

Meeting: IESBA

Meeting Location: Hybrid

Meeting Date: March 14-16, 2022

Agenda Item

3

Technology Fact Finding and Thought Leadership (Update)

I. Objective

1. To receive an update on the Working Group's¹ activities.

II. Recap of Working Group's Remit

2. Established March 2021, the Working Group is intended to:
 - Undertake fact finding to identify and assess the potential impact of technology developments² on the accounting profession in relation to ethics and independence.
 - Develop or facilitate the development of technology-related thought leadership and other materials in relation to ethics and independence for professional accountants (PAs) and the wider stakeholder community.

III. Activities since Last IESBA Meeting

Recap of December 2021 Discussions

3. The IESBA received an update from its Technology Working Group on the Working Group's Q4 2021 activities related to fact finding and the development of technology-related thought leadership and other ethics and independence resources. In particular, the IESBA was briefed on the Working Group's efforts to set up an external Technology Experts Group³ (TEG) comprising individuals with expertise and practical experience in technology to provide input to the Working Group.
4. An IESBA member questioned whether the TEG would provide input to inform the development of proposed revisions to the Code (i.e., the work of the Technology Task Force). During the meeting,

¹ The Working Group comprises:

- Brian Friedrich, Chair, IESBA Member
- Vania Borgerth, IESBA Member
- Christelle Martin, IESBA Member
- David Clark, IESBA Technical Advisor
- Sundeep Takwani, Working Group Member
- Johanna Field, IAASB Correspondent Member

² The fact finding focus areas include those covered in Phase I (i.e., artificial intelligence (AI), big data, and data analytics), as well as other technology-related topics such as blockchain, cybersecurity, and internet of things (IoT).

³ The TEG was previously referred to as the "Technology Advisory Group" in the IESBA September and December 2021 agenda papers. The new name "Technology Experts Group" is intended to avoid duplication and potential confusion with the existing IFAC Technology Advisory Group, and will also better reflect the nature and objective of the new group (i.e., provide subject matter expertise/ act as a sounding board to the Working Group).

the Working Group Chair advised that the TEG will act as a sounding board to the Working Group, especially in relation to fact finding. Consistent with the approach taken in the development of the Exposure Draft (ED): [Proposed Technology-related Revisions to the Code](#), the Working Group will continue to provide relevant insights and observations to the Technology Task Force, including any relevant perspectives that are put forward by the TEG. In this regard, regular meetings will be held between the Working Group and the Technology Task Force to facilitate timely interactions in 2022.

IV. Matters for IESBA Information

A. IESBA Technology Experts Group (TEG) Members

5. In September 2021, the IESBA supported the Working Group's recommendation to establish an IESBA TEG consisting of members with practical experience using or implementing technology to act as sounding board for the Working Group's work. In this regard, the Working Group is pleased to present the eight TEG members at **Appendix 1**.
6. The TEG will be supported by staff of the Accounting Professional & Ethical Standards Board (APESB), and its first meeting will occur in advance of the June 2022 IESBA meeting. The focus of that first meeting will be to discuss the questions in Working Group's [briefing paper](#), and to provide input on the key themes identified from the Working Group's fact finding through early April 2022. TEG members' perspectives will further inform the Working Group's final report.

Summary of Approach to Identify and Select TEG Members

7. In October 2021, the Working Group invited the IESBA National Standard Setters (NSS) Liaison Group to nominate qualified candidates for the Working Group to consider as possible TEG members. Specifically, NSS were asked to put forward:
 - Potential candidates for TEG membership, including brief biographies and a discussion of how those candidates meet the Working Group's specified criteria; and
 - Staff resources and/ or a co-chair⁴ to support the activities of the TEG.
8. In addition, the Working Group invited suitably qualified individuals who had previously participated in its outreach activities to put their names forward for consideration. Candidate interviews were conducted in January to February 2022. In finalizing its decision on the TEG membership, the Working Group considered the membership criteria set out in **Appendix 2**,⁵ as well as the level of practical experience and type of technology exposure of each candidate. There was also consideration given to the jurisdiction⁶ and stakeholder group mix of the new group.

⁴ The Working Group Chair will also chair the TEG. The Working Group will assess whether to appoint a TEG co-chair (i.e. another TEG member) after the second TEG meeting.

⁵ Appendix 2 provides a description of the characteristics and an overview of TEG member responsibilities.

⁶ In considering the jurisdictional perspective of the candidates, the Working Group noted that in some instances, these perspectives span more broadly than where the candidate is physically located.

B. Update on Fact Finding

Targeted Outreach Activities

9. Since the December 2021 meeting, representatives of the Working Group conducted four targeted outreach meetings/ events with representatives from the following stakeholder groups.⁷

Technologists:

- [Consensys](#) - [Professor Monica Singer](#), South Africa Lead at and Board member of the [Accounting Blockchain Coalition \(ABC\)](#).⁸ Consensys is a blockchain technology company that builds Ethereum blockchain infrastructure and applications, and enables developers, enterprises, and people worldwide to build next-generation applications, launch modern financial infrastructure, and access the decentralized web.
- [Savannah](#) – [Noah Baalessanvu](#), Head of Technology. Savannah is a digital transformation company in Uganda providing technology solutions and advisory services towards Africa's growth and transformation. It leverages innovation, emerging technologies and modern management practices to enable digital transformation in businesses, governments and development organizations.

Non-governmental Organization:

- [World Economic Forum](#) (WEF). [Kay Firth-Butterfield](#), Head of Artificial Intelligence (AI) & Machine Learning and Member of the Executive Committee. The mission of WEF is to engage political, business, cultural and other leaders of society to shape global, regional and industry agendas. WEF is also [committed](#) to helping ensure that AI and machine learning systems emphasize privacy and accountability, and foster equality and inclusion.

Public Sector Organizations and Professional Accountants in Business (PAIBs):

- [Treasury Board of Canada Secretariat and the Immigration and Refugee Board of Canada](#), [Monia Lahaie](#), Assistant Comptroller General of the Treasury Board of Canada and [Roger Ermuth](#), Executive Director and CFO of the Immigration and Refugee Board of Canada (Former Assistant Comptroller General of the Treasury Board of Canada). The Treasury Board of Canada Secretariat provides advice and makes recommendations to the Treasury Board committee of ministers on how the government spends money on programs and services, how it regulates and how it is managed.
- [National Audit Office of Tanzania](#) - [Sandra Chongo](#), Senior Auditor. Also a blockchain trainer and author.
- [HRL Morrison & Co](#) – [Mark Goodrick](#), Head of Finance and Operations, and [Chris Redpath](#), Group Financial Controller. HRL Morrison is an asset manager with total funds under

⁷ To allow for a frank dialogue, outreach participants were informed that none of their comments would be specifically attributed to them or their organizations, but rather would be aggregated with the sum of the Working Group's outreach and evaluation thereof.

⁸ ABC is led by a Board of Directors comprised of representatives from Industry leaders in the accounting, law, tax, technology and higher education. It is dedicated to educating businesses and organizations on accounting matters relevant to digital assets and distributed ledger technology, including blockchain.

management of over US\$ 14 billion, focusing primarily on infrastructure, private equity and property investments.

Key Themes Arising from Q1 Targeted Outreach

10. The Working Group observed that the themes arising from its Q1 2022 outreach meetings/ events were consistent with those observed in past outreaches to date.⁹ In particular, specific examples included:
- The ongoing pandemic has accelerated digitalization in many entities. Technologies that are most commonly being implemented include:
 - Robotic process automation and artificial intelligence (e.g., for invoice scanning and predictive forecasting, respectively), and
 - Cloud-based software as a service.
 - PA involvement in the implementation of technology is more significant in smaller entities, whereas in larger entities, it tends to be the IT department that drives such implementation. Controls over data integrity are critical when implementing technology and PAs can and should be playing a more significant role in this area.
 - The procurement of AI is an important area for entities implementing AI; and PAs should understand and have the ability to ask the “right” questions so that appropriate and fit-for-purpose AI is procured. Practical guidance and “best practices” specific to stakeholder groups (e.g., the [WEF toolkit for Board of Directors](#)) can help educate PAs and other stakeholders about the appropriate questions to ask.
 - When a company is considering the use, implementation or development of technology, PAs should already be involved at the conceptualization stage, so that ethics can be considered upfront. In this regard, technology-related upskilling is key for PAs to remain relevant in the future, have a seat at the decision-making table, and be able to determine whether reliance on technologists is reasonable.¹⁰ It is anticipated that there will be a need for multidisciplinary teams to prepare and present reliable financial information as it will be the technologists with the in-depth technology expertise and the PAs with the knowledge of the business, risks and controls.

C. Update on Thought Leadership and Other Materials, including Collaboration

11. As previously communicated and in accordance with its [Terms of Reference](#), the Working Group continues to actively contribute to and facilitate the development of thought leadership and other

⁹ The IESBA was briefed on the Working Group’s work in December 2021. In particular, the Working Group Chair highlighted the key themes arising from the fact finding as of December 2021 (see IESBA Meeting, [Agenda Paper 4](#)).

¹⁰ These observations were previously communicated to the IESBA and formed part of the Board’s considerations in developing the February 2022 Technology Exposure Draft (ED) (see paragraphs 113.1 A1, 220.7 A2 and 320.10 A2 of the proposed text in the [Technology ED](#)).

resource materials with IFAC and other professional accountancy organizations and independent NSS.

12. **Appendix 3** provides an overview of such materials, which are at varied stages of development, including the completion/ planned release date for each publication.

D. Coordination with Technology Task Force and IAASB

13. In progressing its work, the Working Group continued to regularly liaise with the IESBA Technology Task Force through IESBA staff. As outlined in paragraph 4, regular coordination meetings will be held between the Working Group and Task Force to facilitate timely interactions. During Q1 2022, the Working Group provided relevant insights and observations to inform the development of the Explanatory Memo that accompanied the Technology ED.
14. Regular coordination with the IAASB occurs through the IAASB correspondent member's regular participation in the Working Group meetings, as well as staff liaison meetings as necessary.

V. Next Steps

Outreach Planned for Q2 2022

15. In anticipation of developing a preliminary draft report for IESBA's consideration in June 2022, the Working Group plans to wind down most of its outreach activities by May 2022. Future outreach meetings planned/ being sought include:
 - Participation in the IFAC's International Panel of Education (IPAE) quarterly meeting to consider the questions in the Working Group's [briefing paper](#).
 - Regional multi-stakeholder event to be hosted by the Inter American Accounting Association (IAAA).
 - A larger, regional multi-stakeholder event to be hosted by the Pan African Federation of Accountants (PAFA).
 - Two or three additional targeted meetings with technologists and TCWG.

The perspectives from these outreach events will inform the Working Group's fact finding report, which is anticipated to be presented to the IESBA in September 2022.

Final Report on Fact Finding

16. The Working Group will present its final fact finding report to the IESBA in September 2022.

VI. Action Requested

17. The IESBA is asked to note and react to the various matters for information in this paper.

IESBA TEG Members – As of February 2022

TEG Member	Jurisdiction perspective	Stakeholder perspective	Technology focus ¹¹ area
Jason Bradley , Project Director, Audit and Assurance Policy, at the Financial Reporting Council. Responsible for a number of FRC papers and guidance on the use of technology in audit .	UK	NSS	AI, data analytics, blockchain
Mary Breslin , President at Verracy , a consultancy firm which provides consulting and training services to organizations around risk management, internal audit, data analytics, ethics and compliance.	North America	CIA, CFE, Consulting	Data analytics, blockchain, RPA, IoT
Danielle Cheek , Vice President of Strategy and Industry Relations at MindBridge AI . MindBridge develops AI and machine learning software to help organizations detect anomalous patterns of activities, unintentional errors and intentional financial misstatements.	North America	PAIB, PAPP-SMP, Academic	AI, data analytics, blockchain, RPA
Muhammad Fahad Riaz , Founder of Maglytic , a data science consultancy start-up based in the Middle East.	Middle East	PAIB	AI, data analytics, RPA
Clinton Firth , Partner, Global Cybersecurity Energy Industry leader at EY	Middle East	Consulting	AI, data analytics, cybersecurity, RPA, IoT
William Gee , Partner, Innovation and Digitalisation, PwC Mainland China and Hong Kong	Asia	PAPP-Big4, Consulting	AI, data analytics, blockchain

¹¹ As per self-assessments received from TEG members and discussed during the interview process.

TEG Member	Jurisdiction perspective	Stakeholder perspective	Technology focus ¹¹ area
Loreal Jiles , VP, Research and Thought Leadership at the Institute of Management Accountants . Previously led the RPA implementation program at BP .	North America	PAIB	AI, RPA
Mario Malouin , Chairperson for the Ottawa Chapter of the Innovators Alliance and an Executive Advisor for CEOs of High Impact Firms	North America	TCWG, Academic	AI, RPA, Blockchain, Cybersecurity, Data analytics, IoT

Characteristics of a IESBA TEG Member
(Extract of IESBA December 2021 Meeting [Agenda Paper 4](#))

- Members should demonstrate a deep understanding of technological developments (including adoption timeframes of key innovations and technologies). This includes, but is not limited to, experience with technology such as Artificial Intelligence & Data Analytics, Blockchain, Cyber-security Issues, Cloud-based Services, Internet of Things and Data Governance.
- At least 2 members of the IESBA TEG will have the following characteristics:
 - Knowledgeable about issues pertaining to ethics and independence.
 - Have a good understanding of the global accountancy profession in both the private and public sectors.
 - Standard-setting experience in national, international, or sectorial contexts.
 - Understanding of the special considerations related to public interest entities, SMEs/SMPs, or public sector entities.
 - Knowledge of the IESBA's International Code of Ethics and its application.
 - Understanding of the interactions of auditing and ethics standards.
- Additional skills and attributes include:
 - Strong leadership skills, including experience with building consensus.
 - Effective communication and presentation skills.
 - Ability to look beyond the different backgrounds of members and focus on achieving common positions based on commitment to the global public interest.
 - Ability to cooperate with fellow volunteers in a constructive and productive manner.
 - Knowledge of, and experience with, issues of public policy and regulation relevant to the accountancy profession and related to ethics and codes of conduct.
 - Demonstrable track record of public interest responsibility/policy and activity/research, with desirable experience in ethical matters.

Overview of proposed IESBA TEG member responsibility

- Preparing, attending, and actively participating in IESBA TEG meetings and teleconferences by reviewing agenda materials and consulting with jurisdictional stakeholders on an as needed basis.
- Advising on and/or participating in the development of non-authoritative publications and TWG-led initiatives.
- Engaging with relevant stakeholders as part of the TWG's overall program of outreach with key stakeholder groups.
- Acting in the public interest.

Time Commitment¹²

- Participate in all IESBA TEG meetings which might range from 2-4 times a year
- Participate in TWG/IESBA meetings on an as-needed basis

Term

- Minimum of 1 year

¹² Approximately 150-200 hours per year is anticipated.

Appendix 3

Highlights and Overview of Technology Thought Leadership and Other Materials

Highlights

- A. The Working Group continues to actively facilitate the development of thought leadership and other materials with IFAC and others. This includes:
1. An Exploratory Paper and follow-up four-part CPA Canada, Institute of Chartered Accountants of Scotland (ICAS), International Federation of Accountants (IFAC) and IESBA co-branded thought leadership series entitled; [*Ethical Leadership in an Era of Complexity and Digital Change*](#). The publications were authored by Brian Friedrich, CPA Canada Member, IESBA Member and Chair of the IESBA Working Group; and Laura Friedrich, CPA Canada Member and IESBA Technical Advisor. The publications reflect the contributions from the IESBA's Technology Working Group and some members of IESBA Technology Task Force. As they were not discussed with or approved by the IESBA, the views expressed in the various publications are those of the authors and contributors and do not necessarily reflect the IESBA's views.
 - Paper 1, [*Complexity and the Professional Accountant: Practical Guidance for Ethical Decision-Making*](#) was released in August 2021. This paper:
 - Highlights the increased complexity in today's world, exacerbated by technology.
 - Distinguishes complicated from complex circumstances.
 - Explains why it is important for PAs to recognize complexity.
 - Outlines practical guidance for PAs to manage complexity.
 - Paper 2, [*Technology is a Double-Edged Sword*](#), was released in December 2021. This paper:
 - Highlights the opportunities and challenges to the accountancy profession as a result of technology and incorporates two blockchain and AI systems examples to illustrate this.
 - Emphasizes the importance of data quality.
 - Explains why ethical leadership is important in developing, implementing, and using technology.
 - Outlines practical guidance for PAs as a way forward.
 - Paper 3, *Managing Bias and Mis/Disinformation* was released in February 2022. This paper:
 - Highlights the impact of bias and mis- and disinformation.
 - Explains why and how bias threatens a PA's obligation to comply with the fundamental principle of objectivity.
 - Emphasizes the guidance on bias and an inquiring mind within the Code.

- Outlines a layered approach for PAs to consider their professional obligations for objectivity, professional competence and due care and their public interest responsibilities in the face of bias and mis- and disinformation.
- Paper 4, *Mindset and Enabling Skills* is currently in the production phase. Release is anticipated in April 2022. This paper:
 - Highlights the roles and skills of the future reflecting the growing trend towards reliance on data and human-machine collaboration.
 - Highlights what such a shifting landscape means for the accounting profession.
 - Explains how and why mindset and enabling skills are important in this regard.
 - Outlines practical guidance for PAs as a way forward.
- 2. The Working Group is currently providing input to inform the development of an APESB staff-prepared publication* that will provide scenario-specific guidance to assist firms in applying the existing International Independence Standards (including the revised non-assurance services (NAS) and fee-related provisions that will become effective in December 2022). In particular, the scenarios will cover situations where an audit client asks a firm to:
 - Implement an entire software suite.
 - Implement software developed by the firm.
 - Provide a NAS that might appear to be “routine or mechanical.”
 - Provide a NAS as a result of insights, matters or information gained from the use of technology in an audit engagement.
- 3. The Working Group and the Technology Task Force is providing input on an IFAC and IESBA-staff led initiative that involves developing four technology-focused installments of the *Exploring the IESBA Code* series. Topics to be covered include: Artificial Intelligence, Blockchain, Cybersecurity, and Cloud Computing/ Usage. The first installment is in the production phase and the other three are currently being developed.
- 4. The Working Group is providing input to representatives and staff of the Japanese Institute of CPAs (JICPA)* to assist in the development of non-authoritative guidance to assist PAs in business and in public practice navigate practical issues in ethical leadership. The document will cover technology-related scenarios on topics such as:
 - How leaders should communicate, structure and demonstrate their responsibility to staff when using, developing or implementing technology.
 - How organizations can obtain the type of knowledge and skills relevant in the digital age.

* The forthcoming APESB and JICPA publications will benefit from the input of the IESBA Staff, IESBA Technology Task Force, and other representatives of the IESBA. The document will not be discussed with or approved by the IESBA. Accordingly, the views therein expressed will be those of the authors and contributors and will not necessarily reflect the IESBA's views.

Overview and Status

- B. The table below provides an overview, including the anticipated completion/ release date of the various thought leadership and other materials.

Topic/ Title of Thought leadership and Other Materials	Developed by/ In Collaboration with	Status as of Feb 2022
<i>Complexity and the Professional Accountant</i>	CPA Canada, ICAS, IFAC	<ul style="list-style-type: none"> Released in Aug 2021
<i>Technology is a Double-Edged Sword</i>	CPA Canada, ICAS, IFAC	<ul style="list-style-type: none"> Released in Dec 2021
<i>Managing Bias and Mis/Disinformation</i>	CPA Canada, ICAS, IFAC	<ul style="list-style-type: none"> February 2022
<i>Mindset and Enabling Skills</i>	CPA Canada, ICAS, IFAC	<ul style="list-style-type: none"> Production stage To be released April 2022
<i>Technology-related considerations for Auditor Independence</i>	APESB	<ul style="list-style-type: none"> In progress To be released by September 2022
<i>Applying the Code's Conceptual Framework to technology-related scenarios</i>	JICPA	<ul style="list-style-type: none"> In progress To be released by September 2022
<i>Exploring the IESBA Code: Four technology-related instalments</i>	IFAC staff	<ul style="list-style-type: none"> Installment 1: Production stage Installments 2-4: In progress To be released by September 2022