



# How to Become an AI Ready Organization

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# Rapid Change is Coming to the Enterprise (and we're the cause)

Hundreds of companies  
will be built around an  
API for an LLM



Startups will not  
necessarily create the  
AI themselves, but they  
will use the APIs



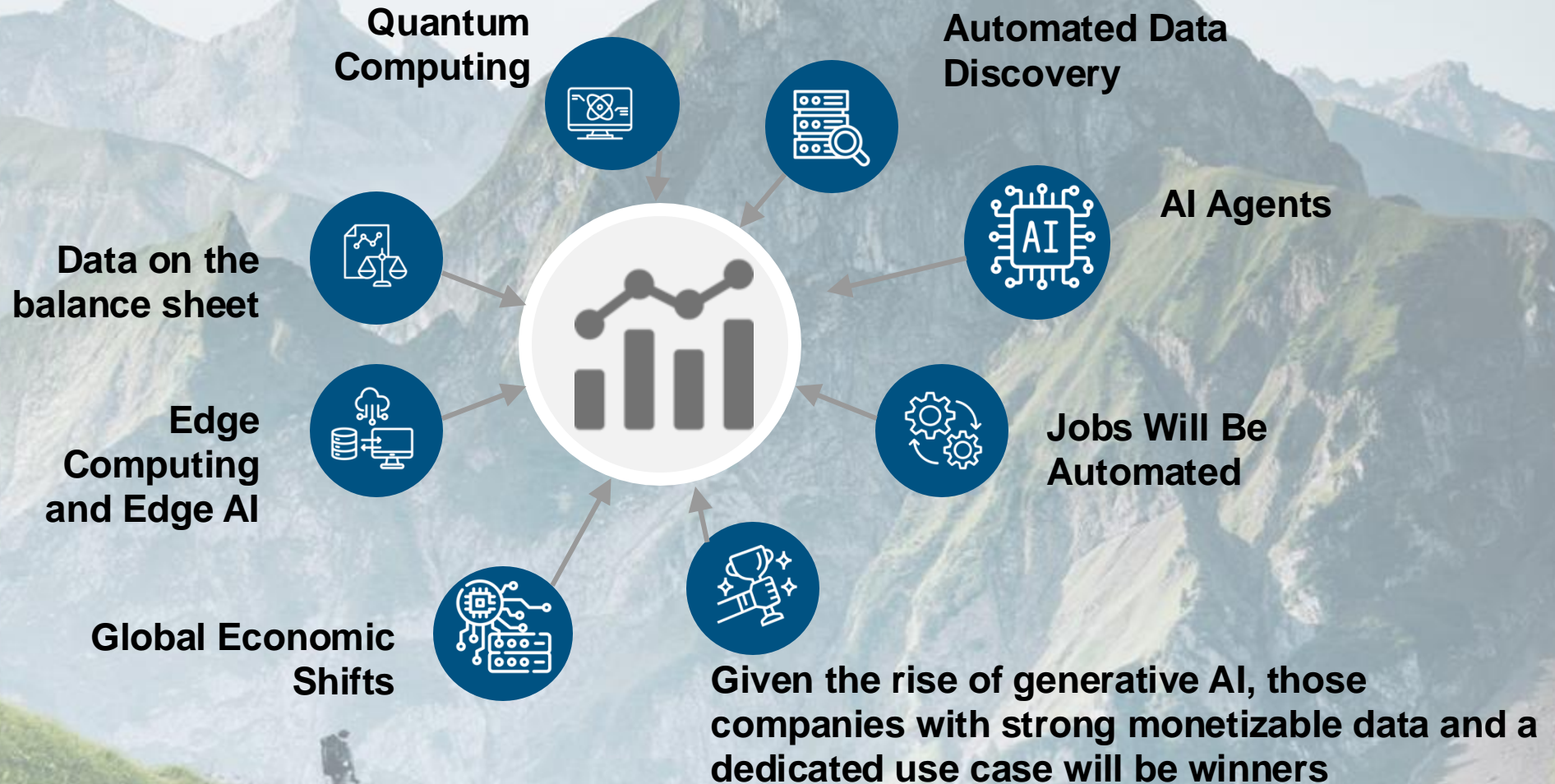
Nearly every industry  
and nearly every  
vertical is being  
transformed today



Companies are using  
these techniques in  
software and  
statistical models to  
make predictions and  
drive businesses  
forward in a way that  
they're not able to with  
only humans



# Beyond the Mountain Lie More Mountains





# AI is Here

- It's our responsibility to get ahead of it
- Organizations will drive efficiency
- In the absence of information, some people will go to worst case scenario



# Improve by 1 point, pays for Project

- Reduce fake claims, inflated claim amounts, multiple claims for the same incident
- Reduce Misrepresentation of policy coverage, policyholder impersonation, claims for ineligible vehicles
- Fraud
- Returns
- Customer Retention
- Supply Chain Efficiency
- Predictive Model Accuracy
- Marketing Effectiveness
- Claims Processing
- Inventory Management
- Revenue Cycle Management
- Operational Efficiency
- Risk Management



# AI Implementation and Use Cases

- Automated Customer Service
- Predictive Maintenance in Manufacturing
- Fraud Detection in Finance
- Personalized Marketing
- Supply Chain Optimization
- AI in Healthcare for Diagnosis and Treatment
- AI-Driven Financial Advisory Services
- Workforce and HR Analytics
- Content Creation and Management
- Cybersecurity and Risk Management
- Cloud Pricing

From the August 2024 Advanced Analytics Presentation [tinyurl.com/mcknightai](https://tinyurl.com/mcknightai)



# Where to Look for AI Opportunities

- The products you make and the services you offer
- The supply chain for those products and services
- Business operations (hiring, procurement, after-sale service, etc.)
- The intelligence used in determining and designing your product and service set
- The intelligence used in the marketing/approval funnel for your products and services

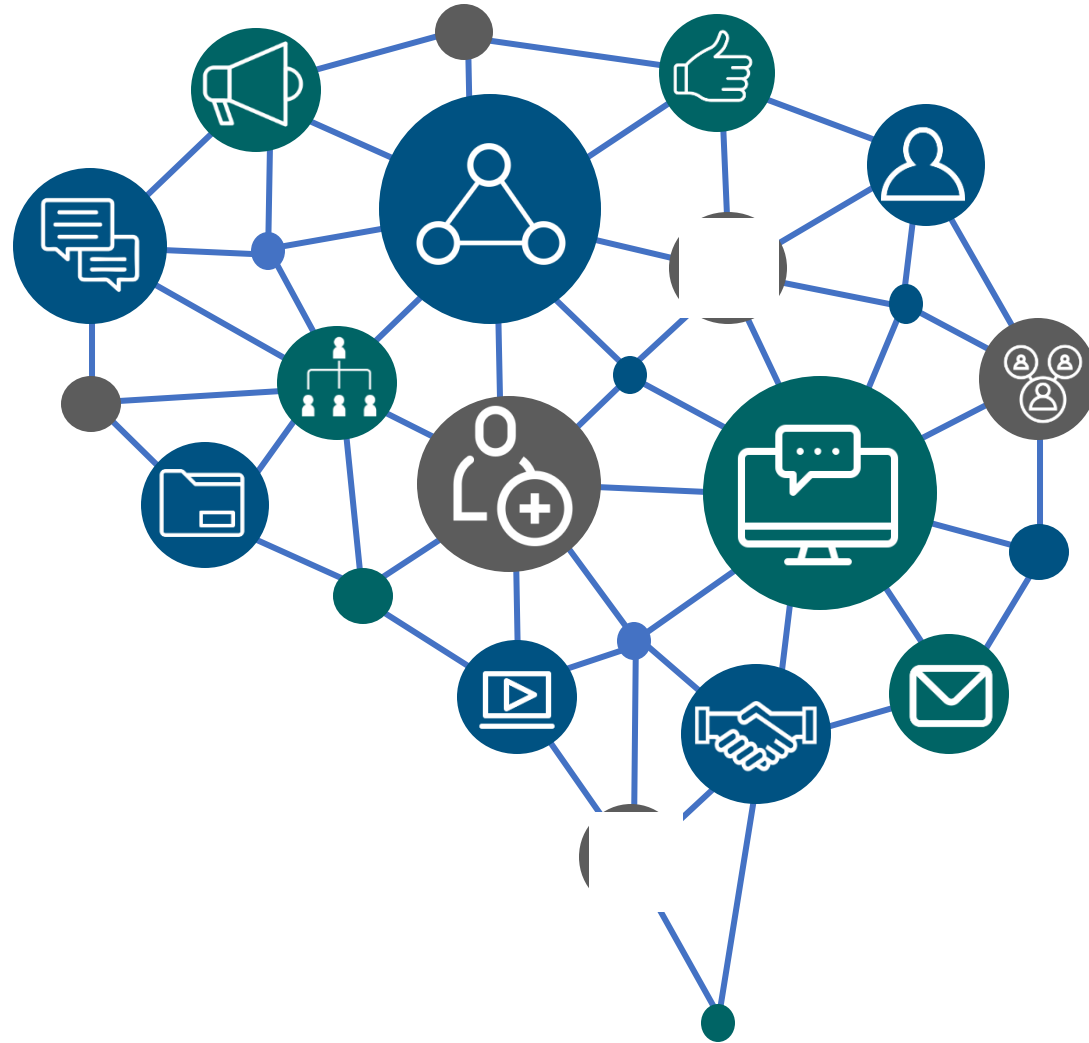


# AI is Big Change

- Organizations implementing AI have recognized the need to make significant changes
- People instinctually don't like change to begin with
- When you add artificial intelligence coming into the workplace that's going to even make the issue worse if you don't get ahead of it
- Demonstrate how it can help the company instead of having the fear grow with people thinking it's going to hinder them or even worse replace them



# We are at the start of General AI





# AI Process Readiness

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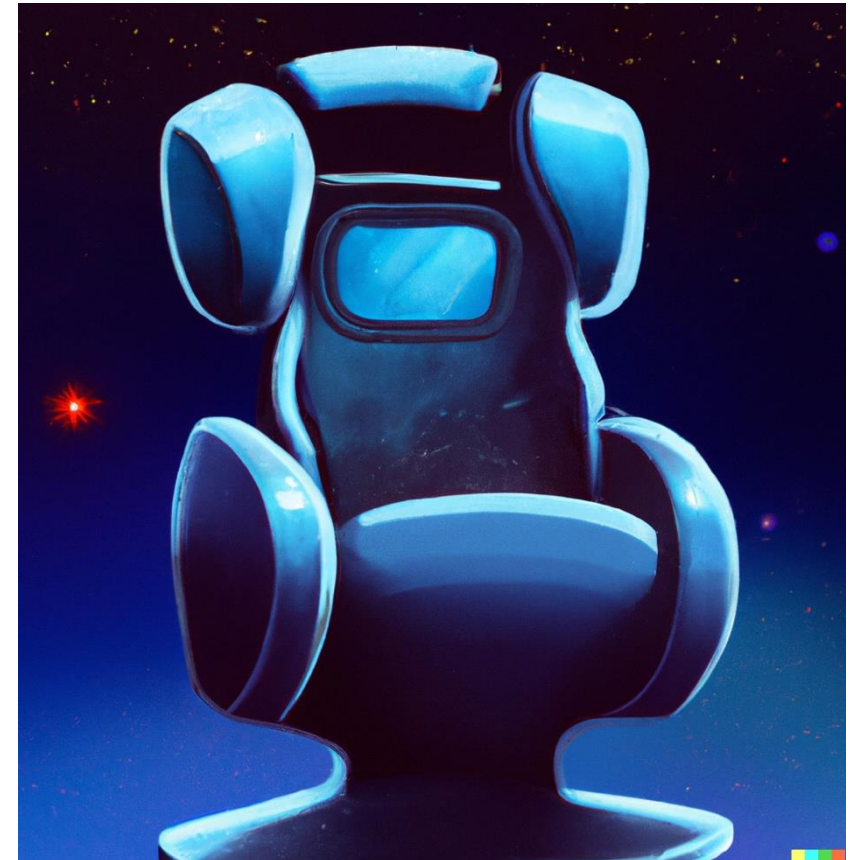
## Align AI with business goals

- You must have a firm grasp of the business issue you are attempting to address and the value you are providing
- You should specify your machine learning solution's success criteria, anticipated results, and key performance indicators (KPIs)
- In addition to engaging in communication with stakeholders and users, it is advisable to ascertain their requirements, anticipations, and input
- You can guarantee that your ML solution is pertinent, practical, and influential by ensuring that it is in line with the objectives of the organization



# Boost productivity and effectiveness

- Automate and streamline repetitive tasks
- Improve decision making
- Personalize experiences
- Optimize resource allocation
- It is imperative to weigh the compromises that accuracy, efficiency, scalability, and cost entail in accordance with your specific needs
- By optimizing efficiency and performance, one can guarantee the robustness, agility, and sustainability of their machine learning solution



# Know What You're Building

- An AI **program** which will provide analytics, automation, personalization, etc. for several projects
- A **project** which will use AI
- AI insights for a **project**
- The inclusion of new projects into an existing AI **program**

# Benchmark Your AI Stack

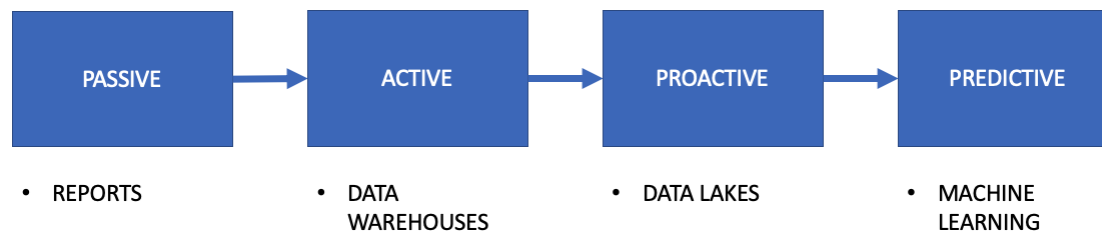


- What are you benchmarking?
  - Training performance
  - Loading performance
  - Inference performance
  - With concurrency?
  - Ease of use
- Competition
- Models, Data, Efficacy
- Scale
- Cost
- Number of runs/cache
- Number of nodes
- Tuning allowed
- Vendor Involvement
- Any free third party, SaaS, or on-demand software
- Any not-free third party, SaaS, or on-demand software
- Instance type of nodes
- Measure Price/Performance!



# Adopt MLOps Early

- ML initiatives can work in isolation from each other, resulting in difficulties aligning workflows between ML and other teams.
- To be effective, ML training requires large quantities of high-quality data, which creates significant overheads across data access, preparation, and ongoing management.
- ML/data science work requires a large amount of trial and error, making it hard to plan the time required to complete a project.



# Strive for Iterative Pipelines

**Reproducibility**

**Reusability**

**Manageability**

**Automation**

# Employ Explainable AI (XAI) Techniques

- **Improve Decision-Making:** Gain deeper insights into the rationale behind AI decisions, leading to better-informed and defensible choices.
- **Identify Bias and Fairness:** Unmask potential biases within AI models, enabling proactive mitigation and fairer outcomes.
- **Reduce Risk and Compliance Concerns:** Address regulatory requirements and mitigate risks by offering transparent and auditable AI decision-making processes.
- **Foster Collaboration and User Acceptance:** Enhance human-AI collaboration by providing stakeholders with a clear understanding of AI models and their limitations.
- **Enable Error Detection and Debugging:** Quickly identify and address errors within AI models through more transparent and interpretable decision-making processes.
- **Demystify the "Black Box":** Demystify the inner workings of complex AI models, making them more accessible and understandable for wider audiences.



# Address Ethical Considerations

Responsible  
Data Collection

Responsible  
Development

Trustworthiness

Explainability

Discrimination

Privacy



# Organizational Readiness

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The AI job takeover is in full swing for many. Here's a list of companies that have already dropped workers for AI.



Written by  
**Isobel O'Sullivan**

Updated on  
**November 13, 2024**



For those wondering when artificial intelligence will start replacing human workers, the answer is that it already has. As AI-powered tools like ChatGPT and **Google Bard** become workplace staples and businesses are forced to be more mindful of their bottom lines, automating labor has become a logical course of action for many.



### Most Recent

**Yelp Reaches for AI To Deliver Better Restaurant Reviews**

Katie Scott - 4 hours ago

**EC Investigates If Google and Meta Teamed Up To Target Teens**

Katie Scott - 6 hours ago

**How to Get Windows 11 on Your PC Even If It's Incompatible**

Katie Scott - 8 hours ago

**OpenAI's Sora Video Generator: Now Available...But**

# AI, Work and Post-Scarcity



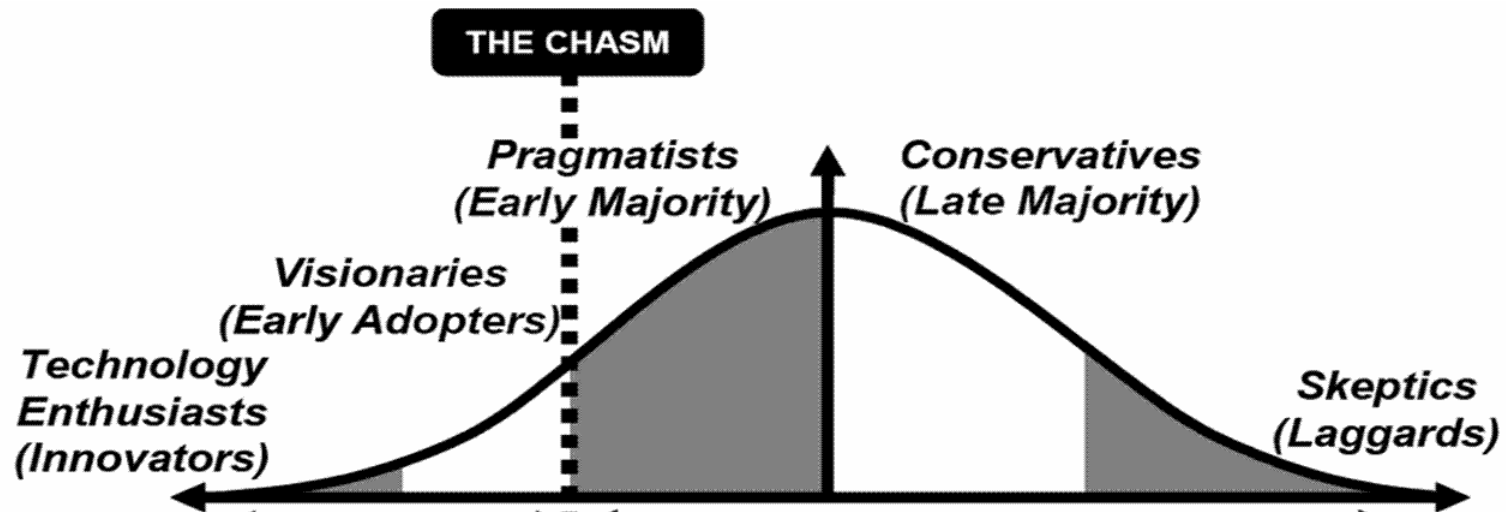
# Why the Resistance?

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- Change
- ROI concerns
- Credibility
- Terminology
- Organization/Governance
- Alignment with Values
- Focus on Process not Outcome
- Competencies



# People and Change



Source: [reply-mc.com](http://reply-mc.com)

# Stages of Change

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Precontemplation - failing to recognize the need for change

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Contemplation - seriously considering the need for change

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Preparation - making small changes

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Action - direct action towards goal

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Prochaska & Velicer, 1997; Liu, Kueh, Arifin, Kim, & Kuan, 2018

# AI-Driven Projects Require Organizational Readiness

Automation

All Data

Real-Time,  
All-Time

Job  
Changes,  
New Roles

More and  
Different  
Technology

“Artificial”  
Intelligence



# AI Requires Organization Transformation

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- Require much more than “the right data” and “a good database” and “good technology”
- Present great opportunities, but also poses significant implementation risks
- Encounter many risks that are “people” related, which must be managed for successful implementation



# Education is the Key

- Educate in many ways, early and often
- Dispel Misconceptions
- This includes everyone
- Focus on explaining why the change is being made instead of emphasizing the technology
- Make it a shared learning process rather than acute change
- Sense of Urgency

# Emerging Roles in the Enterprise

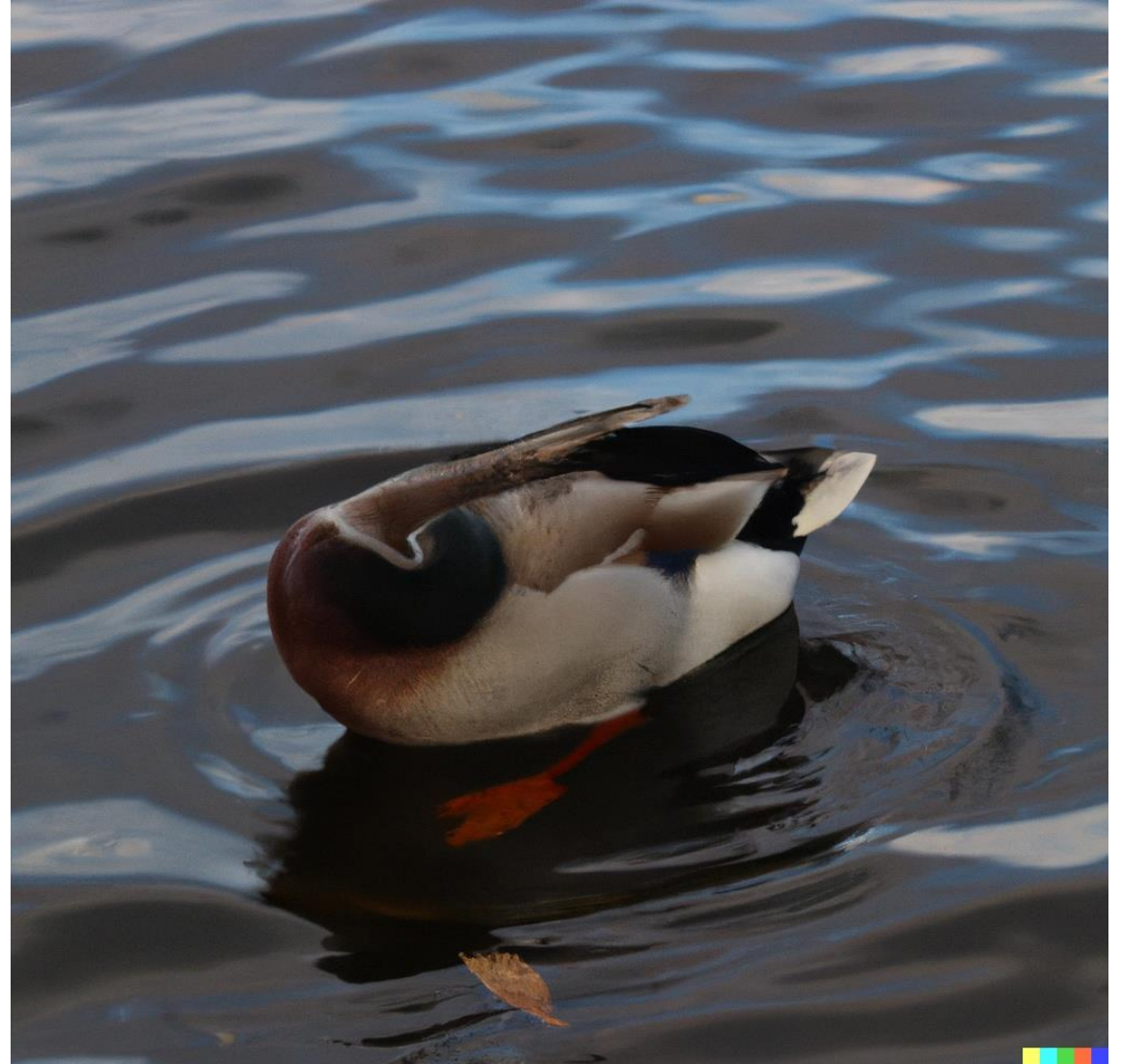
- Prompt Engineer
- AI Trainer
- AI Auditor
- AI Ethicist/Ethics Expert
- Machine Manager
- Cybersecurity Analyst
- AI Business Strategist
- Data Broker
- AI Explainer



# Dispelling AI Misconceptions

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- Change is overnight
- AI is a technology
- AI is already conscious
- AI will take over the world
- AI is better at humans at everything
- AI is another gimmick
- AI is too expensive
- AI is too complex
- AI is not reliable





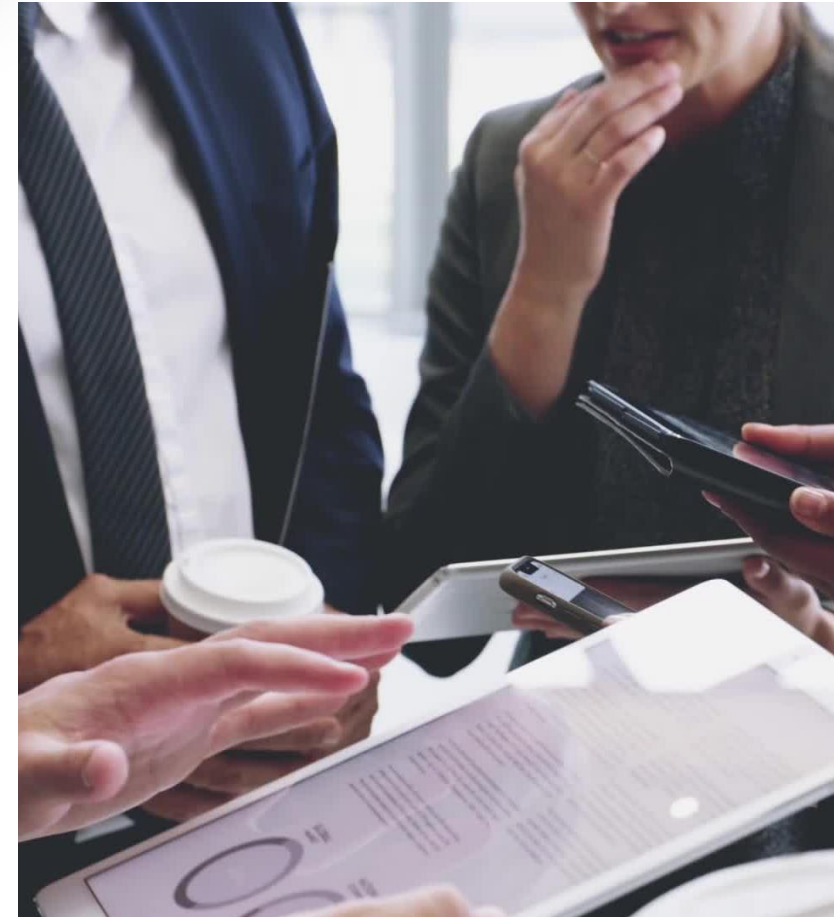
# Acknowledge the Realities

- 65% of predictive models are never implemented in production
- 5 months is the average time to develop, test, validate, deploy and scale one new analytical mode
- Data is still challenging: A majority of a data scientist's time is still data wrangling
- Projects are still poorly run, without good goals



# Suggested Project Organizational Change Work Products

- Stakeholder Management
  - Stakeholder Analysis
  - Stakeholder Management Plan
  - Identify Impacted Job Roles
  - Specify Job Changes
  - Job Transition Plan
- Broader Communications
  - Communications Strategy and Plan
- Organizational Training
  - Training Needs Assessment
  - Training Curriculum
  - Training Materials
  - Training Delivery
  - Evaluate Training Effectiveness



# Change Management: Embedded or Centralized

Embedded in a project to support that project

- Focused on the project
- Tendency to neglect OCM

Centralized SWAT Team

- In support of multiple projects
- Part of Data Governance or other organization





# Data and Architectural Readiness

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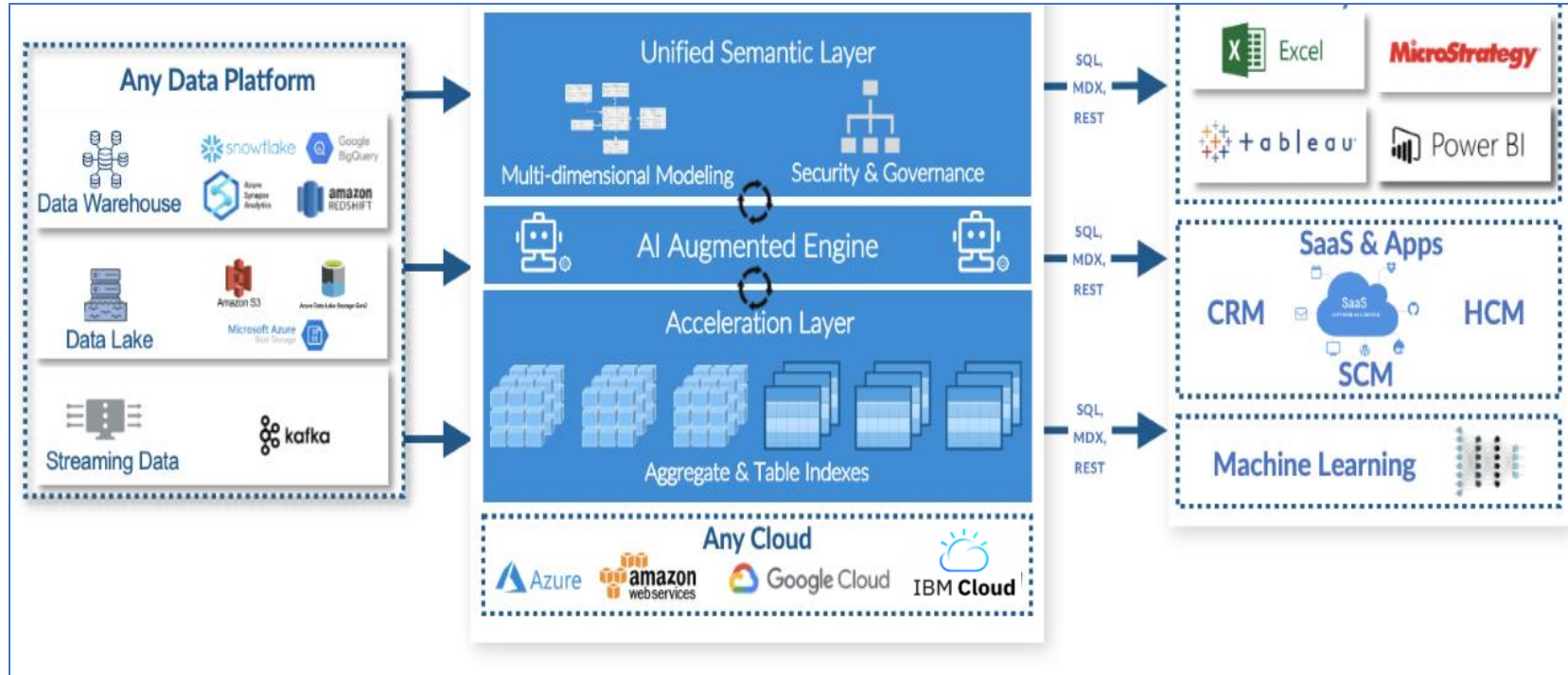


# AI Data

- Call center recordings and chat logs
  - Content and data relationships as well as answers to questions
- Streaming sensor data, historical maintenance records and search logs
  - Use cases and user problems
- Customer account data and purchase history
  - Similarities in buyers and predict responses to offers
- Email response metrics
  - Processed with text content of offers to surface buyer segments
- Product catalogs and data sheets
  - Sources of attributes and attribute values
- Public references
  - Procedures, tool lists, and product associations
- YouTube video content audio tracks
  - Converted to text and mined for product associations
- User website behaviors
  - Correlated with offers and dynamic content
- Sentiment analysis, user-generated content, social graph data, and other external data sources
  - Mined and recombined to yield knowledge and user-intent signals



# Data Architecture Maturity



<https://tinyurl.com/mcknightmaturity>

# Enterprise Data is Still a Mess

- The proliferation of data sources
- The complexity of data formats
- The lack of data governance
- The push into AI

Analytics And Data Science

## Bad Data Is Sapping Your Team's Productivity

by Thomas C. Redman

November 30, 2022

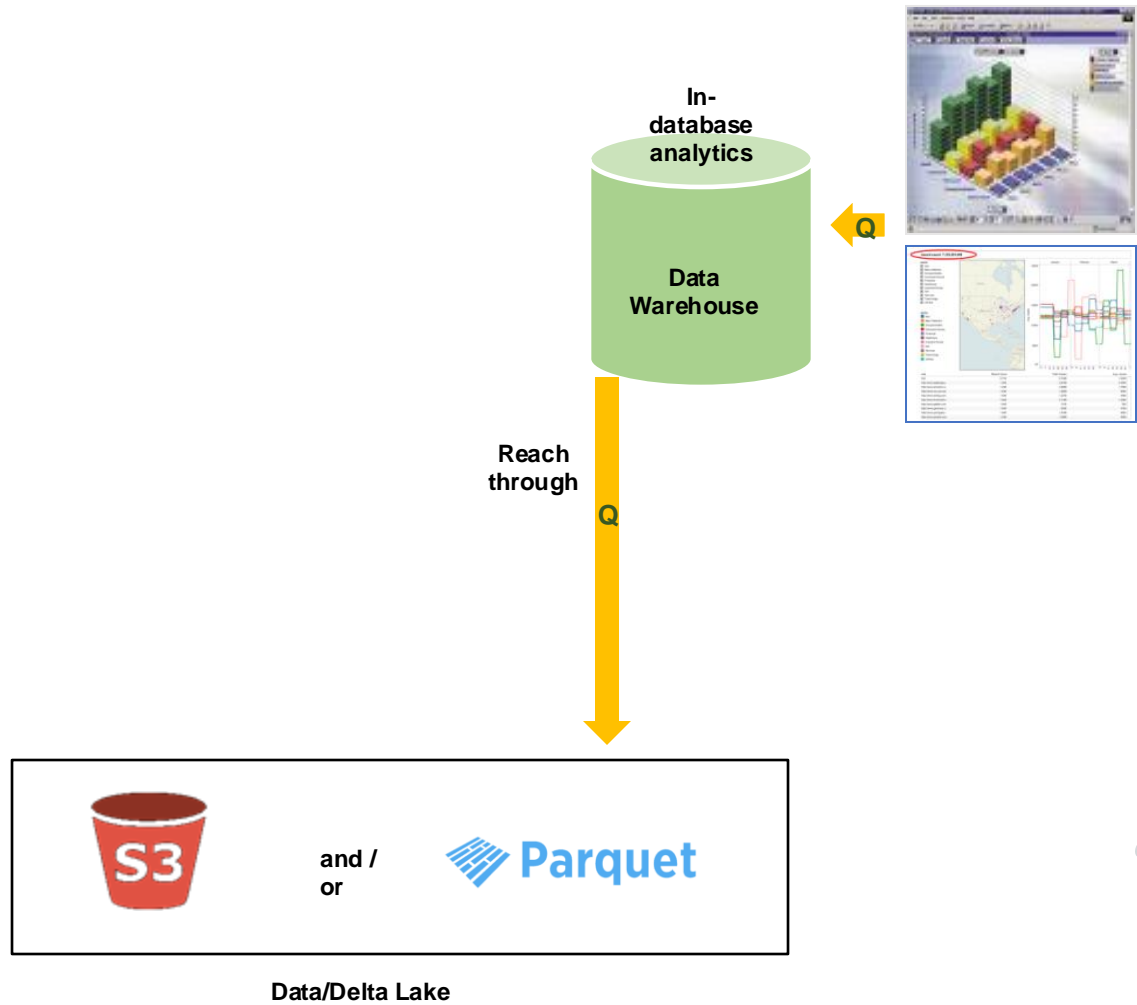


Westend61/Getty Images

**Summary.** Data science was supposed to create a new productivity boom. But, for many companies, that boom never arrived. What's gone wrong? While companies have invested in data tools, much of the data that's fed into these systems is low quality – with mislabeled, missing, or incorrect information, which in turn creates more work, and more... **more**



# Get AI Data from a Data Lakehouse+





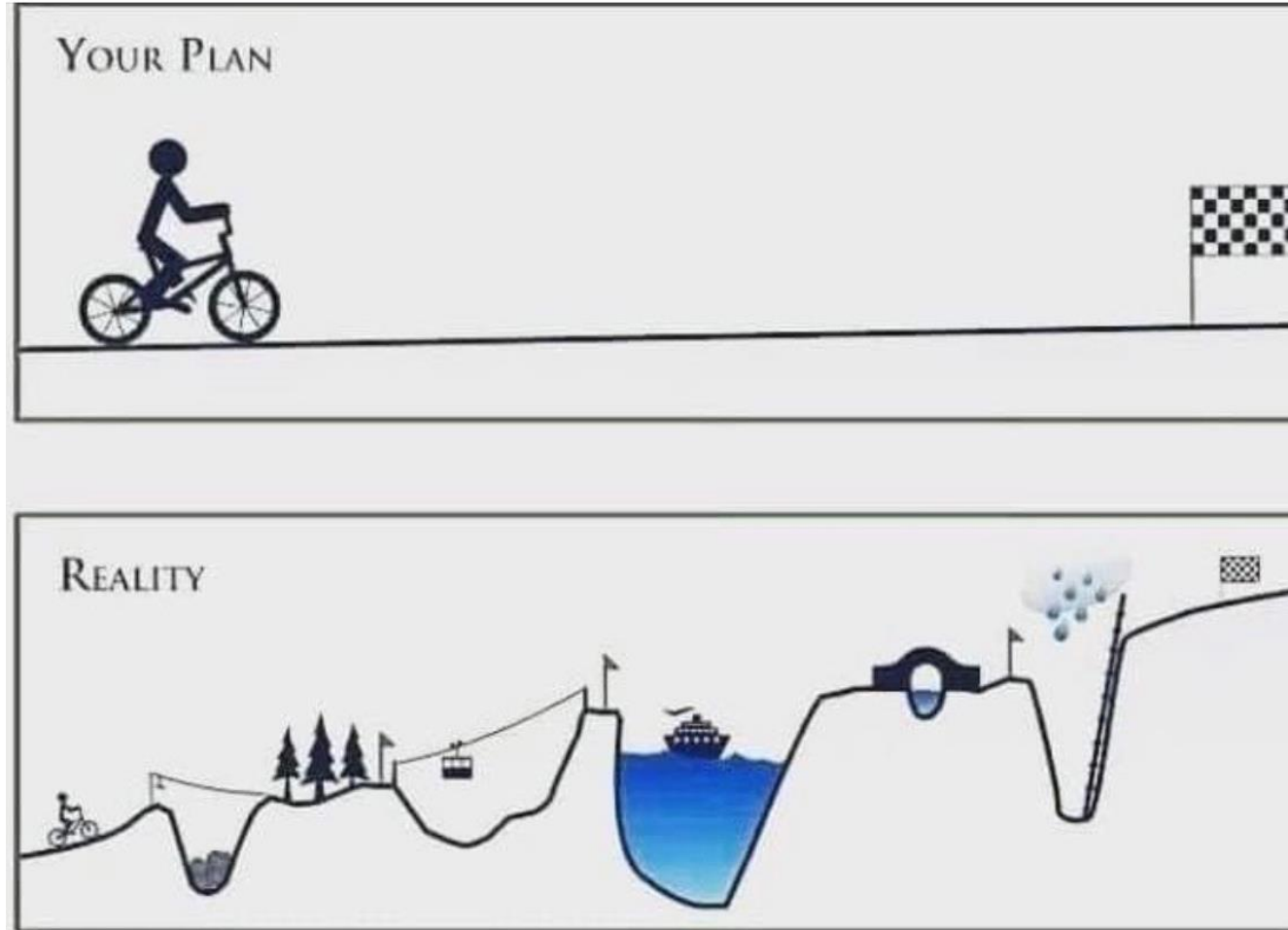
# Plan for Data Drift

- Model decay/drift is inevitable
- Changes to the environment affect model input
- Implement statistical tests and anomaly detection algorithms for monitoring the performance of ML models over time
- Implement version control for both data and models to track changes and facilitate rollbacks to previous versions if model performance deteriorates due to data drift
- Regularly retrain ML models with new data to adapt to changes in the underlying data distribution

# AI Projects Need a Focus On Data Quality

- Clean data is the key to unlocking the power of many business processes, including:
  - Information-based in-store and contact center cross- and up-selling (NEEDS clean customer and product data)
  - Credit card fraud detection (NEEDS clean customer and transaction data)
  - Supply chain efficiencies and just-in-time production capabilities (NEEDS clean product and location data)
  - Predictive churn management (NEEDS clean customer and transaction data)
- Having clean customer, product, transaction, and location data is essential for these projects to be successful.

# And Remember, even with Readiness....



# Summary

- AI is big change
- AI Readiness is essential across AI Process, Organizational and Data & Architecture
- Align AI with business goals
- Adopt MLOps early
- People will resist AI
- AI requires organizational transformation
- AI is here and it represents big change
- OCM is essential to organizational transformation to AI
- Education is the key
- Don't push off OCM until the very end
- Get AI data (primarily) from a data lakehouse







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