



Meeting: Stakeholder Advisory Council (SAC)
Meeting Location: New York
Meeting Date: November 4–5, 2024

Agenda Item 2

Technology and Its Impact on Audit, Assurance and Ethics

Introduction

1. Industries worldwide are operating in a rapidly evolving technological landscape in which technologies available to entities and their assurance providers are developing at an unprecedented rate. This poses both opportunities and challenges to the quality of financial and other external reporting which underpins the efficiency of capital markets.
2. The emergence of disruptive technologies is profoundly affecting the roles of accountants, auditors, and professionals in finance and advisory sectors, including ethical challenges around the responsible use of these technologies in the public interest.

The Role of Standard Setters in a Rapidly Evolving Technology Landscape

3. The section describes the status of the respective technology-related initiatives of the two standard-setting boards, the International Ethics Standards Board for Accountants (IESBA) and the International Auditing and Assurance Standards Board (IAASB).
4. Both standard setting boards recognize the strategic importance of continuing to work collaboratively on common matters, including technology, for the purpose of developing global standards that are fully interoperable.

IESBA

5. Technological innovation is transforming the world of business and professional services in ways we would never have imagined a decade ago. In response to the ways in which disruptive technologies have profoundly affected the roles of professional accountants, the IESBA implemented several workstreams (2019-2022) that focused on the impact of technology-related advancements on ethical behavior. The insights and recommendations arising from such work are detailed in the IESBA's Technology Working Group's [Phase 1](#) (2019-2020) and [Phase 2](#) (2021-2022) Reports, which served to inform the [Technology-related revisions](#) to the Code, effective from December 15, 2024. The revisions, and related guidance materials, were informed by extensive fact-finding work and outreach to stakeholders.
6. These revisions enhance the robustness of the Code and expand its relevance by directing the ethical mindset and conduct of professional accountants in both business and public practice as they leverage opportunities created by technology. They draw special attention to professional competence and due care, and confidentiality, which are exposed to new threats in the digital era.

With respect to technology-related non-assurance services, the International Independence Standards have been revised to strengthen and clarify when technology-related non-assurance services can be provided to an audit or assurance client.

7. The IESBA recognizes that technology remains a significant strategic factor¹ capable of impacting the ethical behavior of professional accountants. Therefore, it is in the public interest for the IESBA to keep a close watch on the transformative impacts of technology and identify any emerging ethical issues that may arise.
8. In June 2023, the IESBA embraced a comprehensive four-pillar strategy to keep track of technological advancements. This approach includes internal board education, environmental scanning, ad-hoc analysis of technology's effects on other IESBA workstreams, and supporting the implementation of the IESBA's Technology Working Group Phase 2 Report recommendations.

IAASB

9. The IAASB approved its [Technology Position](#) at its September 2024 meeting. This is a major milestone, delivering on a key commitment in the [IAASB's 2024-2027 Strategy and Work Plan](#) to establish a Technology Position that guides the Board's activities to address the impacts of technology.
10. The approval represents a strategic shift for the IAASB at a time when industries worldwide are leveraging technological tools to extract valuable insights from data. The IAASB recognizes technology's transformative potential, including its potential to expand the frontier of engagement quality. As a result, the IAASB is moving away from a neutral stance—a stance that neither promoted nor discouraged the use of technology—and is now committing to facilitate and, where appropriate, encourage the use of technology by firms, in their systems of quality control, and practitioners in their engagements.
11. The IAASB's Technology Position outlines eight guiding actions to deliver on this commitment, including:
 - Embracing technology-driven innovations by firms and practitioners; and
 - Maintaining scalability and proportionality in our standards.
12. Embracing innovations in engagements means the IAASB will evolve its standards to accommodate new and innovative ways of achieving engagement quality. Meanwhile, maintaining scalability and proportionality in the standards means that the IAASB will not mandate the use of technology in engagements where traditional testing methods remain adequate to achieve engagement objectives.

Strategic Input from the SAC

13. The strategic question for the SAC is on the roles of the IAASB and the IESBA, as standard setting boards, to establish guardrails around the use of technology (including, for example, black box technologies like generative artificial intelligence to more widely-used technology applications like Application Protocols Interfaces, APIs) with the aim of serving the public interest. Leaders at firms may argue that the standard setting boards do not have sufficient expertise, may inhibit innovation unintentionally, or that it goes beyond the remit of principles-based standards, to address the use of

¹ [IESBA Strategy and Work Plan, 2024 - 2027](#)

technology in engagements. In contrast, regulators may argue that the standard setting boards should indeed be setting standards about the responsible use of technologies in the public interest, even if those standards could potentially interfere with the commercial objectives of firms.

1. *What should the role of the standard setting boards (IAASB and IESBA) be in setting guardrails around the responsible and ethical use of technologies by professional accountants and assurance practitioners?*

Modernizing the IAASB's Standards

14. One of the drivers of the IAASB's decision to pause the finalization of Proposed ISA 500 (Revised)² was a recognition of the need to develop a Technology Position before approving that proposed standard. The decision was responsive to feedback from stakeholders to develop a coherent framework for integrating technology-related considerations when revising its standards.
15. The technology-related aspects of the broader Audit Evidence and Risk Response project are intended to meet the IAASB's objective of enhancing the quality and consistency of practice in the rapidly evolving technology landscape.
16. In addition, to the Audit Evidence and Risk Response project, the IAASB intends to start other projects that address technology related matters in the ISAs. These projects could address the IAASB's quality management standards and other audit evidence related standards (e.g., related to external confirmations and audit sampling).

How the Evolving Technology Landscape Impacts Audit Evidence

17. The amount of data³ generated each year has grown exponentially since 2010, increasing from 2 zettabytes in 2010 to a predicted 181 zettabytes in 2025⁴, and the number of different sources of information produced and used by entities has also increased. There has also been an increase in the marketplace in the number of technological resources available, which auditors and assurance practitioners can use in performing a range of different activities in their engagements. These range from simple and inexpensive add-ons to Microsoft Excel to more sophisticated and costly applications, which use artificial intelligence to facilitate or even perform tasks that would otherwise be performed by a staff member.⁵ More recently, discussions suggest that the potential use of generative artificial intelligence and large language models in engagements may extend from summarizing and evaluating a range of entity-information such as minutes from meetings; to identifying areas of focus needed in audit documentation to enhance its quality.
18. The rapidly evolving technology landscape is therefore impacting the way that engagements (audit engagements in particular) are performed. Even in smaller and less complex engagements, or in

² Proposed ISA 500 (Revised), *Audit Evidence*

³ Data and information are often used interchangeably to refer to recorded information, regardless of its form or the medium on which it is recorded.

⁴ Source: [Statista](#)

⁵ For example, some applications can extract information from electronic documents and generate audit documentation, comparing that information to the details contained in respect of those documents in the entity's general ledger; or others may involve an automated cross-referencing of numerical data in the primary statements to their note disclosures ('footing' or 'tie-out' of financial statements).

jurisdictions with more pronounced variability in the access to technological resources for use in engagements, it is not uncommon for auditors to obtain access to entire datasets from an entity's general ledger and interrogate the extent to which each item in the dataset meets certain auditor-determined criteria. For example, identifying unusual times in which entries are posted, identifying out-of-sequence transaction numbers, or even determining whether each entry also contains other expected associated information, such as a purchase invoice having an associated purchase order number recorded. The ease with which such activities can be performed is contributing to a shift in perceptions about how auditors should plan to perform their engagements, including how they might design and perform procedures, to satisfy the objectives of an audit engagement.

19. The Audit Evidence and Risk Response project's objective to facilitate, and where appropriate, encourage the use of technology in obtaining and evaluating audit evidence, is intended to clarify some of these questions. Achieving this objective requires the IAASB to have a fully informed perspective on how technology may impact the way that audit engagements are performed now and how they may be performed in the future.

2. *At a strategic level, how else might technology impact the way that audit engagements are performed, and audit evidence is obtained?*

Risks and Opportunities of Changing the Standardized Nature of the Audit Evidence Gathering Activities

20. A further consequence of the increased use and availability of different technological resources to auditors, is a questioning of the continued relevance of some of the more fundamental concepts in the auditing standards, including the standardized nature of audit evidence gathering activities.

The Standardized Nature of Audit Evidence Gathering Activities Explained

In an audit, an auditor performs procedures to identify and assess risks of material misstatement, and then designs and performs procedures that respond to those assessed risks. As a result, the auditor's procedures to gather audit evidence include risk identification and assessment procedures and procedures performed in response to those assessed risks. These may include tests of controls, substantive procedures, or a combination of both. Tests of controls alone are not a sufficient response to risks of material misstatement.

The ISAs define tests of controls as procedures performed to evaluate, and obtain evidence of, the operating effectiveness of controls in preventing, or in detecting and correcting, material misstatements. They define substantive procedures as those designed to detect material misstatements, and separately identify two classes of substantive procedures: tests of detail, and substantive analytical procedures.

Tests of detail often include selecting a sample of items from a population and performing procedures to test the appropriateness of each item: these commonly form the basis of auditors' responses to assessed risks.

21. Because of the increased processing power of technological resources, and the increased number of, and creativity in, IT applications available to facilitate auditors' work challenged the resulting rigidity in the delineation between categories of procedures. The following examples of questions raised by stakeholders illustrate these challenges:

- (a) When populations of transactions can now include billions of individual items, and audit sampling is unlikely to be an effective or efficient response to an assessed risk in that population, how might technological resources facilitate obtaining audit evidence?
 - (b) When an IT application can enable the auditor to evaluate for 100% of a population whether each item meets certain auditor-determined criteria: is this a risk assessment procedure or is it a substantive procedure (test of detail)?
 - (c) When an IT application can enable the auditor to evaluate for 100% of a population whether an IT control that would prevent a misstatement in that population has operated as designed: what is the intended benefit of also performing a substantive procedure on the population (as required by the auditing standards today)?
22. On the other hand, a standardized process of audit evidence gathering activities enables auditors to obtain audit evidence in a structured way and the standardized process is well known by practitioners.
23. These, and other related questions, reinforce the need for modernizing the ISAs and they also open a path to re-evaluate the extent to which the standardized nature of audit evidence gathering activities remains future-proof in light of the continuously evolving technology landscape. However, it is essential for the ISAs to remain globally operable and capable of consistent implementation, across jurisdictions with varying access to technological resources, and for entities who themselves use technology to varying extents. In this context, it is essential for the IAASB to fully understand the risks and opportunities that arise from re-evaluating the standardized nature of audit evidence gathering activities.

3. *What are the risks and opportunities of the increased creativity and processing power of IT applications on the standardized nature of the audit evidence gathering activities?*

Expectations About Auditor Responsibilities, Given the Importance of an Effective System of Internal Control in an Entity

24. In parallel to the considerations about the impact of technology on the audit process, questions also arose about the quality of work performed by auditors relating to internal controls. Inspection findings recurrently found that tests of controls were not designed and performed in all circumstances it might have been appropriate to do so. They also highlighted that when internal control testing was performed, it was not consistently performed in a way that provided sufficient appropriate evidence about the operating effectiveness of controls. Moreover, when tests of controls provided evidence that controls were not operating effectively, auditors were not consistently adjusting their risk assessment and further audit procedures in response. In light of these recurring matters, the IAASB is exploring whether the ISAs contain unintentional limitations to their practical and consistent application, or may be insufficiently clear about the auditor's responsibilities relating to internal controls.
25. It is an entity's responsibility to design, implement, and monitor the effectiveness of a system of internal control related to financial reporting. Under the ISAs, an auditor is required to obtain an understanding of such a system to inform their risk identification and assessment. In doing so, the auditor may identify controls that, if operating effectively, could reduce an assessed risk of material misstatement.

26. However, the ISAs do not currently require the auditor to test the operating effectiveness of those controls in an entity, unless:
- (a) The auditor intends to design substantive procedures based on a risk assessment that includes an expectation that controls are operating effectively; or
 - (b) The nature and circumstances of the entity indicate that substantive procedures alone would not provide the auditor with sufficient appropriate evidence that the financial statements are free of material misstatement.

The auditor may nonetheless decide to test the operating effectiveness of controls in other situations.

27. Unlike certain standards issued by other standard-setting bodies that apply to reflect the legislative and regulatory requirements of specific jurisdictions, the ISAs do not require the auditor to form an opinion on the operating effectiveness of controls over financial reporting when forming an opinion and issuing a report on the truth and fairness of financial statements. Importantly, the IAASB is not contemplating an expansion in the scope and objective of an audit of financial statements that would require such an opinion.
28. What the IAASB is considering instead is how to clarify its requirements to better support their consistent application. In particular, it is seeking to identify circumstances which should indicate to an auditor that they would be unable to obtain sufficient appropriate audit evidence to support their opinion, if they did not obtain evidence that the entity's controls were operating effectively.
29. The positive relationship between entities' internal processes, the robustness of their system of internal control, and the generation of high-quality information, indicates that there is a public interest in entities maintaining a sound system of internal control. Because of this, there appears to be a mirrored public interest for auditors to test the operating effectiveness of controls in certain situations, to support opinions issued on financial statements. In this context, the IAASB is seeking perspectives on stakeholder expectations about the work effort on internal controls that is perceived as necessary to allow an auditor to conclude that financial statements are free from material misstatement.

<p>4. <i>What should the auditor's role be relating to internal control, in light of the public interest in entities having an appropriate system of internal control?</i></p>
--

Way Forward

30. In December 2024, IAASB staff will present the Board with:
- (a) Progress made on the gap analysis envisaged in the IAASB's Technology Position, for discussion; and
 - (b) A project proposal on a concurrent revision of standards relating to audit evidence and risk response, including a focus on technology and internal controls, for approval.

Material Presented

Agenda Item 2.1 Presentation: Technology and its impact on Audit, Assurance and Ethics

For Reference

- [https://www.ethicsboard.org/_flysystem/azure-private/2024-09/Agenda Item 5A - Firm Culture and Governance Working Group Preliminary Report.pdf](https://www.ethicsboard.org/_flysystem/azure-private/2024-09/Agenda%20Item%205A%20-%20Firm%20Culture%20and%20Governance%20Working%20Group%20Preliminary%20Report.pdf)
- The IAASB's [Technology Position Statement](#)
- The [Draft Proposal for a Project to Revise Standards relating to Audit Evidence and the Auditor's Responses to Assessed Risks of Material Misstatement](#), presented to the IAASB in September 2024.