

# Generative AI

## Exploring the Landscape: Higher Education & Finance Contexts

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# Agenda: Generative AI Session

- Gartner Executive Partner Introduction
- Aligning on the Basics
- Higher Education & Finance Use Cases
- Wrap Up, Q&A

# What is AI and what it is NOT?

| AI is  | AI is NOT                                   |
|--|---|
| Intelligent machines capable of performing tasks that would typically require human intelligence             | Omniscient                                  |
| Simulation of intelligent behavior in computers  | Infallible (it's not a calculator)          |
| Ability to perceive and understand the environment reasoning and decision-making capabilities                | A replacement for humans                    |
| Systems that can learn, adapt and solve problems like human intelligence or surpassing it in certain domains | A magical solution                          |
|  | Inherently biased nor operates in isolation |

# The Impact of AI Is Growing and Evolving

## AI has become a partner

AI has become a partner for people's jobs — for example:

- An assistant or advisor to workers and experts
- An art generator for artists
- Code generator for developer support

AI in 2023 provides an opportunity for each of us to become more productive and consistent. It expands the reach of our expertise, creativity and knowledge. It is a natural step, as was the step taken toward using stone tools, iron tools and then digital tools to boost the value and impact on work and outcomes.

## AI is becoming a creator

Next, AI will bring creation of new insights, models and capabilities into sharp relief.

A generative AI solution's ability to simulate massive quantities of models to create new business, human and physical scenarios will enable AI to accelerate beyond human R&D.

For example, in new drug discovery, AI helps with everything from chemical interactions to drug interactions to patient reactions.

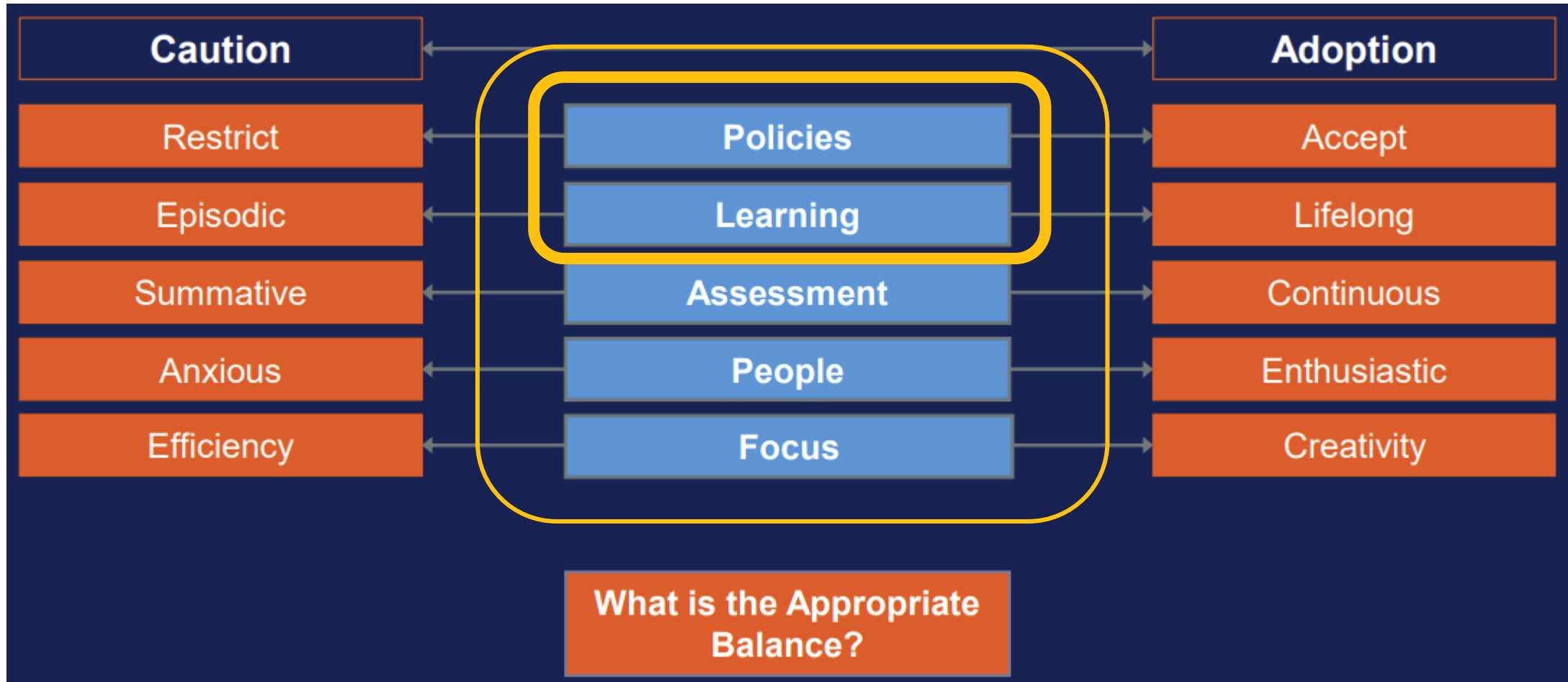
## AI is becoming an actor

The supplement tends to supplant.

In the future, AI may displace workforce tasks, but it remains to be seen whether AI can replace people entirely. First, AI augments human capability and replaces worker tasks.

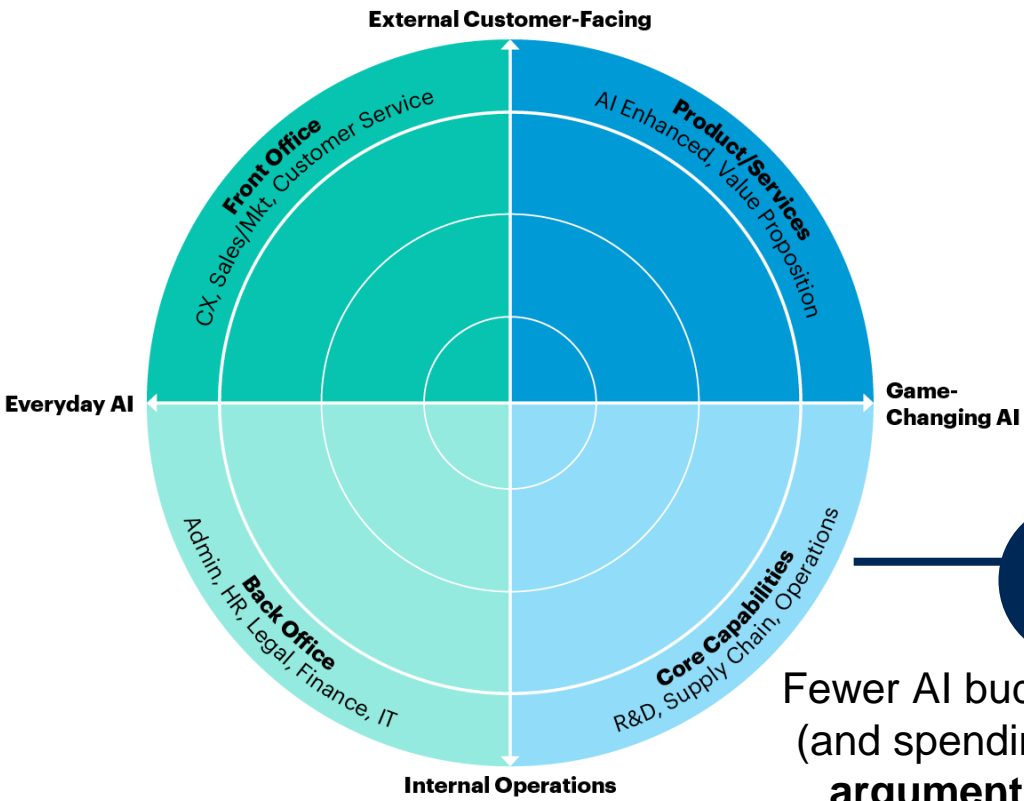
In parallel, people augment AI capability, creating new jobs, while helping AI applications with tasks that AI cannot do on its own.

# Generative AI: Caution >> Adoption



# Consider AI for All, Prioritize A Few

The question is not whether to use AI, it is *how*, *why* and what to do *first*.



Fewer AI budget (and spending) arguments

Strategic data management is justified and funded

Data literacy is essential to organizational health

Data of greater authority for all projects (which means all AI projects)

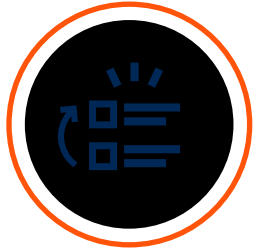
AI is understood and used optimally — not a destination but a means

Benefits are defined and necessary

Source: Gartner



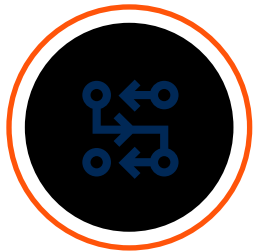
# The Use Cases of Early Adopters Are Broad



Operations transformation and analysis



Product and service personalization



Create new revenue channels or digitize products



Process optimization



Predictive maintenance or condition monitoring



Up-sell and/or cross-sell and market basket analysis



Assortment planning or allocation management



Fraud detection or threat signal analysis

Q04. What are the top 3 use cases leveraging AI within your organization?

Source: 2022 Gartner AI Use-Case ROI Survey

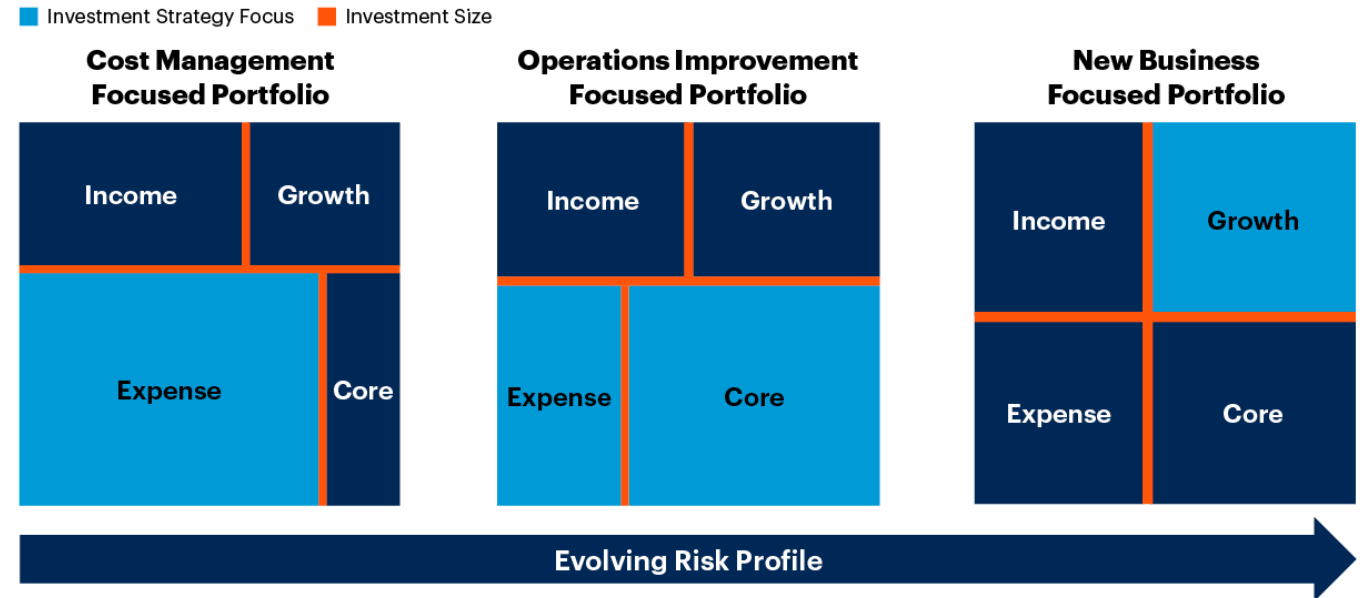
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# Gartner: AI Return on Investment (1 of 2)

## Today's Situation and Challenges

- Few enterprises are achieving maximum leverage from artificial intelligence investments, despite increased spending.
- CEOs and CFOs expect 60-80% success rate from AI investments to approve additional investment. The timeframe to predictably achieve these success rates is still 2-5 years away.
- Investments in education, alignment, partnerships, talent uplift are needed; these are fundamental.
- Executive leaders must be discerning creators of AI investment strategies based on Feasibility and Value.
- It is difficult to attain significant return on investment for discrete AI or a small collection of business area use cases, because of the tactical focus of AI design. Excessive technical debt further inhibits this (such as delayed investments in data & analytics).

## Example Strategic Allocation For Scaling AI Investment

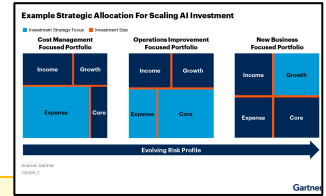


Source: Gartner  
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# Gartner: AI Return on Investment (2 of 2)



## Approaches and Solutions:

- AI investments cannot solely or primarily be valued on cost savings; AI is best esteemed for potential to create coherence across people, processes and technology, and to produce a spectrum of benefits, including improvement in productivity, efficiency, agility and resilience.
- Scale, dimension and reach across the enterprise are the real returns on investment in AI. AI that is detached from enterprise performance outcomes should not be pursued.
- Organizations where AI is always considered for every use case are more than three times more likely to reach “mature” levels of AI implementation.
- Organizations that use business metrics linked to customer success are 2.2 times more likely to reach “mature” levels of AI implementation.

## Higher Education Alignment to 3 areas: Cost Management, Operations Improvement, New Business

### *Context & Examples:*

- **Cost Management** > Efficiency - remove costs from business model
- **Operations Improvement** > Effectiveness
  - Move resources from back office to higher value
  - Accelerated delivery such as faster admissions cycle, research outcomes
  - Targeted innovations for student retention
- **New Business** > Differentiating teaching & learning, partnerships, research, community services

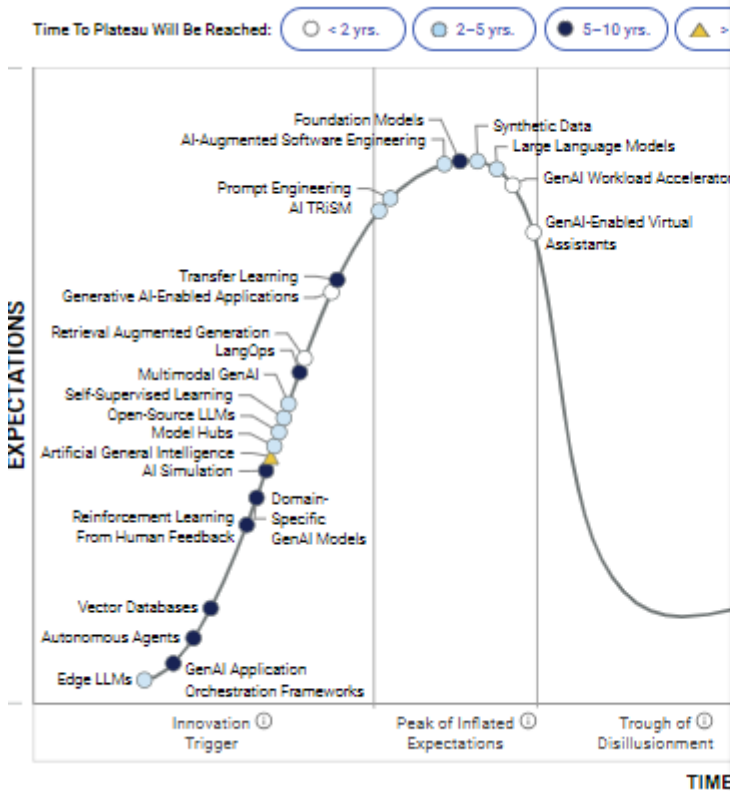
# Higher Education & Finance Use Cases

# Setting The Stage: Strategic Planning Assumptions

## *Contextualized for Higher Education*

- By 2025, the top five vendors across all enterprise software categories will use GenAI in their pipeline.
  - HE: Institutions amid HR, Finance and Student implementations must review their plans to assess opportunities and re-evaluate ROI
- By 2026, the number of companies using open-source AI directly (not indirectly via other vendors) will increase tenfold.
  - HE: There are already users in institutions using open-source AI directly; the most common being students whether guided by faculty or not. Institutions must determine and influence use of open-source AI.
- By 2026, GenAI will facilitate an increased use of other AI technologies (aside from GenAI) by 400%.
  - HE: This involves convolutional and recurrent neural networks and reinforcement learning.

# Gen AI Is Still Early, But Evolving Rapidly



## Higher Education Context Examples

### • **Now + 2 years:**

- AI Enabled Apps for internal and external services such as IT service desks, admission assistance. Target on high effort and high repetition tasks.
- “Virtual Assistants” – Example: MS CoPilot, Google Gemini
- Workload Accelerators (chips) for research (ref: NVIDIA)

### • **2 years and beyond**

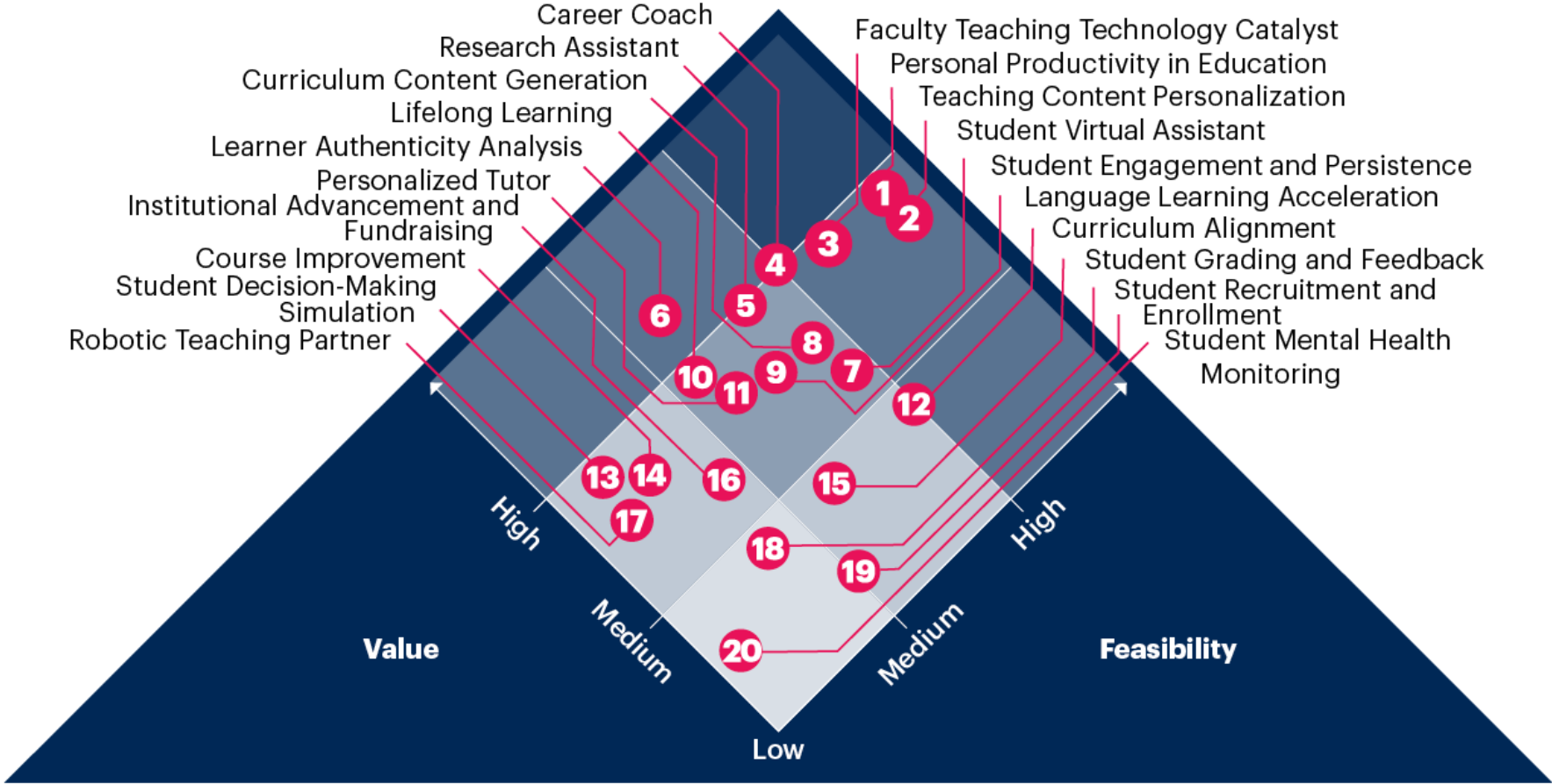
- More capabilities from major vendors that must be factored into Finance, HR, SIS, LMS roadmaps with emphasis on feasibility & value
- Specific & OpenSource LLMs that include unlabeled data for research and education
- Prompt Engineering for “in context learning” for LLMs
- Domain specific models that accelerate value for specific use cases (climate change et al)

### • **Advice:**

- Deeper understanding of items in AI Hype Cycle that correlate to institutional priorities. Time your strategic investments and roadmaps based on use cases of most value to mission critical priorities.
- Note that some items, such as Edge LLMs are very early, yet predicted to move through cycle quite quickly

# Generative AI: Academic Activities

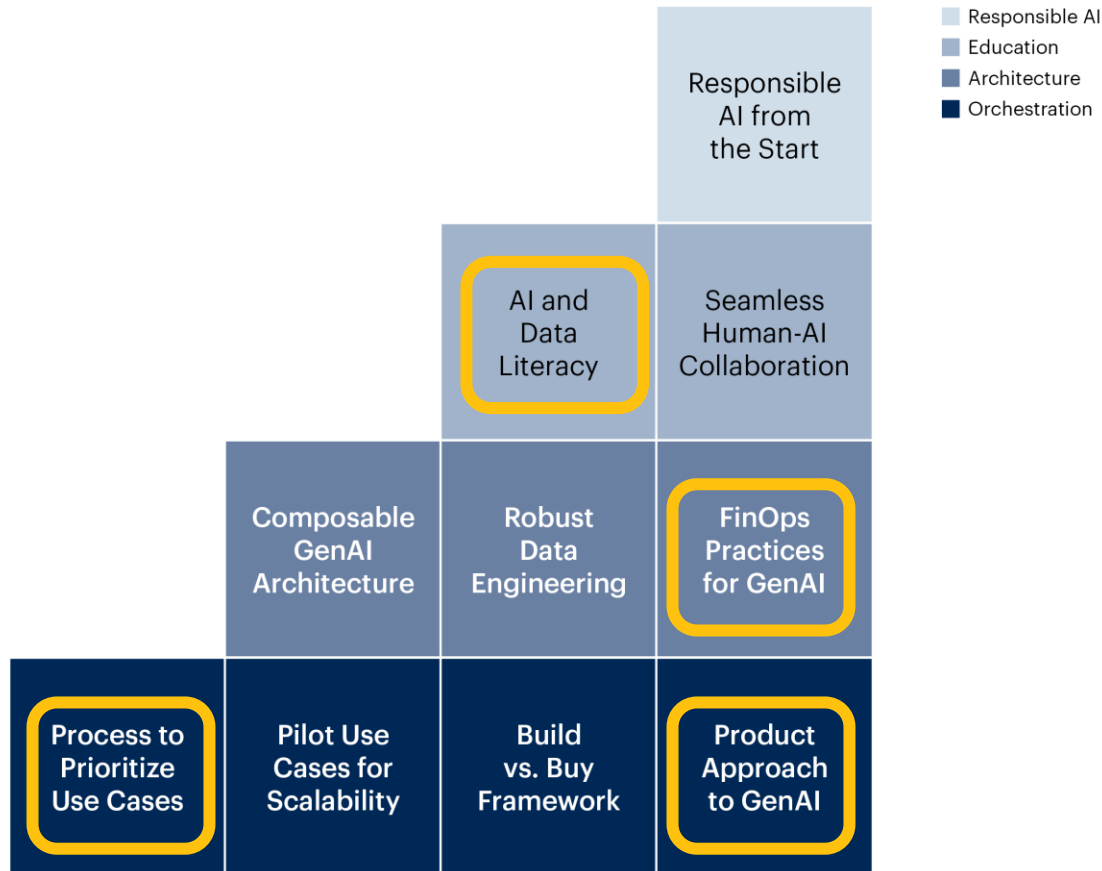
## GenAI Use-Case Prism for Education



Source: Gartner

# Generative AI: Best Practices

## The 10 Best Practices for Scaling Generative AI



### Key Messages:

- All these practices are important. The highlighted ones are where IT and units need strong alignment.
- FinOps: Applying value-based, quantifiable methods and measurements to IT investments becomes more important with AI due to impacts.

Source: Gartner  
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# Generative AI: Finance Use Cases

## Types of AI Use Cases in Finance



## Sample AI Use Cases

1

- Customer credit management
- Invoice matching — AP
- T&E optimization
- Cash application

2

- Duplicate payment identification
- Contract analysis
- Transaction and balance monitoring
- Compliance and risk monitoring

3

- Scenario and capex planning
- Customer behavior prediction
- Predictive and prescriptive analytical modeling
- Forecasting (demand, revenue, cashflow, expense)

4

- Intelligent dashboards
- Chatbots/ digital assistants
- Decision support
- Pricing automation
- Natural language query

- As of late 2023, 61% of finance organizations had no plans or were still in the initial planning phase.
- Of the ~ 10% of finance organizations that are currently using AI are already seeing an impact that is either meeting or exceeding their initial expectations.
- Finance leaders most frequently cite “other priorities” as the reason their function does not use AI. Other reasons: lack of technical capabilities, suboptimal data quality and insufficient use cases.
- CFOs who are currently creating plans for AI in finance must:
  - Coach finance leaders and managers to view AI as an enabler of finance priorities by deepening their understanding of the AI’s capabilities and identifying areas where AI can improve process and workflow efficiency.
  - Explore the AI-enabled capabilities of business automation platforms and intelligent applications by placing AI at the forefront of all vendor discussions pertaining to current and new technologies.
  - Develop initial AI use cases within finance by clarifying how early AI adopters, both within and outside the organization (including other administrative support functions), have used AI so far.

Source: Gartner  
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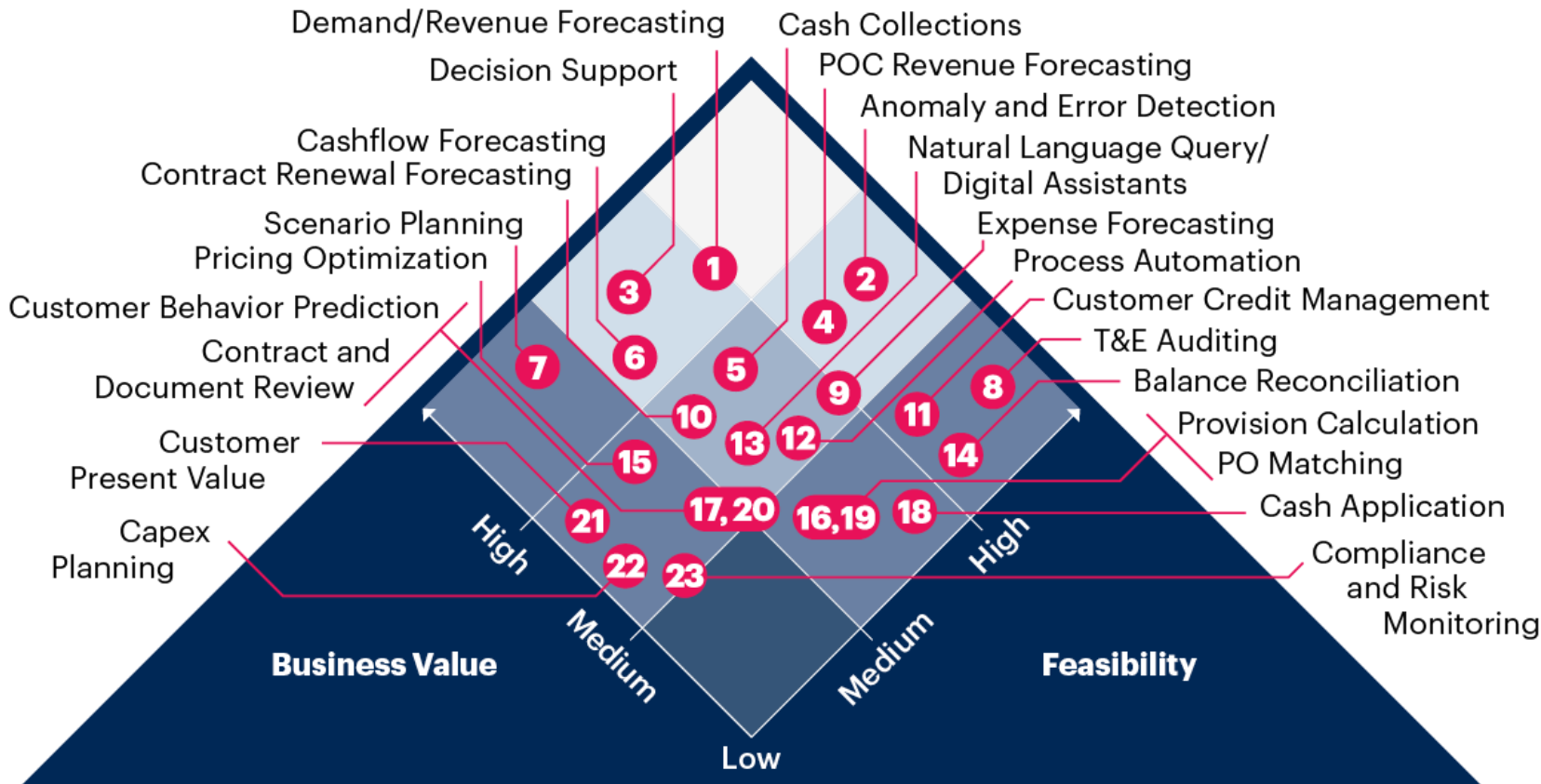
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# Generative AI: Finance Activities



## Key Messages:

- AI is not like other technologies; it learns and is inherently iterative. It cannot be evaluated and managed like prior technology.
- Existing processes and workflows need to be understood, but not altered, to use AI. AI can be integrated with or extended from existing technology.
- Organizations should create their own prism based on value and feasibility
- Common existing uses include:
  - Accounting support (close, reconciliation, journal entries)
  - Anomaly and/or error detection
  - Expense, cash flow and revenue forecasting



# Synopsis

- ④ **Create a succinct AI strategy** that synthesizes institution vision and potential benefits, mitigates risks, captures KPIs, and outlines best practices for value creation
- ④ **Identify executive sponsors for AI projects and ensure KPIs are being measured** accurately and communicated widely
- ④ **Invest in data literacy programs** to instill a data-driven culture.
- ④ **Democratize AI** by harnessing augmented analytics tools and through focused training, and create your reverse pitch to attract talent with specific domain expertise
- ④ **Instill responsible AI practices** and make them foundational to your AI strategy, not an afterthought
- ④ *Check Gartner research regularly as new and updated content comes out*

# Q&A

# Gartner Executive Partner



## Joanna Young

### Top Industry Sectors:

- Higher Education
- Insurance
- Healthcare

### CIO Priorities:

- Portfolio & Program Management
- Organizational Change Management
- IT Service Management
- Analytics/BI

Gartner's Executive Partners provide expert and contextualized advice to guide/accelerate decisions and maximize value of research



Ms. Joanna Young joined Gartner in 2023. In this role, she provides Chief Information Officers (CIOs) and senior IT leaders, across the United States, with actionable advice based on their business and technology needs.

Joanna has extensive C-suite experience, including CIO and CFO roles in higher education as well as CIO roles in insurance and healthcare. As a dedicated servant-leader, she cares about others' success above her own. Notable achievements include institution-wide large system selection and implementations, large federal infrastructure grants, analytics/business intelligence solutions, and mergers & acquisitions.

Now, Joanna applies her decades of experience to helping CIOs and senior IT leaders achieve sustainable success. Prior to Gartner, Ms. Young owned her own consulting business, where she had series of successful engagements across multiple industries.