Accounting in the Artificial Intelligence Era

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Artificial Intelligence is a technological system that learns patterns, makes predictions, and generates outputs.

Generative artificial intelligence or generative AI is a type of artificial intelligence system capable of generating text, images, or other media in response to prompts. Generative AI models learn the patterns and structure of their input training data, and then generate new data that has similar characteristics.


ChatGPT


Claude
BY ANTHROP\C


Meta


Gemini


Apple Intelligence


Grok

“I don’t need Google anymore. Why would I use Google when I can just use ChatGPT to help me go through all of the search results and provide me with an answer”

Grace Schwarz, age 14

“Need to get my creativity flowing for my essay due at midnight…”

Followed by the promotion of CaktusAI

AP

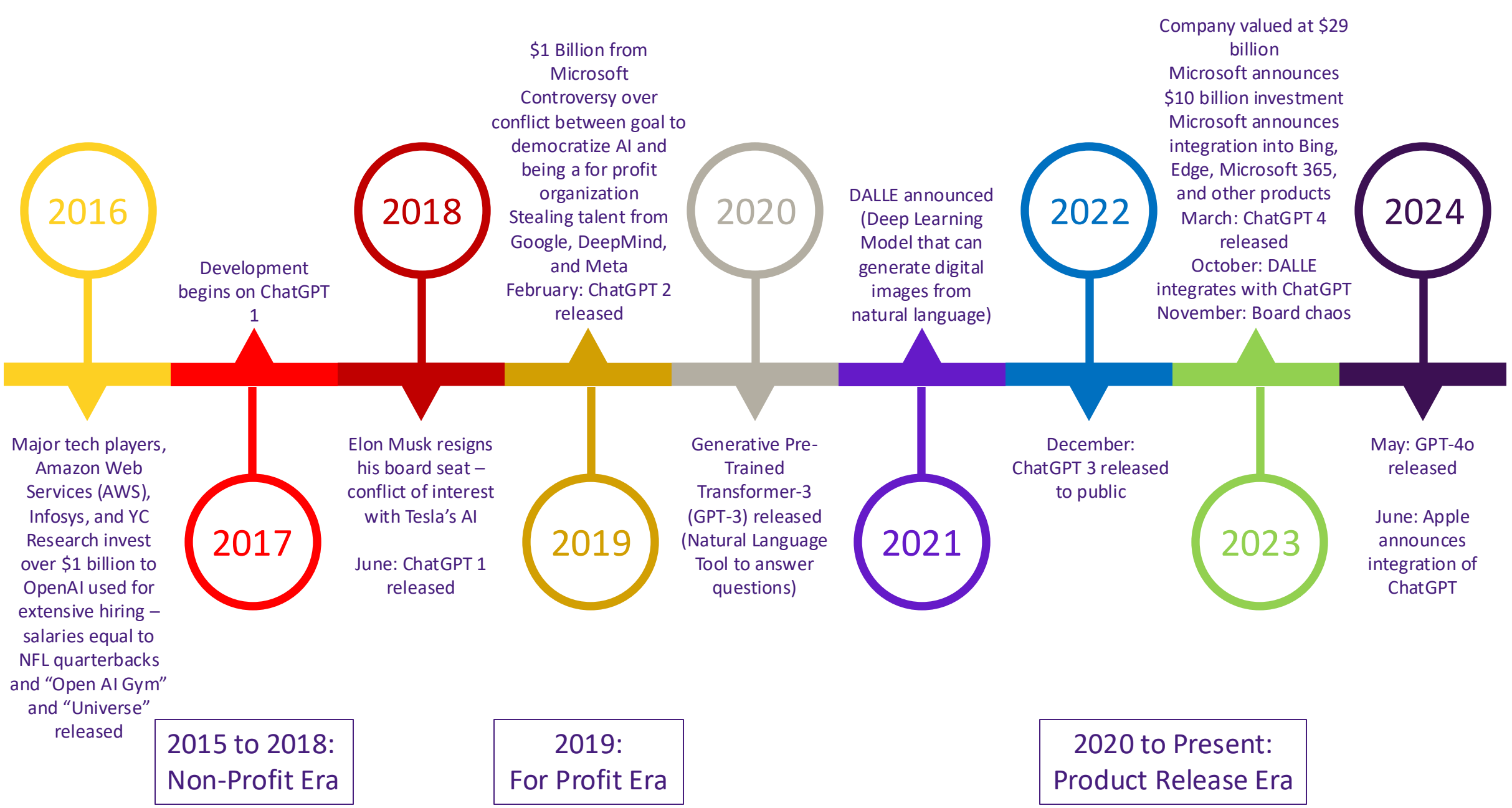
Olivia Dunne endorses an AI writing tool. Is that a problem?

By BRETT MARTEL March 8, 2023

SI

LSU Issues Statement After Olivia Dunne Promotes AI Homework Tool

"At LSU, our professors and students are empowered to use technology for learning and pursuing the highest standards of academic integrity," LSU said. "However, using AI to produce work that a student then represents as one's own could result in a charge of academic misconduct, as outlined in the Code of Student Conduct."


2016
Major tech players, Amazon Web Services (AWS), Infosys, and YC Research invest over $1 billion to OpenAI used for extensive hiring – salaries equal to NFL quarterbacks and "Open AI Gym" and "Universe" released
2017
Development begins on ChatGPT 1
2018
Elon Musk resigns his board seat – conflict of interest with Tesla's AI
June: ChatGPT 1 released
2019
$1 Billion from Microsoft
Controversy over conflict between goal to democratize AI and being a for profit organization
Stealing talent from Google, DeepMind, and Meta
February: ChatGPT 2 released
2020
Generative Pre-Trained Transformer-3 (GPT-3) released (Natural Language Tool to answer questions)
2021
DALLE announced (Deep Learning Model that can generate digital images from natural language)
2022
December: ChatGPT 3 released to public
2023
Company valued at $29 billion
Microsoft announces $10 billion investment
Microsoft announces integration into Bing, Edge, Microsoft 365, and other products
March: ChatGPT 4 released
October: DALLE integrates with ChatGPT
November: Board chaos
2024
May: GPT-4o released
June: Apple announces integration of ChatGPT
2015 to 2018: Non-Profit Era
2019: For Profit Era
2020 to Present: Product Release Era

Time to First 1 Million Users

NETFLIX **3.5 Years**

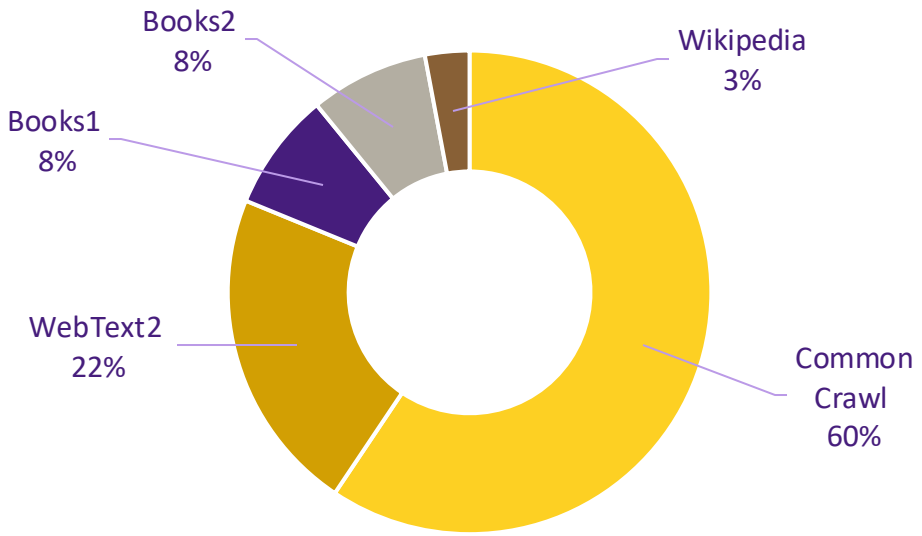
facebook **10 months**

Spotify® **5 Months**

Instagram **2 Months**

ChatGPT **5 Days**

How was ChatGPT created?



Data from these sources were fed into a Large Language Model

- Common Crawl: 8 years of raw web page data, metadata extracts and text extracts with light filtering
- WebText2: Outlinks from Reddit from the past 3 years
- Books1 and Books2: Internet Based Books
- Wikipedia: in English

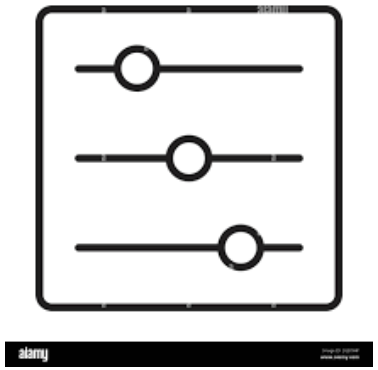
Large Language Models "learn" from the corpus how to fill in the blank for the next predicted word in a left-to-right structure using a series of parameters.

Model	Number of Parameters
GPT-3 Small	125 Million
GPT-3 Medium	350 Million
GPT-3 Large	760 Million
GPT-3 XL	1.3 Billion
GPT-3 2.7B	2.7 Billion
CPT-3 6.7B	6.7 Billion
GPT-3 13B	13.0 Billion
GPT-3	175 Billion
GPT-4	1.76 Trillion

How big was the Corpus for ChatGPT?

300 Billion Words

570 GB of Data



1.76 trillion parameters

Other LLM Corpus Sources

From Google's Technical Reports

"Gemini models are trained on a dataset that is both multimodal and multilingual. Our pre-training dataset uses data from web documents, books, and code, and includes image, audio, and video data."

From Anthropic

A proprietary data set consisting of:

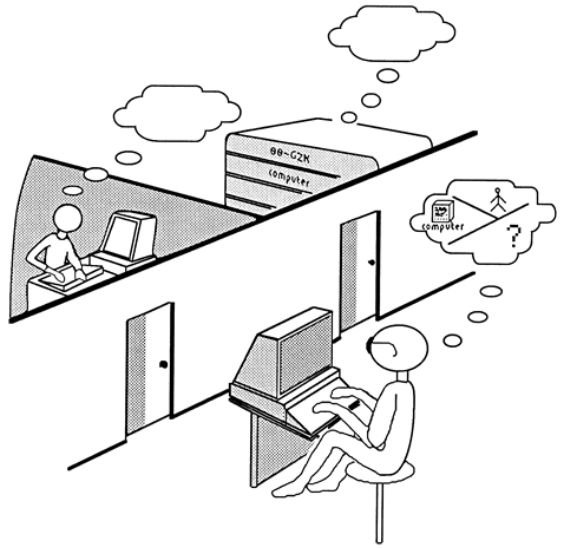
1. Publicly available information via the Internet
2. Datasets that we license from third party businesses
3. Data that our users or crowd workers provide

From Meta

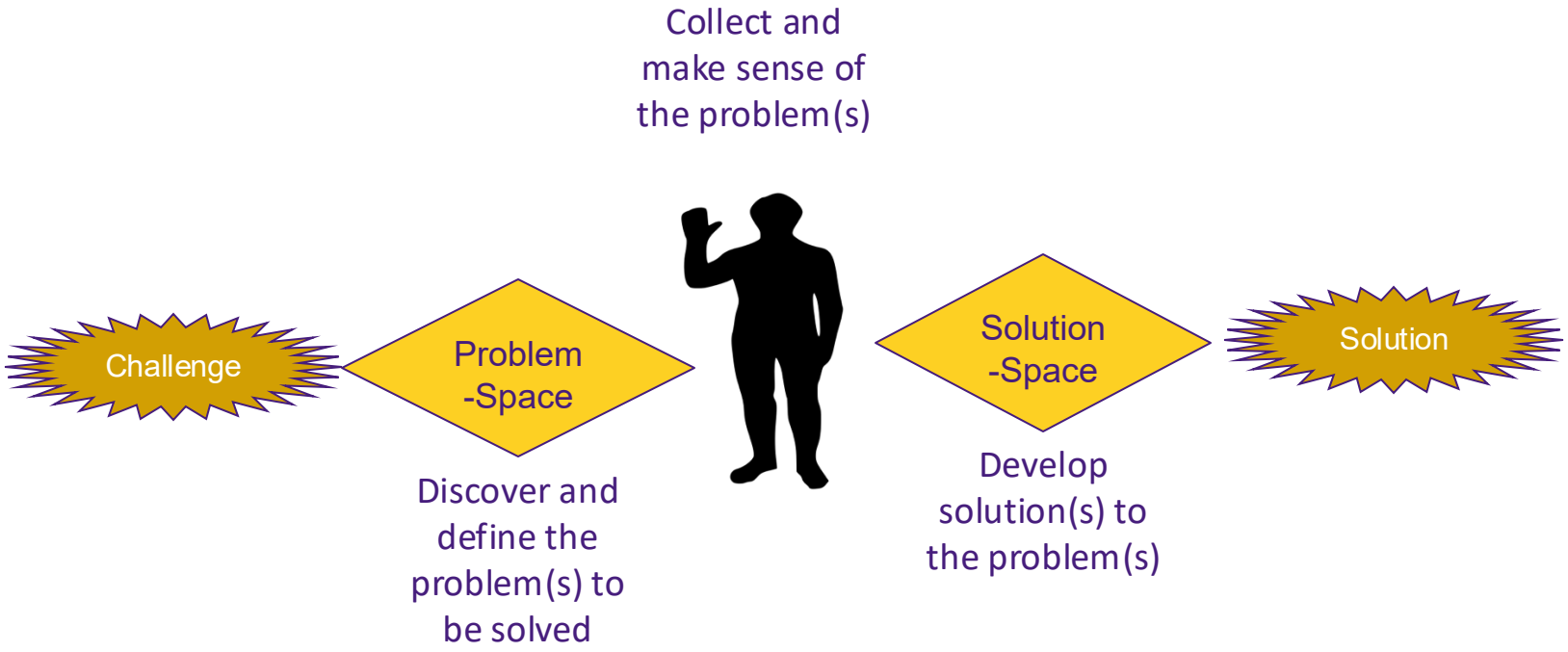
"A new mix of publicly available online data"

Acting Humanly: Turing Test

- The AI approach to act like a human means that a system should not only think like a human, but be able to carry out the same behavior as the human
- Derived from the Turing test
  - You must be able to interact with a computer and that the human must not know a computer is on the other end
- Suggested four capabilities are necessary
  - Natural language processing
  - Knowledge representation
  - Automated reasoning
  - Machine learning



Human Thought Process



Over time, with enough experience, humans are able to take their knowledge and contextualized data and information, reflecting AI as a rational agent:

[f: P* → A]

Human Thought vs. AI

AI has more….		
Scalability	Longevity	Improvement capabilities

But, human thought has more…		
Experience and training	Understanding of context	Ability to ask the right questions

What will LSU's football record be this year?

ChatGPT

With the 2024 season behind them, the Tigers aim to build on their successes and address areas for improvement as they prepare for the upcoming 2025 season. The development of returning players and the integration of new talent will be crucial for LSU's aspirations in the competitive SEC landscape.

Many analysts are projecting LSU to have a strong season, with predictions ranging from 8-4 to 10-2. The game against Clemson is considered a key matchup that could significantly impact their overall record. The SEC schedule is always difficult, so conference games will be very telling. Sites like 247 sports, and college football news, have early predictions, that range from 8-4, to 9-3, with the best case scenario being 10-2.

Claude

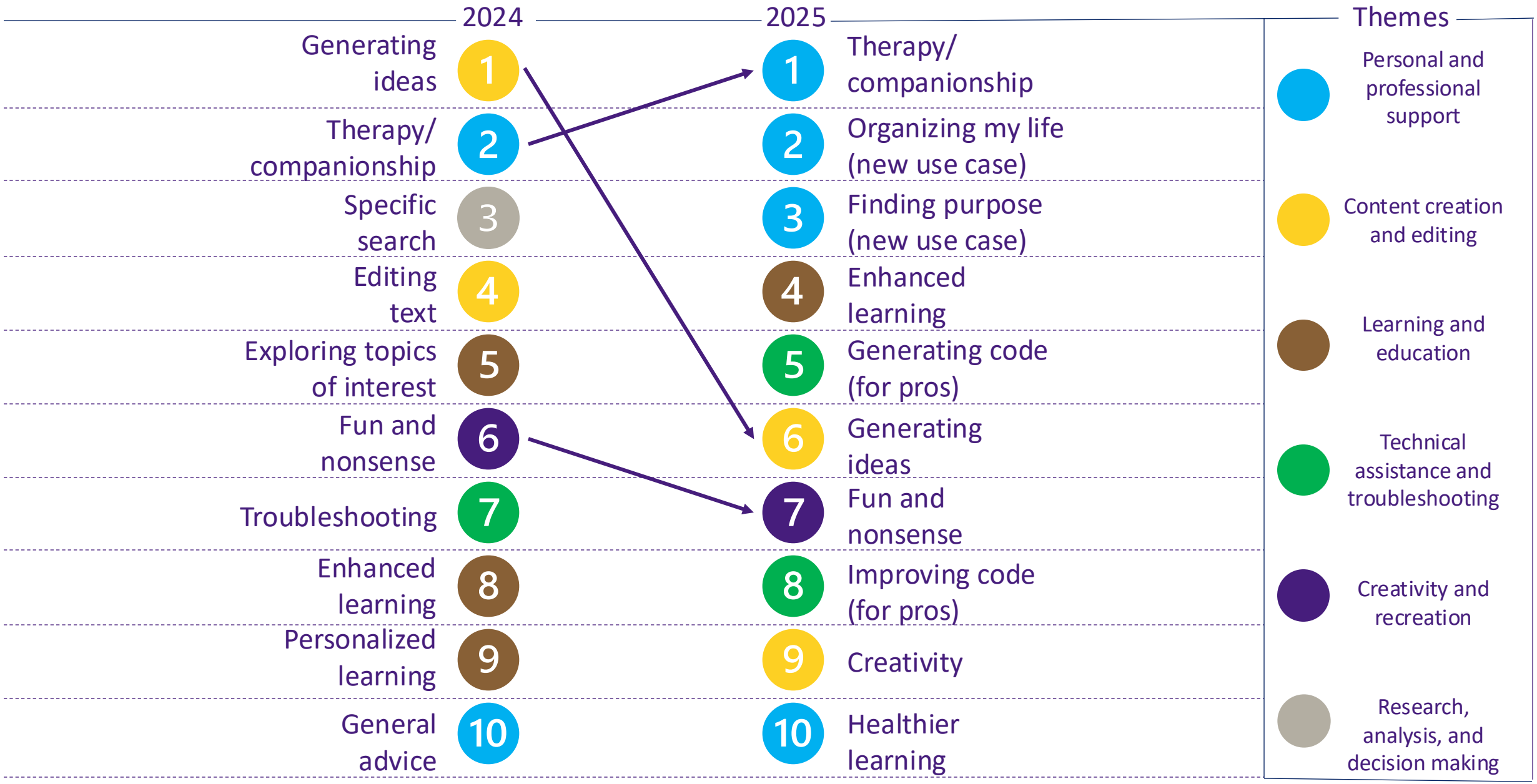
BY ANTHROP\C

I don't have information about LSU's football record for the Fall 2025 season as my knowledge cutoff is October 2024. College football seasons typically begin in late August/early September, so the 2025 season would be after my knowledge cutoff.

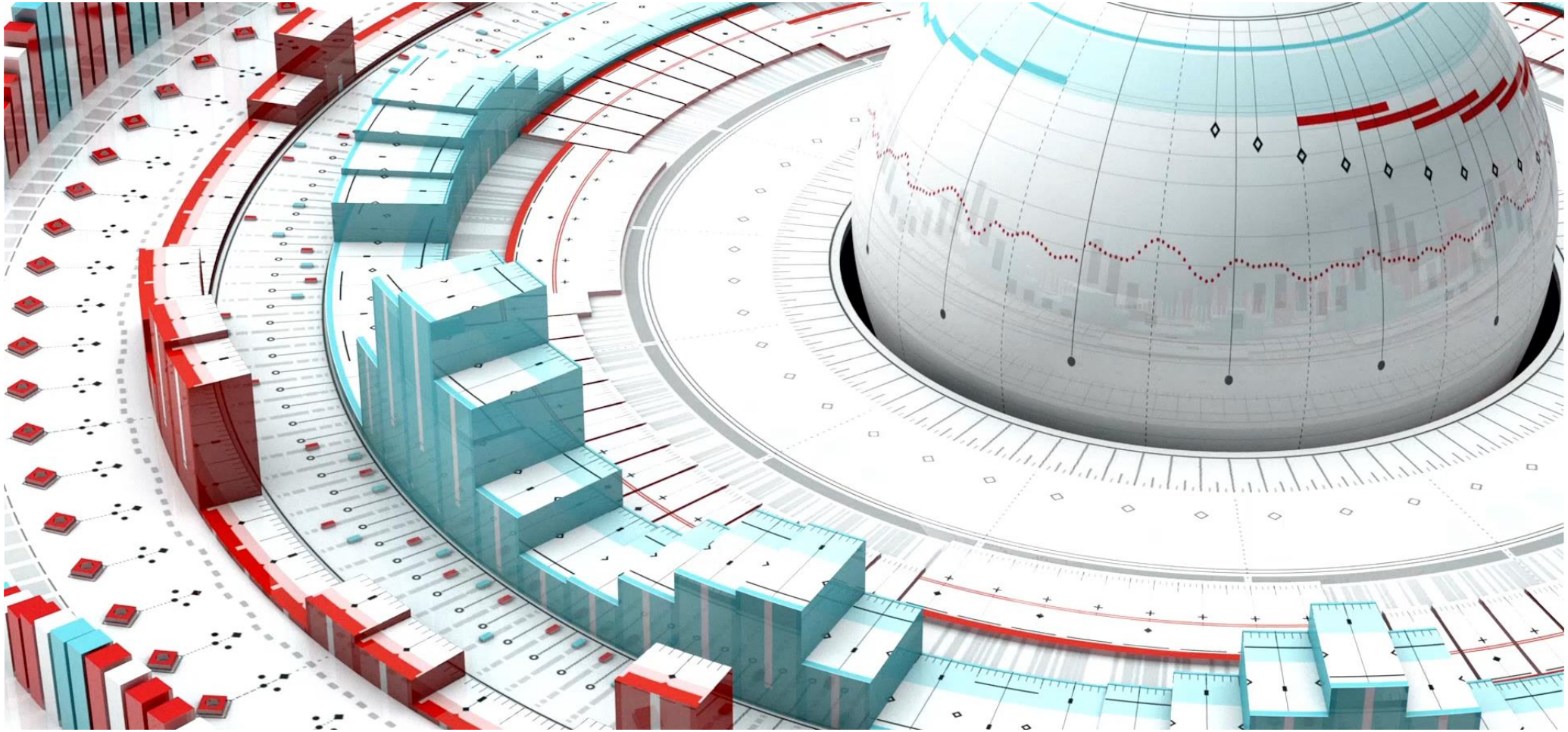
Meta

To estimate their record, let's consider their past performances and the strength of their upcoming opponents. Based on last year's start, where they had 1 win, and assuming they maintain a similar level of performance, they might end up with around 8-10 wins out of 12-13 games, depending on how they fare against tough opponents like Clemson, Alabama, and Oklahoma.

Breaking it down: Non-conference: LSU should handle Louisiana Tech, Southeastern Louisiana, and Western Kentucky, likely going 3-0. Clemson's a toss-up, but let's say they split, so 3-1. SEC: Florida, South Carolina, and Arkansas at home feel winnable, but Texas A&M is always spicy. On the road, Alabama and Oklahoma are brutal, Ole Miss is tough, and Vanderbilt's no pushover anymore. I'd guess 4-4 in SEC play, with losses to Alabama, Oklahoma, Ole Miss, and one upset (maybe Texas A&M or South Carolina). That lands LSU at 7-5 overall, assuming no major surprises. If they gel better than expected with the new transfers and QB Garrett Nussmeier takes a big step, 9-3 is possible. If injuries or youth bite, 6-6 could happen. My gut says 7-5, but college football's wild—check back after a few games!


2024
2025
Themes
Generating ideas
1
1
Therapy/ companionship
Therapy/ companionship
2
2
Organizing my life (new use case)
Specific search
3
3
Finding purpose (new use case)
Editing text
4
4
Enhanced learning
Exploring topics of interest
5
5
Generating code (for pros)
Fun and nonsense
6
6
Generating ideas
Troubleshooting
7
7
Fun and nonsense
Enhanced learning
8
8
Improving code (for pros)
Personalized learning
9
9
Creativity
General advice
10
10
Healthier learning
Personal and professional support
Content creation and editing
Learning and education
Technical assistance and troubleshooting
Creativity and recreation
Research, analysis, and decision making

The Foundations of AI



Data as the New Oil

AP

The Atlantic

axel springer

Dotdash meredith

FT FINANCIAL TIMES

Le Monde

News Corporation

PRISA MEDIA

reddit

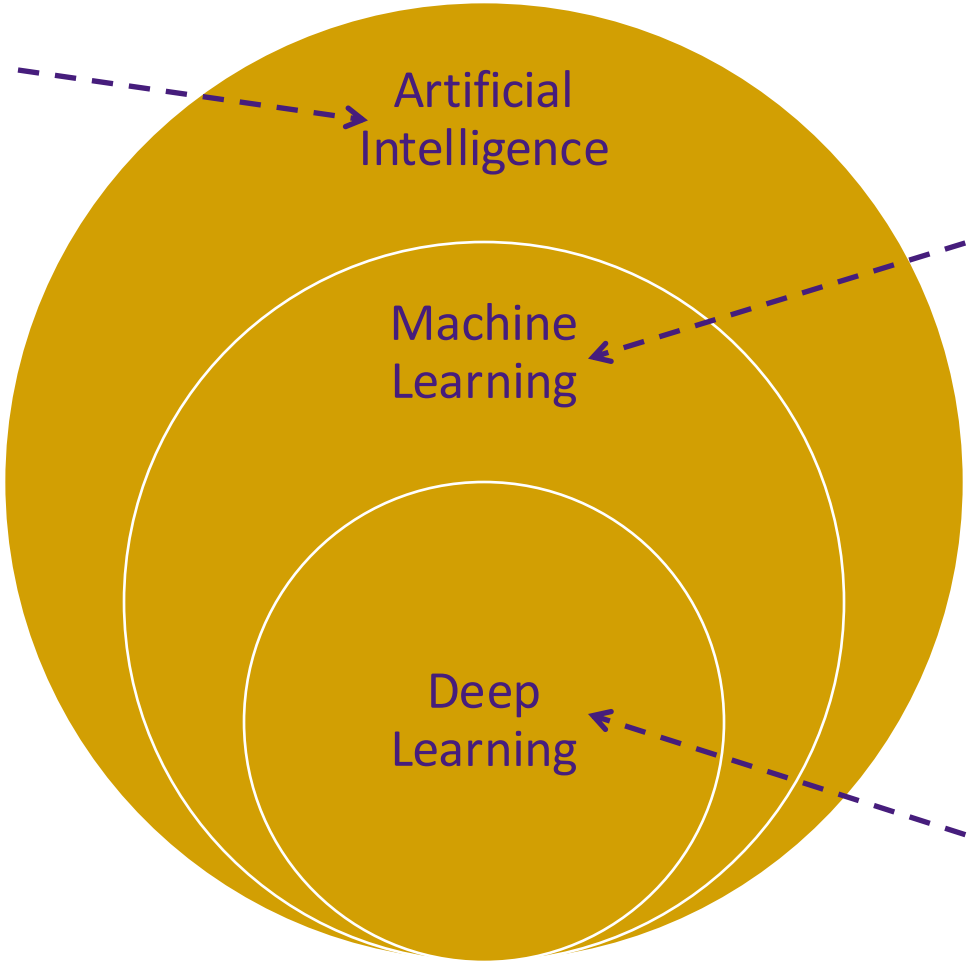
shutterstock

VOXMEDIA

All Signed Agreements with OpenAI

Making an Intelligent Machine

AI relies upon machine learning and deep learning



Machine Learning are algorithms that allow computers to learn from examples without being programmed

Deep Learning is a subset of machine learning which uses neural networks as models and does not require engineering

Top Ten Macro-Level CPA Trends

- Compliance → Advisory Shift
  - Automation reducing time spent on bookkeeping, tax prep, reconciliations
  - CPAs moving toward strategic analysis, forecasting, and business advisory
- Real-Time, Continuous Accounting & Auditing
  - AI-enabled continuous monitoring, anomaly detection, and faster closes
  - Full-population audit testing replaces sample-driven approaches
- AI-Embedded Workflows Across All Tools
  - AI integrated into tax prep, audit suites, AP/AR automation, practice management
  - CPAs expected to use AI as a co-pilot, not a standalone tool
- Rising Data Literacy Expectations
  - CPAs must understand data structure, data quality, and analytics
  - AI shifts the profession toward hybrid accounting + analytics roles
- Evolving Regulatory & Ethical Requirements
  - AICPA/PCAOB/IRS issuing new guidance on AI use, documentation, and oversight
  - Need for firm-wide AI governance, quality control, and review processes

Top Ten Macro-Level CPA Trends

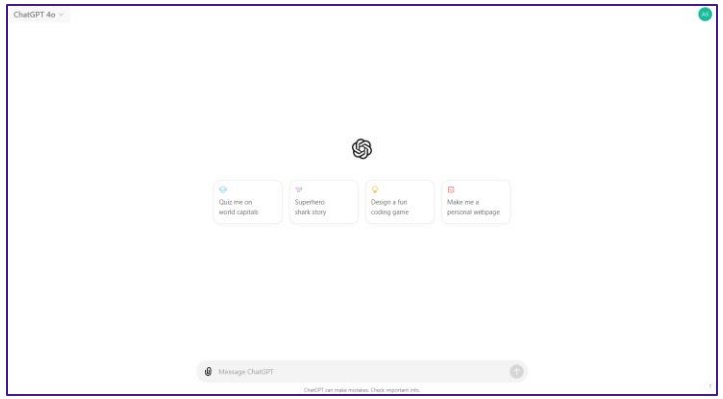
- Changing Client Expectations
  - Clients want real-time insights, dashboards, and faster turnaround
  - Gen Z business owners expect AI-enabled accounting services
- Firm Consolidation & Competitive Pressure
  - Larger firms gain scale advantages with AI
  - Smaller firms pressured to adopt AI or merge to remain competitive
- Talent Shortages & Skill Gaps
  - AI alleviates workload but demands new skills (prompting, analytics)
  - Reimagined training, onboarding, and succession planning needed
- Growing Fraud & Cyber Risks
  - AI deepfakes, synthetic invoices, and automated fraud schemes increasing
  - CPAs responsible for stronger internal controls and risk assessment
- Rising Demand for Assurance Over AI Systems
  - Businesses adopt AI for critical decisions—stakeholders need validation
  - New service line emerging: AI assurance and model governance

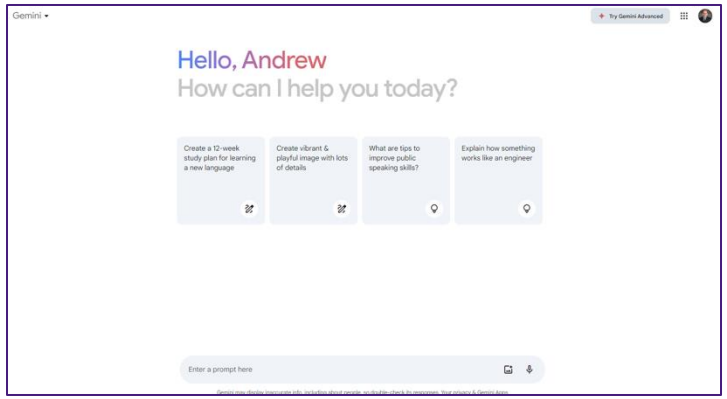
CPA Skills in the AI Era

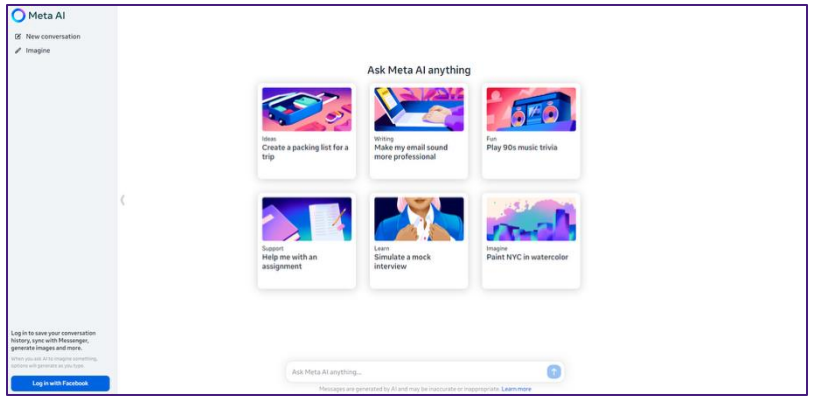
- Prompt Engineering for Accounting
- Data Literacy for Financial & Audit Data
- AI-Enhanced Leadership
- AI Tool Evaluation
- AI Firm Integration

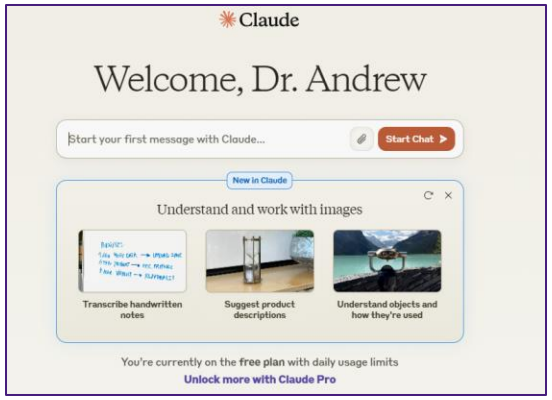
Prompt Engineering for CPA's

Prompting the LLM









Future Availability

While we don't know exactly when Grok AI will be available to everyone, it's clear that the creators are taking their time to make sure it's ready. They want everyone who uses Grok AI to have a great experience, so they're making sure it's well-developed and easy to use.

Use Case	Slide-Ready Prompt
1. Transaction Categorization	Categorize transactions. Add 'Suggested Category'; flag uncertain items with explanations.
2. AP/AR Anomaly Detection	Identify duplicates, unusual patterns, suspicious vendors, or outliers. Summarize findings.
3. Ledger Risk Review	Analyze GL for anomalies, high-risk entries, and fraud indicators. Rank by risk.
4. Financial Statement Review	Identify variances, liquidity issues, profitability trends. Provide key questions.
5. Tax Research Memo	Write a tax memo (Facts→Issue→Analysis→Conclusion) with citations.
6. GAAP / ASC Analysis	Summarize accounting implications; identify ASC guidance and required entries.
7. Cash Flow Forecasting	Create a 12-month cash forecast with scenarios and key risks.
8. Month-End Close Checklist	Create a detailed close checklist with roles, dependencies, and risks.
9. Client Email Polishing	Rewrite email in a clear, concise, professional tone.
10. Engagement Letter Template	Draft an engagement letter/workpaper with scope, responsibilities, and timelines.

Data Literacy for CPA's

1. Data Identification & Classification Skills

- What CPAs Must Do:
  - Distinguish structured vs. unstructured data (GL, invoices, contracts).
  - Identify authoritative sources (system of record vs. shadow files).
  - Map business processes to data flows.
- Example:
  - A client provides bank statements, PDFs, and Excel subledgers—CPA identifies which dataset controls completeness assertion.
- AI Prompt:
  - "Review these datasets and identify which is the source of truth. Classify each file as structured or unstructured and describe its purpose in the accounting cycle."

2. Data Quality Assessment Skills

- What CPAs Must Do:
  - Detect duplicates, missing fields, inconsistent naming.
  - Check subledger–GL alignment.
  - Identify anomalies (weekend entries, negative balances).
- Example:
  - CPA finds multiple vendor IDs referring to the same vendor, causing AP aging distortion.
- AI Prompt:
  - “Analyze this dataset for duplicates, missing values, and inconsistent entries. Summarize key data quality issues and recommend corrections.”

3. Data Interpretation & Analytical Reasoning

- What CPAs Must Do:
  - Interpret trends, ratios, anomalies, and seasonality.
  - Determine if results make economic sense.
  - Translate patterns into audit, tax, or advisory implications.
- Example:
  - CPA identifies sudden gross margin spike driven by misclassified COGS items.
- AI Prompt:
  - “Analyze these financials and identify unusual trends or anomalies. Explain possible root causes and questions a CPA should ask.”

4. Data Transformation & Structuring Skills

- What CPAs Must Do:
  - Clean and normalize messy data.
  - Convert unstructured inputs into structured formats.
  - Prepare data for AI analysis or audit testing.
- Example:
  - CPA converts 50 scanned lease PDFs into a structured ASC 842 schedule.
- AI Prompt:
  - “Extract structured fields from these documents and produce a clean table ready for analysis. Identify any missing elements.”

5. Data Controls & Governance Evaluation

- What CPAs Must Do:
  - Evaluate access controls and change logs.
  - Assess risks in automated or AI-driven processes.
  - Document internal controls over data flows.
- Example:
  - CPA reviews AP automation logs to verify approval routing integrity.
- AI Prompt:
  - “Review this workflow and identify internal control weaknesses related to data integrity, segregation of duties, or system access.”

6. Data Communication & Visualization

- What CPAs Must Do:
  - Convert data into dashboards, charts, and narratives.
  - Tailor insights for boards, lenders, or management.
  - Explain how data supports conclusions.
- Example:
  - CPA creates a KPI dashboard to show declining AR turnover and liquidity risks.
- AI Prompt:
  - “Convert this financial data into a clear visual dashboard summary with KPIs and narrative insights suitable for management.”

7. Data Skepticism & Validation Skills

- What CPAs Must Do:
  - Challenge AI-generated results.
  - Verify outputs against source data.
  - Identify hallucinations or misinterpretations.
- Example:
  - CPA discovers an AI-generated variance explanation contradicts underlying GL detail.
- AI Prompt:
  - “Validate these AI-generated findings against the underlying dataset. Identify inconsistencies or unsupported conclusions.”

AI-Enhanced Leadership

Building a Resilient Organization: Leading the AI Way

Leadership in the AI Era

Dimension	Traditional Leadership	AI-Era Leadership
Decision-Making	Based on experience and intuition	Data-driven, supported by AI and analytics
Team Composition	Human teams	Hybrid teams (humans + AI systems)
Ethics and Responsibility	Focused on human behavior ethics	Oversight of ethical AI use, bias mitigation, and algorithm transparency
Pace of Change	Incremental and predictable	Rapid, disruptive change requiring continuous adaptation
Workforce Management	Stable roles and career paths	Ongoing reskilling, automation of tasks, and job transformation
Innovation	Siloed, process-driven innovation	AI-fueled, continuous, experimental innovation
Intelligence Focus	IQ (intelligence) and EQ (emotional intelligence)	Adds TQ (technology quotient) to IQ and EQ

Organizational Buy-in and Readiness: Strategizing the AI Decision

Traditional Paradigm of IT Decision Making

Our AI Study: List of Drivers

How does the AI solution impact the cost structure of your organization?

How does the AI solution impact the well-being of your employees?

How much do your employees trust the decisions made by the AI solution?

How much of an impact will there be on the transition from human workers completing the task to the AI solution completing the same task?

How many safety brakes are present in the solution to override the decision made by the AI?

How many new insights does the AI solution provide to you over your current solution?

How much confidence do you have in the outputs of the AI solution?

How clear are the outputs of the AI solution?

What are the capabilities of the AI solution?

What is the functionality of the AI solution?

Our AI Study: Results

In rank order, the importance of attributes were as follows:

- The impact on the well-being of employees
- The amount of trust your employees have in the decisions made by the AI solution
- The amount of safety brakes in place to stop the AI solution, even if there will be unintended consequences
- The amount of confidence that you have in the output of the AI solution
- The functionality offered by the AI solution
- The impact on the cost of doing business
- The amount of new insights that you will gain from the new AI solution
- The ease of interpreting the output of the clarity of the AI solution
- The capabilities offered by the AI solution
- The impact on the transition from human workers completing the task to the AI solution completing the same task

Time for a New Paradigm?

AI Tool Selection

AI Tool Categories for CPAs

- AP/AR Automation (OCR, invoice processing, payment workflows)
- Audit Analytics (risk scoring, anomaly detection, sampling)
- Tax Research & Document Intelligence
- Workflow Automation (routing, approvals, task management)
- General AI Assistants (LLMs for writing, analysis, summarization)
- Financial Forecasting & Modeling Tools

Core Evaluation Criteria for AI Tools

- Accuracy & reliability of outputs
- Data security, encryption, and privacy compliance
- Integration with existing systems (ERP, tax, AP/AR)
- Explainability and auditability of AI results
- Vendor reputation, stability, and roadmap

Prompts for Evaluating AI Tools

- “Compare these AI tools based on accuracy, security, cost, and integration.”
- “Summarize internal control risks associated with this AI workflow.”
- “Create a decision matrix ranking tools across 10 evaluation criteria.”
- “Explain whether this AI output meets audit documentation requirements.”

AI Adoption Strategy for CPA Firms

- Start with low-risk, high-value pilot projects
- Define measurable success criteria
- Train team members in responsible AI use
- Develop ongoing evaluation & governance processes

AI Firm Integration

Implementation Scenarios

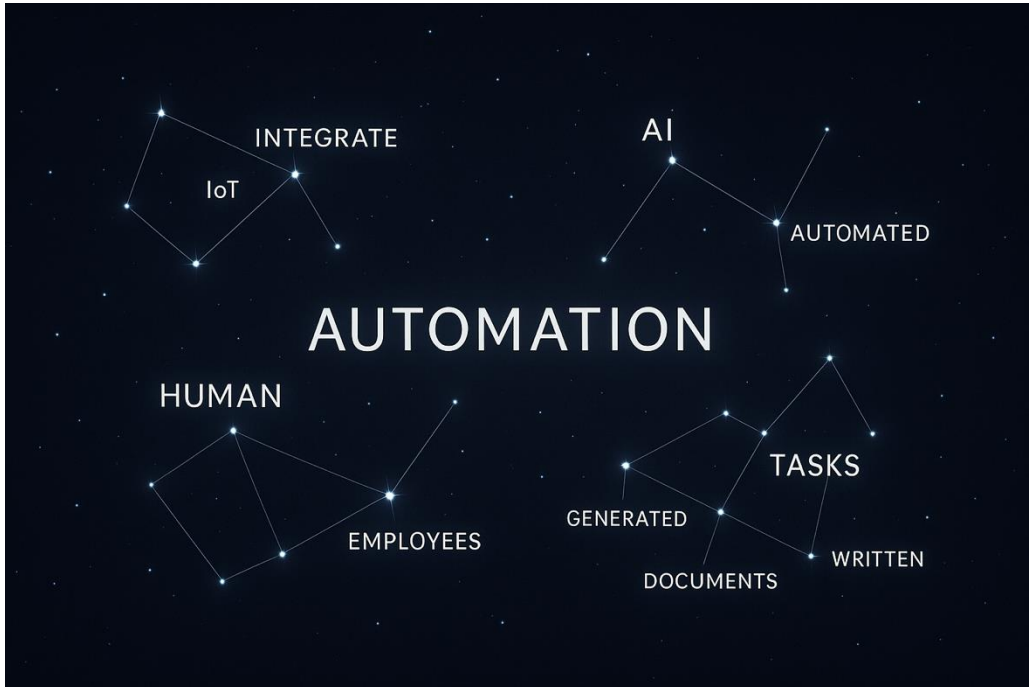
Five Archetypes of the AI-Enabled Organization

- Automation-First
- Knowledge & Analytics Copilot
- Personalized Service Enhancer
- AI Platform Builder
- Human-AI Symbiosis

Archetype #1: The Automated Organization

My Investment Bank uses a variety of different trading platforms and other software systems today that require a lot of different manual checks and inputs. I could see our bank eventually using AI to help automate a lot of this manual risk and reduce or eliminate our "fat finger" or "human error" risks

Well, we rely on a lot of original content and data and fact based reporting. If AI became more prominent in our organization, we would see a lot more articles being written by AI, a lot more codes being written by AI, and possibly illustrations being AI produced.



Archetype #2: Knowledge and Analytics Copilot

Deeper insights and inferences which results in cost savings and efficiency.

Likely it will mean more control over quality services being provided. In other words, more monitoring of our minute to minute performances and quicker indications being noticed of any building issues in dispatching. I see primarily nothing but improvement over the next 10 years in our ability to perform with the assistance of AI.

Archetype #3: Personalized Service Enhancer

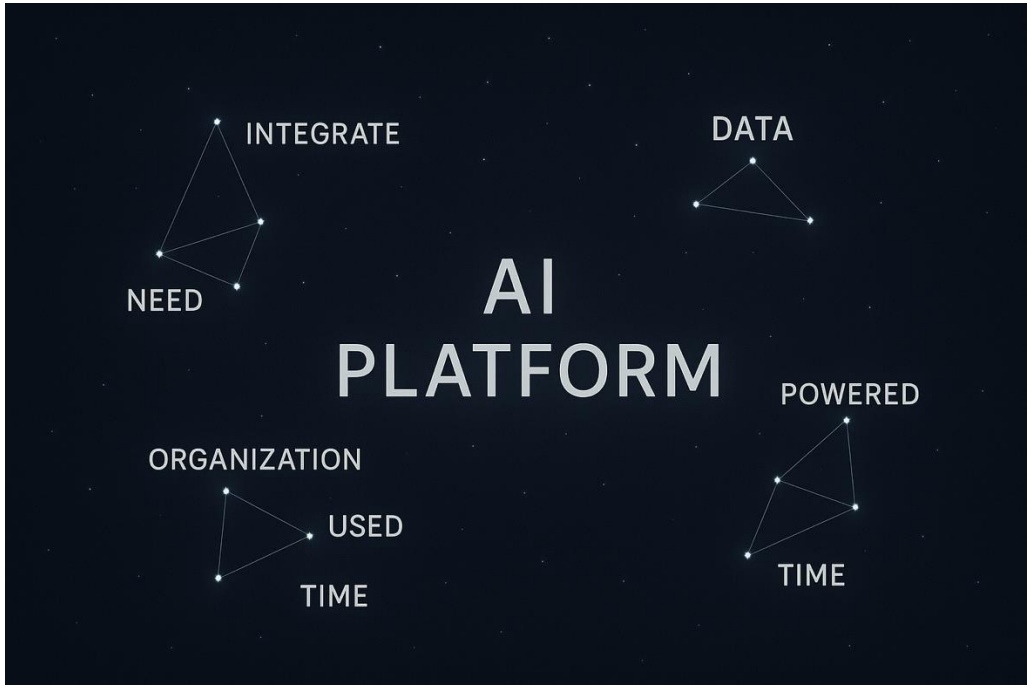
Since I work with education and technology, we would need to remain competitive in a landscape that is moving toward targeted, personalized instruction.

Our organization is very service oriented and helps create futures in positive ways

Archetype #4: AI-Integrated Platform

I think that there may be very few jobs handled by specific people. I think that there will be a few people at a high level and there will be a few AI experts.

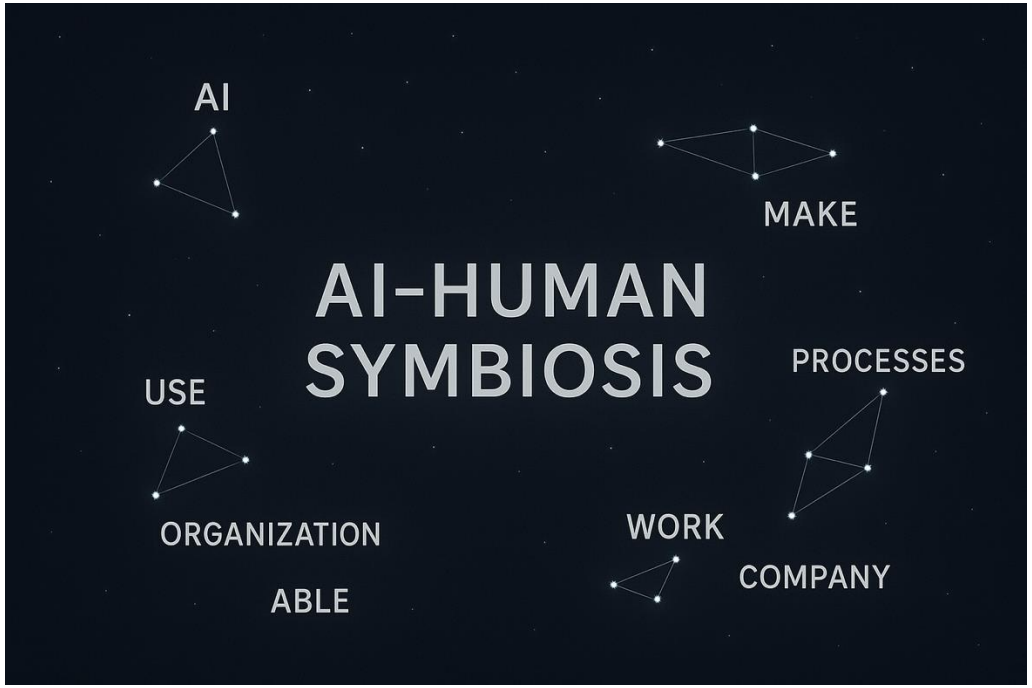
Clean automation, efficient integration between different data sources, and good AI powered assistance for technical tasks like software engineering.



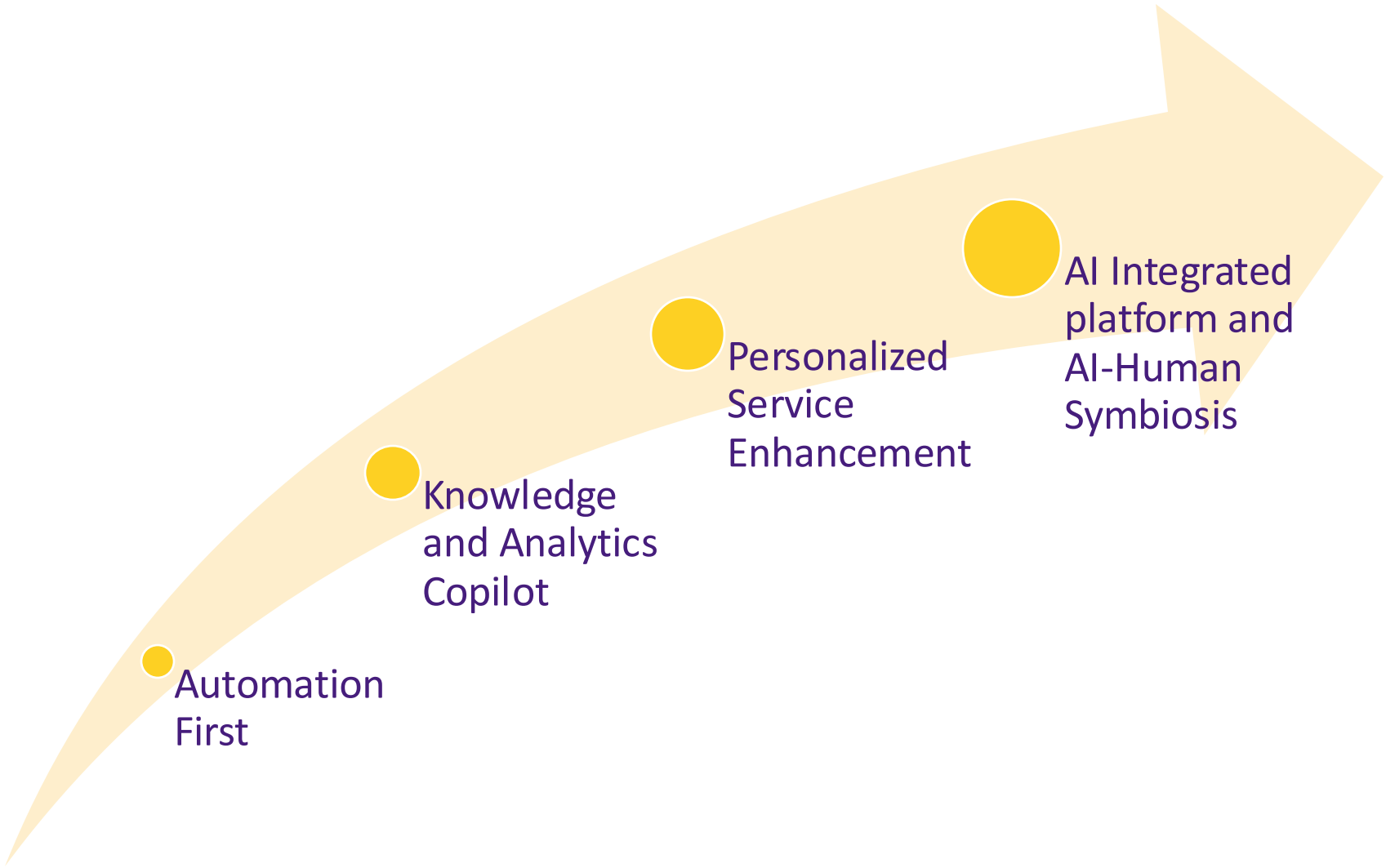
Archetype #5: AI-Human Symbiosis

Ai in the boardroom and the C suite.

My company is fairly small, and leadership values loyalty a great deal, so I believe that AI might replace some roles, but all employees who demonstrate that they wish to continue working there will be given the opportunity to transition to a new position.



Predicted AI Evolution of Archetypes

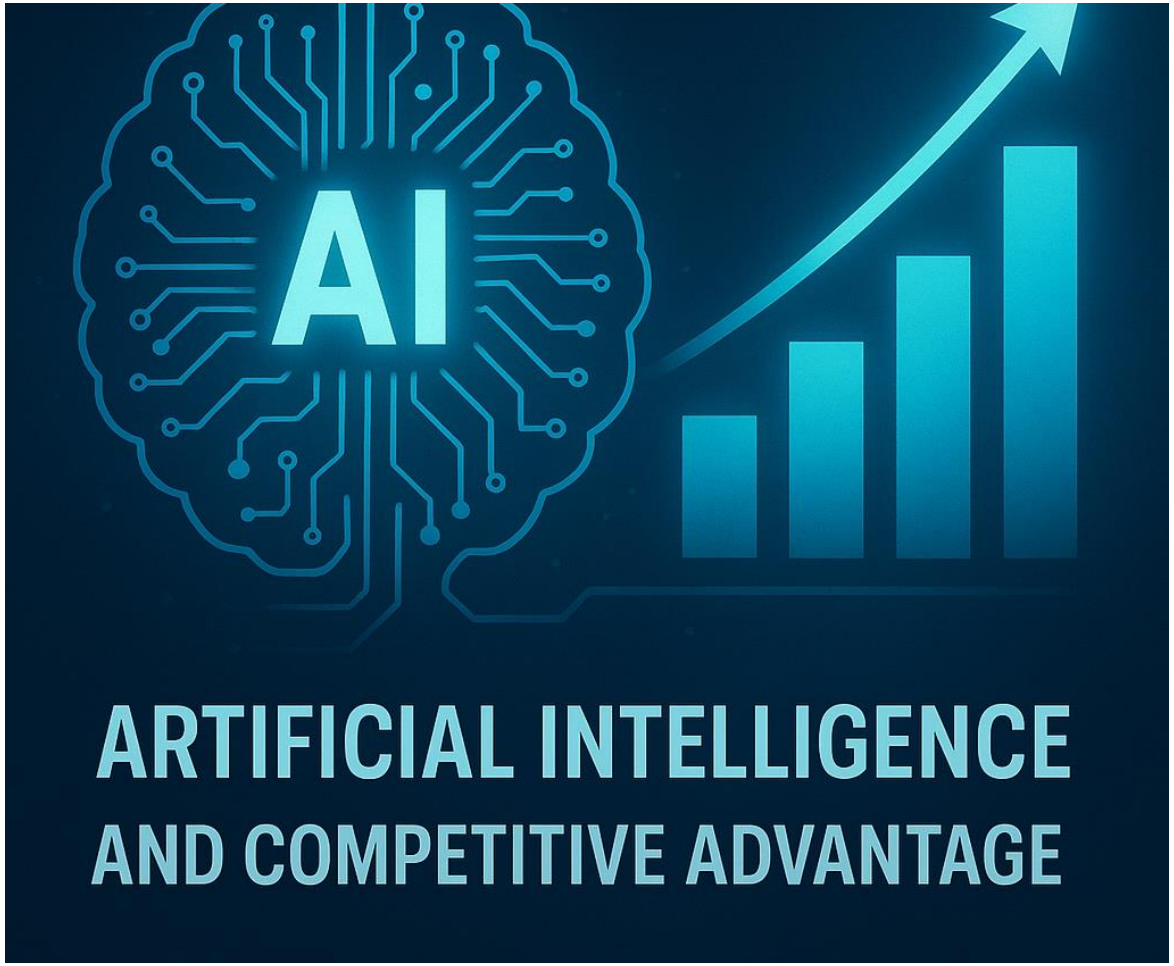


Single versus Multiple-Archetype Pursuit

Dimension	Single-Archetype Pursuit	Multiple-Archetype Pursuit
Typical Context	Small/medium organizations with limited resources; early AI adopters	Large, complex, or mature organizations; AI seen as strategic enabler
Focus	One dominant priority (e.g., cost reduction, analytics, or customer experience)	Broad integration across multiple business functions
Advantages	• Clear priorities • Faster execution • Simpler governance	• Greater resilience • Unlocks synergies between functions • Accelerates innovation
Risks	• Narrow benefits • Risk of obsolescence • Limited organizational learning	• Higher complexity • Costly to coordinate • Cultural and change-management challenges
Adoption Path	Typically a **stepwise entry**: start with Automation or Analytics	Often **parallel adoption**: mix of Automation, Analytics, and Service; evolving toward Platform + Symbiosis
Best Fit	Organizations seeking **quick wins** and proof of value	Organizations pursuing **enterprise-wide transformation**

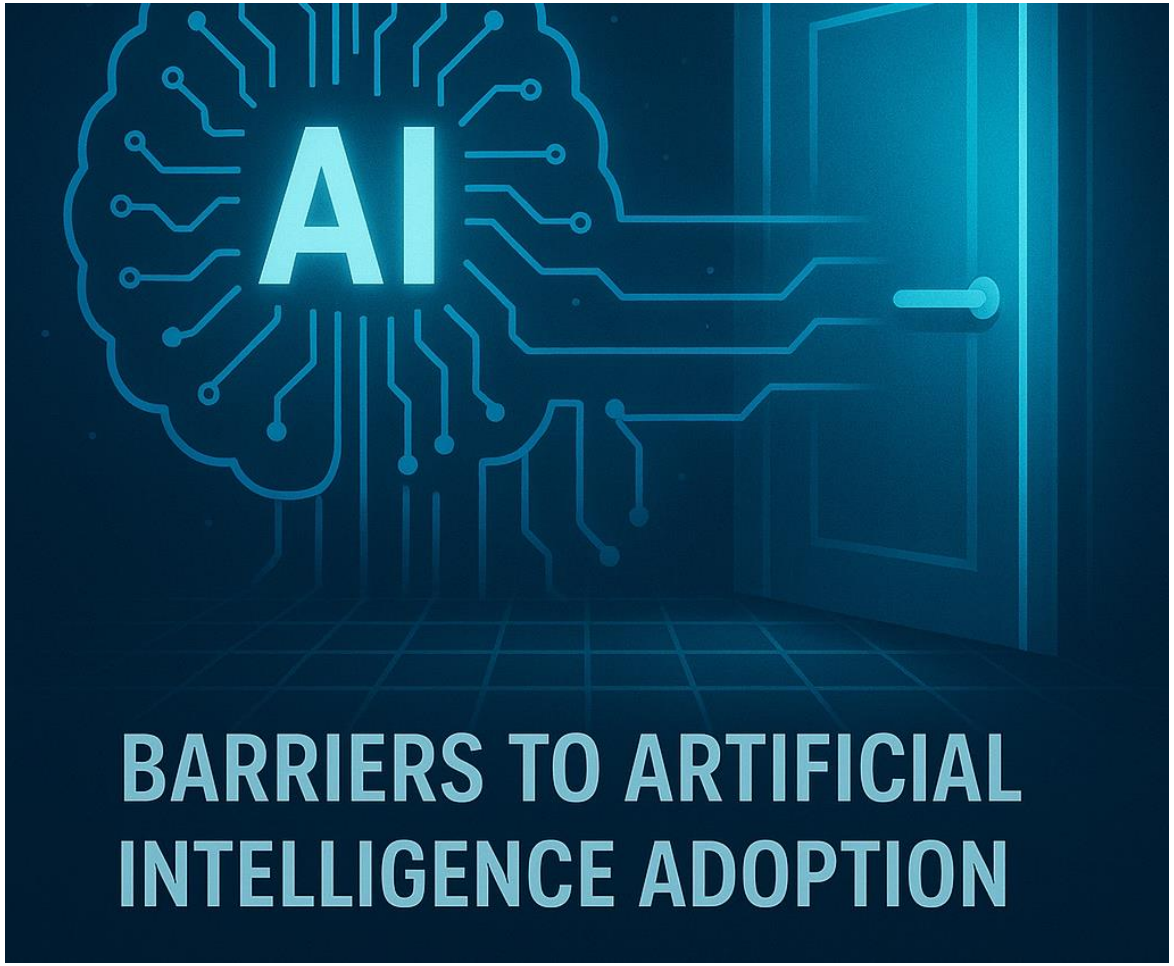
AI and Competitive Advantage

- Operational Efficiency & Cost Savings
- Customer Experience Advantage
- Innovation & Product Development
- Decision-Making & Insight Advantage
- Speed & Agility in the marketplace



Barriers to AI Adoption

- Cost & Resource Constraints
- Skills & Talent Shortages
- Data & Infrastructure Challenges
- Organizational Culture & Resistance
- Ethical, Legal & Risk Concerns



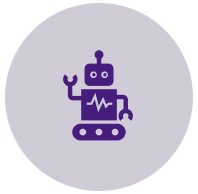
Key Takeaways

Align AI strategy with measurable business outcomes

Invest in workforce reskilling and cultural transformation

Build strong data, governance, and infrastructure foundations

Establish responsible AI frameworks to ensure trust and compliance



Move from pilots to enterprise-wide scaling of AI solutions

AI is a strategic imperative, not a technology project

Executives must lead cultural change while ensuring responsible deployment

Call to action: Transition from exploration to enterprise transformation

Looking Ahead:
Concerns, Closing Thoughts and a Call to Action

AI Evolution in 2025

- Small Language Models
- Advances in hardware and computation
- More integration into our lives
- MultiModel Language Model
- Integration of additional data
- New methods for fine tuning and training

A Call to Action!

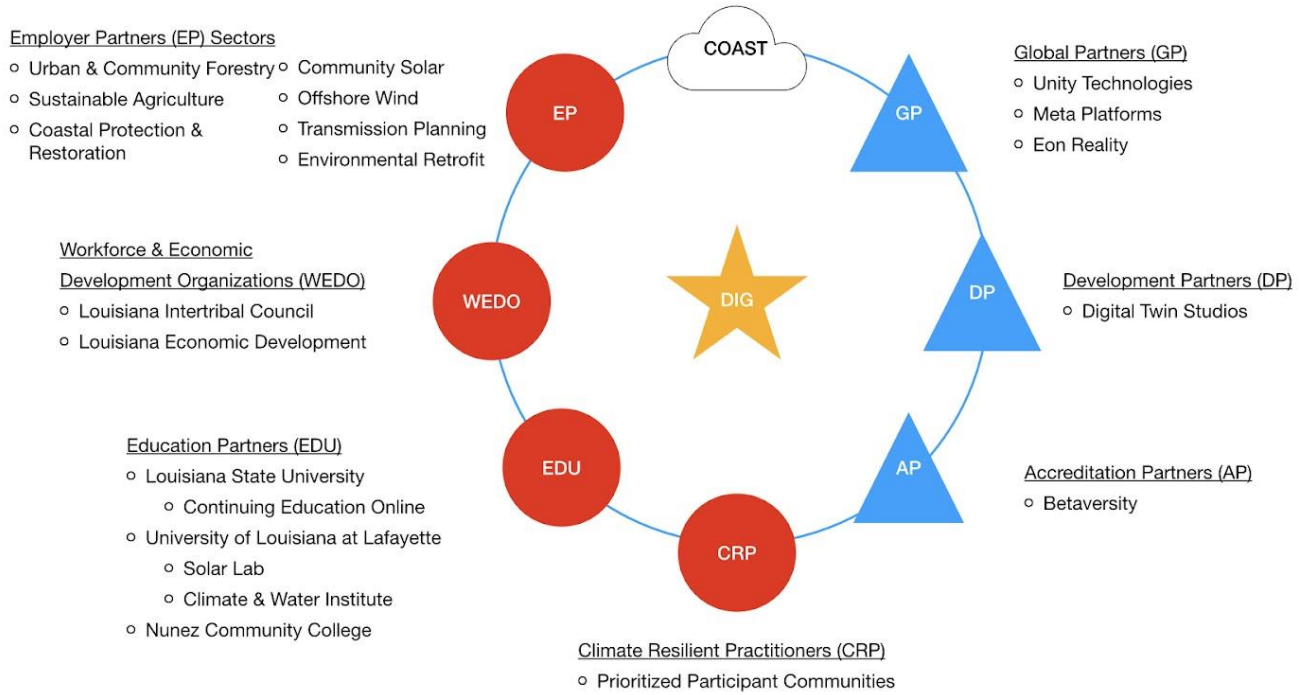
- State-Level opportunities
  - Investment in future of work
- Federal-level opportunities
  - Investment in the tech sector
- Society-level opportunities
  - Rethinking the work-life balance

Intersectoral Collaboration as the Future

Unity Change Hub Initiative

Intersectoral Collaboration as the Future

Louisiana Digital C.O.A.S.T. Climate Oriented Adaptive Skills Training



Checklist for Organizations: Leading Safe Tech Adoption

✓ Leadership: Appoint champions, set vision, and allocate resources

✓ Organizational Buy-in: Build trust, align stakeholders, and foster readiness

✓ Workforce Readiness: Train employees on responsible AI use

✓ Technology Assessment: Apply structured frameworks and vet vendors rigorously

✓ Implementation: Pilot → feedback → scale with safeguards in place

✓ Vigilance: Continuously monitor threats, update safeguards, and anticipate adversary tactics

Thank you for attending!

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