



WHAT MAKES AN AI LEADER?

THE HABITS OF AI
HIGH-PERFORMERS





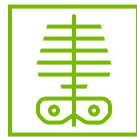
In this eBook, we'll explore the winning habits of AI leaders, based on data from industry analysts and management consulting firms. We'll also cover common challenges faced by enterprises looking to infuse their business with AI, as well as practical approaches that help speed time to impact.

85%

of Americans use at least 1 of 6 devices that have AI elements.¹



Billions of E-commerce
Recommendations



Millions of Medical Scans



Millions of Interactions



Billions of Searches



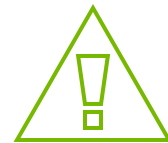
Thousands of Ads
Per Person



Millions of Financial
Transactions For Fraud



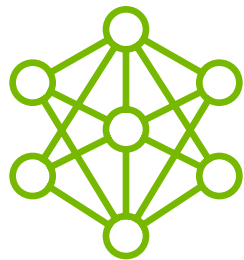
Billions of Photos Tagged



Billions of Potential
Cyber Threats

THE BIG AI PICTURE

Broadly speaking, applying the right AI deployment practices helps AI leaders drive more value across the entire organization, according to McKinsey & Company.



58% embedded at least one AI capability into a process or product in at least one function or business unit.¹



These enterprises saw a **25%** year-over-year increase in the use of AI in standard business processes.¹



This resulted in AI high-performers being **3X** more likely to report revenue gains of at least **10%**.¹

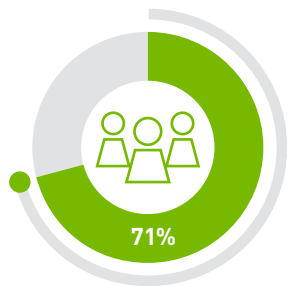
FOUR THINGS AI HIGH-PERFORMERS HAVE IN COMMON

Specifically speaking, according to the data, the most successful AI leaders have taken these four actions.

1 AI Leaders Align AI Strategy with Their Business Goals

According to Accenture, nearly **50%** of AI initiatives are successfully piloted and scaled by “AI Strategic Scalers,” those that are likely to have a clearly defined AI strategy, compared to their POC counterparts.³

Defining business objectives and AI use cases early on helps AI leaders uncover gaps in technical capabilities, as well as the architecture they need to build an optimal strategy that maximizes ROI.



71% of AI Strategic Scalers have a strategy and operating model for scaling AI.²

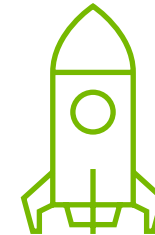


AI leaders with a clearly defined strategy for scaling AI achieved nearly 3X the return from their AI investments.²

2 AI Leaders Source the Right Talent



42% of respondents to a survey from McKinsey & Company cited lack of talent, with appropriate skill sets for AI work as one of the most significant barriers to adopting AI.⁴



According to IDC, 25% of organizations reported an up to 50% failure rate on their AI projects, citing lack of skilled staff and unrealistic expectations as the top reason for failure.⁵

According to McKinsey & Company, AI high-performers are **3.5X** more likely to invest in the right AI talent and training.¹



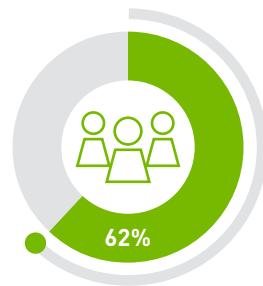
This domain-specific knowledge and AI expertise enables them to easily navigate the path from concept to production and realize business-impacting results sooner.



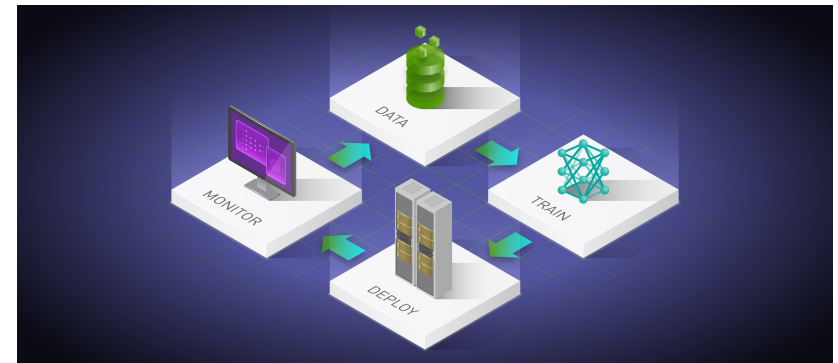
3 AI Leaders Implement a Multi-Disciplinary Approach to AI Projects

A recent Gartner study found that it takes **8.6 months** (on average) to develop models from prototype to production.⁶ And despite developing many machine learning models, only 53% of those models will make it into production.⁶

Poor practices, coupled with a myriad of ML tools and platform choices, as well as friction between groups, causes longer deployments.



In a McKinsey & Company survey, 62% of AI high-performers developed cross-functional teams who work together on specific problems.¹

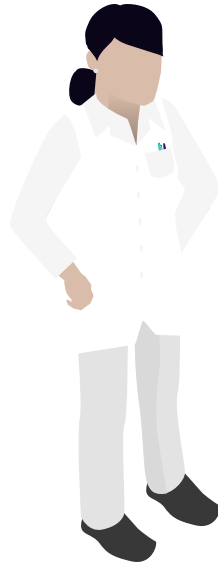


AI high-performers break the silos between data scientists, engineers, and DevOps by forming a Machine Learning Operations (MLOps) team, which combines machine learning, applications development, and IT operations.

AI leaders know that AI can be scaled efficiently once the experts in the organization come together.

Data Scientist: Run experiments and build great models

- > I'll analyze the data you provide me
- > I'll engineer features to provide insights/answers
- > I'll experiment/build model prototypes
- > I'll iterate on models to get the best accuracy possible



IT/DevOps: "Industrialize" the AI data pipeline

- > I'll process (and help you get access to) the data you need for experimentation
- > I'll work with the infrastructure team on platform/architecture
- > I'll build a data pipeline that supports rapid prototyping to production



AI leaders build MLOps teams to realize AI at scale.

According to Gartner, **80%** of ML projects will be supported by MLOps principles and tooling to reduce operational challenges by 2025, up from less than 20% today.⁷

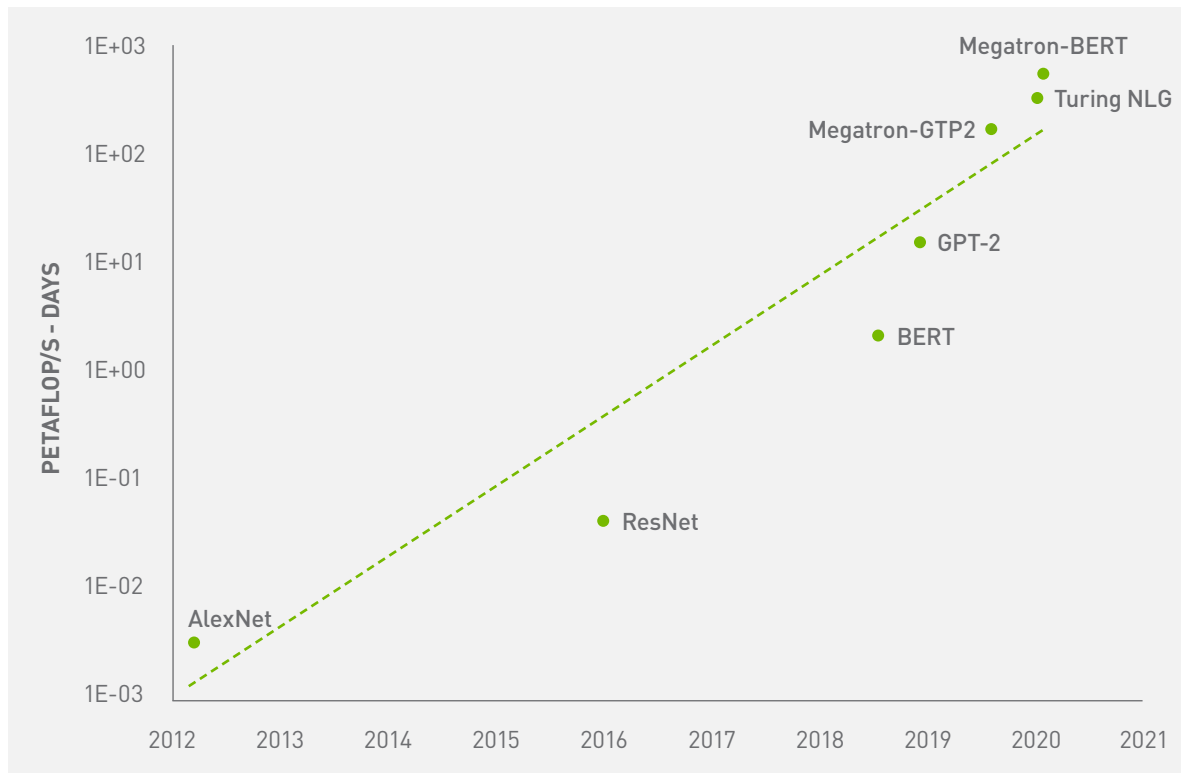


2020

2025

4 AI Leaders Know That Tools and Infrastructure Matter

AI leaders know that, with the right infrastructure, data scientists can iterate faster and innovate sooner—in hours instead of months.



For example, today's most advanced language models are built on

175 Billion

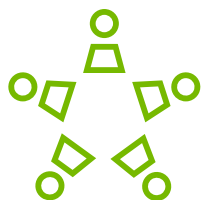
parameters and pre-trained on nearly half a trillion words.



A global McKinsey & Company survey revealed that only **15%** of organizations have the right technological infrastructure and architecture in place to support AI systems.³



Additionally, based on findings by Accenture, **76%** of C-suite executives don't know where to start and struggle to scale AI across the business.²



AI leaders know that AI Infrastructures are complex, putting a significant strain on compute, storage, and network resources. As a result, they need to be capable of managing massive amounts of data—with fast data delivery at each stage of the data pipeline—from ingest to insights.

They also know that it's equally important to have a broad ecosystem that can bring together all AI components, enabling an end-to-end solution.

MANY ENTERPRISES ARE NOW REALIZING THEIR AI AMBITIONS.

"NVIDIA's AI experts approach problems from many angles to find the most optimal solution. Their know-how enabled us to reduce training time from weeks to days, improving accuracy of our models."



ROBERT THIEL
Head of Artificial Intelligence

"In a way, the best thing we got from buying that AI system was all the support we got afterwards."



PAUL EDWARDS
Director of Data Science and
Model Innovation

"From my experience, the experts at NVIDIA keep up with cutting-edge tools and methods and have a very good grasp on how companies are using their products."



ZACK FRAGOSO
Manager of Data Science and AI

AI innovation starts here: www.nvidia.com/AIStart

1. RJ Reinhart. **Most Americans Already Using Artificial Intelligence Products**. Gallup. March 2018
2. McKinsey & Company. **Global AI Survey: AI proves its worth, but few scale impact**. November 2019.
3. Accenture. **AI: Built to Scale**. November 14, 2019.
4. McKinsey & Company. **AI adoption advances, but foundational barriers remain**. November 13, 2018.
5. Businesswire. **IDC Survey Finds Artificial Intelligence to be a Priority for Organizations But Few Have Implemented an Enterprise-Wide Strategy**. July 8, 2019.
6. Erick Brethenoux. **Gartner Survey Analysis: Moving AI Projects From Prototype to Production**. July 6, 2020
7. Arun Chandrasekaran and Alexander Linden. **Machine Learning Engineer - A Role That Bridges the Gap Between Data Science and IT**. Gartner. June 17, 2020. ID G00722846.