Hot topic: Artificial Intelligence

AI in financial reporting processes

December 2023

As entities embrace the power of AI, the integration of this technology into financial reporting processes, including related demands on corporate governance and internal control, has emerged as a critical consideration for entities seeking to stay ahead in today's rapidly evolving business landscape.

Emerging technology is a general term used to describe a new technology or the enhancement of an existing technology for which practical applications are not fully realized. The internet was an emerging technology in the 1990s. Today, entities are exploring a range of emerging technologies, such as robotic process automation, low code applications, blockchain, artificial intelligence, quantum computing and virtual or augmented reality, to further existing business processes, drive new strategic insights or to expand into new opportunities.

This Hot Topic focuses on one type of emerging technology – Artificial Intelligence (AI) – and:

1 provides an overview of terminology and broad considerations related to the identification and understanding of the potential use of AI within an entity's financial reporting processes; and

2 contains considerations for when an entity has implemented or is currently thinking about implementing AI that may highlight where processes or controls are required.

As the pace of change continues to accelerate, management, those charged with governance, and auditors need to have a clear grasp of roles and responsibilities that govern an entity's technology strategy and the risks and regulatory requirements associated with the entity's technology strategy. They will also need to respond to these risks, particularly when emerging technologies are used in the financial reporting processes.

What is Artificial Intelligence?

Artificial Intelligence covers a broad range of computer programs that are intended to mimic human behavior through capabilities such as language and speech recognition, visual perception (i.e. recognizing pictures), learning from experiences and decision making. AI is not a single capability, technology or vendor platform, rather it is a spectrum of capabilities and technologies that emulate cognitive processes of the human brain and learn or evolve over time.

AI is an umbrella term that encompasses a range of interrelated techniques and technologies, from simple rule-based logic (deterministic) to more advanced and complex algorithms (probabilistic).
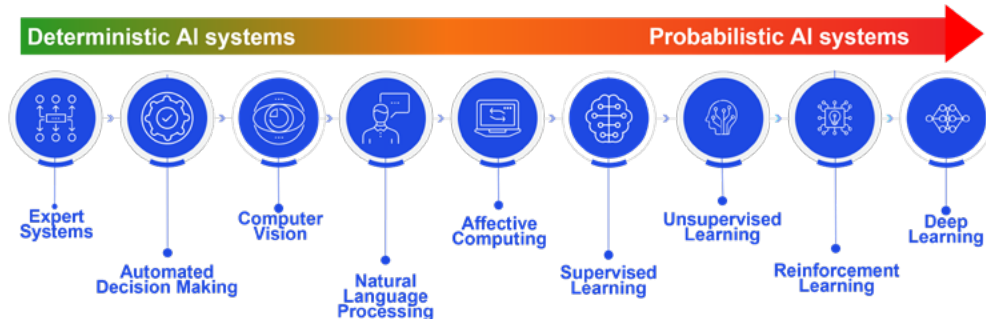
AI may also include a hybrid of techniques that combine elements of the below common subsets of AI (click the icons below for more details).

Common subsets of AI
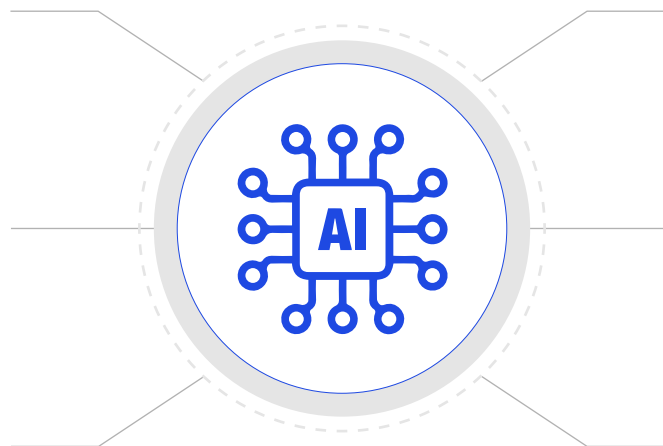
Automation versus AI

Many AI applications implement automation, but not all automation includes AI. The following table includes examples of differences between automation and AI.

Automation	AI
Performs a process by means of programmed commands that are typically rule-based. Generally used for repetitive and routine tasks, such as data entry processing and analysis.	Learns from patterns in data to provide insights, without prescriptive code or rules on how to achieve the outcome.
Cannot learn from experience and data. May be used to improve efficiency, reduce human errors, and increase productivity.	Can learn from experience and data and improve over time.
Cannot make predictions based on data. Involves the use of technology to perform repetitive tasks that may then be interpreted by humans or other AI to make decisions.	Involves development of algorithms that make predictions based on data and experiences it is trained on.
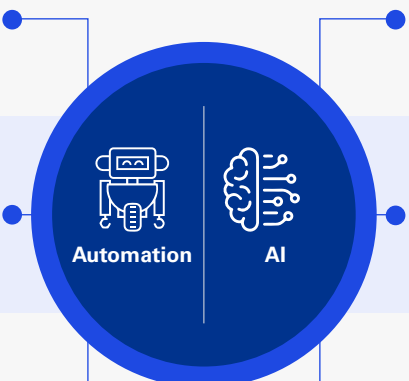
* Robotic Process Automation (RPA) is a specific form of automation of routine process steps that is often confused with AI due to the use of the term 'robot.' Similar considerations to differentiate between automation and AI apply when differentiating between AI and RPA. AI may be used within RPA, but not all RPA uses AI.

> Understanding the nature of the technology (e.g. the distinction between AI and automation) is important because the type or category of a technology may involve different risks, complexities, subjectivity and uncertainty and those risks may differ when compared to traditional IT implementations.

Entities need to also consider how the technology impacts the flow of transactions through the financial reporting processes from the time of initiation through processing and recording transactions. The nature of the technology and how it is used are important factors in understanding likely sources of misstatements and identifying and assessing the necessary controls to address risks of material misstatement in the entity's financial statements.

How AI may be used in financial reporting processes

This section focuses on the capabilities of AI and how an entity could use this technology in operational aspects of its business and/or its financial reporting processes, including internal controls. Examples of how entities may use AI in financial reporting processes include the following (click on the boxes below for more details).

AI Technology/Capabilities/Analysis

What considerations are important?

Management, with Board of Director oversight, plays a key role in establishing the right control environment for using AI. The Committee of Sponsoring Organizations of the Treadway Commission (COSO) framework can provide a structured approach to identifying relevant risks, determining appropriate control activities, and managing effective oversight of the entity's use of AI. The entity's governance over the use of AI is the foundation to responding to risks related to AI used in the financial reporting processes. This section includes considerations for governing the use of AI, when the entity has implemented or is currently thinking about implementing AI within its financial reporting processes and may highlight where processes and controls are required (click on the boxes below for more details).

Considerations for governing the use of AI

In addition to the considerations above, it may be beneficial to have individuals or departments that impact the financial reporting processes directly respond to specific questions as noted below. This allows the entity to identify if and where AI could currently be used in financial reporting processes to assist in the development of policies, processes and controls that need to be established. It is important that the responsible parties understand what AI is and what it is not to respond accurately to these considerations. Sharing the information in the sections above and the resources as noted in the 'For further information' section below with each responsible party prior to gathering feedback on these questions is a good practice (click on the boxes below for more details).

Responsible parties

For further information

AI presents an incredible opportunity in today's rapidly evolving business landscape. Check out the additional firm resources on responsible AI and KPMG's generative AI resource page, which includes featured AI insights, AI events, and AI webcasts and replays.

Contact us

Samantha Demty
E: sdemty@kpmg.com

Karmen Ward
E: karmenbryant@kpmg.com

Alissa Wuerfel
E: awuerfel@kpmg.com

Denae Hajovsky
E: dhajovsky@kpmg.com

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