

## Technology and complexity in the professional environment

The IESBA's Technology Task Force seeks your view about dealing with the threats created by complexity in the professional environment

As part of its [Technology Project](#), the IESBA is considering proposals to revise the [IESBA Code of Ethics](#) for Professional Accountants (including the International Independence Standards) (the Code). The project is intended to respond to the transformative effects of technology and the [Project Proposal](#) was informed by the December 2019 IESBA Technology Initiative, [Final Report](#), which sets out seven recommendations, including specific areas for enhancements to the Code.

Professional accountants today find themselves working in a complex operational, legal and regulatory environment, brought on by, amongst other factors, the impact of new technologies. The purpose of this survey is to solicit input to inform the IESBA's activities and future deliberations in relation to revising the Code to more effectively deal with the complexity of the professional environment (refer pages 12-16 of the [Final Report](#)).

Because the stages of implementation of the Code may vary by jurisdiction, the survey is designed to allow respondents to respond based on their circumstances and experience.

All responses to this survey, whether complete or partial, once submitted will be accepted and considered as input for the work of the Technology Task Force. The responses received will be summarized (in various ways, including, for example by stakeholder group) for purposes of progressing the IESBA's technology project, including providing feedback to the IESBA and in developing recommendations for possible further actions. Although the results of the survey may be made public through issues papers and related materials that may be tabled for the IESBA's consideration in plenary session, and summarized in a report back to stakeholders, there will be no attribution of responses to any individual respondent.

This survey seeks your views by 10 November 2020 on:

- The elements of complexity in the professional environment
- Whether the Conceptual Framework in the Code appropriately addresses complexity
- Whether, and if so how, the Code should be amended to incorporate complexity

Please contact Kam Leung ([kamleung@ethicsboard.org](mailto:kamleung@ethicsboard.org)) for any questions.

## Background

Stakeholders, mainly Professional Accountancy Organizations (PAOs) and regulators, have indicated the need to address complex issues is becoming more prevalent. Disruptive technologies have highlighted increasingly more “unknown unknowns” and systems that rely on vast, intricately interconnected and dynamic data sets that lack transparency and explainability. Professional accountants have regularly dealt with “complicated” situations in the past, but are now increasingly dealing with “complex” situations.

Stakeholders have expressed a strong view that today’s environment is not “business as usual” and that the decision-making processes involving advanced technology are increasingly moving beyond the realm of complicated into the complex. Consider the following “simple” to “complex” continuum:

Simple	Complicated	Complex
Known knowns	Known unknowns	Unknown unknowns
Cause and effect stable	Experts can generally agree within a reasonable range	Dynamic and synergistic Unpredictable result
No expert needed	Use experts to find best solution	Experts need to collaborate
Follow formula	Challenging to solve, but once solved remains solved	Manage the situation and adapt toward solution
	Typical in professional activity	Increasingly common

### *Task Force’s Current Thinking*

The IESBA’s Technology Task Force believes that advances in technology introduce considerable complexity into the professional environment.

## Potential Impact of complexity on the Fundamental Principles of the Code

The Task Force observes that within the existing threat categories in the Code, it appears that there is no clean fit or clear trigger to prompt a professional accountant to consider how complexity and its multiple facets might threaten their compliance with the Fundamental Principles. The Task Force considers this to be a risk. If a professional accountant cannot easily identify their situation as falling into one or more of the listed threat categories, they might incorrectly assume that an otherwise valid threat does not need to be evaluated and, if necessary, addressed through the application of appropriate safeguards.

To address this potential risk, four non-mutually exclusive options are being explored as possible ways to incorporate complexity and its elements into the conceptual framework, including threats to compliance with the fundamental principles:

<b>Option 1</b>	Modify paragraphs 120.6 A2-A3 and 120.12 A2 of the extant Code (the lead-in paragraphs) to recognize the potential for additional threat categories
<b>Option 2</b>	Build in the missing concepts of complexity into the existing threat categories
<b>Option 3</b>	Add one or more new threat categories
<b>Option 4</b>	Highlight complexity as a pervasive factor in decision-making while applying the conceptual framework

#### *Feedback to date*

Preliminary views of the IESBA Board has been mixed. While there is general support for addressing complexity, there is a variety of views as to the benefits and unintended consequences of the option(s) under consideration.

Hence the Task Force is now seeking feedback about these options to gather directional input, in particular, what would be beneficial about, and what might cause concern or difficulty for, each option and why. Indicative drafting is provided within the survey questions (however this is indicative only).

#### Part A – Demographic Information

1) What jurisdiction or region are you representing?

2) Please indicate which of the following best describes your role:

- ☐ Practitioner, Auditor or Audit firm
- ☐ Professional Accountancy Organization
- ☐ National Standard Setter
- ☐ Regulator or Audit Oversight Authority
- ☐ Academic/ Accounting Educator
- ☐ Investor or Users of Financial Statements
- ☐ Those Charged with Governance
- ☐ Corporate Respondents
- ☐ Government/ Public Sector
- ☐ Non-profit Organizations/ Non-governmental Organizations
- ☐ Other

3) Please describe your role within the organization or firm

4) Has your jurisdiction and/or firm adopted the Code?

☐ Yes

☐ No

If not, what are the applicable independence and ethics policies and regulations that are followed?

5) Would you be willing to be contacted for a short interview (no more than thirty minutes) on the topic of technology and its ethical implications for professional accountants?

☐ Yes

☐ No

If yes, please provide the following contact information

Your name and job title/ role\*: \_\_\_\_\_

Your organization's name\*: \_\_\_\_\_

Your email address\*: \_\_\_\_\_

### Part B – Survey Questions

Please answer the questions that follow in light of the national ethical requirements that you apply, if you do not adopt the Code.

6) Please describe examples of complexity you are experiencing in your professional environment.

7) Have you experienced (or are you aware of) any of the following in the professional environment in recent years? Please check all that apply:

- ☐ Exponential pace of change
- ☐ Lack of transparency/ explainability in technology being adopted
- ☐ Uncertainty/ ambiguity/ contradictory forces
- ☐ Overwhelming nature and level of intensity
- ☐ Resource constraints, including intensified time pressure ("do more with less")
- ☐ Capability constraints, including both ability and capacity to perform competently (e.g. unfamiliarity)
- ☐ Other: \_\_\_\_\_

Please describe how the elements you selected have been manifested

8) There is currently a closed list of five threat categories in the Code: self-interest, self-review, advocacy, familiarity and intimidation.

Have you encountered, or can you envision, a situation where you have experienced a threat to the fundamental principles or independence that is not appropriately captured within the existing five categories of threats outlined in Section [120.6 A3](#)?

- ☐ Yes
- ☐ No

If yes, please describe the circumstance(s) that created the threat in question and how you think it was or should be evaluated and addressed in the Code

Consider the following scenario from the perspective of an auditor

9) The auditor's client uses an artificial intelligence system to estimate the valuation of a complex financial instrument. The algorithm uses deep learning. Initially, the calculations are similar to more traditional calculations but over time the artificial intelligence valuation of the financial instrument appears to be growing at a higher rate than expected by the auditor. If the algorithm lacks explainability, the auditor might not be able to properly assess the extent to which evidence is sufficient and appropriate.

In this situation, which threat(s) to which fundamental principle(s) would you identify? Please check any that apply.

	<b>Integrity</b>	<b>Objectivity</b>	<b>Professional Competence and Due Care</b>	<b>Confidentiality</b>	<b>Professional Behavior</b>
Self-interest threat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Self-review threat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Advocacy threat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Familiarity threat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Intimidation threat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other threat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please explain why you have identified the specific threat(s) to the fundamental principle(s)

Consider the following scenario from the perspective of a professional accountant in business

10) A professional accountant in business relies on a “black box” intelligent agent to determine an estimate in a high-stakes decision. The intelligent agent uses deep learning. Initially, the calculations are similar to more traditional calculations but over time the estimates from the intelligent agent appears to be growing at a rate that is not expected. The estimate becomes flawed, and the professional accountant’s resulting decision leads to significant harm to the organization and the public.

In this situation, which threat(s) to which fundamental principle(s) would you identify? Please check any that apply.

	<b>Integrity</b>	<b>Objectivity</b>	<b>Professional Competence and Due Care</b>	<b>Confidentiality</b>	<b>Professional Behavior</b>
Self-interest threat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Self-review threat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Advocacy threat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Familiarity threat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Intimidation threat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other threat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please explain why you have identified the specific threat(s) to fundamental principle(s)

11) Do you believe that it would be beneficial for the Code to allow for the possibility that a professional accountant might identify additional threats, other than the five currently listed in the Code, by broadening the wording in the lead in to Sections [120.6 A2 to A3](#) and [120.12 A2](#)?

Indicative drafting of what this approach might look like follows, with proposed changes to the Code underlined:

120.6 A2 Threats to compliance with the fundamental principles might be created by a broad range of facts and circumstances. It is not possible to define every situation that creates threats. In addition, the nature of engagements and work assignments might differ and, consequently, different threats might be created.

120.6 A3 Threats to compliance with the fundamental principles generally fall into one or more of the following categories: ....

☐ Yes

☐ No

If no, do you consider that allowing for additional threat categories could be detrimental or have unintended consequences and if so, why?

If yes, why?



12) Do you believe it would be beneficial to amend the wording of the [existing threats](#) to better accommodate the [elements of complexity](#)?

☐ Yes

☐ No

If no, do you consider that amending the existing threats could be detrimental or have unintended consequences and if so, why?

If yes, why?

13) Do you believe it would be beneficial to include a new category of threat in the Code related to complexity?

Indicative drafting of what this approach might look like follows, with proposed changes to the

120.6 A3 Threats to compliance with the fundamental principles fall into one or more of the following categories:

....

(f) Complexity threat – the threat that a professional accountant will be unable to make a fully informed judgment because of extremely complex and interrelated facts and circumstances.

☐ Yes

☐ No

If no, do you consider that adding to the existing threats could be detrimental or have unintended consequences and if so, why?

If yes, why?

13) Do you believe that highlighting complexity as a pervasive factor in decision making while applying the conceptual framework would be beneficial?

Complexity might be highlighted as a pervasive factor when applying the conceptual framework by adding application material under a separate sub-section in Section [120](#). Indicative application material could include:

- examples of complexity to be aware of when exercising professional judgment (e.g., existence of a dynamic and fast-changing environment, high degree of ambiguity and uncertainty, etc.) and
- examples of actions that might mitigate the effects of complexity (e.g., adopting a flexible and adaptive mindset, seeking advice and collaboration from a broad range of experts, etc.)

( ) Yes

( ) No

If no, do you consider that highlighting complexity in such a manner could be detrimental or have unintended consequences and if so, why?

If yes, why?

Any other matters

14) Is there any additional information you believe to be relevant to clarify circumstances or experiences that have informed your views or perspectives in which you have completed the survey?

Thank You!

Thank you for taking our survey. Your response is very important to us.