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AI
from Pilot
to Impact

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2014 - 2025
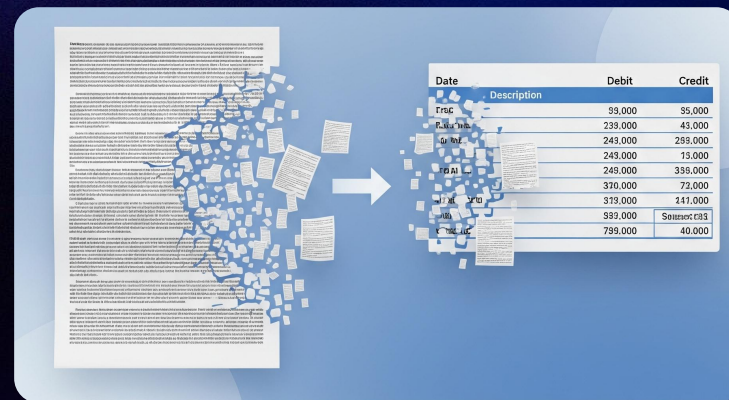
Avi Elran   Mariusz Kreft

CEO   VP Product

AiDP

Document workflow Automation

DOUBLING RATE OF KNOWLEDGE

The Doubling Curve as a Function of Year

IoT Tipping Point

Jobs today are changing as rapidly as technology does

Post-Information Age
Low barriers to markets, talent and information

Information Age
Computerization – digital data

Industrial Revolution
Industrial production

1440 -1900	1900-1950	1950-1970	1970-1980	1980-2000	2017	2020
Knowledge doubled in 400 years	Knowledge doubled in 50 years	Knowledge doubled in 20 years	Knowledge doubled in 10 years.	Knowledge doubled in 8 years.	Knowledge is doubling every 13 months.	IBM predicts the build out of the "internet of things" will lead to the **doubling of knowledge every 12 hours.**

Pandey, S. (2020). *The Doubling Rate of Knowledge in the Early 21st Century*. Emerging Scholars Program, University of Louisiana at Monroe.

AI from Pilot to Impact

What is AI?
Why does it matter?
The Pitfalls
The Opportunities
How to do it right

We've all seen the headlines about AI's potential, but the reality is that most companies are still stuck in the pilot phase. They're running experiments but not seeing real business impact.

Over the past few slides, we'll explore why so many AI initiatives fail to scale. We'll look at the common pitfalls and the key challenges that prevent AI from moving beyond the lab.

Today, we're going to bridge that gap. We'll show you not just what AI can do, but how to do it right. We'll cover the tools, the mindset, and the methodology needed to take AI from a small pilot to a solution that delivers real, measurable impact.

This isn't just a technical talk. This is about making AI work for you, for your business, and for your bottom line. Let's begin our journey from pilot to impact.

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What are AI and LLMs?

At its core, a large language model, or LLM, has one simple job: to predict the next word in a sequence. If I give it the prompt, 'The dog jumped over the…,' it calculates the probability of every single word it knows to find the most likely one to come next.

The reason this simple process feels so intelligent is the incredible scale. These models are trained on immense amounts of data—from books, articles, and websites—which is how they become so good at mimicking human language.

The key takeaway is this: an LLM's genius isn't in consciousness or reasoning; it's in its ability to predict at a massive scale. It's an incredibly powerful tool, but it's not a brain.

AI doesn't think. Nor does it know.
It's a prediction machine at scale.
Trained on all available human data.

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Beyond the Pilot: The Pitfalls of Scaling AI for the Enterprise.

Beyond the Pilot: The Pitfalls of Scaling AI for the Enterprise.

Most AI tools fail because they don't learn from user feedback or adapt over time.

Pilots often stall because they don't integrate into day-to-day workflows.
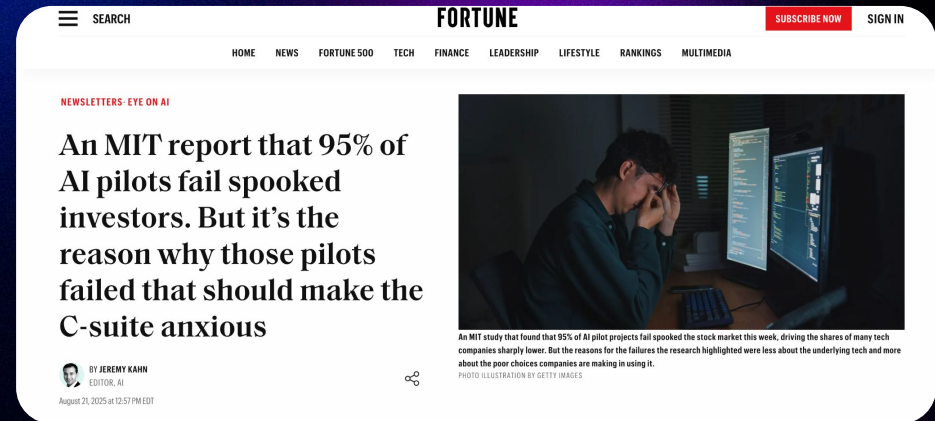
Companies that build their own tools have a significantly lower success rate than those who buy from external partners.

Investment is often directed towards highly visible, but lower-ROI, front-office functions instead of more profitable back-office operations.

No clear (or misaligned) objectives

Organizational and cultural gaps

Data and infrastructure deficiencies

SEARCH

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NEWSLETTERS · EYE ON AI

An MIT report that 95% of AI pilots fail spooked investors. But it's the reason why those pilots failed that should make the C-suite anxious

An MIT study that found that 95% of AI pilot projects fail spooked the stock market this week, driving the shares of many tech companies sharply lower. But the reasons for the failures the research highlighted were less about the underlying tech and more about the poor choices companies are making in using it.

PHOTO ILLUSTRATION BY GETTY IMAGES

BY JEREMY KAHN
EDITOR, AI

August 21, 2025 at 12:57 PM EDT

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Unlocking Untapped Value: The Path to Successful AI.

Dark data treasure: 80–90% of enterprise data is unstructured (PDFs, scans, contracts). AI can unlock it.

Admin & back-office bottlenecks: Reconciliation, compliance reporting, contract review, form processing — these are repetitive, rules-heavy, and ideal for AI.
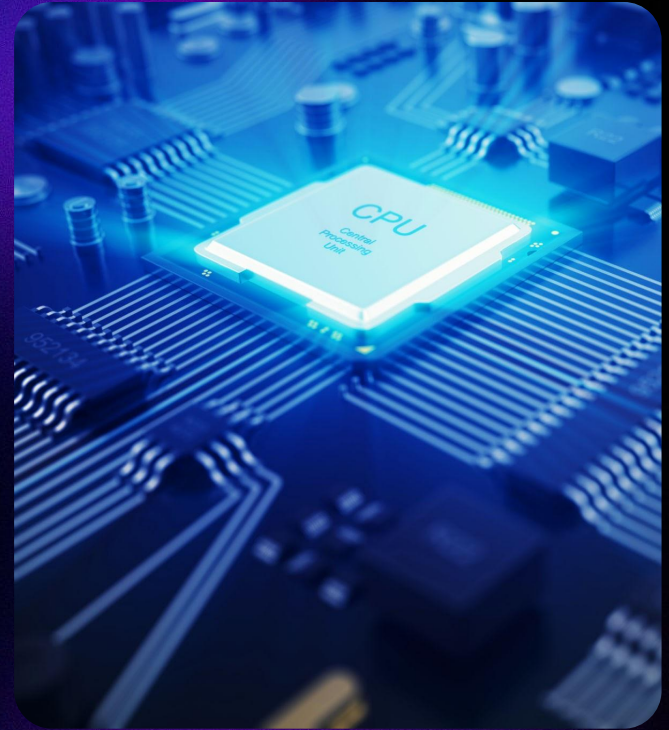
Decision latency: AI can collapse decision cycles from weeks to hours by removing reconciliation delays.

Compliance strength: Instead of reacting, AI can generate audit trails *as you work*.
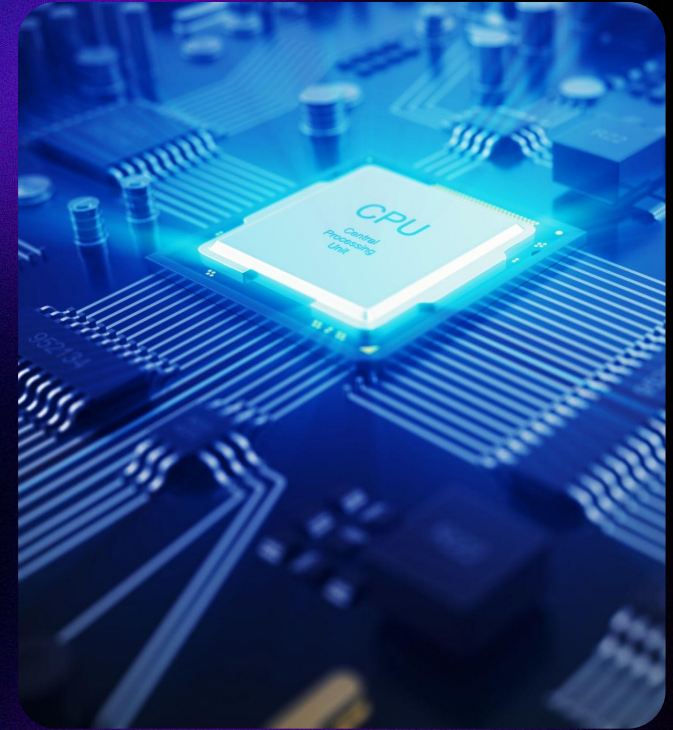
Unlocking Untapped Value: The Path to Successful AI.

AI is not just about saving costs—it's about unlocking value in places that were invisible before.

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Finding a Methodology For
A Winning Recipe

On this slide, we're going to dive into the five core methodologies that separate successful AI initiatives from those that fail. This is your 'winning recipe' for putting AI to work in the real world.

HUMAN AI FEEDBACK

MEMORY & CONTEXT

PROMPTING

AGENTS
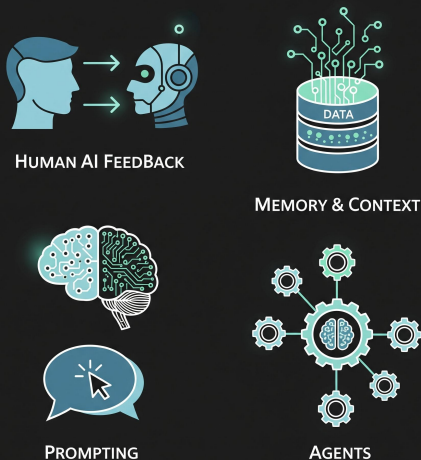
The key takeaway is that you can't just plug in an LLM and expect it to work. You need a methodology that puts these five elements together in a way that turns a simple prediction engine into a dynamic, learning, and truly valuable business partner.

- **Prompting:** This is where every interaction with an LLM begins. It's the instruction manual you hand the AI. As we discussed, a vague prompt gives you vague results. Effective prompting is about providing clarity, context, and constraints to get the exact, actionable output you need.
- **Human-AI Feedback:** This is how you close the learning loop. AI models don't learn on their own once they're deployed. Humans must provide continuous feedback—correcting mistakes and providing real-time guidance—to teach the AI and prevent it from repeating errors.
- **Memory & Context:** This is the most crucial piece. LLMs have no memory. They forget everything after a single interaction. You can give them memory by connecting them to your company's knowledge base. This allows the AI to 'remember' past conversations and leverage your private data, making it far more powerful and valuable.
- **Agents:** This is the ultimate goal. An agent is a system built around an LLM that can perceive, plan, and act autonomously. It combines all of these methodologies—prompts, memory, and human feedback—into a single, self-correcting system that can orchestrate complex, multi-step tasks without constant human intervention.

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The Human-in-the-Loop: Fueling AI with Continuous Learning.

Establish Control & Trust: Humans must supervise and audit AI to ensure transparency and compliance.

Drive Continuous Improvement: Human feedback corrects errors and provides guidance, teaching the AI to improve.

Create a Compounding Advantage: The feedback loop creates a virtuous cycle, turning a static AI tool into a learning engine.

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The Human-in-the-Loop: Fueling AI with Continuous Learning.

AI without a human loop is a liability.
With it, it becomes a learning engine.

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Memory - The genius new hire who forgets everything before 36 hours ago.

On the last slide, we talked about how LLMs are 'prediction machines.' But they have a major limitation: they have no memory. Think of it like this: an LLM is a genius new hire who forgets everything before 36 hours ago. It can answer a prompt, but if you ask a follow-up question or come back to it tomorrow, it will have forgotten all the previous context."

This lack of memory is a critical reason why many AI pilots fail. They can't handle complex, multi-step tasks that require retaining context over time.

This is why you can't just plug in an LLM and expect it to handle a long-term project or a detailed customer service interaction.

So, how do we give AI a memory? The answer isn't in a single solution, but in a combination of methodologies. It all comes down to how you organize and feed the AI.

- **RAG (Retrieval-Augmented Generation):** RAG provides real-time data by connecting a model to a secure, external knowledge base.
- **Fine-Tuning:** Fine-tuning trains a model on a smaller, specific dataset to teach it new skills.
- **External Memory:** External memory uses a vector database to store and retrieve past conversations and context.
- **Agents:** Agents are autonomous systems that use memory frameworks to learn from feedback and orchestrate complex tasks on their own.

Each of these methods gives the AI a form of 'memory.' By implementing them, you transform a static AI tool into a dynamic, adaptable partner that gets smarter with every interaction, creating a compounding business advantage.

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Memory - The genius new hire who forgets everything before 36 hours ago.

The memory problem isn't a bug. It's a design challenge — and an opportunity for those who solve it.
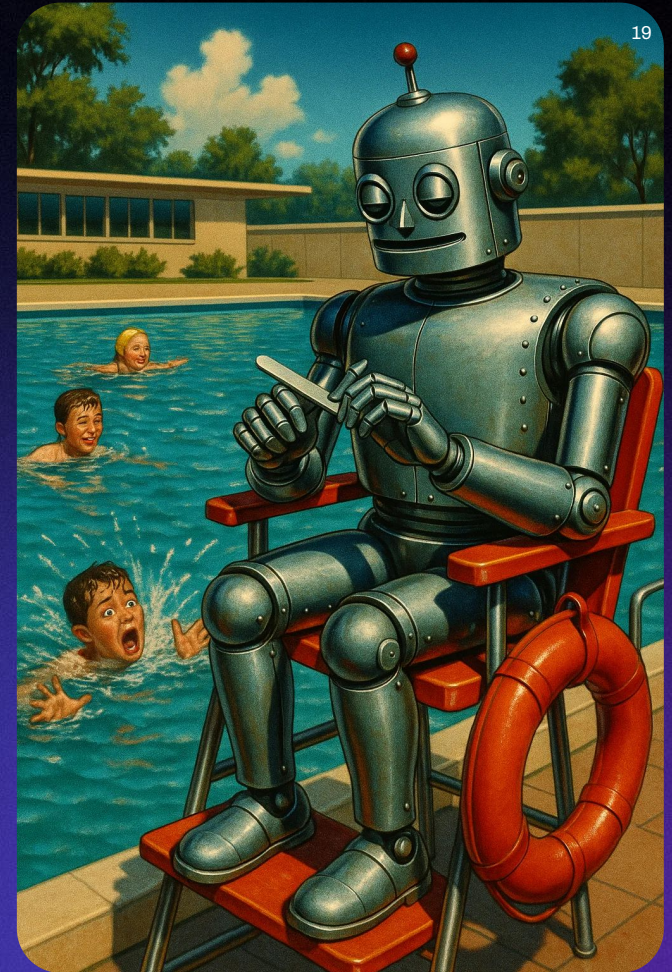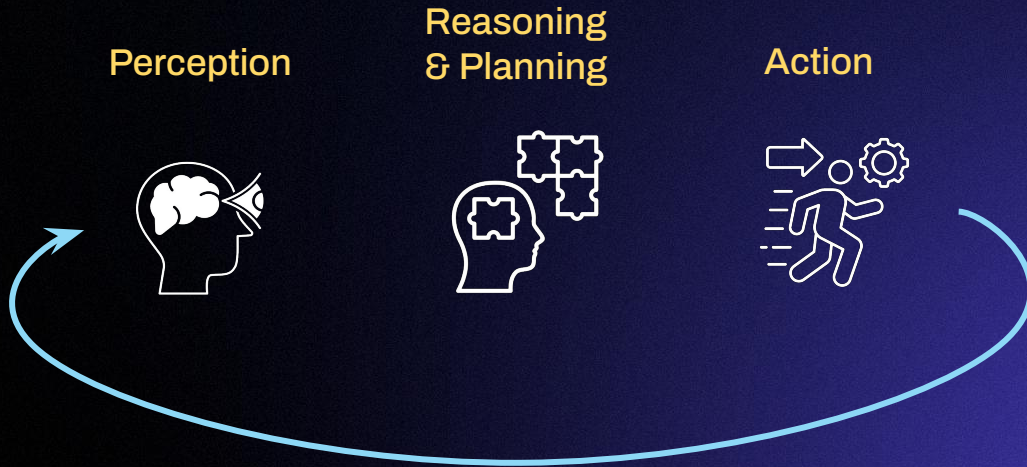
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Agents: Orchestrating AI for True Automation

Agents represent the pinnacle of organizing and feeding AI. They transform static models into dynamic, adaptive team members, making AI initiatives truly successful.

Agents: Orchestrating AI for True Automation

Perception

Reasoning & Planning
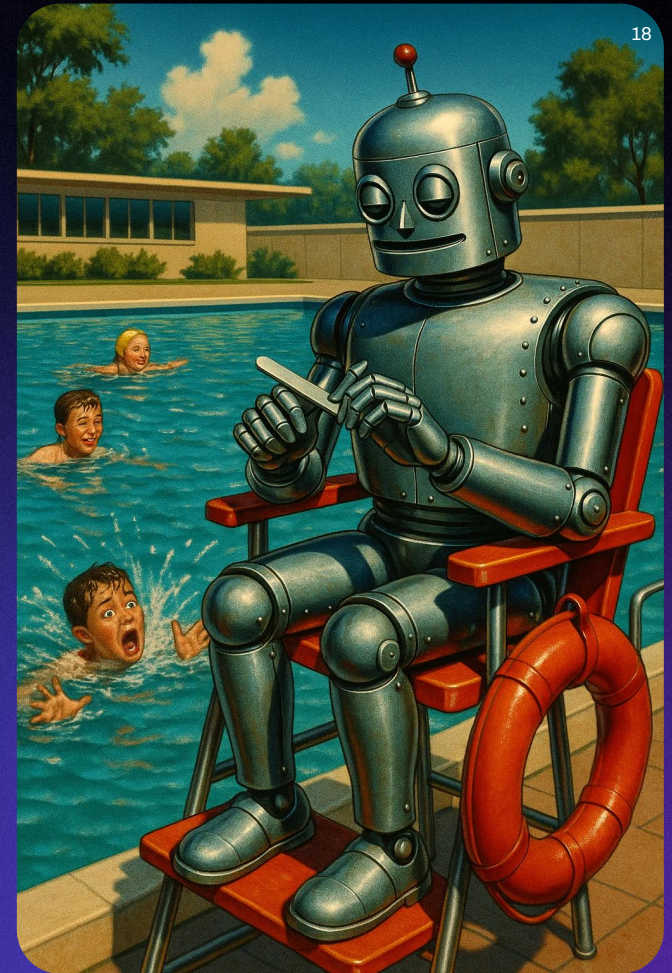
Action

Prompt Engineering: Unlocking the full power of AI

Clarity: Be specific. Avoid ambiguity. The AI is a powerful tool, but it can't read your mind.

Context: Provide background information. Tell the AI what it needs to know to give you a good answer.

Constraints: Set boundaries. Specify the format, tone, length, or persona you want the AI to adopt.
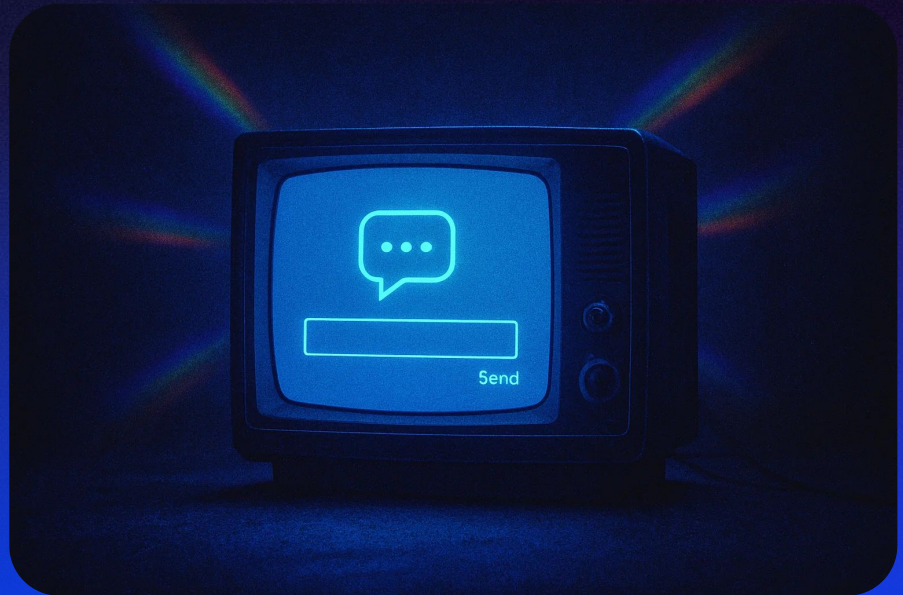
Prompt Engineering
Making the AI work for you

Clarity, **Context**, **Constraints**

❌ **"Summarize this financial report."**

- Output: generic, may miss what matters.

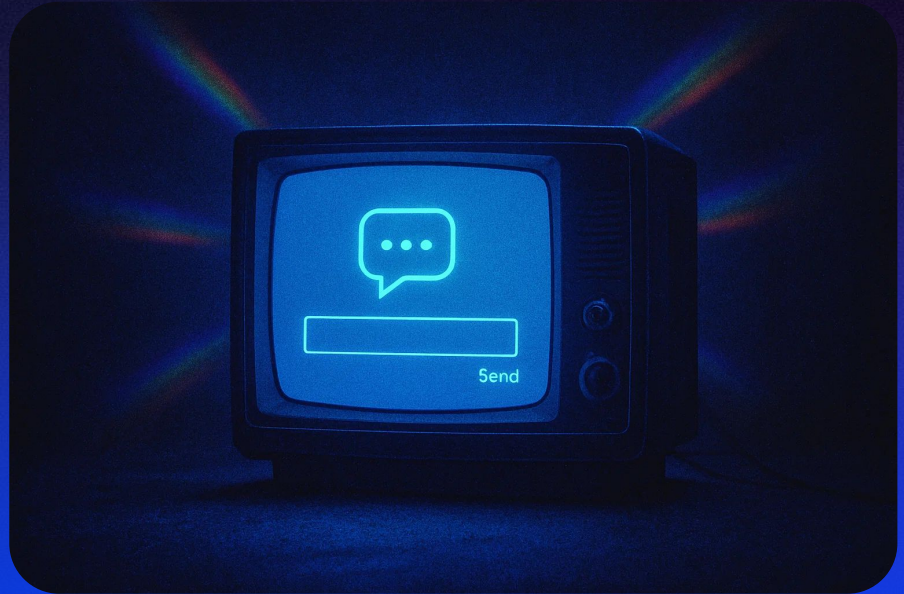
✅ Better Prompt:
"Summarize this financial report in 5 bullet points, focusing only on risks that could affect quarterly revenue, and highlight any red flags in compliance or cash flow."

- Output: specific, actionable, relevant.

Prompt Engineering: Unlocking the full power of AI

A prompt is more than just a question, it's the instruction manual.

How to **start** - Quantifiable chunks

Target Quantifiable Wins: Start with projects where success can be easily measured, such as table extraction or contract analysis.

Avoid "Fluffy" Pilots: Steer clear of subjective projects like marketing copy, where proving ROI is difficult.

Build Credibility: Prove quantifiable ROI with early wins to build trust and get buy-in for future projects.

Quantifiable chunks

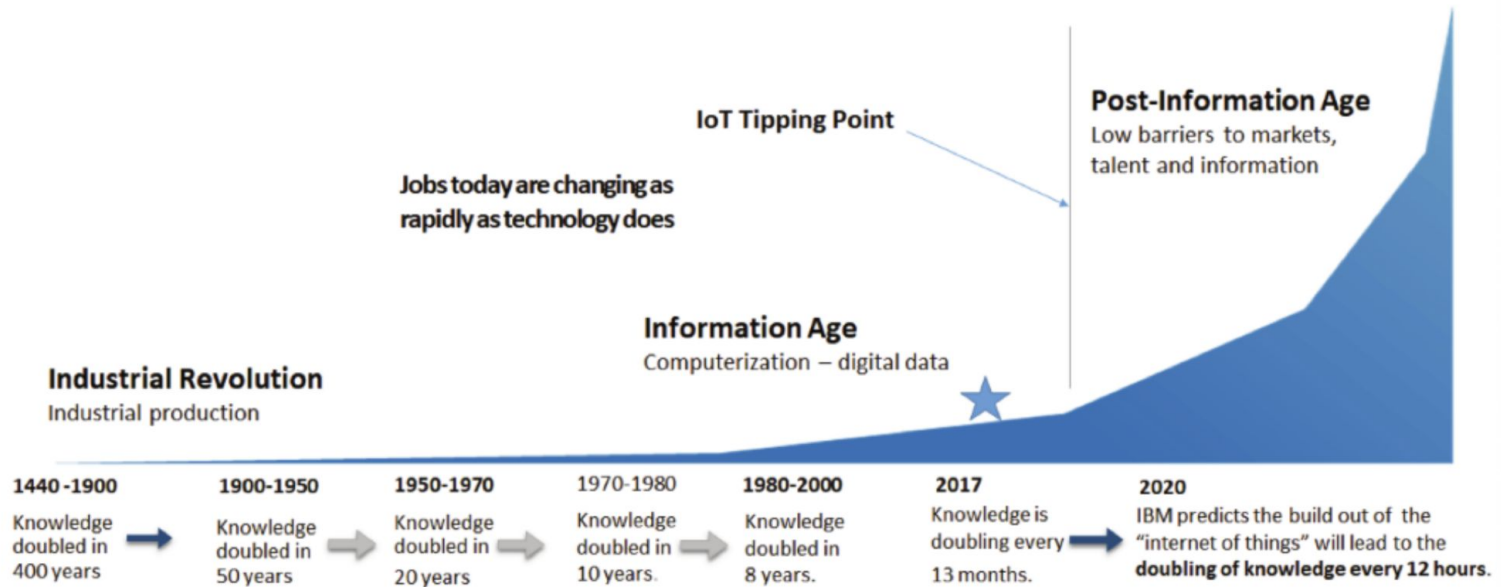**If you can't measure it,
You can't scale it.**

Outlook 2030

The ability to navigate and leverage AI will be the single most crucial skill for leaders in the coming decade. The very fact you are here — And still listening — demonstrates the mindset needed to succeed, keep leaning into this learning curve.

25
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DOUBLING RATE OF KNOWLEDGE9

Pandey, S. (2020). *The Doubling Rate of Knowledge in the Early 21st Century*. Emerging Scholars Program, University of Louisiana at Monroe.

AI: Your Smart Partner, Not Your Replacement

How AI augments human potential rather than replacing it

Accelerating Understanding & Communication

Universal Translation:
AI bridges communication gaps between technical and non-technical teams, creating shared understanding

Programming as Language:
AI interprets and translates programming concepts for non-developers

```
// From technical:
implement recursive function with O(log n)
complexity
// Translation for
non-technical:
"Create an efficient solution that divides the problem in half
each time"
```

Cross-Domain Collaboration:
Breaking down communication silos between departments, reducing miscommunication by

Accelerated Learning:
Transforming complex documentation and knowledge bases into accessible, personalized insights

" "AI doesn't just translate words—it translates concepts, making
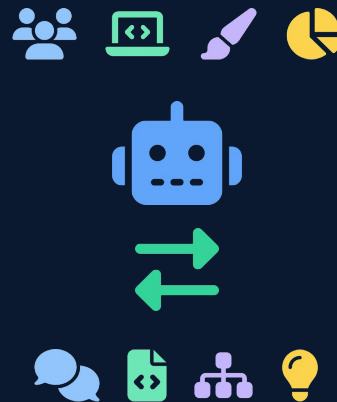
AI & Human Creativity

💡 Expanded Ideation: AI helps stretch the boundaries
of human thought by suggesting novel connections and perspectives

🕎 Building the Right Thing:
Early-stage AI collaboration helps identify blind spots and explore more solution paths before committing resources

🔄 Iteration Speed:
Rapidly test multiple concepts and variations, compressing the ideation cycle from weeks to hours

🧠 Creative Augmentation:
AI serves as a collaborative thought partner, not replacing human creativity but enhancing our natural abilities
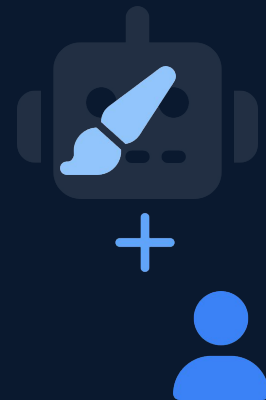
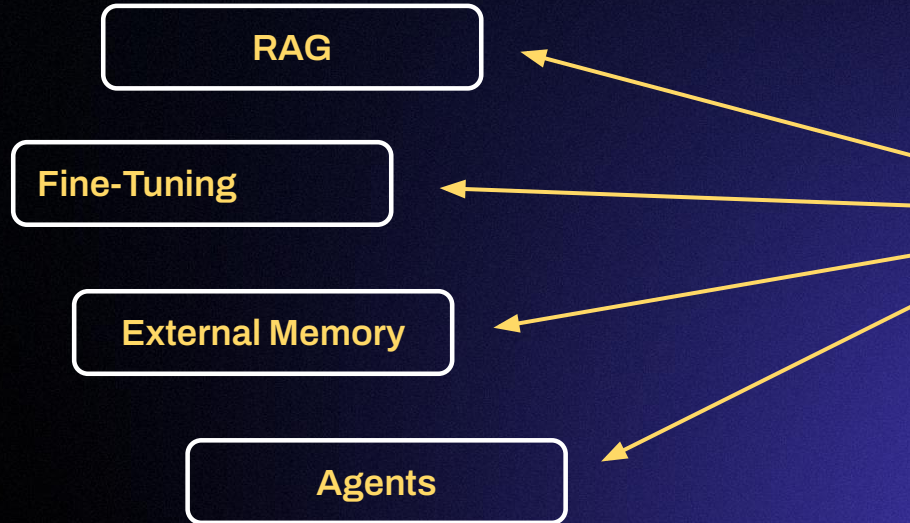❝ "AI doesn't replace creative thought - it helps us explore possibilities we might never have considered."

Mariusz

Avi

Thank you

Memory - The genius new hire who forgets everything before 36 hours ago.

RAG

Fine-Tuning

External Memory

Agents

Mariusz

Avi

Thank you!