



Where to Start: Bridge the Gap Between AI and Business

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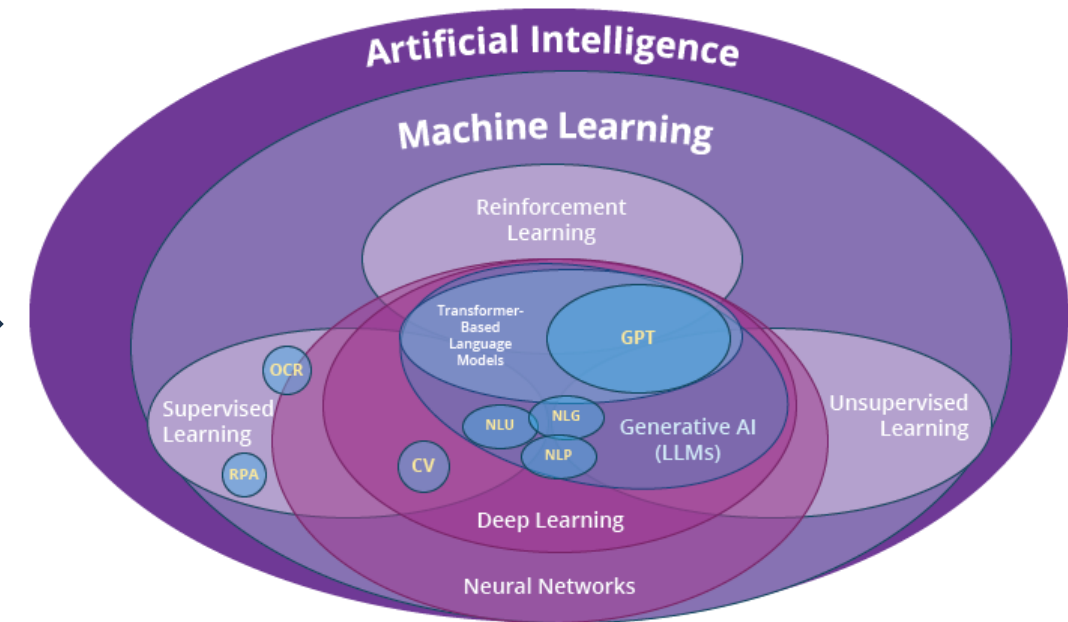
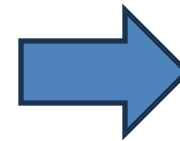
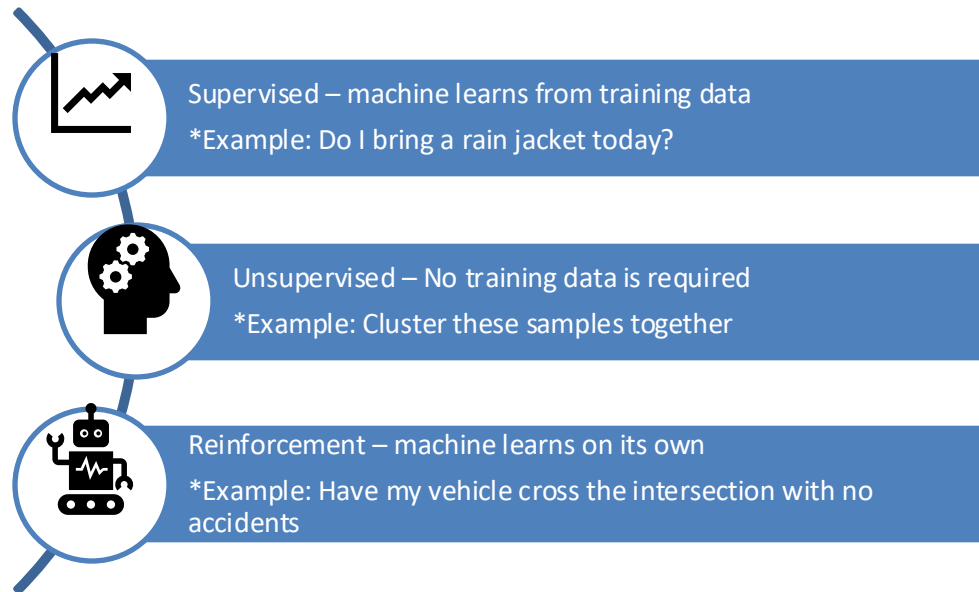
Branches of Artificial Intelligence

Caution: People used the term Artificial Intelligence as a "catch all" phrase....avoid generalities...
The following are all "considered AI" depending on the market and technology areas....



Hierarchy of Artificial Intelligence

BLUF: At a high level, ML algorithms fall into three main categories but subdivide even further...



Timeline of "Most" Notable Events

1950s: Birth of AI concept; Alan Turing proposes the Turing Test as a measure of machine intelligence.

1960s: Early AI research leads to the development of the first neural networks.

1980s: Machine learning emerges, shifting the focus from hardcoded AI to systems that learn from data.

2000s: Natural Language Processing (NLP) makes significant strides with the introduction of statistical methods.

2011: IBM's Watson wins the Jeopardy! challenge against human contestants.

2018: AI-driven vehicles and drones become more prevalent, showcasing advancements in autonomy and robotics.

2020s: Integration of AI into Internet of Things (IoT) devices becomes widespread, enhancing smart homes, wearables, and urban planning.

1956: The term "Artificial Intelligence" is coined at the Dartmouth Conference.

1970s: Expert systems are developed, allowing computers to emulate the decision-making abilities of a human expert.

1997: IBM's Deep Blue defeats world chess champion Garry Kasparov.

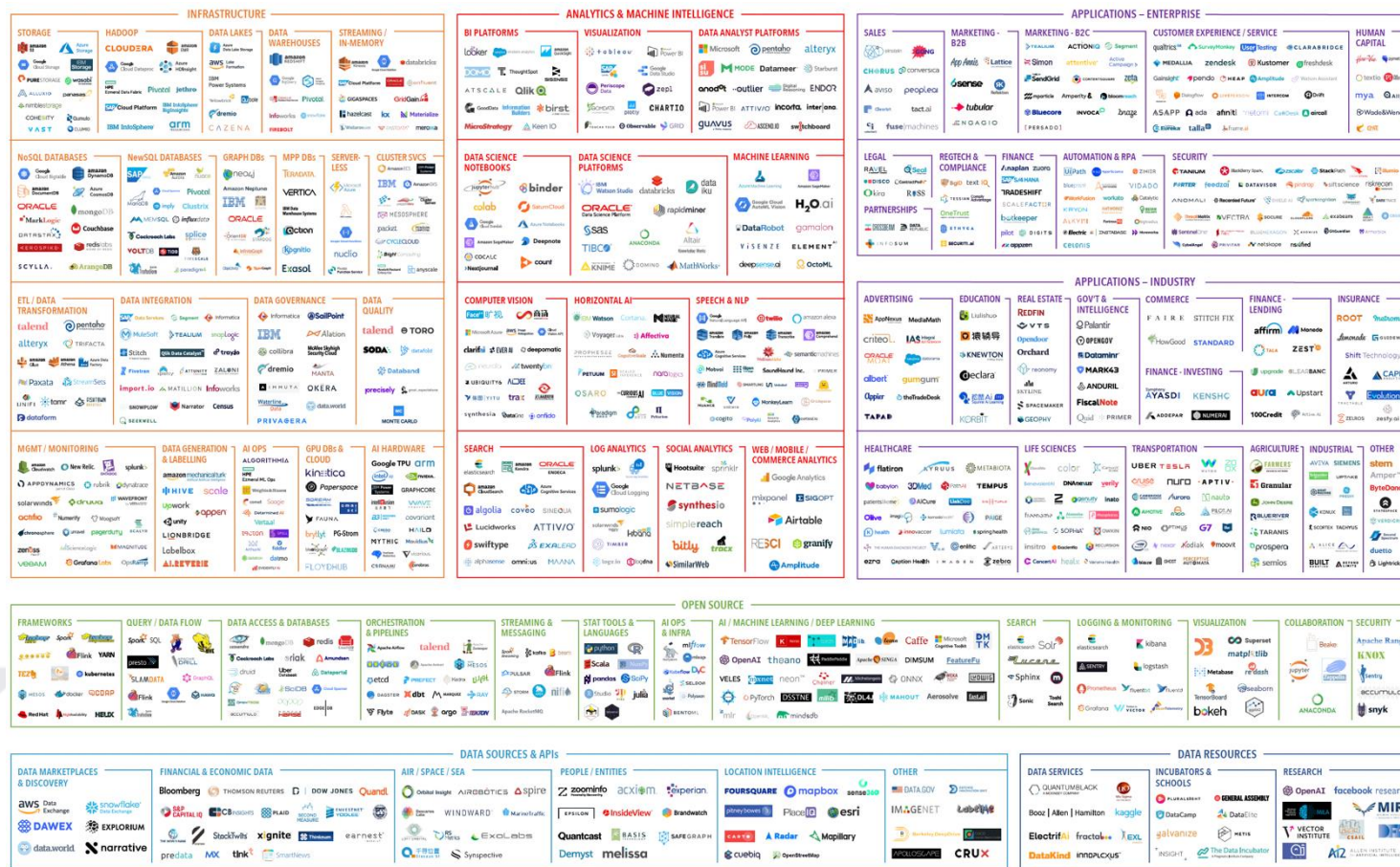
2010s: Deep learning revolutionizes AI with advances in speech and image recognition.

2014-2016: AI beats human professionals in complex games like Go and Poker, demonstrating advanced strategic thinking.

2020s: Large Language Models (LLMs) like GPT series facilitate breakthroughs in generating human-like text, translating languages, and more.

Lets face it...this can be difficult to navigate

How do we bridge the vast technical landscape and find the middle ground between both technical (AI practitioners) and non-technical (business executives) participants?



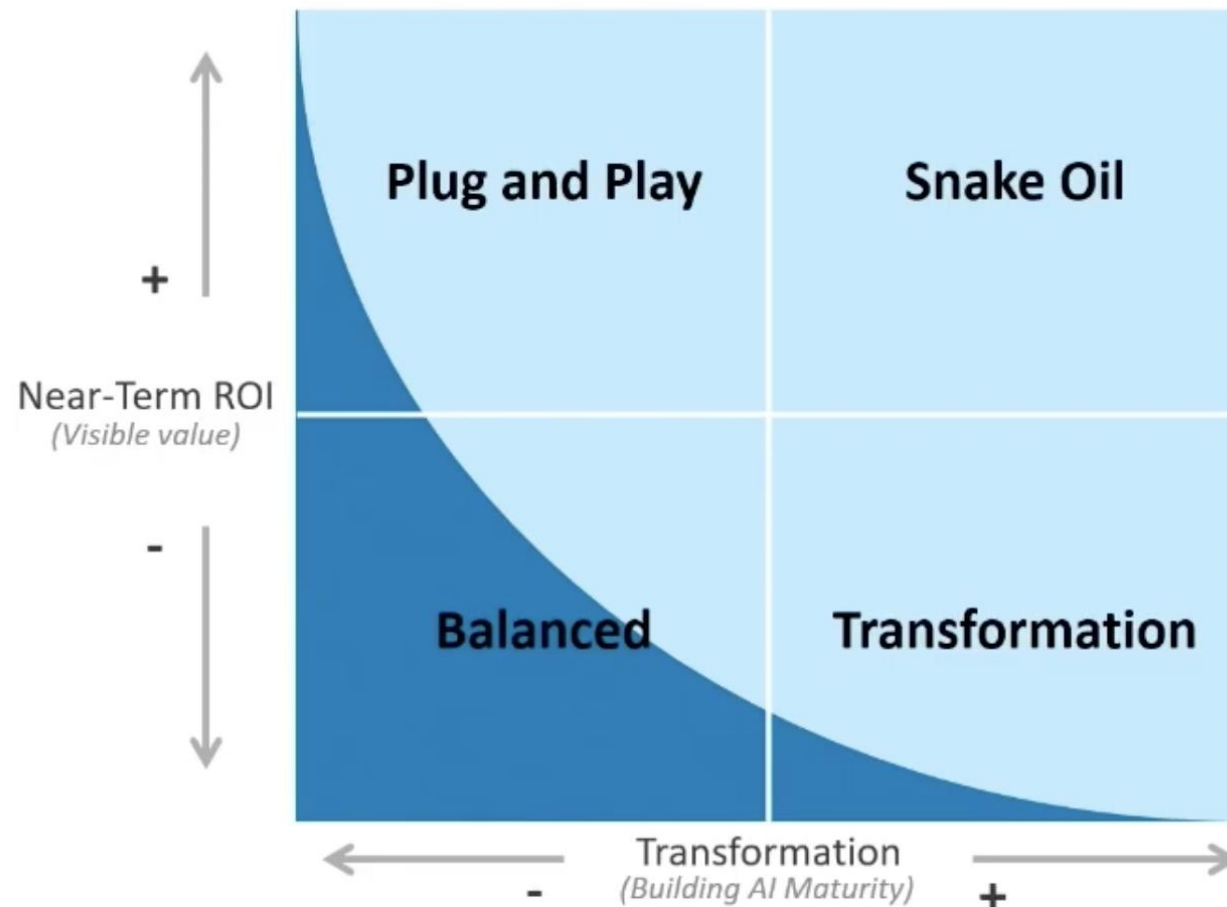
Aligning your Business



- 01 Where do we start?**
R&D or Operations? ROI? Technical feasibility?
- 02 How do we define and measure success?**
What is working? What is not? Did we meet our objective?
- 03 How should metrics be communicated and consumed?**
Will this resonate?
- 04 What is the role of IT in data science and AI?**
How do we make IT part of the solution?

Where do we Start

How do we determine the uses cases, where to start, and how we define the roadmap to ROI? How do we start with and balance high risk/high reward innovation projects with projects that can show an immediate return for the business (customer/stakeholder)?



80% of your portfolio should be in the balanced quadrant

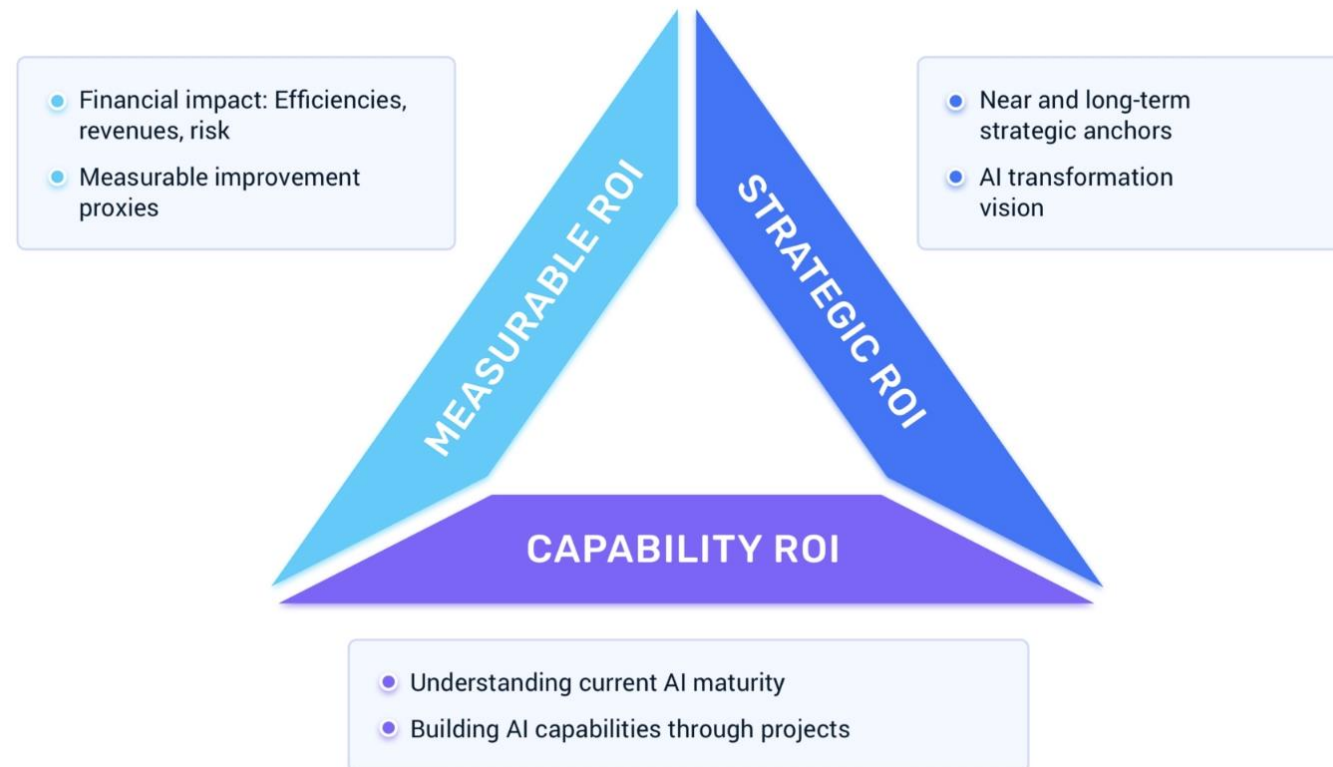
How do we Define and Measure Success

Balancing Perceived Value vs Delivered Value

- Caution: We need to not use "fancy buzzword pitches that offer "quick wins", no ROI, and a bunch of money will be made"
- Not all ROI needs to a financial return – there is also strategic-based and capability-based ROI
- Perceived value – We reduced cost, we had marginal improvement in efficiencies, etc.
- Delivered value – Intangibles and qualitative measures that we learned along the way – this strategically and operationally makes your business more valuable.

How Should Metrics be Communicated and Consumed

How do we communicate the results of the POCs to technical and non-technical audiences alike? How do we frame information in a way that does not lose insights and relevance as the stakeholder becomes more disjoint or farther from the actual work?



What is the Role of IT in Data Science and AI

IT needs a seat at the table with AI practitioners and business

- 80-90% of all AI POCs fail because we did not fundamentally understand how to include and integrate all stakeholders from Day 0 to cross that chasm.
- IT requirements - They have servers, protocols, cyber, security/compliance/governance/etc.
- AI POCs may not need IT infrastructure and are usually developed in a vacuum.
- When developing POC models, AI practitioners need to understand the tech stack and all IT requirements so that from an infrastructure perspective, roadmaps are in place for enterprise wide adoption and integration.