

# Maximizing the business value from AI: Overcoming three common barriers

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A black and white photograph of a man in a suit and glasses walking on a paved path. He is smiling and carrying a briefcase. The background shows a brick building, trees, and a street lamp. A semi-transparent dark band is overlaid across the middle of the image, containing white text. The words "disruptive change" are highlighted in red.

Our purpose is to empower  
forward-thinking organizations to navigate  
**disruptive change**  
and own the future

# AI is driving profound innovation and transformation

## Shell Wields AI as Transition Tool

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Los Angeles Times

The latest innovation to hit the Las Vegas Strip: Robot bartenders



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REAL ESTATE

## Can AI Do Empathy Even Better Than Humans? Companies Are Trying It.

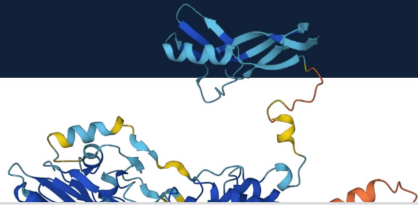
Artificial Intelligence is getting smart enough to express and measure empathy. Here's how the new technology could change healthcare, customer service—and your performance review

FINANCE · A.I.

Meet 'IndexGPT,' the A.I. stock picker JPMorgan is developing that may put your 'financial advisor out of business'

## Protein predictions: AI group says it has solved one of biology's 'grand challenges'

DeepMind, an AI firm owned by Google's parent company, Alphabet, said its program can now predict the structure of nearly every protein known to science.



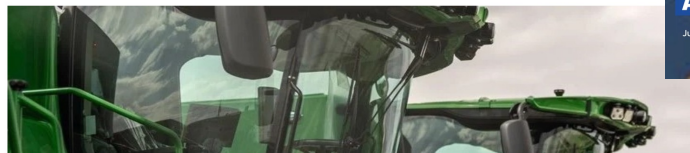
The internet is losing it over these Nike sneakers created by artificial intelligence



## AI can predict pancreatic cancer three YEARS before it occurs, major Harvard study finds

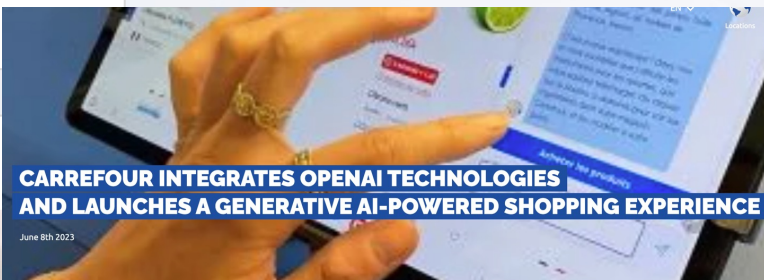
- A Harvard-developed AI model can accurately flag high-risk cancer patients
- Researchers hope it can catch the highly deadly cancer early in its development

## John Deere Revolutionizes Agriculture with AI and Automation



## CARREFOUR INTEGRATES OPENAI TECHNOLOGIES AND LAUNCHES A GENERATIVE AI-POWERED SHOPPING EXPERIENCE

June 8th 2023



Article | [Open Access](#) | Published: 14 September 2023

## Best humans still outperform artificial intelligence in a creative divergent thinking task

[Mika Koivisto](#) & [Simone Grassini](#) [✉](#)

[Scientific Reports](#) 13, Article number: 13601 (2023) | [Cite this article](#)

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# Topics we'll cover today

1

Craft a **distinctive strategy** connected to **business and customer outcomes**

2

Institute **organizational & cultural enablers** of AI

3

Build **mechanisms** to keep up with the **pace of change** and **manage AI uncertainty**

1

Craft a **distinctive strategy** connected to **business and customer outcomes**

# AI strategy starts with an aligned common language

Artificial intelligence = the goal of **making machines act intelligently**

Fields of AI



**Machine learning:** Learn from data to make decisions or predictions

- Netflix recommendations
- Spam filtering



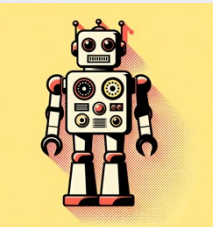
**Natural language processing:** Comprehend and produce language

- Voice assistants
- Email autocomplete



**Computer vision:** Interpret and act on visual data

- Facial recognition
- Autonomous vehicles



**Robotics:** Move and interact with the physical world

- Car assembly lines
- Robotic vacuums

- ▶ What are the **capabilities** of AI?
- ▶ What are the **potential use cases and implications** of AI in the context of our industry and business model?
- ▶ What are the **challenges, risks, and uncertainties** of AI?

# Generative and discriminative models entail distinct use cases



	Generative	Discriminative
Functionality	Create new, original outputs	Distinguish between and classify objects
Analogy	Artists	Detectives
Everyday examples	Chatbots, deepfakes	Image recognition, spam filtering

Tasks routinely performed using human intelligence today

Things humans *can* do

Tasks that cannot be performed at all or as well with human intelligence alone

Things humans *cannot* do

Generative models

- **Law:** Drafting contracts
- **Retail:** Creating meal plans & grocery lists
- **Construction:** Sketching architectural blueprints

- **Media:** Producing individualized content
- **Chemicals:** Creating novel enzymes
- **Financial services:** Providing personalized investment advice

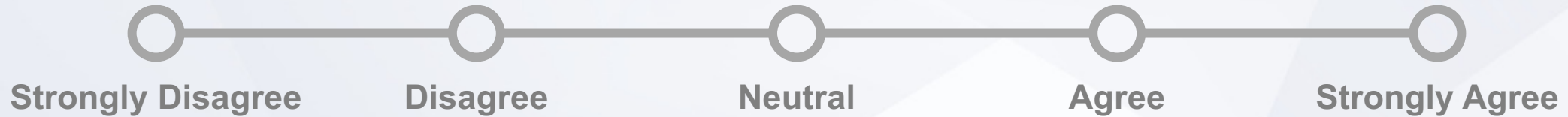
Discriminative models

- **Automotive:** Obstacle detection
- **Insurance:** Valuing losses
- **Environmental restoration:** Coral grafting

- **Healthcare:** Spotting cancer years early
- **Industrials:** Optimizing predictive maintenance of machinery
- **Life science:** Decoding brain waves to help paralyzed people walk and speak

# Poll

Does your organization and its leadership have an **AI common language** that enables effective strategic conversations?



# Two broad domains of AI strategy



## **Operational AI Transformation**

Automate and augment processes across virtually every organizational function to increase both efficiency and effectiveness



## **Customer-facing AI Transformation**

Create differentiated customer value by embedding AI in existing or new customer-facing products and experiences to solve customer “jobs to be done”



# Customer-facing AI transformation



- ▶ 45% of total economic gains from AI by 2030 are expected to come from product enhancements
- ▶ Avoid AI for the sake of AI. Prioritize innovations that solve important and high value customer jobs to be done better than existing solutions
- ▶ Consider today's industry paradigm and how AI might enable new industry paradigms

<b>Agriculture</b>	John Deere has self-driving tractors, automated weed detection and spraying, and harvesters that self-adjust.
<b>Retail</b>	Carrefour's Hopla helps with grocery shopping
<b>Medical devices</b>	Align Technology offers remote progress monitoring and treatment planning for dentists and patients using Invisalign
<b>Financial services</b>	JPMorgan is developing IndexGPT to help customers select investments
<b>Healthcare</b>	Aetna is leveraging wearable and EHR data to deliver real-time, personalized health recommendations.
<b>Restaurants</b>	Panera Bread is exploring personalized family meals on demand based
<b>Bars</b>	Planet Hollywood's Topsy Robots produce 120 cocktails per hour while dancing
<b>Personal care</b>	P&G can analyze skin and hair based on photos and recommend suitable products.
<b>Automotive</b>	Tesla's latest Full Self Driving 12 system taught itself how to drive

2

Institute **organizational & cultural enablers** of AI

# Three key organizational enablers



**Leadership**



**Culture**

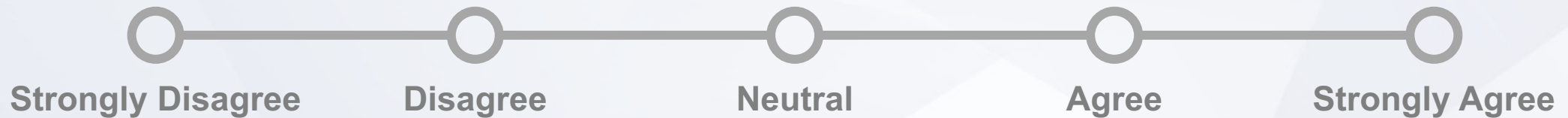


**Talent**



# Poll

Does your organization have the right **organizational enablers** of AI transformation?



# Companies are excited, though most face rate-limiting organizational barriers

## Companies are excited, most are far from ready...



75%

Of leaders believe **future competitive advantage** will depend on who has the most advanced AI



78%

Of leaders believe AI will have a high or extremely **high impact on innovation**



68%

Of organizations are **yet to appoint a leader or team** to coordinate gen AI; most say they lack key enablers like talent and governance



60%

Of companies are **still 1-2 years away from their first gen AI effort**

## ...though some are edging ahead by appointing empowered AI leaders



Global Head of Generative AI



Chief Technology Officer



U.S. Department of Defense

Chief Digital and AI Officer

# Empowered AI leadership has been critical to Microsoft's success

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**Kevin Scott joined Microsoft in 2017 in new companywide Chief Technology Officer role and has since propelled Microsoft from lagging rival tech giants to leading on AI.**

**“** This is not a research endeavor... We are trying to build things that are useful for other people to use... It's just been clear as day that you have to pick the things that you think are going to be successful and give those things the resources to be successful every day. **”**

# Culture: Entrenched behaviors and beliefs can prevent leaders from choosing the right AI strategic priorities and allocating resources to deliver them

Common failure modes

**Remaining entrenched in established industry logics and citing historical success formula insulators from disruptive change**

*“AI cannot replace how we do this for our customers”*

*“AI can’t overcome barriers to entry in our industry”*

**Substituting strategic choices about which AI initiatives to pursue with conviction, with inertia or a sprawling portfolio of minor initiatives.**

*“Let’s monitor it”*

*“We don’t know where this is going, so it’s too early to act”*



# Five behaviors can accelerate AI transformation

## Broad Behavior

## Specific Behaviors

### **CURIOSITY**

*Question the status quo and consistently search for different and better ways to do things with AI.*

- Stay up to date on AI technology, capabilities, and “art of the possible” use cases
- Avoid shutting down ideas by saying, “AI won’t be able to replace or improve this”
- Be perpetually hypervigilant about the future, constantly asking “What if...?”

### **CUSTOMER OBSESSION**

*Relentlessly seek to develop an understanding of how AI can better solve existing and emerging jobs to be done of customers, employees, and stakeholders.*

- Constantly evaluate how AI can address customer jobs, pain points, and new experiences
- Root solutions in customer needs, avoiding AI for the sake of AI
- Consider the needs of diverse ecosystem stakeholders

### **COLLABORATION**

*Collaborate enterprise-wide to maximize collective value creation goals, competitive advantage, and resource synergies.*

- Build multi-disciplinary AI teams with diverse expertise and viewpoints,
- Explore collective goals and resources over those of individual BUs
- Provide visibility and transparency on AI initiatives

### **ADEPTNESS IN AMBIGUITY**

*Act confidently despite incomplete information, expect iteration & change, excel at experimentation, celebrate judicious risk-taking.*

- Plan for different scenarios and alternative outcomes of AI industry transformation.
- Constantly ask, “how can we learn more?” and design experiments to test assumptions and create proprietary insights.
- Reward teams for discovery and intelligent failures, pivoting specific initiatives and strategic postures by adopting an emergent approach to strategy

### **EMPOWERMENT**

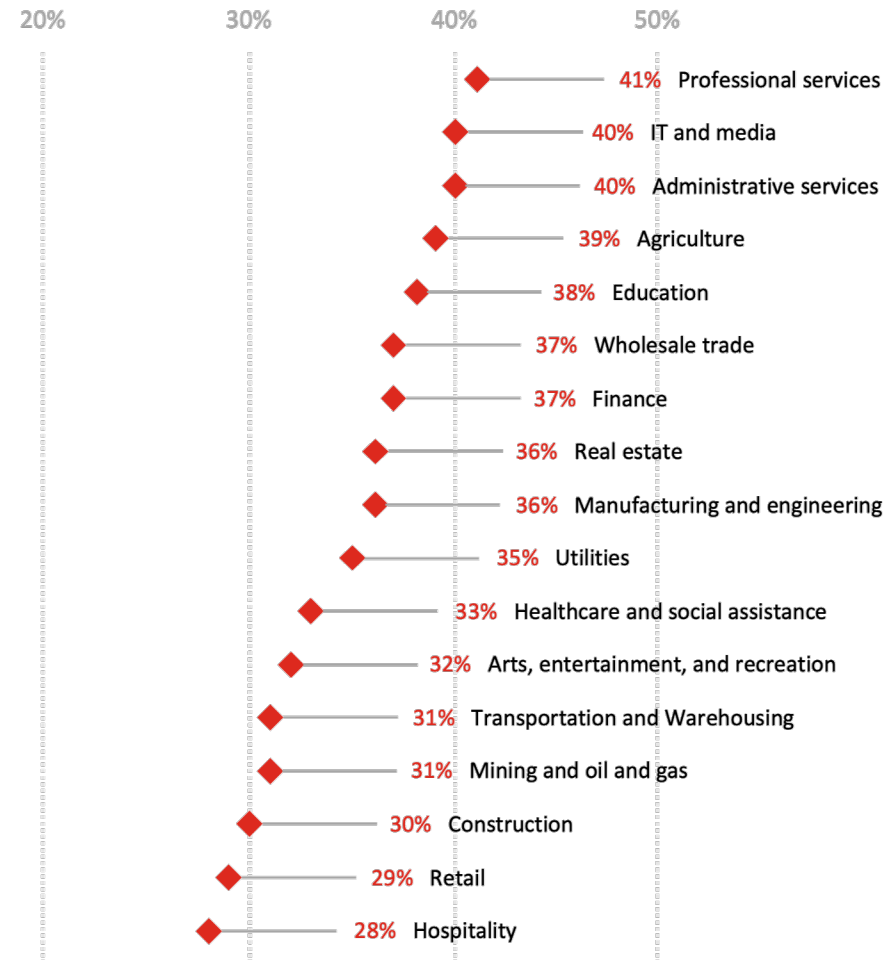
*Exercise initiative, seek out and leverage resources, and make confident decisions.*

- Set teams up for success by removing blockers and providing resources
- Make deliberate choices about which AI initiatives to aggressively pursue and which to deny
- Acknowledge the agency to reshape longstanding business models and proactively create the future with AI, adopting a “future back” rather than a “present forward” mindset

# The impact of AI on the workforce will be significant...

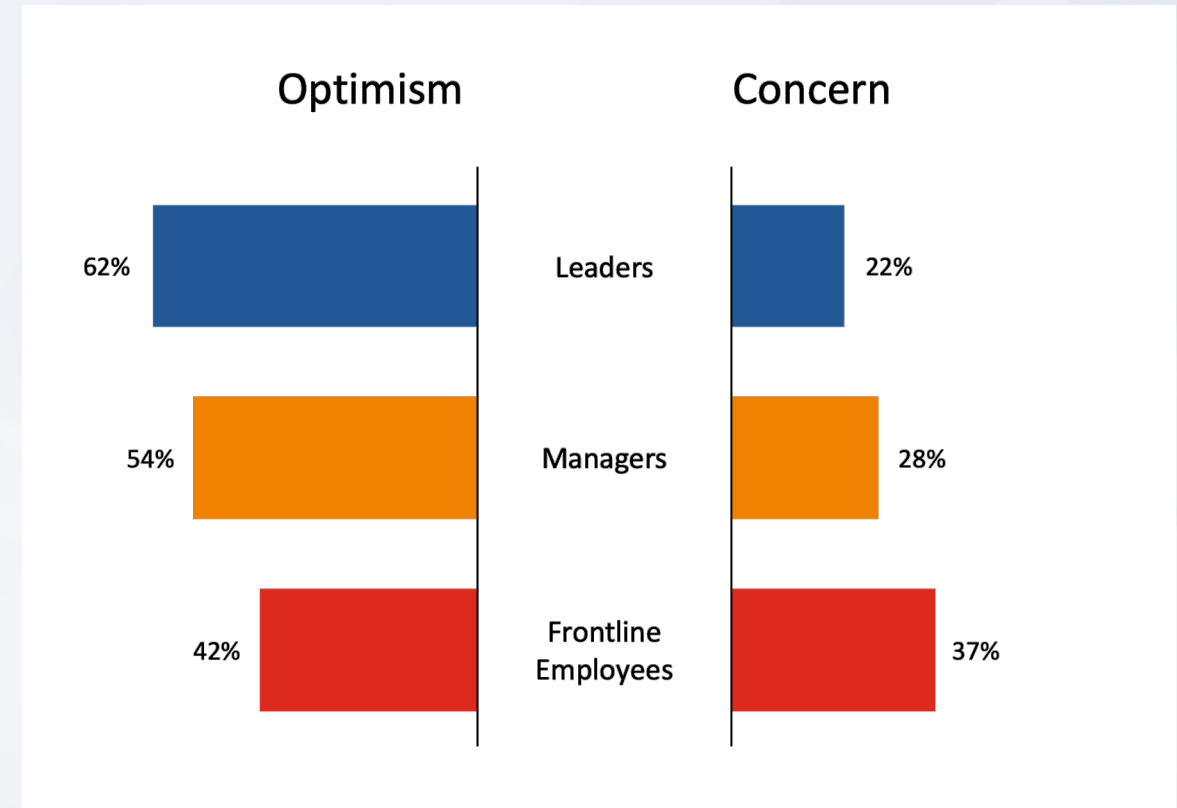
- ▶ AI will affect 44 percent of the workforce and have a \$4.1 trillion economic effect over the next three years alone through task automation and augmentation
- ▶ Generative AI can automate 27 to 41 percent of labor time across industries
- ▶ All existing forms of AI and technology can automate work activities that currently occupy 60% to 70% of employees' time

Estimated percentage of labor time that can be automated using generative AI



# Without adept change management as AI intertwines with the workforce, the potential benefits of AI will, at best, be muted

- ▶ Which populations and roles are affected?
- ▶ How will AI impact employees?
- ▶ What specific interactions between employees and AI maximize benefits and minimize backlash?
- ▶ What change management is required?



3

Build **mechanisms** to keep up with the **pace of change** and **manage AI uncertainty**

# The pace of change on AI is radically accelerating



While AI is certainly much more than gen AI, the pace of progress of OpenAI serves as a helpful illustration of how AI's pace is accelerating



AI origins (Turing, Dartmouth)

1950s



IBM Watson beats players on Jeopardy

2011



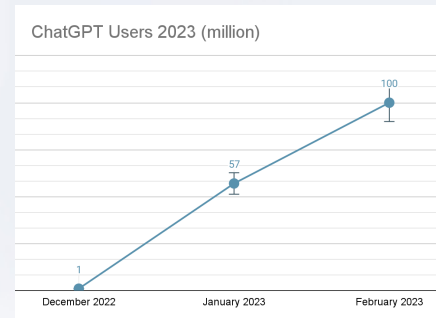
AlphaGo beats Fan Hui (3x Go Champion)

2015



ChatGPT (GPT 3) Launch

NOV 2022



1M users

DEC 2022

57M users

JAN 2023

100M users

FEB 2023



GPT 4 Launch

MAR 2023

ChatGPT Enterprise

AUG 2023



Multi-modal AI + up to date training data + browser integration + Dall-E 3

OCT 2023

Join us for OpenAI's first developer conference on November 6 in San Francisco

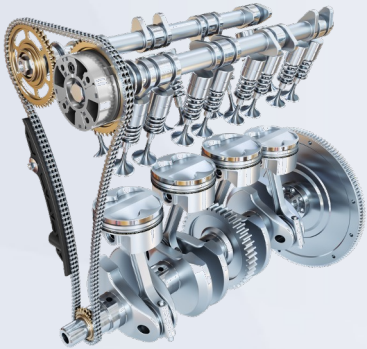
First developer conference

NOV 2023

OPEN AI ACCELERATION CASE STUDY

# The pace at which AI is moving is creating significant uncertainty

The outcomes of general-purpose technologies are significant and unpredictable



- Urban design
- Global trade and travel
- Geopolitics and conflicts over oil
- Global warming and respiratory health
- Birth and boom of industries



- Social media & influencer culture
- Gig economy
- Data privacy concerns
- Streaming & decline of traditional media
- Remote work
- Fake news
- Online dating
- Youth mental health

Humans entrenched in current paradigms struggle to imagine alternative futures shaped by disruptive technologies

 **Western Union**



 **AT&T**



**NOKIA**



# Sizing and managing AI uncertainty

## AI could pose radically different futures across industries

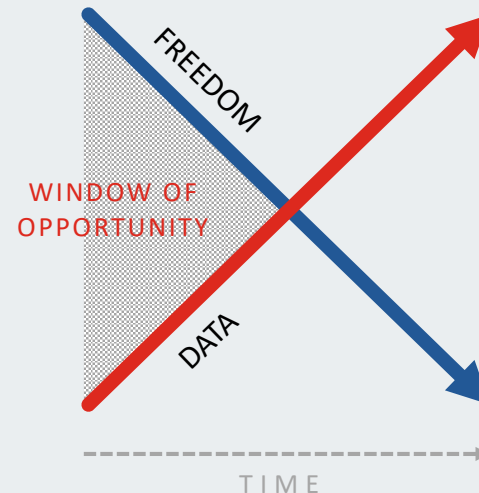
- ▶ Media (news, entertainment, education): hyper-personalized content
- ▶ Automotive: driverless cars, aerial taxis
- ▶ Healthcare: personalized medicine, disease interception

## Four tactics to help companies manage uncertainty

- ▶ Frame key uncertainty drivers and maintain a fact base
- ▶ Develop a handful of competing scenarios based on the most critical uncertainties
- ▶ Apply an emergent approach to strategy
- ▶ Make innovation and learning a discipline

### Act Early

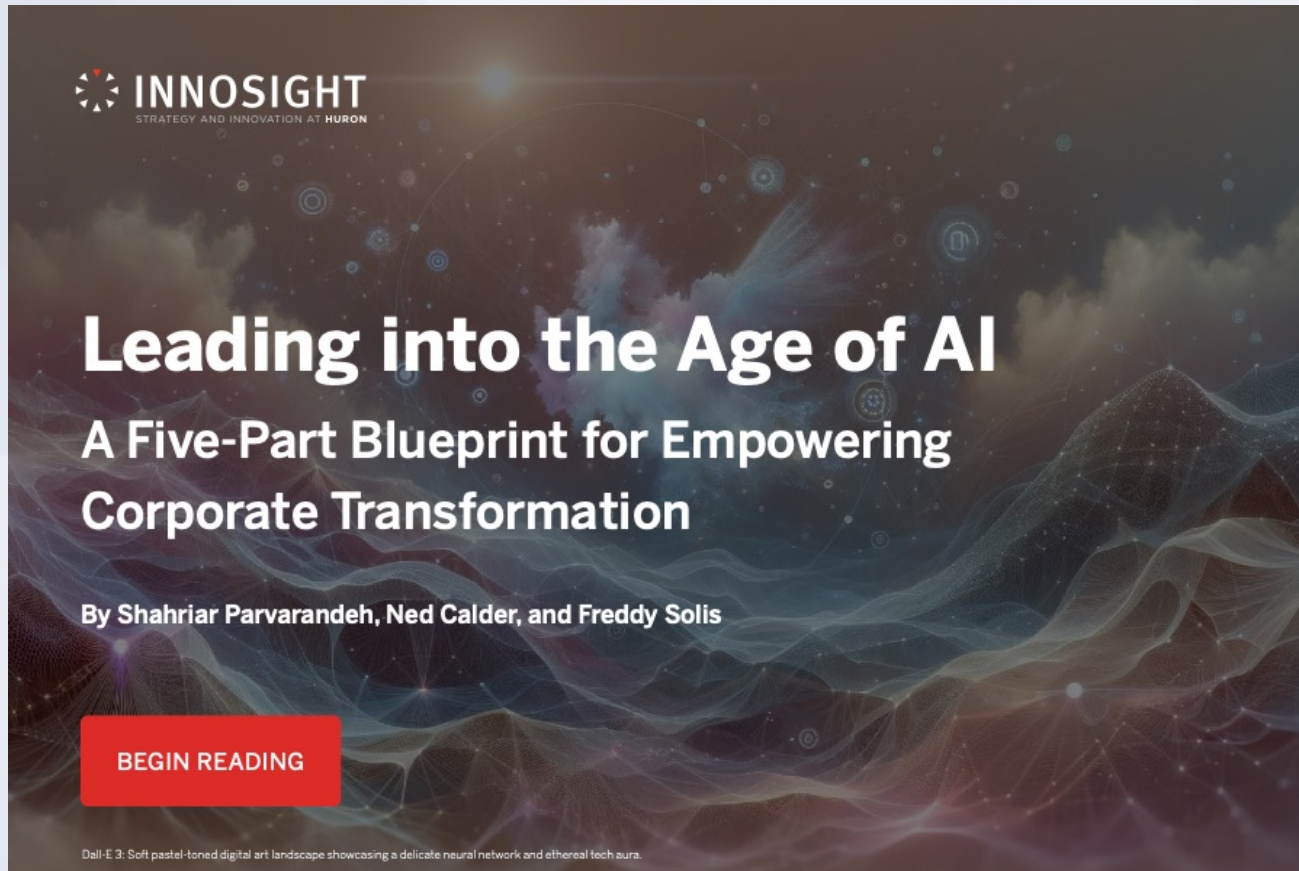
- Opportunity to acquire capabilities and customers for new AI business models
- Risks include possible capital inefficiency and stakeholder management challenges



### Act Late

- Competitors may have built entry barriers through advanced capabilities and customer loyalty
- Risks are significant and include difficulty catching up and burning platforms

# Thank you



INTRODUCTION:

**AI's Emergence as a General-purpose Technology**

RECOMMENDATION 1:

**Align Leadership on a Foundational Understanding and Common 10 Language of AI**

RECOMMENDATION 2:

**Develop Value-Creating Strategies for Operational and Customer-Facing AI Transformation**

RECOMMENDATION 3:

**Make Strategic Choices About AI Data and Models**

RECOMMENDATION 4:

**Implement Organizational, Culture, and Talent Enablers of AI Transformation**

RECOMMENDATION 5:

**Systematically Manage AI-Related Uncertainty**

**Glossary of Common AI Terms**