

# AI 101 for CPAs: Core Concepts and Practical Applications



Presented By  
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# Learning Objectives

- Identify core AI concepts (generative AI, large language models, agentic AI) relevant to accounting and finance.
- Differentiate common CPA/CFO use cases (e.g., research, content generation, data/document analysis.)
- Evaluate key risks (hallucinations, bias, confidentiality) and select mitigating controls.

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Nationally recognized thought leader, advisor, author and speaker on CPA technology

Strategic technology advisor to the profession w/ 35+ years of experience

Founded and sold two CPA technology advisory startups

Former National Mid-market Technology Partner - BDO

CPA Practice advisor Top 25 Thought Leader for the CPA profession

AICPA Business & Industry Hall of Fame Inductee

Past Chair of the Michigan Association of CPAs

Passionate advocate for the CPA profession!

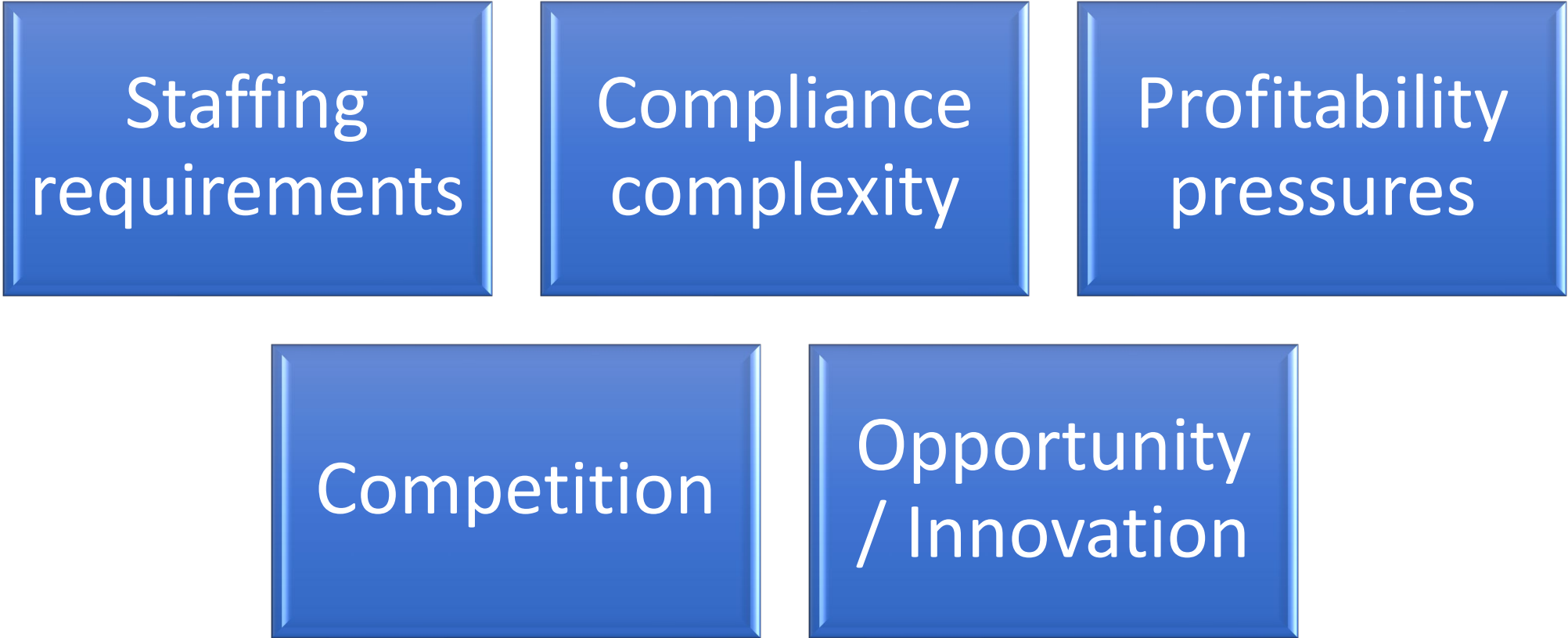
# Presentation Outline

- AI & The Accounting Profession
- AI – What It Is and How It Works
- Putting AI to Work for You – Practical Applications
- Understanding and Mitigating AI Usage Risks
- Wrap-up
- AI Glossary

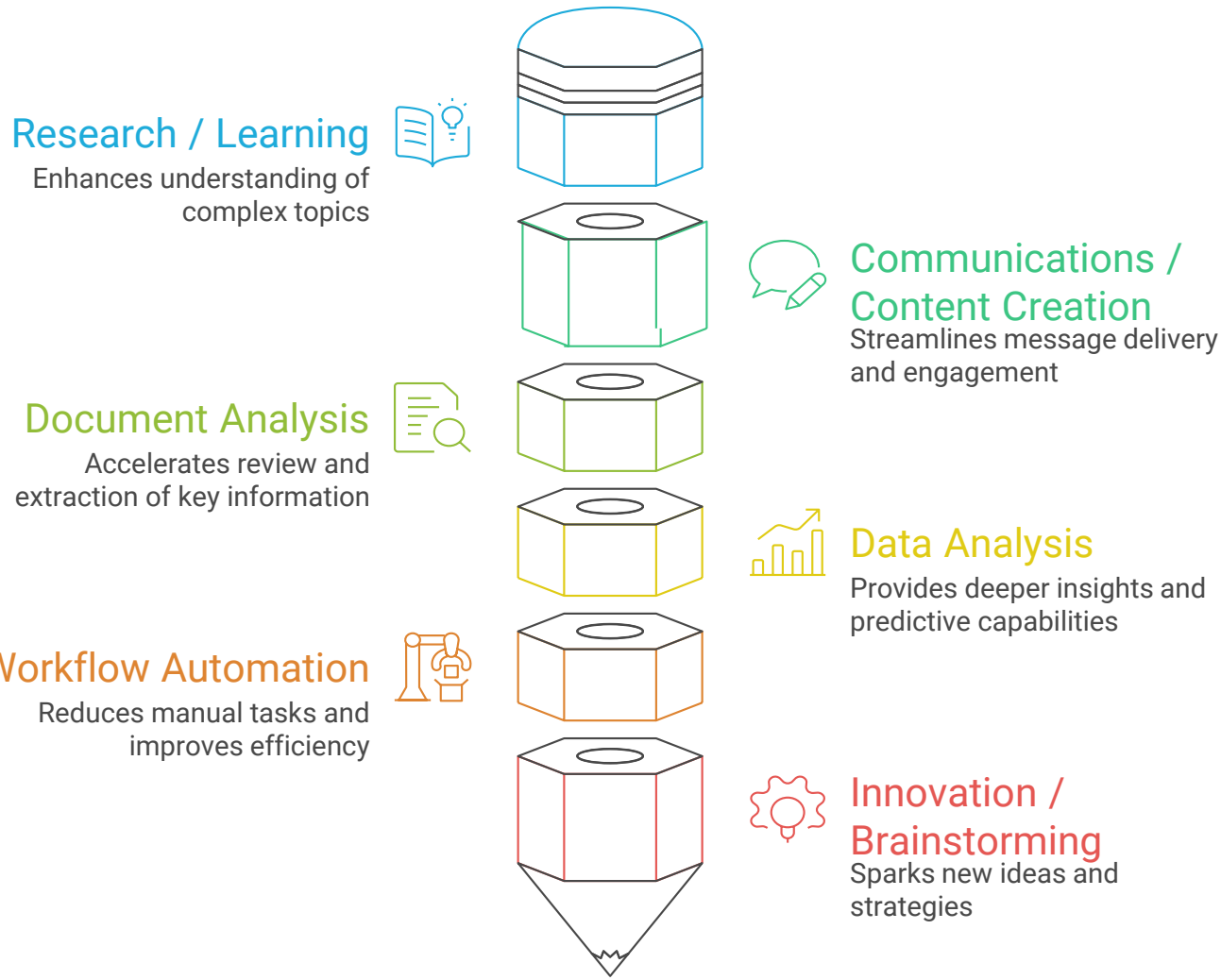
# AI & THE ACCOUNTING PROFESSION



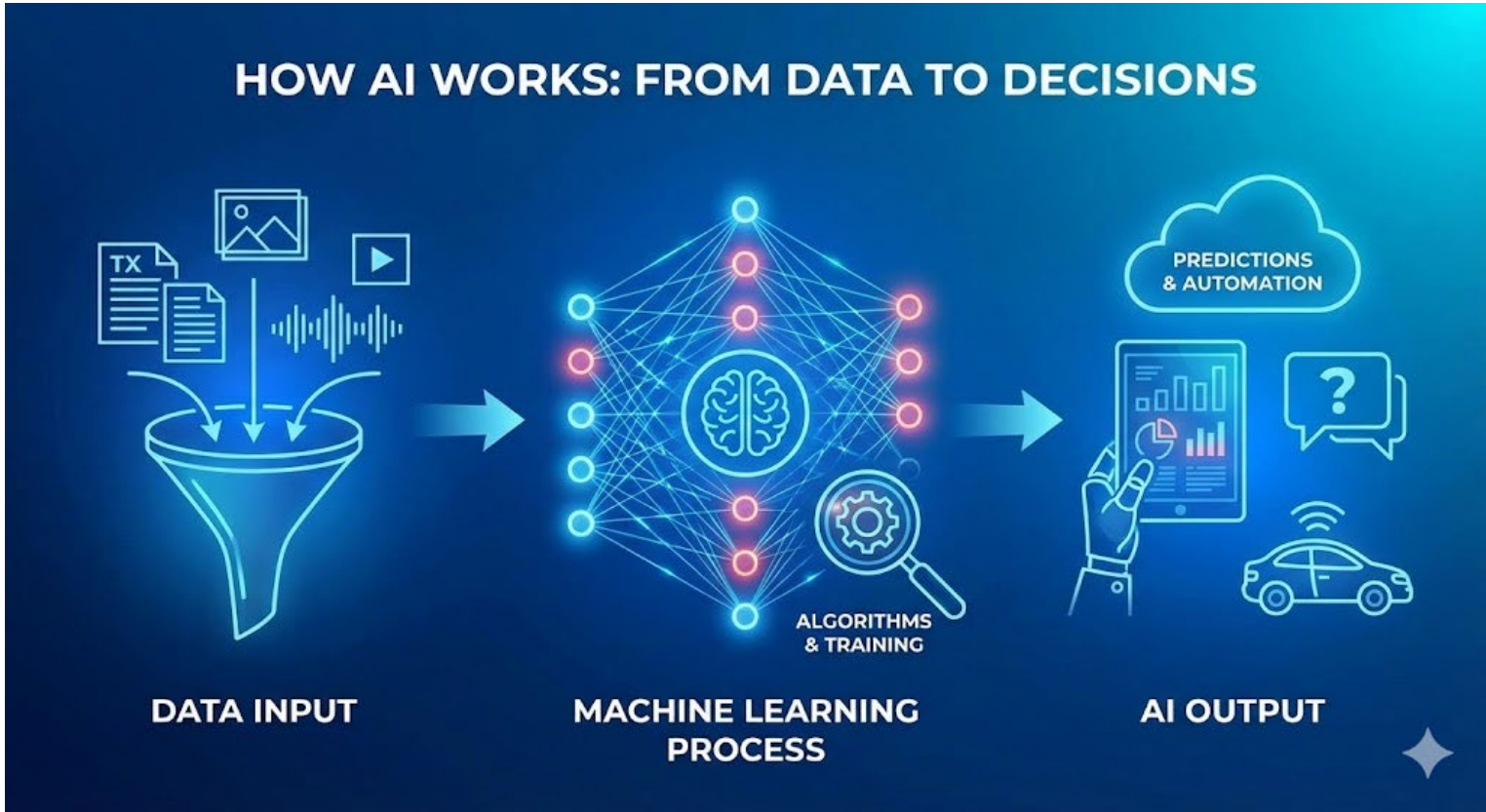
# Market Forces Driving AI Adoption by CPAs



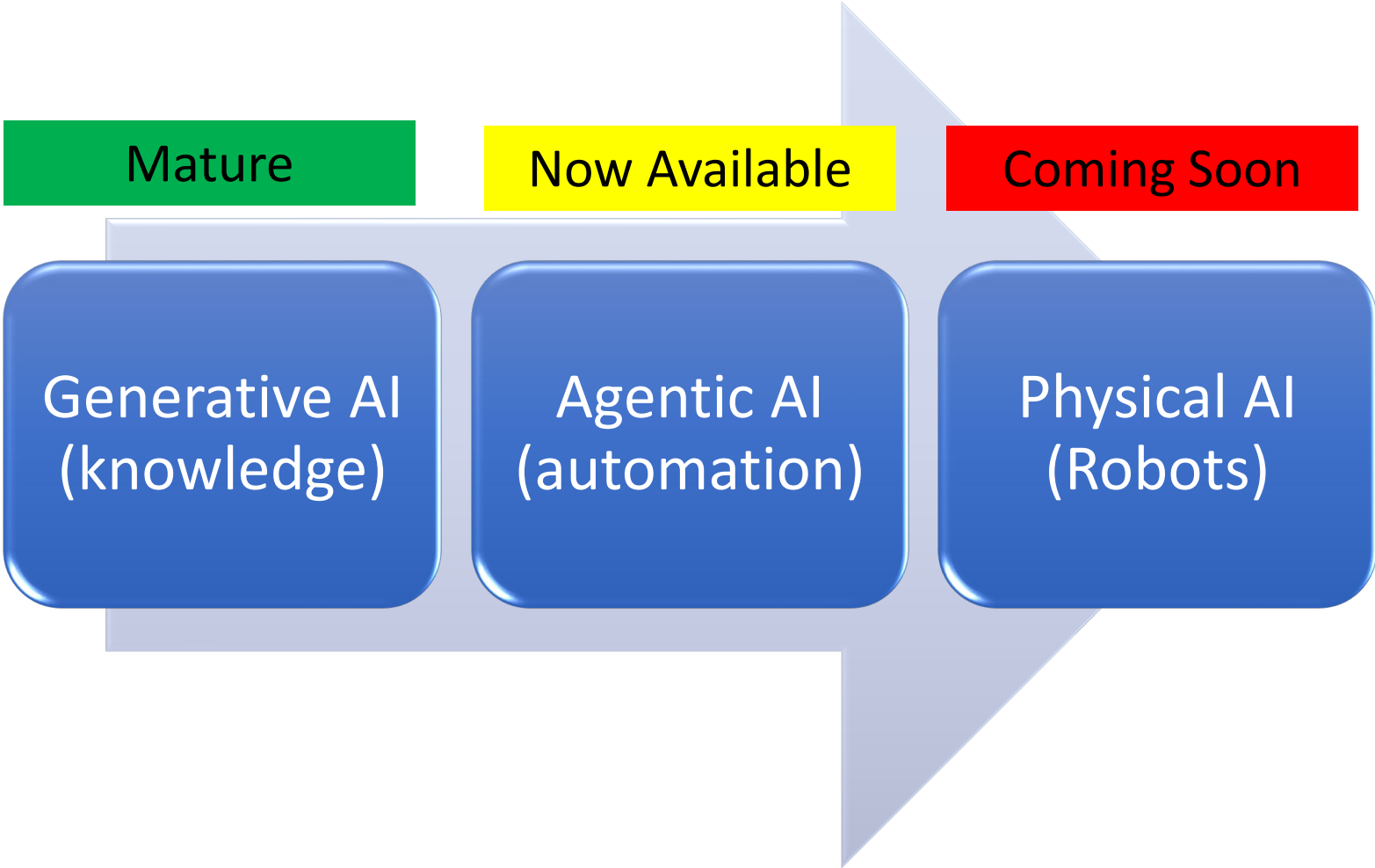
# AI Applications in Accounting, Finance & Tax



# AI – WHAT IT IS AND HOW IT WORKS



# Near Term AI Technology Evolution

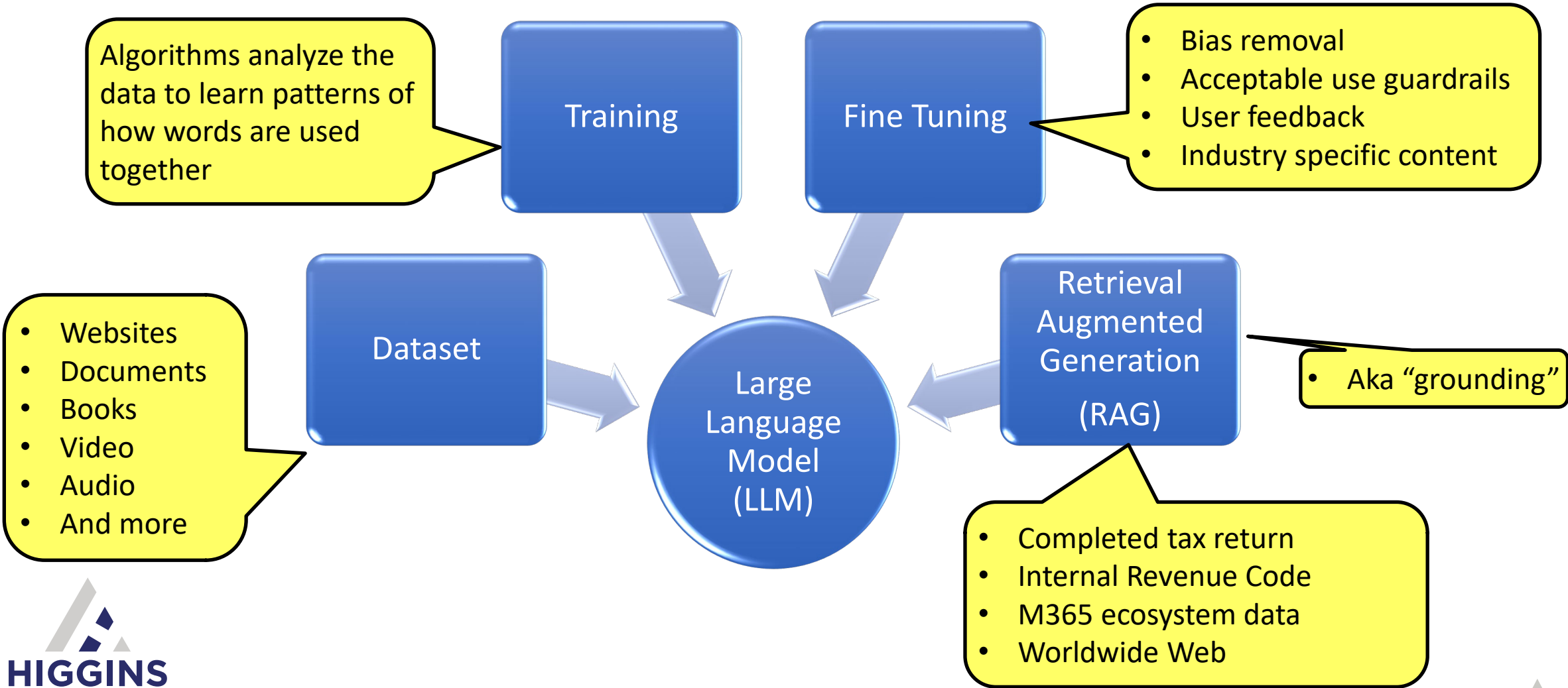


# A Simple Generative AI demo

- ***Prompt:*** What is AGI?
- ***Response:*** AGI stands for Artificial General Intelligence.
- ***Prompt:*** In the context of income taxes.
- ***Response:*** In the context of *income taxes*, AGI refers to *Adjusted Gross Income*.



# Building a Large Language Model (LLM)



# A Simple Generative AI demo with RAG (Retrieval Augmented Generation)

The screenshot shows a user interface for a RAG system. At the top right, a document titled "Form\_1040\_Example\_2023.pdf" is loaded. Below it, a query "Locate the AGI on this tax form" is entered. A yellow callout "Prompt with RAG" points to the document. A red callout "Employ privacy protection practices" points to the query. The AI response, labeled "Output", states: "The Adjusted Gross Income (AGI) on the Form 1040 you provided is \$86,150. AGI (Adjusted Gross Income) is the taxpayer's total income minus specific adjustments, such as an IRA deduction in this example." Below the response are icons for copy, like, share, volume, edit, and refresh.

Context window

# Generative AI Language Models & Concepts

- Large Language Models (LLMs)
- Domain Specific Models
  - ✓ Industry / application specific
  - ✓ Entity specific
- Multimodal – Text, images, audio, video
- Retrieval Augmented Generation (RAG)
- Open-source (open) vs. Proprietary (closed) models
- Token - Smallest text unit processed by a model

# Popular Generative AI Apps aka Foundation Models

- [ChatGPT \(OpenAI\)](#)
- [Claude \(Anthropic\)](#)
- [Copilot \(Microsoft\)](#)
- [Grok \(xAI\)](#)
- [Gemini \(Google\)](#)
- [Llama \(Meta\)](#)
- [Perplexity](#)

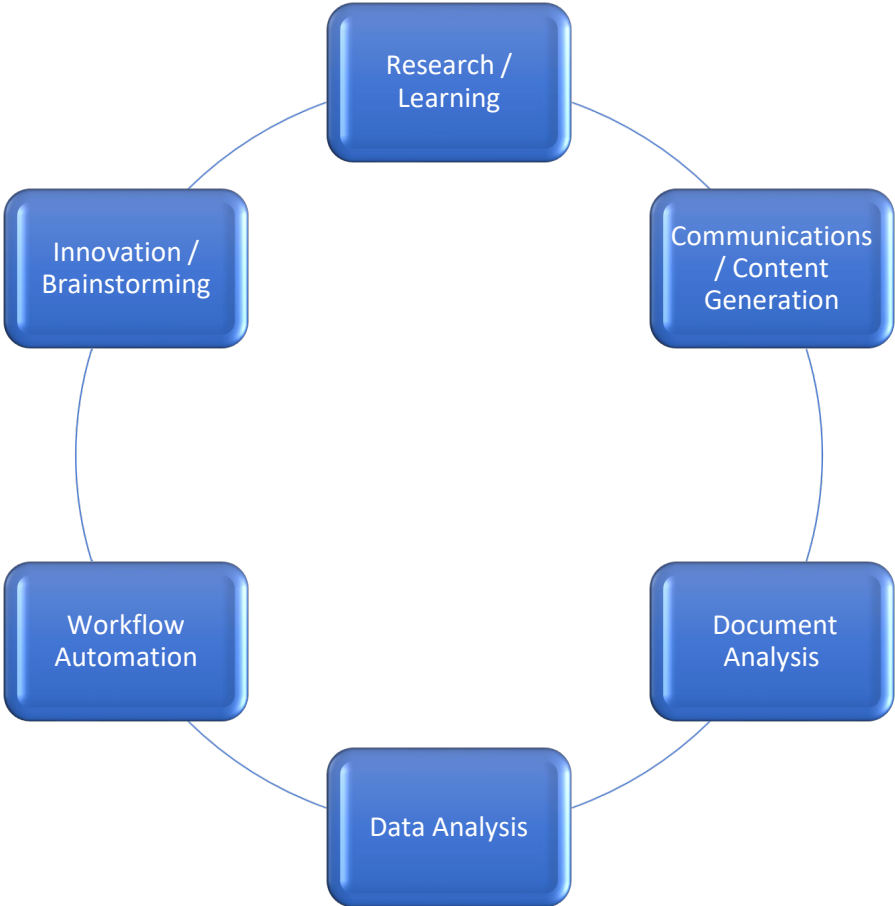
# CPA Related Domain Specific Models

- [TaxGPT](#)
- [Thomson Reuters CoCounsel](#)
- [Blue J](#)
- [Wolters Kluwer](#)
- [Caseware AiDA](#)

# PUTTING AI TO WORK FOR YOU – PRACTICAL APPLICATIONS



# GENERATIVE AI APPLICATIONS FOR CPAS



# Prompt Design Best Practices

- Define AI's role
- Define output audience
- Objective – specific outcome desired
- Supporting data – RAG
- Special instructions - tone / length / format / citations / output form

# Case Study 1: Tax Research

- Scenario: You are asked by a client to explain the tax treatment of cryptocurrency staking rewards.

# Case Study 1: Tax Research



Prompt example

## Prompt:

- Act as a professional tax advisor.
- The audience is a non-financial taxpayer.
- Prepare a summary explanation of the tax treatment of cryptocurrency staking.
- Keep the tone professional, less than 500 words, in a bulleted list, in memo format, provide citations, write at the 10<sup>th</sup> grade level.

# Case Study 2: Communications / Content Generation

- Scenario: You need to present the highlights of the University of Notre Dame's FY2025 financial statements to the Board of Trustees.

# Case Study 2: Communications / Content Generation



Prompt example

## Prompt:

- Act as a professional communications coach to accounting and finance professionals.
- The audience is the Board of Trustees of the University of Notre Dame. They are a combination of clergy and lay people. They may or may not be financial reporting savvy.
- Prepare a timed outline for a 45-minute presentation on the FY 2025 audited financial statements.
- Keep the tone professional. Format in a bulleted list. Suggest potential charts and graphs to enhance the presentation. Compose at the undergraduate college reading level.
- The FY 2025 Audited financial statements are added as RAG.

# Case Study 3: Document Analysis

- Scenario: Analyze the terms of an office lease agreement for your client or company and provide an opinion on the quality, or lack thereof, of the lease agreement.

# Case Study 3: Document Analysis



Prompt example

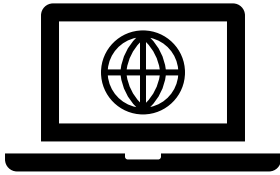
Prompt:

- Act as a legal expert specializing in commercial real estate agreements.
- The audience is a potential lessee of a commercial office. Assume the lessee is not versed in the legalities of a lease agreement.
- Prepare a summarized analysis of the lease agreement to identify any lease terms that are detrimental to the lessee, as well as any missing terms that should be added to the agreement. Include an executive summary with your opinion of the quality of the lease from the perspective of the lessee.
- Keep the tone professional. Format in a bulleted list. Compose at the 10<sup>th</sup> grade reading level.
- An actual lease agreement will be added as RAG.

# Case Study 4: Data Analysis

- Scenario: Analyze the annual reports of four major AI technology companies to understand the financial strengths and weaknesses of them comparatively.

# Case Study 4: Data Analysis



Prompt example

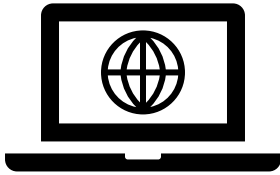
Prompt:

- Act as an expert financial analyst.
- The audience is a professional financial advisor who advises clients on financial planning and wealth management issues.
- Analyze the annual reports of these four AI technology leaders and provide a comparative analysis of financial strengths and weaknesses of each of them relative to the others. Include an executive summary of each company's financial performance and position.
- Keep the tone professional. Format as comparative tables. Create charts and graphs as appropriate. Compose at the 10<sup>th</sup> grade reading level. Provide definitions of any complex financial terms or metrics.
- Actual annual report files will be added as RAG.

# Case Study 5: Workflow Automation

- Scenario: Create an agent to provide an executive summary of a specified industry to prepare the CPA business advisor to be conversant with the management team of a business in the specified industry.

# Case Study 5: Workflow Automation



Prompt example

## Prompt:

- Act as an expert industry research assistant.
- The audience is a CPA business advisor who will be meeting with the management team of a business within the specified industry.
- Provide a macro level executive summary to prepare the CPA business advisor to meet with company representatives. Prompt the user for key information related to the industry. Use industry resources to inform on the key aspects of operating a business within the industry.
- Keep the tone professional. Format with bullet points, tables and charts, as appropriate. Create charts and graphs as appropriate. Compose at the 10<sup>th</sup> grade reading level. Provide definitions of any nomenclature related to the industry as well as key financial metrics.

# Case Study 6: Innovation / Brainstorming

- Scenario: Develop the framework for a strategic planning retreat for a 50 person CPA firm to develop an effective and responsible AI adoption plan for the firm.

# Case Study 6: Innovation / Brainstorming



Prompt example

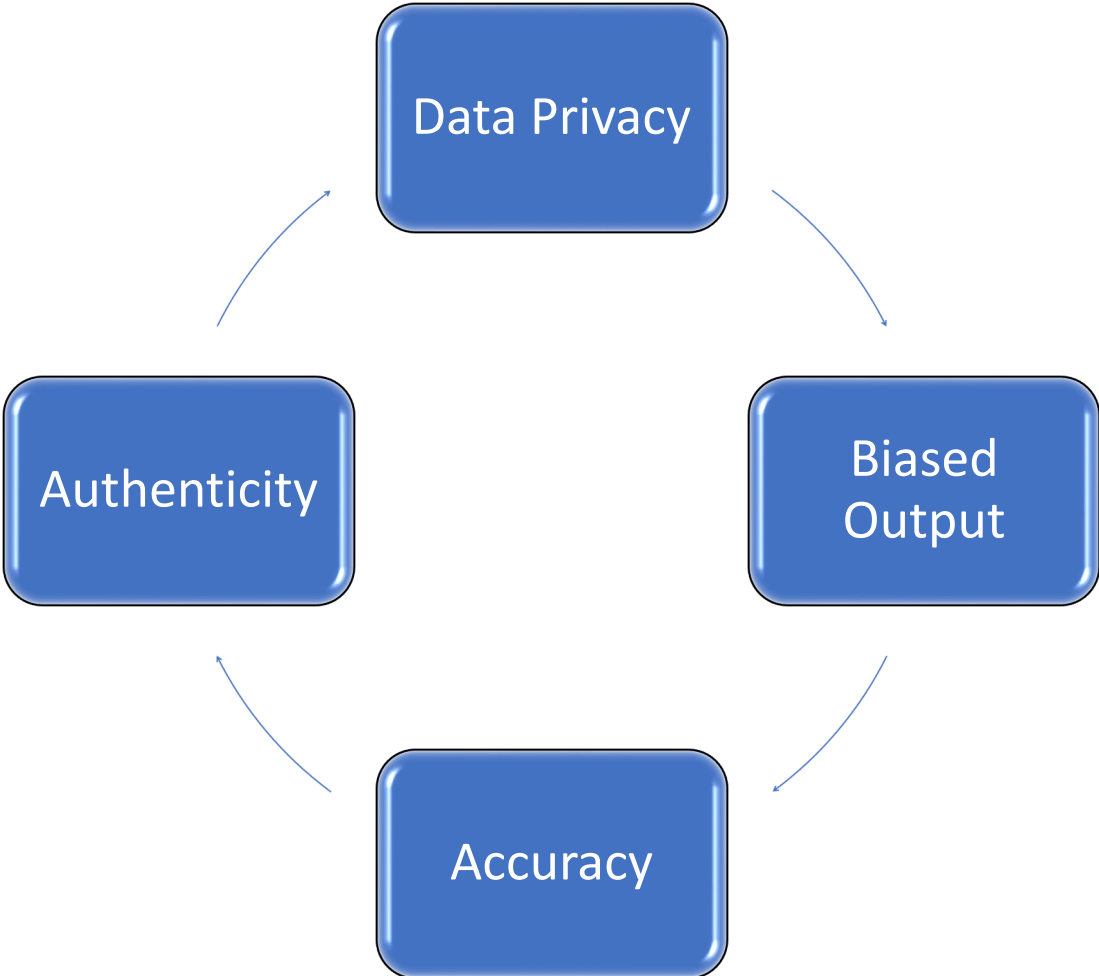
Prompt:

- Act as a strategic planning facilitator for accounting and advisory firms.
- The audience is the leadership team of a 50 person CPA firm responsible for designing an effective AI adoption planning retreat for the firm.
- Develop a comprehensive plan for a one-day retreat with the goal of having a comprehensive framework for the firm to adopt an AI implementation plan that is effective, efficient and safe. Create a timed agenda, define the methodology for capturing thoughts and ideas and organizing them into a manageable format that facilitates synthesizing them into actionable initiatives. Define specific deliverable outcomes for the event.
- Keep the tone professional. Format as a timed agenda for the event. Identify the specific roles and responsibilities. Develop a series of thought-provoking questions to encourage input and feedback from all participants. Recommend documentation procedures.

# UNDERSTANDING AND MITIGATING AI USAGE RISKS



# Primary AI Usage Risks



# Risk Mitigation - Apply Due Diligence in Selecting AI Tools

Select	Select reputable tools
Investigate	Investigate their data privacy and acceptable use policies.
Limit	Limit staff to using only approved tools



# Risk Mitigation - Develop Documentation Standards



Maintain an audit trail of AI prompts and outputs for client engagements as part of your engagement documentation standards



Establish a policy for when and how AI usage on client engagements should be disclosed



Consult with your professional liability carrier for guidance

# Risk Mitigation - Authenticity and Accuracy Validation Policy



Establish guidelines for standard procedures for validating the accuracy and authenticity of AI generated output



Include links to sources in prompt output

# Risk Mitigation - AI Acceptable Usage Policies and Procedures



Establish an AI prompt champion to lead communication, oversight and knowledge sharing regarding prompt best practices



Maintain a library of firm approved prompts for technical applications on client engagements



Monitor standards setters and regulatory agencies for compliance requirements

# Risk Mitigation - Develop an AI Acceptable Usage Policy



Incorporate all these policies & procedures in a comprehensive and documented AI usage policy



Provide mandatory education on the policy for all staff

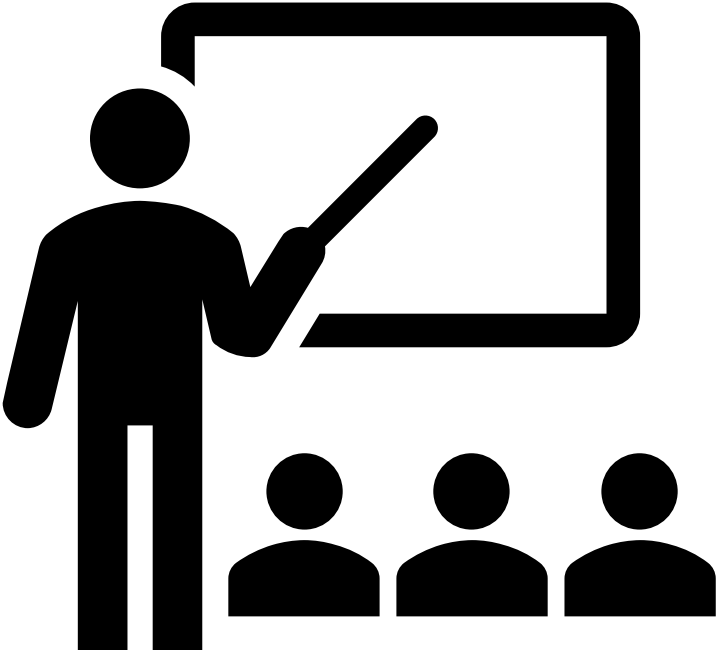


Monitor and update quarterly



Monitor standards setters and regulatory agencies for compliance requirements

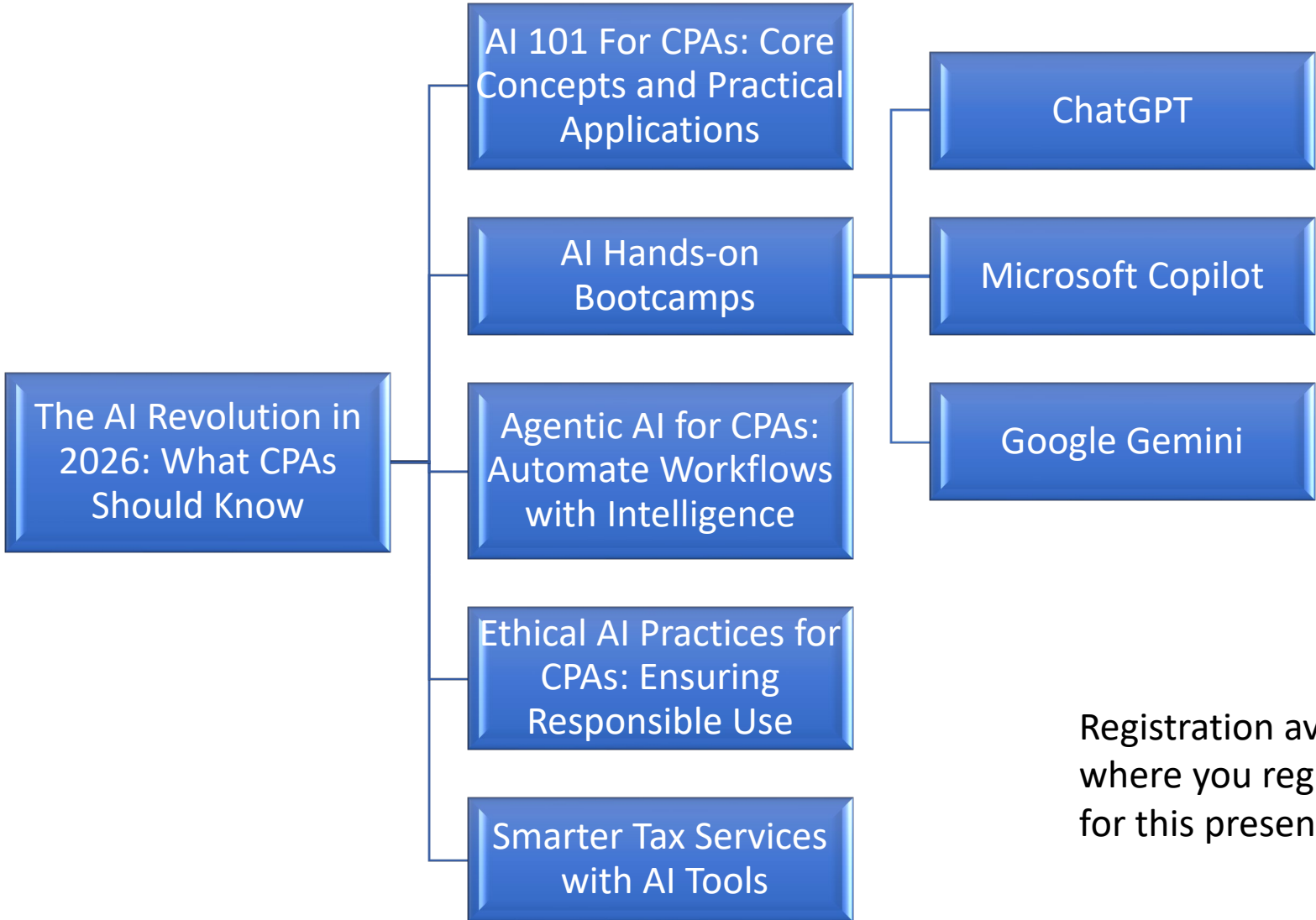
# WRAP-UP



# In Summary

- Take time to review the case study example prompts
- Experiment with your own prompts throughout your day
- Be sure to follow best practices for risk mitigation
- Leveraging AI can be a jet pack for your career

# 2026 Higgins Advisory AI Curriculum



Registration available where you registered for this presentation

# Thank you!!!

Let's connect on LinkedIn 



# AI GLOSSARY



The infographic is titled "AI Glossary" and features a central brain icon with circuitry. It lists ten AI-related terms with their definitions and corresponding icons:

- Algorithm**: A set of rules or instructions that an AI system follows to solve problems and make decisions. (Icon: flowchart)
- Machine Learning (ML)**: A method where AI systems learn from data to improve their performance over time. (Icon: bar chart)
- Neural Network**: A computing system inspired by the human brain, made up of interconnected nodes (neurons). (Icon: brain)
- Deep Learning**: An advanced form of ML using multiple layers of neural networks to analyze complex data. (Icon: neural network diagram)
- Natural Language Processing (NLP)**: The ability of AI to understand and generate human language. (Icon: speech bubbles)
- Computer Vision**: AI technology that enables machines to interpret and process visual information. (Icon: camera lens)
- Generative AI**: AI that can create content such as text, images, music, or videos. (Icon: lightbulb)
- Training Data**: Datasets used to teach AI models how to recognize patterns and make predictions. (Icon: database)
- Bias**: Prejudice in AI systems that can lead to unfair or skewed results. (Icon: scales of justice)
- Artificial General Intelligence (AGI)**: A hypothetical AI that has human-like cognitive abilities and can perform any intellectual task. (Icon: robot head)

Glossary created by ChatGPT

# AGI (Artificial General Intelligence)

Human-level intelligence across  
most cognitive tasks.

# Agentic AI

AI that plans, acts, and adapts  
to achieve goals.

# AI Ethics

Principles guiding responsible,  
fair, and trustworthy AI use.

# AI Governance

Policies and controls managing  
AI risk and accountability.



# AI-Enabled

Traditional processes enhanced  
using AI tools.

# AI-Native

Processes designed around AI  
from inception.



# ASI (Artificial Superintelligence)

Intelligence far exceeding  
human cognitive abilities.

# Autonomous

Operates independently  
without continuous human  
oversight.

# BCI (Brain–Computer Interface)

Direct communication between  
brain and external devices.

# Benchmarking

Comparing AI performance  
against standardized tasks or  
metrics.

# Closed Source aka Proprietary

Privately owned Artificial Intelligence models, restricted access, limited modification, controlled distribution.

# Context Window

Amount of information a model can consider simultaneously.

# Data Leakage

Unintended exposure of sensitive data through AI systems.

# Explainability

Ability to understand and justify  
AI outputs.

# Fine Tuning

Additional training on task-specific or proprietary data.



# Foundation Model

Broad pre-trained model  
adaptable to many tasks.

# Generative AI

Creates new content from  
learned data patterns.



# Guardrails

Constraints preventing unsafe or noncompliant AI behavior.

# Hallucination

Confidently generated but  
incorrect or fabricated output.

# Human-in-the-Loop

Human review integrated into  
AI decision workflows.

# Inference

Generating outputs using a trained AI model.

# Latency

Time delay between input and response.

# LLM (Large Language Model)

Model trained on massive text datasets.

# Model

Trained system producing  
probabilistic outputs from  
inputs.

# Multi-modal

Processes multiple data types  
simultaneously.

# Open Source

Publicly available Artificial  
Intelligence models, freely used,  
modified, shared.

# Orchestration

Coordinating multiple AI tools,  
agents, or workflows.

# Physical AI

AI embedded in machines  
interacting with the physical  
world.

# Pre-Trained

Initially trained on large,  
general-purpose datasets.

# RAG (Retrieval Augmented Generation)

Combines retrieved data with  
model-generated responses.

# Reasoning

Ability to infer, plan, and draw conclusions logically.



# Return on AI (ROAI)

Measured business value  
generated from AI investments.

# Semantic

Focused on meaning, context,  
and relationships.

# Singularity

Hypothetical point of rapid,  
uncontrollable AI intelligence  
growth.

# Synthetic Data

Artificially generated data  
resembling real datasets.

# Token

Smallest text unit processed by  
a model.



# Transformer

Neural architecture using  
attention for sequence  
modeling.

# Vibe Computing

Software coding using natural  
language prompts and AI

# Workflow Automation

AI-driven execution of multi-step business processes.