tools into the audit has the potential to enhance both audit quality and efficiency. CPAB encourages audit firms to continue to assess their policies and oversight mechanism regarding the use of AI in audits. This includes ensuring that AI decision-making is both transparent and accountable. We will continue to monitor the application of these technologies through our inspections and will share our observations through various communications, including our annual and interim inspections results. For more information refer to our website.

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