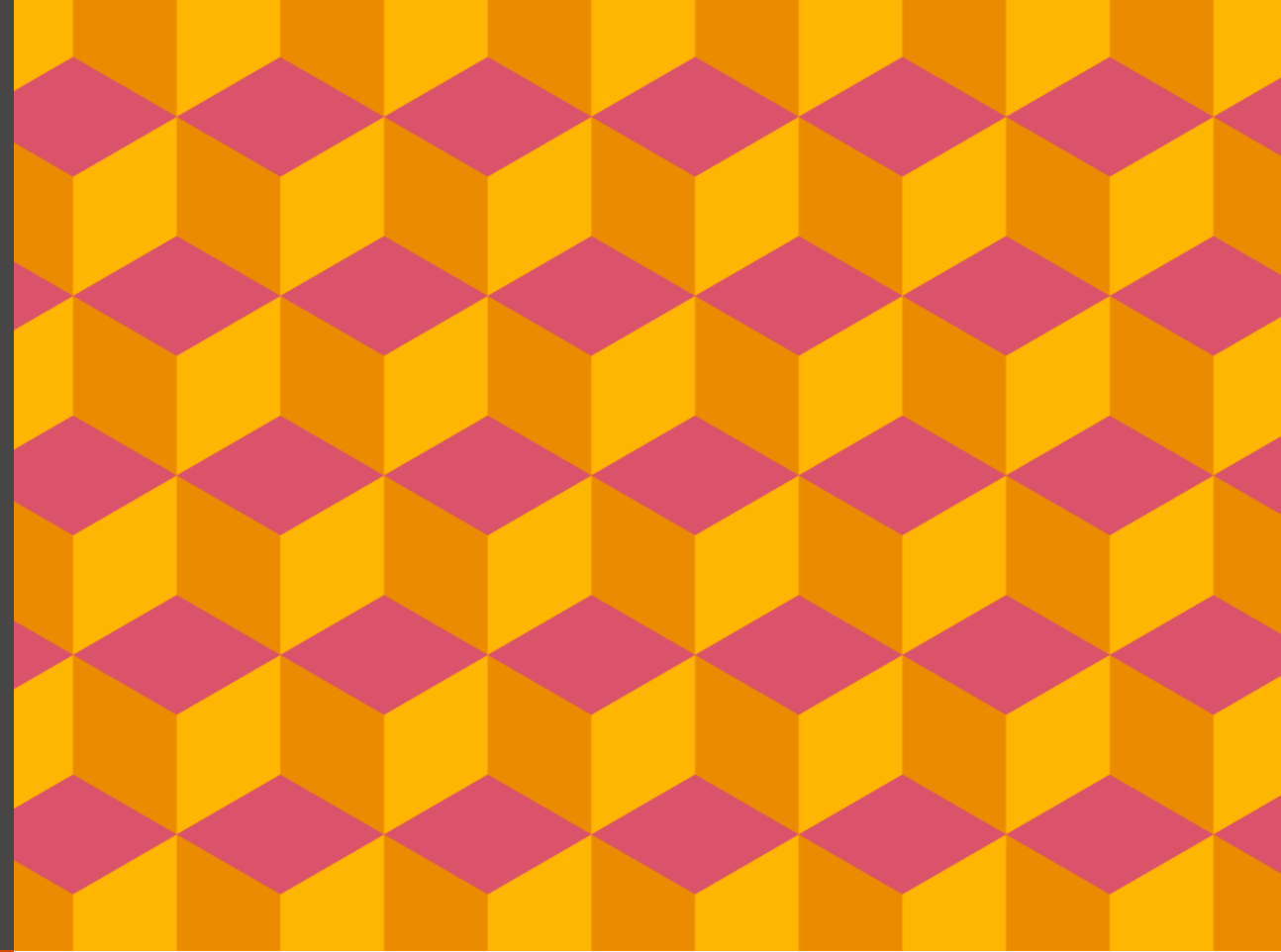


AI Materials: SEC IAC Panel



Brian Croteau, US Chief Auditor &
Auditing Services Leader

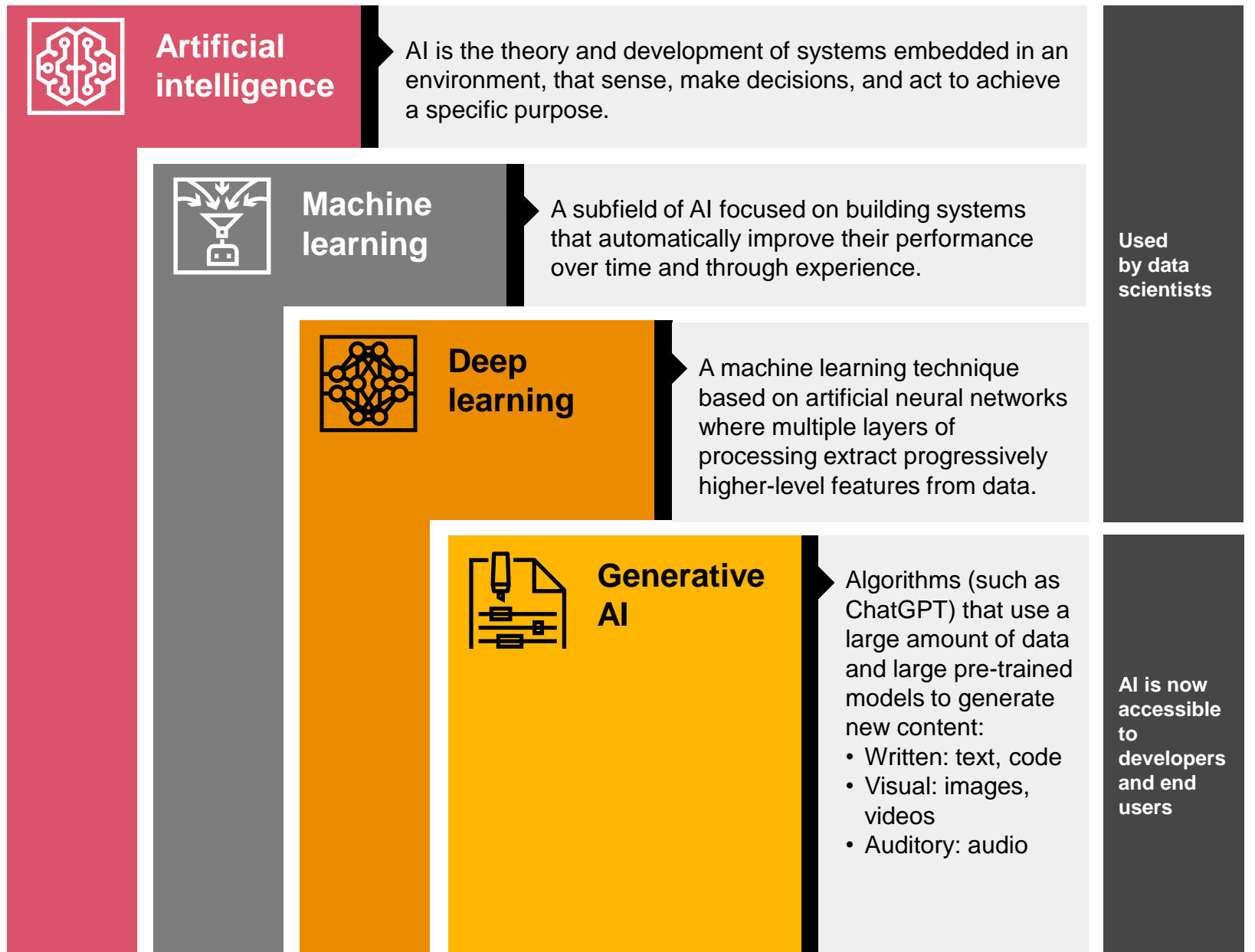
June 6, 2024

Disclaimer: Brian Croteau is a member of the PCAOB's SEIAG (Standards and Emerging Issues Advisory Group). Any views expressed are his own and not necessarily those of the SEIAG or the PCAOB Board or its staff.



What is AI?

There are many ways to categorize types of AI; one of which is by sub-fields for machine learning, deep learning, and generative AI.



Considering associated AI risks in the audit

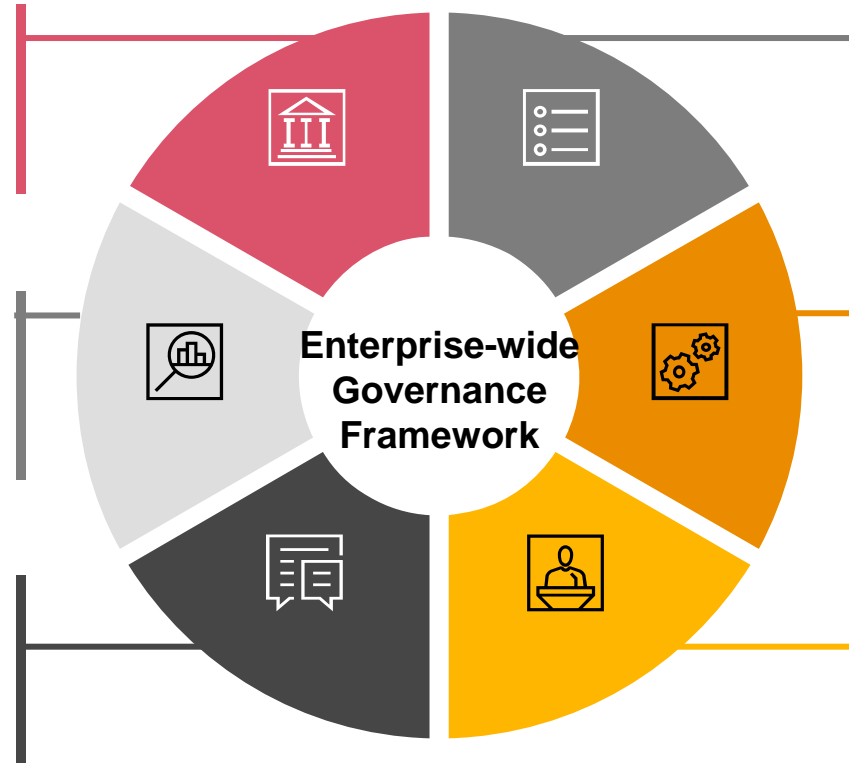
- **Accountability and governance:** Proper governance over AI, including GenAI, is needed to ensure that AI solutions are identified and managed appropriately, consistently across the organization.
- **Accuracy and completeness:** Results from AI may present inaccurate or incomplete outputs.
 - ★ **GenAI: A known limitation of Gen AI is that responses may contain “hallucinations” which are false or misleading information created by GenAI.**
- **Reliability:** Results from AI can change over time when machines are continuously learning.
 - ★ **GenAI: For the same given set of inputs and parameters (including using the same prompt and underlying foundation model), the results may vary over time.**
- **Explainability:** The underlying algorithms in AI may not be known or understood.
 - ★ **GenAI: The underlying foundation models are complex with billions of parameters which are not widely known or explainable.**
- **Bias:**
 - **Data bias** can exist when the datasets used to train AI have inherent bias based on previous norms or processes at the organization, or when the datasets used to train AI are not a balanced representation of the data that will be subject to the AI solution.
 - **Automation bias** exists when users put too much trust in the AI’s results.

Core dimensions of AI Governance

Oversight and Governance to manage the appropriate and responsible use of AI.

Monitoring and Testing to ensure compliance and ongoing appropriateness of AI models.

Communication and Training for employees to be positioned to develop, deploy and use AI responsibly.



Policies, Procedures, & Standards for compliance with regulations and organizational standards for appropriate use of AI.

Processes and Controls to address AI-specific risks.

Roles and Responsibilities to match the expanded need for skillsets to effectively develop, deploy and use AI responsibly.



Governance is a key element for implementing Responsible AI. In many cases existing governance structures can be leveraged.

PwC's Responsible AI Toolkit

Establish strategy

Data and AI ethics

Consider the moral implication of uses of data and AI and codify them into your organization's values.

Policy and regulation

Anticipate and understand key public policy and regulatory trends to align compliance processes.

Implement controls

Governance

Enable oversight of systems across the three lines of defense.

Compliance

Comply with regulation, organizational policies, and industry standards.

Risk management

Expand transitional risk detection and mitigation practices to address risks and harms unique to AI.

Establish responsible practices in the AI Factory

Interpretability and explainability

Enable transparent model decision-making.

Sustainability

Minimize negative environmental impact.

Robustness

Enable high performing and reliable systems.

Safety

Design and test systems to prevent physical harm.

Security

Enhance the cybersecurity of systems.

Privacy

Develop systems that preserve data privacy.

Bias and fairness

Define and measure fairness and test systems against standards.

Establish quality through core practices

Problem formulation

Identify the concrete problem you are solving for and whether it warrants an AI / ML solution.

Standards

Follow industry standards and leading practices.

Validation

Evaluate model performance and continue to iterate on design and development to improve metrics.

Monitoring

Implement continuous monitoring to identify performance drift and risks.

Auditing AI used in financial reporting and underlying processes and controls

The current state of AI in financial reporting:

- AI governance is at varying stages of maturity
- Excitement about the potential of GenAI but also concerns about the risks
- Limited uses of AI implemented in financial reporting and underlying processes and controls

Auditors' Role:

1. Engage in discussions to understand artificial intelligence risk related to the audit

- Understand the company's overall strategy and policies with respect to AI, including GenAI, related and potential impact to financial reporting and underlying processes and controls
- Evaluate AI identified and impact to the assessment of risk of material misstatement

2. Consider obtaining management representations related to AI

Use of AI and GenAI in the Audit



Document understanding

OCR technology to read and identify items within documents.



Data mapping

Machine learning technology to suggest elements for data mapping.



Predictive analytics

Machine learning technology, including regression models, to perform data analytics.



Research and upskilling chatbots

GenAI powered chatbots to facilitate accounting, auditing and reporting research.



Accelerator to summarize or transform data

GenAI used as a starting point or suggestion for the user in performing procedures.

Considerations for the PCAOB from the Standards and Emerging Issues Advisory Group (SEIAG)

1 Issue a Spotlight or similar publication on AI



Including topics such as:

- The importance of management's AI strategy and governance
- Management's assessment of AI risks and development of appropriate risk mitigation strategies
- The implications of AI on the auditor's risk assessment
- Consideration of obtaining management representations related to the use of AI
- The auditor's application of professional skepticism when different forms of technology are used
- Dialogue with audit committees related to the use of AI by management and auditors
- A reminder about auditor independence when performing non-audit services related to technology

2 Engage in Dialogue on AI



For example, have discussions with other private and governmental agencies where the use of AI is further along to understand their learnings and potential applicability to the PCAOB.

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