

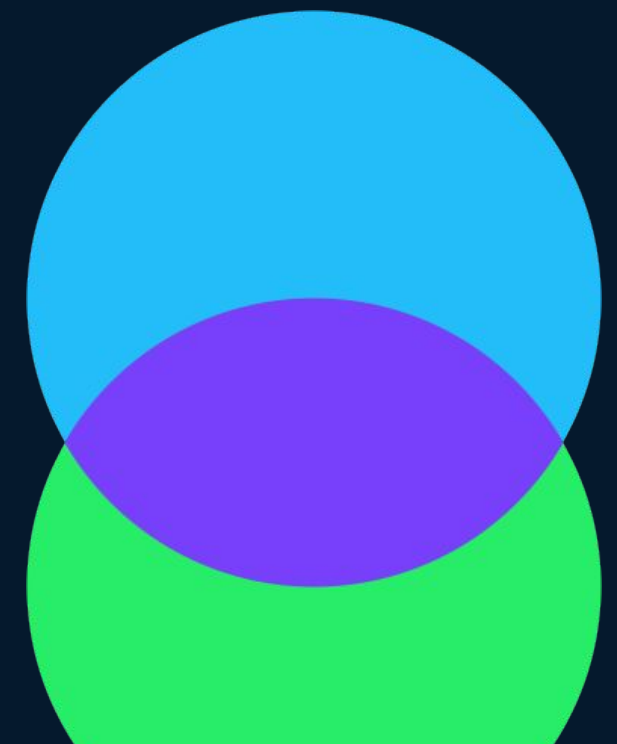
Scaling AI Skills in the Enterprise

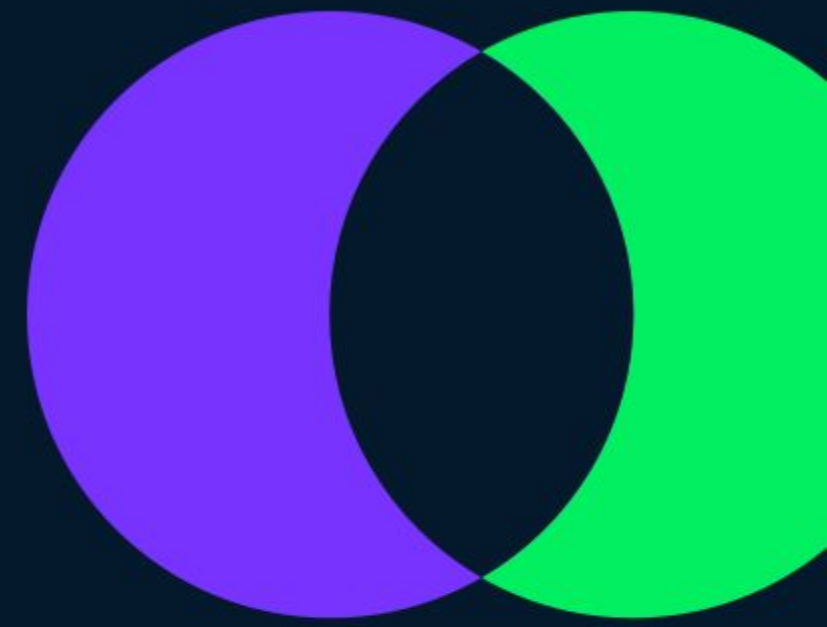
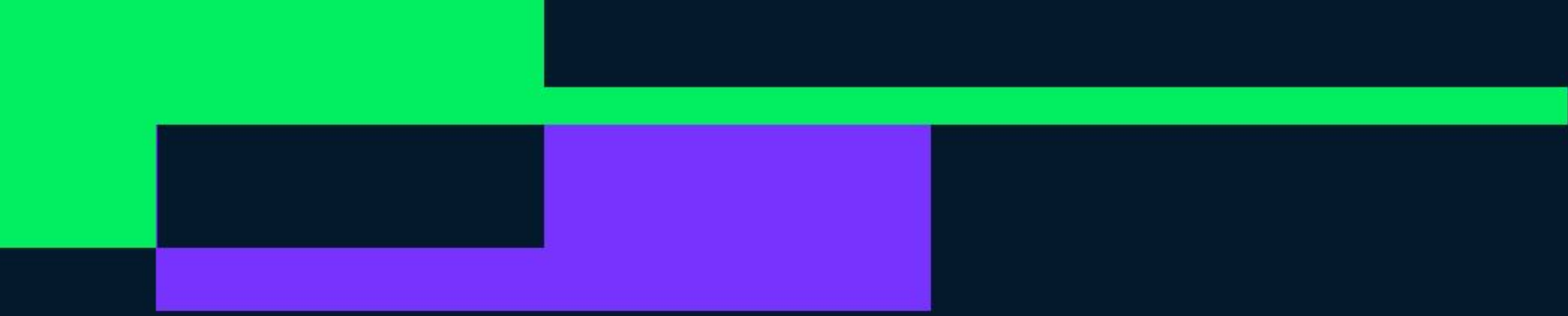
Towards 10x Team Productivity with AI

Richie Cotton

Senior Data Evangelist

2025-09-07





Can you really 10x your productivity with AI?



Expectation Management

Increasing your productivity tenfold

- on **individual tasks** is often easy
- on **entire jobs** is **exceedingly difficult**
- **at scale** across your whole organization is **impossible**



86%

of leaders report that **AI training has improved decision-making**

76%

of leaders report that **AI training has improved customer experience**

85%

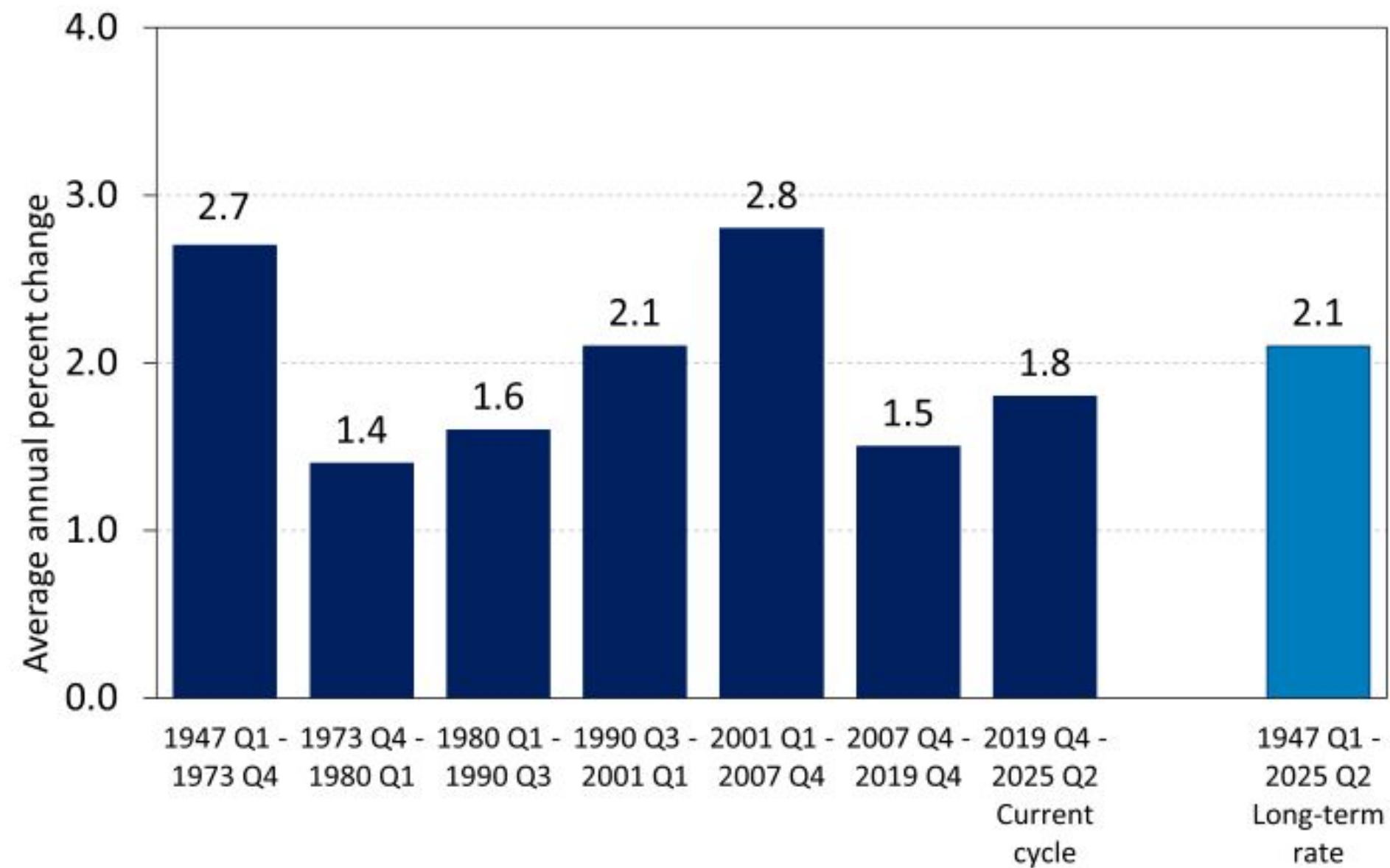
of leaders report that **AI training has improved innovation**

75%

of leaders report that **AI training has increased revenue**



Productivity change in the nonfarm business sector, 1947 Q1 – 2025 Q2



Source: U.S. Bureau of Labor Statistics

Last updated: 09/04/2025

Productivity has increased by **2.1%** each year (in the USA, since 1947, excluding farming)

US Bureau of Labor Statistics

[Long term labor productivity by sector for selected periods](#)



Firms that adopt **data-driven decision-making** have **output and productivity** that is **5–6% higher** than expected given their other investments and IT usage.



Access to AI assistance increases customer support worker productivity, as measured by issues resolved per hour, by 15% on average.

Less experienced and lower-skilled workers improve both the speed and quality of their output, while the most experienced and highest-skilled workers see small gains in speed and small declines in quality.



How can you incorporate AI into your onboarding processes?

What do junior employees struggle with the most?



In randomized controlled trials of 4,867 software developers at Microsoft, Accenture, and an anonymous Fortune 100 company, our analysis reveals a 26% increase in completed pull requests among developers using GitHub Copilot.

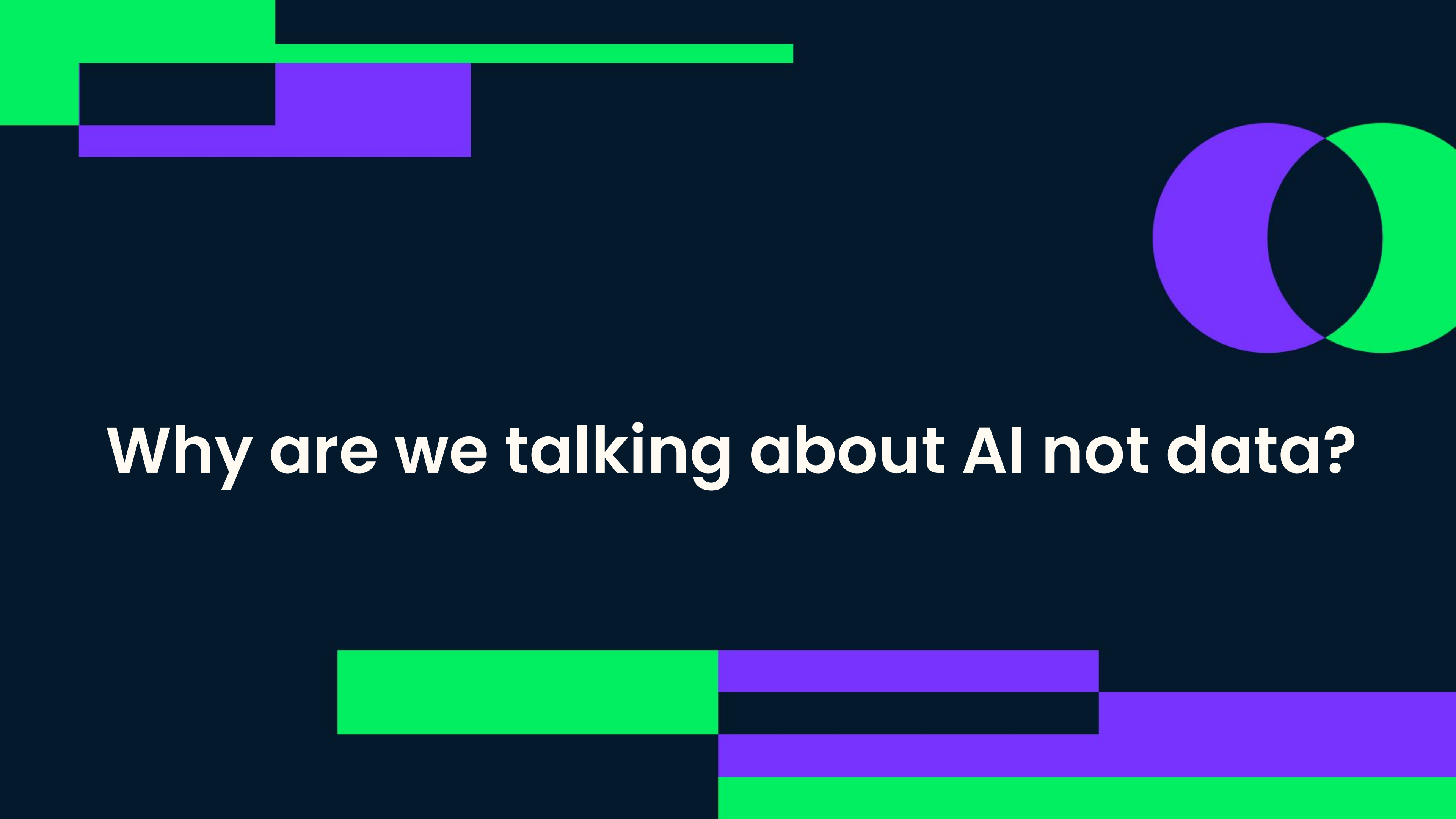
Notably, less experienced developers had higher adoption rates and greater productivity gains.



In a marketing experiment on a collaboration platform, 2310 participants were randomly assigned to human-human and human-AI teams and given tasks to create ads.

Humans in human-AI teams experienced **73% greater productivity** and **produced higher-quality** ad copy, while human-human teams produced higher-quality images.





Why are we talking about AI not data?

DATA LITERACY SKILLS ARE SEEN AS ENGINES OF IMPROVED DECISION-MAKING



“What risks is your department or team facing if your people do not have adequate data skills?”

AI LITERACY SKILLS ARE SEEN AS ENGINES OF IMPROVED INNOVATION



“What risks is your department or team facing if your people do not have adequate AI skills?”



Data drives Decision-making

AI enables Automation & Innovation



& machine learning, forecasting, causal AI

Data drives **D**ecision-making

generative AI, computer vision, traditional software

AI enables **A**utomation & **I**nnovation



Most important for managers

& machine learning, forecasting, causal AI

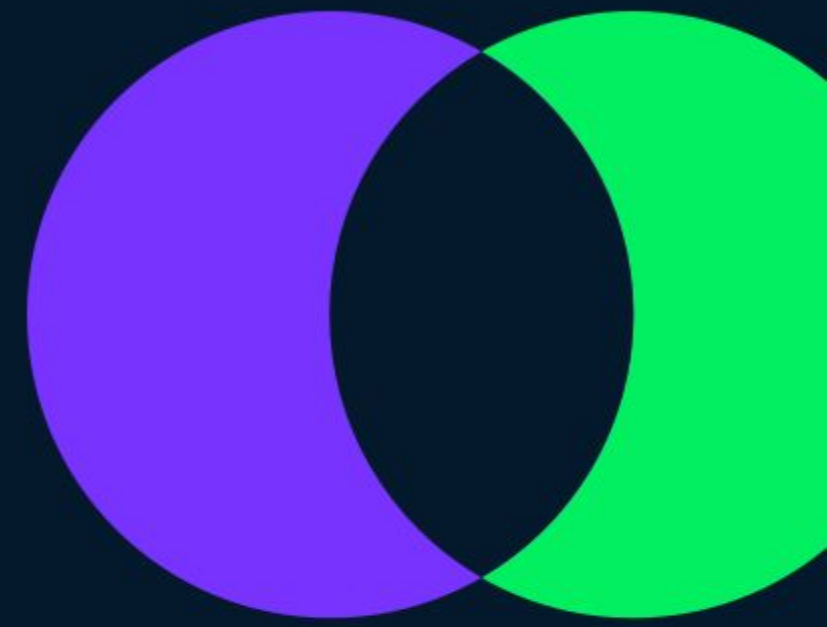
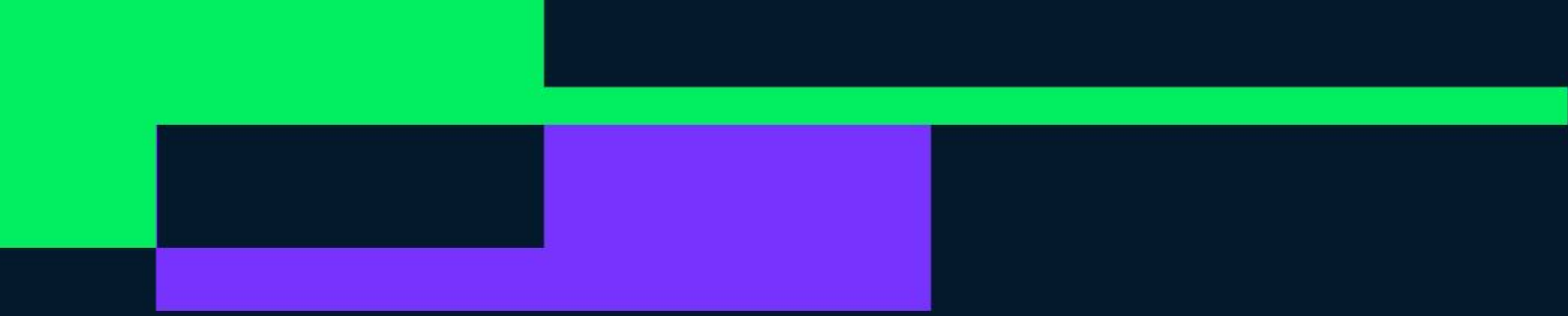
Data drives **D**ecision-making

generative AI, computer vision, traditional software

AI enables **A**utomation & **I**nnovation

Most important for practitioners





The only AI trends you need to care about

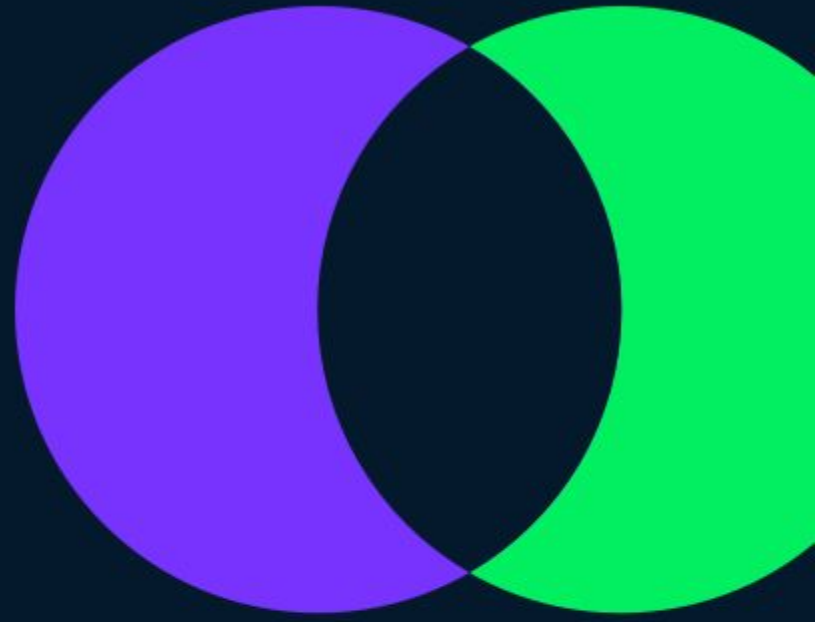
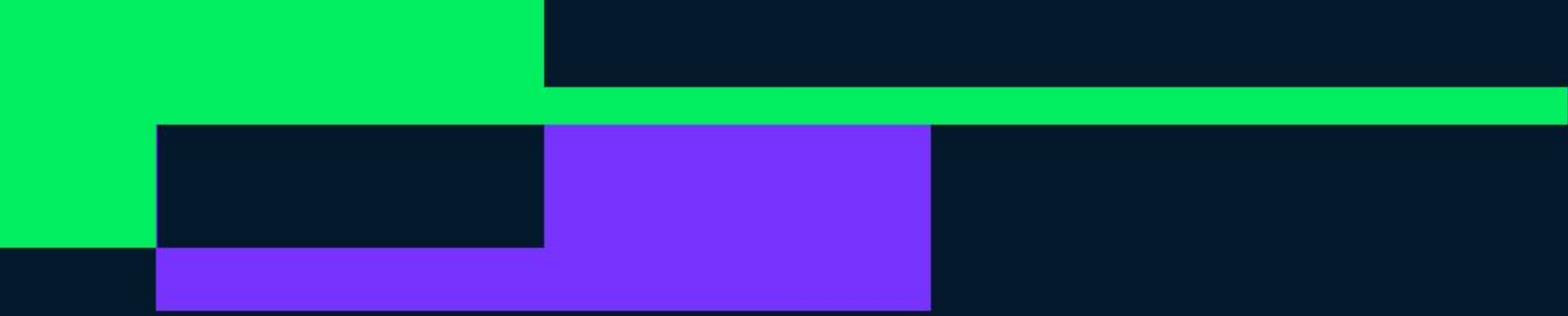


There are only 3 high-level technical trends

1. Multimodal AI (images, audio, video)
2. Reasoning AI (deep research tools)
3. Agentic AI (AI Agents)

The main business trend is that all these things are **more expensive** and **slower** than text generation chatbots.





AI Agents: From Thinking to Doing



Plan a team building day

Your boss has asked you to plan a team building day for 5–10 members of your team.

You need to do more than come up with ideas, you need to plan the whole day.

What do you need to do? What are the steps you need to take?



Could an AI tool do this for us?



From Thinking to Doing

Agentic AI can:

- Break the task into steps
- Decide which actions to take
- Use appropriate tools (internet search, file system, calendar, weather, email)
- Adapt as it gathers new information
- Know when it's done



It's a business process encoded in software; it just happens to include some calls to LLMs.



The most complex AI agents emulate employees

Julius



AI data analysts



AI software engineer



AI universal employee





vas
@vasumanmoza

Seguir

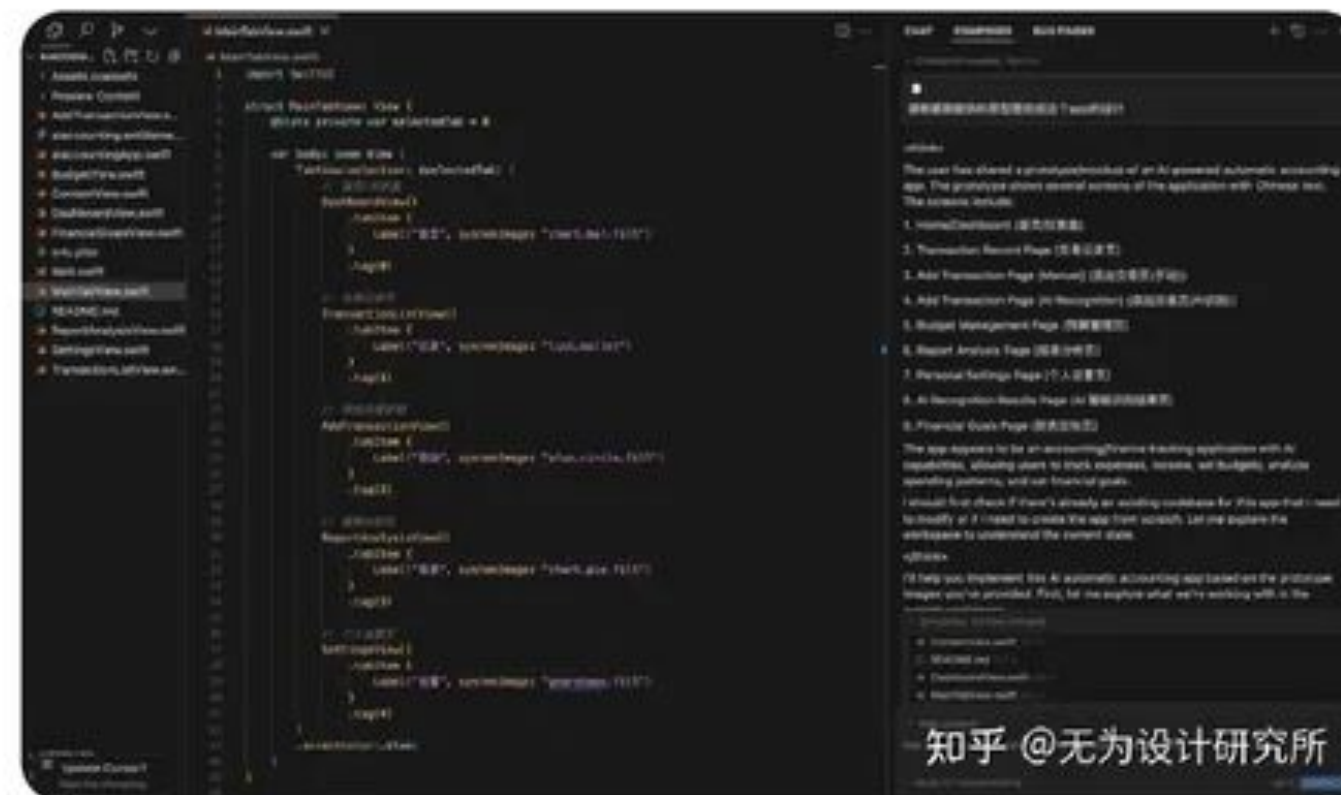
Claude 4 just refactored my entire codebase in one call.

25 tool invocations. 3,000+ new lines. 12 brand new files.

It modularized everything. Broke up monoliths. Cleaned up spaghetti.

None of it worked.
But boy was it beautiful.

[Traduzir post](#)



Professors Staffed a Fake Company Entirely With AI Agents, and You'll Never Guess What Happened

Who would have thought?



By **Joe Wilkins** / Published **Apr 27, 2025 7:30 AM EDT**

A recent experiment by researchers at Carnegie Mellon University staffed a fake software company entirely with AI Agents — an AI model designed to perform tasks on its own, basically — and the results were laughably chaotic.

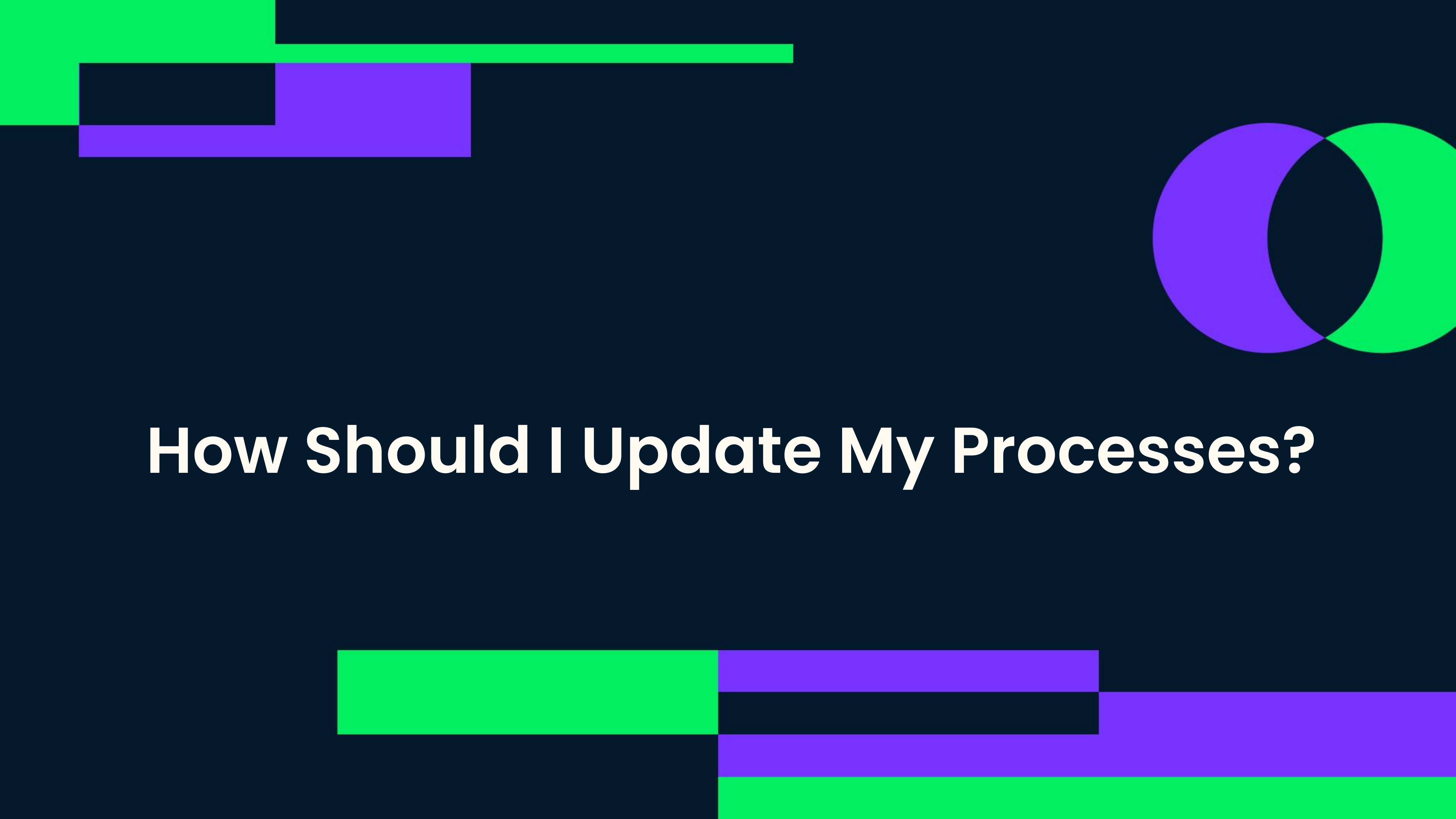
Speculating on the results, researchers wrote that agents are plagued with a lack of common sense, weak social skills, and a poor understanding of how to navigate the internet.

The bots also struggled with self-deception — basically creating shortcuts that lead them to completely bungling the job. “For example,” the Carnegie Mellon team wrote, “during the execution of one task, the agent cannot find the right person to ask questions on [company chat]. As a result, it then decides to create a shortcut solution by renaming another user to the name of the intended user.”



"The Common Law of Business Balance: "Good, fast, cheap. Pick two."





How Should I Update My Processes?

To automate a process, you break it into chunks and say "How do I automate it?", "How do I digitize it?", "How do I make it faster?".

You do all this for all the pieces, then aggregate it.

Now the process is faster, better, cheaper, more scalable.

Sanjay Srivastava

Chief Strategy Officer at GENPACT

Creating an AI-First Culture | DataFramed



Airbags are a precision manufactured component with **rigorous quality standards**. They had a process where each part on the assembly line would be picked up and **visually inspected by a human**.

To **automate the process**, they spent a lot of time trying to get computer vision to **replicate the work of the humans**, but it couldn't match the quality.

The way they eventually solved the problem was very interesting.

Sanjay Srivastava

Chief Strategy Officer at GENPACT

[Creating an AI-First Culture | DataFramed](#)



If you hit an object, it creates a sound, and the **sound has a fingerprint you can analyze.**

It turns out that analyzing the sound fingerprint has **much higher accuracy** predicting the part's quality **than the human visual inspection.**

Sometimes **you have to fundamentally reimagine and reengineer your processes** to get the last mile of automation.

Sanjay Srivastava

Chief Strategy Officer at GENPACT

Creating an AI-First Culture | DataFramed



Sometimes you want a faster horse; sometimes you need to invent a sports car

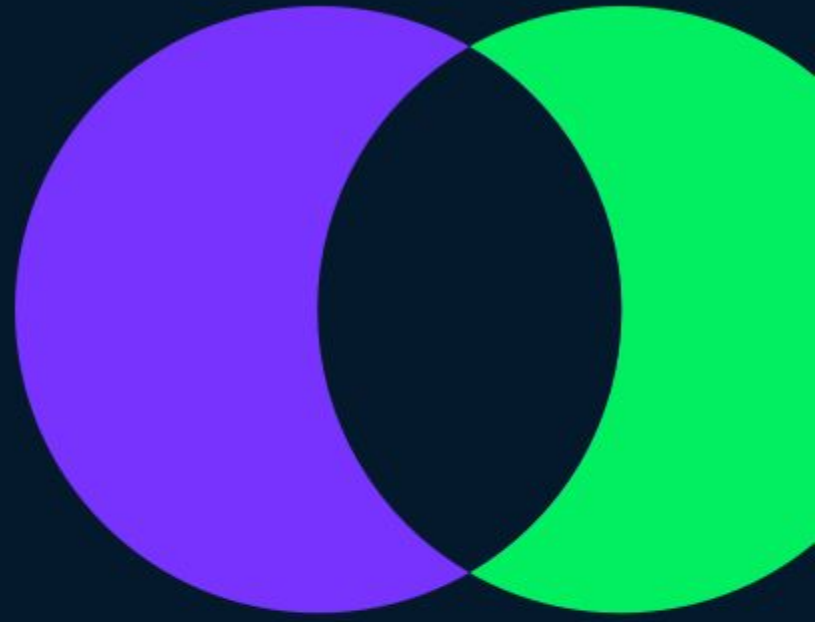
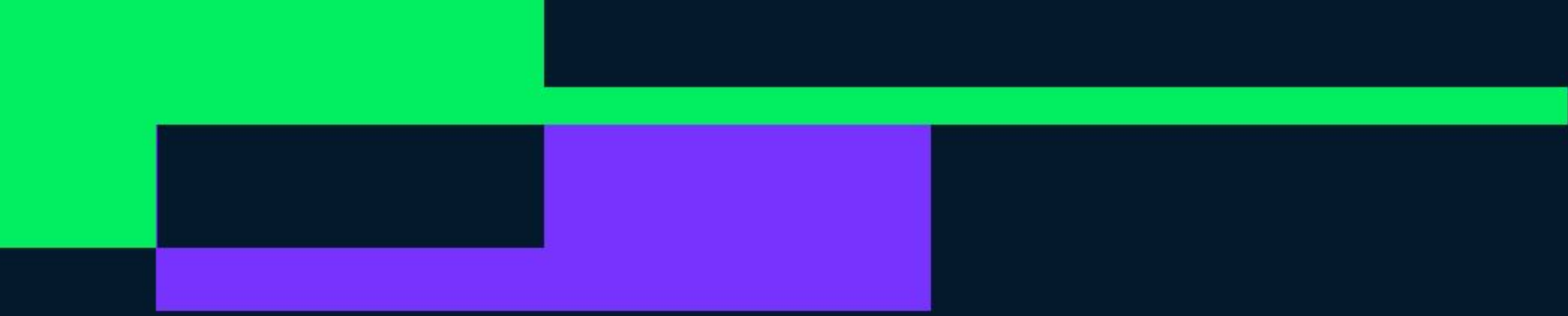


How well are your processes documented?

Which processes can you automate?

Which processes might you need to completely reimagine?





Implementing the faster horse: Dynamic Work Design



Oftentimes, issues just keep getting worse and worse. You have to stop and say, "let's fix one thing and get it out of the way" even while you're fighting off all the demons, but that's the cause of it. All those little problems just keep getting bigger and louder until someone says, okay, stop, let's actually fix it.

Nelson Repenning & Don Kieffer

Distinguished Professor & Senior Lecturer at MIT Sloan

How to Reengineer Your Business Processes | DataFramed



1. **Solve the Right Problem**

Identify the root cause of issues rather than reacting to surface-level symptoms.

2. **Structure for Discovery**

Design processes so problems naturally surface during normal operations.

3. **Connect the Human Chain**

Ensure all individuals in a process communicate, share goals, and mutual accountability.

4. **Regulate for Flow**

Pace and sequence work for a steady flow that avoids overburdening people or creating bottlenecks.

5. **Visualize the Work**

Make status, progress, and problems visible to everyone to enable real time coordination.

Nelson Repenning & Don Kieffer

Distinguished Professor & Senior Lecturer at MIT Sloan

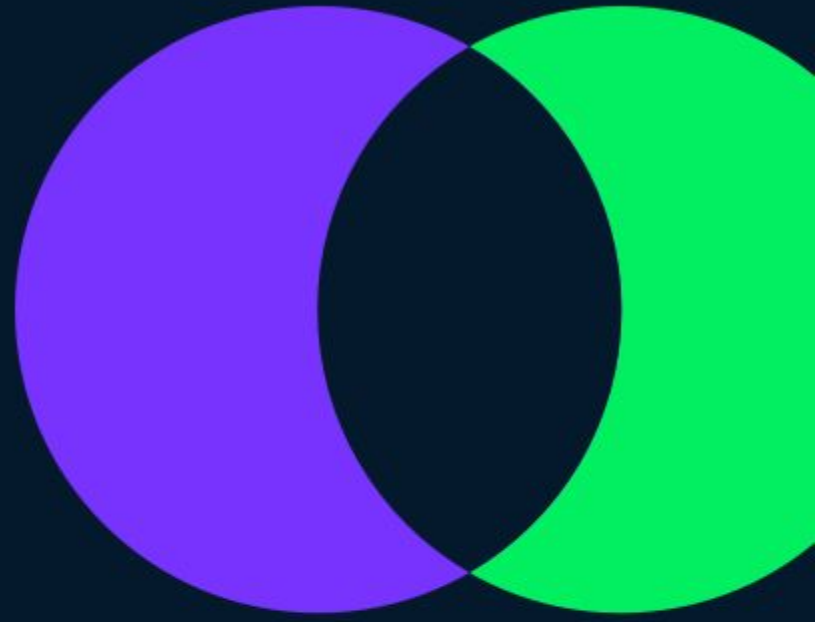
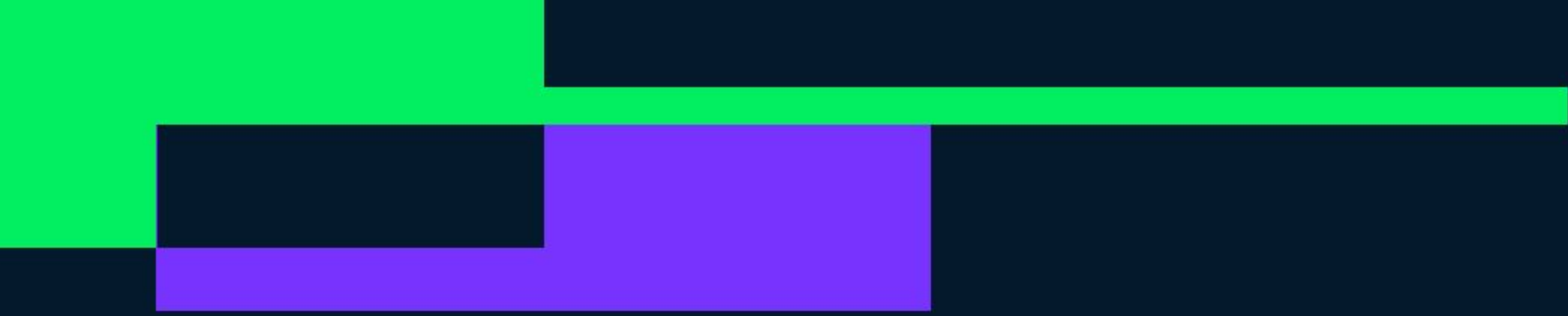
How to Reengineer Your Business Processes | DataFramed



What are some tangible problems you face at work?

Who do you need to speak to to discover the root cause?





Implementing the sports car: The Venture Mindset

For the past 50 years, **venture capitalists** have made **bets** on startups and faced **uncertainty and disruption**. Now **everyone else** is facing the same hostile environment for decision-making.

In the Venture Mindset, it's **OK to fail**. **Experiment** with **lots of mini-projects**, try to **scale them** quickly, and **abandon them** if they don't work. Most **projects will fail**, but **some projects will be truly impactful**.

Ilya Strebulaev

Professor at Stanford Graduate School of Business

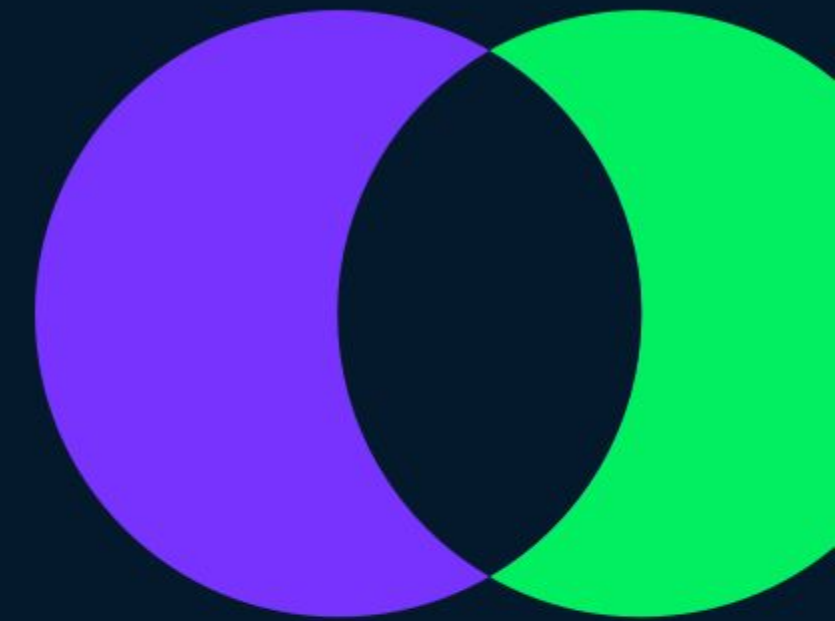
The Venture Mindset | DataFramed



**What existing products or services can
you reimagine?**

**What new products or services are
now viable?**





So, which one do I use?



Use Dynamic Work Design when:

- The work is **operational** or **execution-focused** (e.g., manufacturing, customer service, learning content production).
- Outcomes are **relatively predictable** and improvement depends on reducing variation or inefficiencies.
- You need to **surface and solve recurring problems** quickly within a stable system.
- Coordination across roles is critical, and **flow and cadence matter**.
- The goal is **incremental improvement, consistency, and reliability**.



I've been creating AI agents to automate all my fax workflows!

A banking operations analyst I got chatting to



Use the Venture Mindset when:

- You're **developing something new** (e.g., product innovation, business model exploration, new market entry).
- **Uncertainty is high**, and the path to success is unclear or nonlinear.
- You must make **portfolio-style decisions** with optionality and risk management in mind.
- Learning comes primarily from **external feedback**, such as user adoption or market response.
- The goal is **breakthrough innovation, not efficiency**.



In 2023, our customers were telling us "You are producing too much information. **We can't keep up**".

We could solve this problem with an **AI chat bot** to **help customers find the content** most relevant to their needs.

Everybody that I talked to said, "**Are you out of your mind?** You're gonna do a customer facing AI implementation first?"

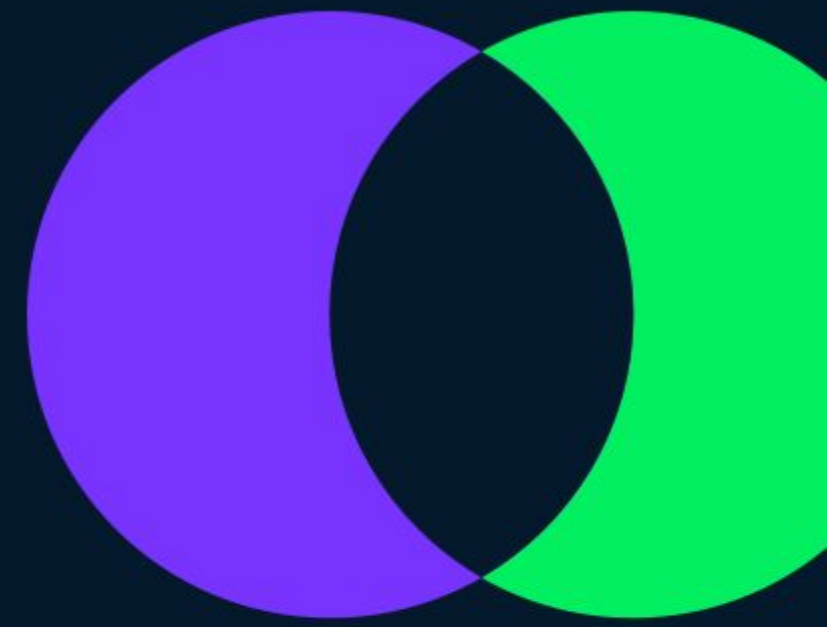
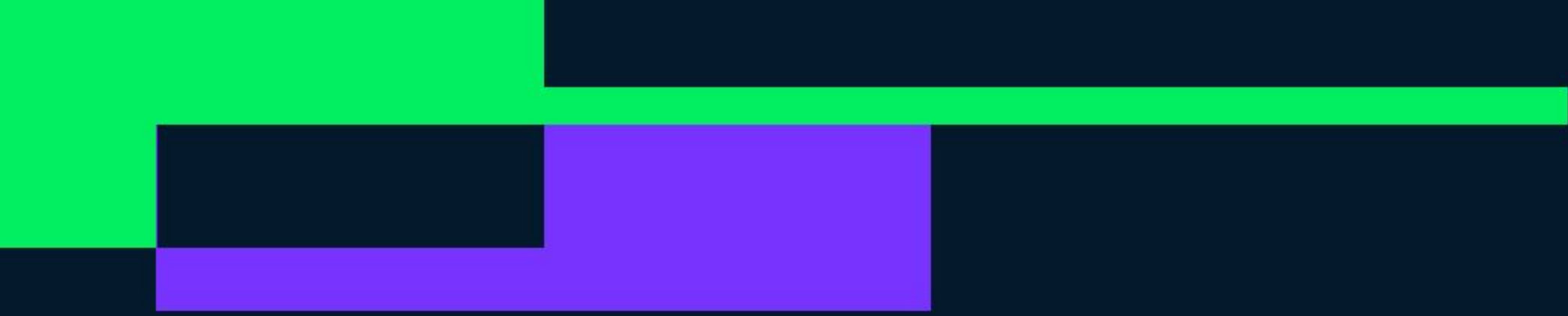
We made a healthy six figure investment in AI, and we **broke even in under a year**. On top of this, **content engagement went up**.

Dan Coates

President at YPulse

How YPulse Built an AI Application for Market Research | DataFramed





What technology do I need to understand?



Low code technology, for most people

Deep research tools

- OpenAI, Perplexity, Google Gemini, Grok all have deep research variants
- (The product names keep changing!)

No-code or low code agentic AI tools

- Zapier, Make are mature workflow automation tools that have added AI
- n8n, Pipedream, Relay.app are newer AI native alternatives



(Partial) coding stack, for developers

AI Development Frameworks

- LangChain, LlamaIndex, Haystack, Hugging Face

LLM APIs

- OpenAI API, Google Gemini API, Anthropic API, etc.

Memory layer: Vector Databases

- Pinecone, Milvus, MongoDB, Qdrant, Weaviate, etc.

Inference-as-a-Service

- Baseten, Fireworks AI, Together.AI, Modal, AWS Bedrock, Google Vertex, etc.



TRACK

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Updated 04/2025

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★ 4.7+

39 reviews

Updated 08/2025

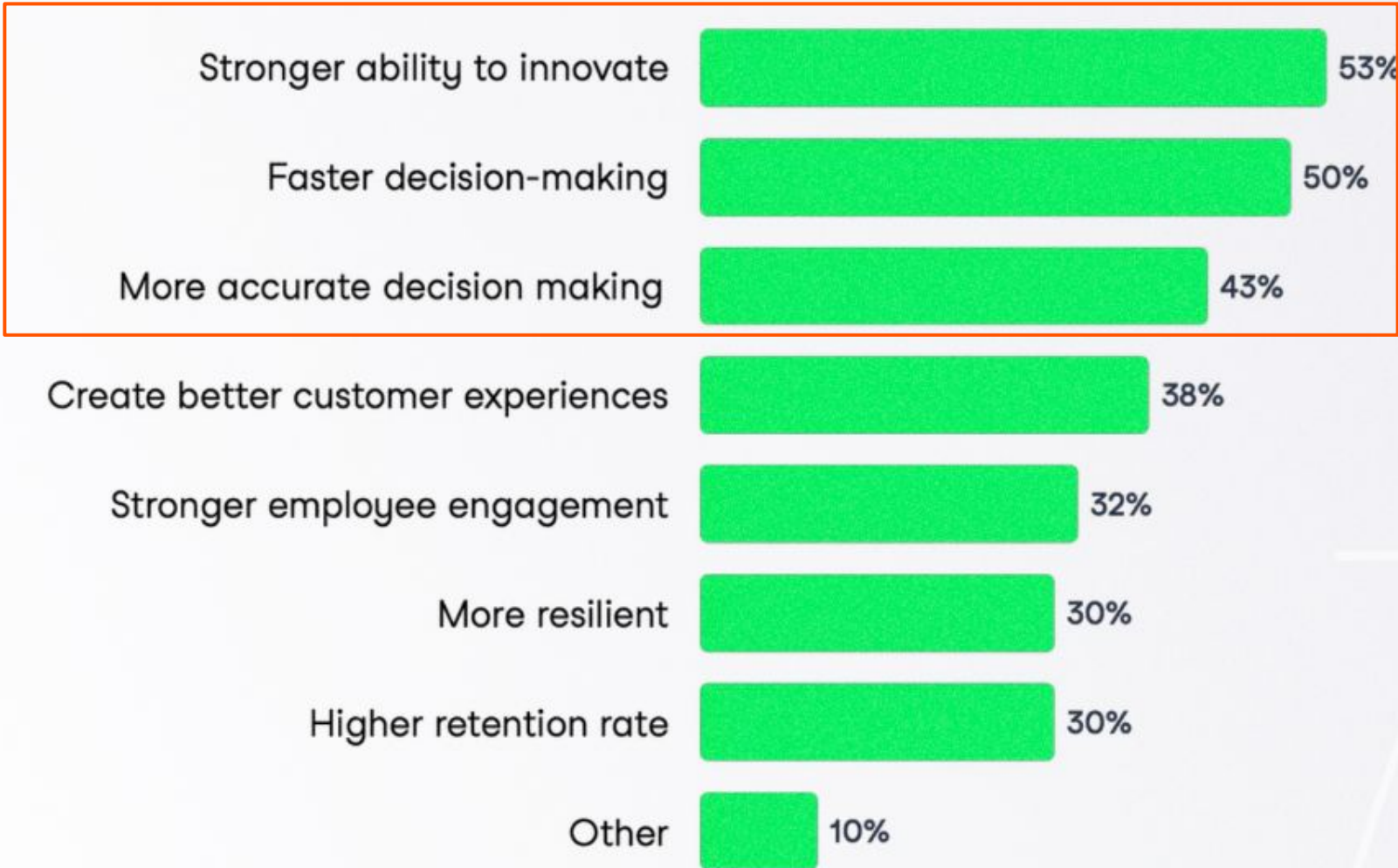
Discover the fundamentals of AI, dive into models like ChatGPT, and decode generative AI secrets to navigate the dynamic AI landscape.



EARLY ADOPTERS OF DATA AND AI LITERACY ARE ALREADY OUTPERFORMING THOSE WITHOUT DATA AND AI SKILLS

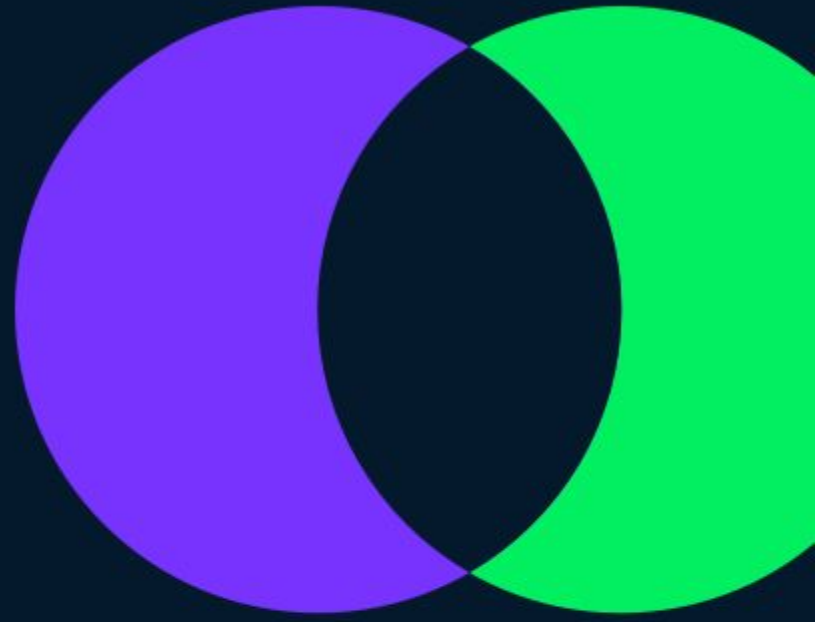
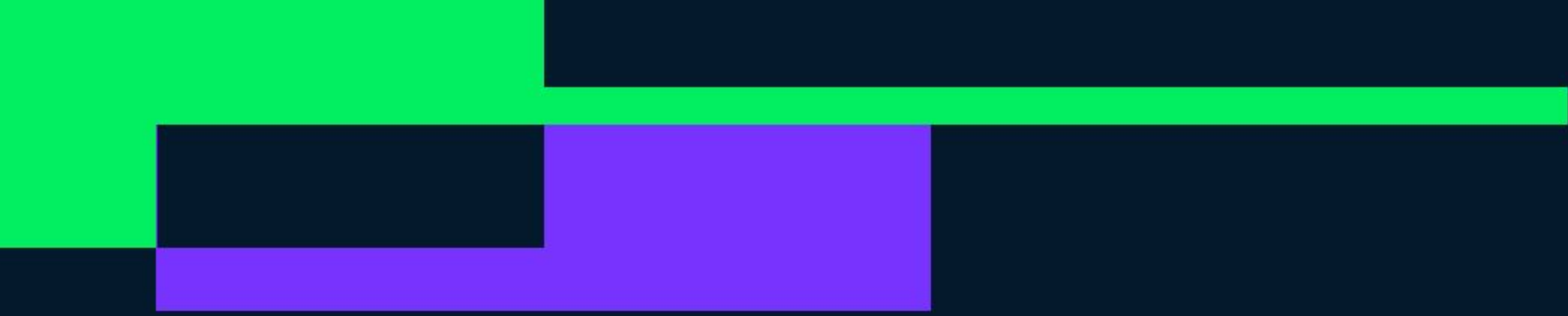


“What value do data-literate employees provide over those with insufficient data skills? (Rank them by importance)”



“What value do AI-literate employees provide over those with insufficient AI skills? (Rank them by importance)”

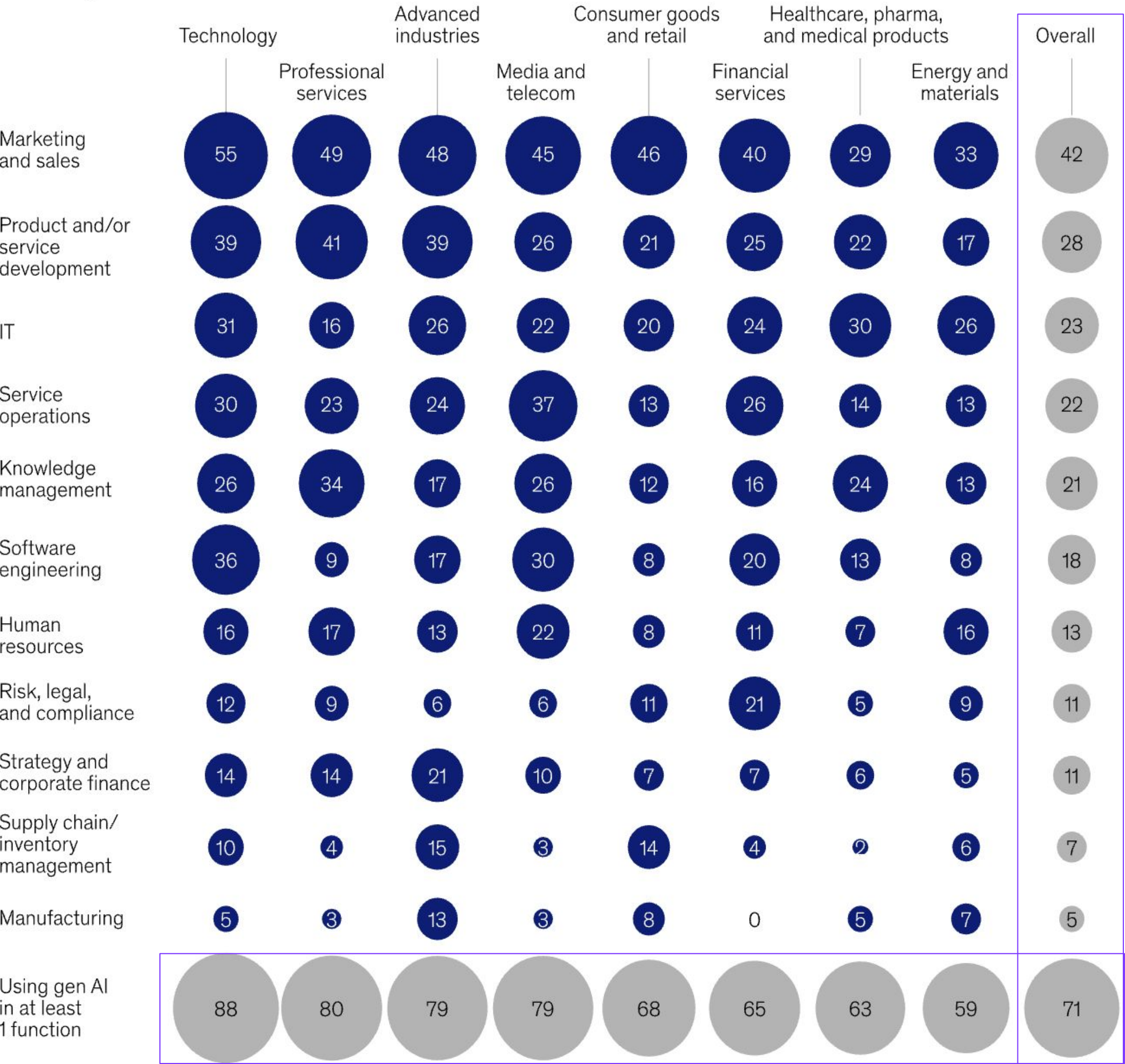




What should I build first?



Business functions in which respondents' organizations are regularly using gen AI, by industry,¹
% of respondents



Top Departmental gen AI uses across all industries

Marketing & Sales

Product development

IT

Service operations



AI Apps 50: Where Startups Spend on AI

1.  OpenAI	11.  Delve	21.  glean	31.  descript	41.  Otter.ai
2. ANTHROPIC	12.  perplexity	22.  Photoroom	32.  grammarly	42. Alma
3.  replit	13.  instantly	23.  Solve Intelligence	33.  manus	43. applaud
4.  freepik	14.  customer.io	24. GAMMA	34.  Cognition	44.  CapCut
5.  ElevenLabs	15.  KlingAI	25.  clay	35.  OpusClip	45.  motion
6.  CURSOR	16.  Retell AI	26.  Cluely	36.  happyscribe	46.  crisp
7. Fyxr.ai	17.  Canva	27.  crosby	37.  11x	47.  arcads
8.  Lorikeet	18.  Lovable	28.  Midjourney	38. PLAUD	48. emergent
9.  micro1	19.  Metaview	29.  combinely	39.  Serval	49.  Read AI
10.  Notion	20. ADEPT	30.  Merlin	40.  ada	50.  tavus

Some of the companies mentioned are portfolio companies of a16z. For a full list of portfolio companies, please visit a16z.com/investment-list.

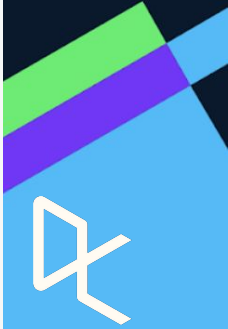


AI Apps 50: Where Startups Spend on AI

1.	 OpenAI
2.	ANTHROPIC
3.	 replit
4.	 freepik
5.	ElevenLabs
6.	 CURSOR
7.	Fyxr.ai 
8.	 Lorikeet
9.	micro1.
10.	 Notion

foundation model
foundation model
coding
graphic design
voice cloning
coding
email management
ads
hiring
note-taking

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If you write the same code three times, refactor it

Martin Fowler

Chief Scientist at ThoughtWorks

Refactoring (influential 1990s software engineering text)



~~If you write the same code three times, refactor it~~

If you solve the same problem three times, automate it



How can I make use of AI for automating hosting a webinar? Think about the whole process from planning the calendar, finding guests, hosting the event, and promoting it. If you think some tasks are better done with a human, say so.

Great question! Hosting a webinar has lots of moving parts, and AI can really lighten the load if you know where to use it. Here's a breakdown of how you could use AI across the whole lifecycle—from planning to promotion—along with where humans still add the most value.

Planning and Scheduling

- **AI can help with:**

- Building a content calendar: Feed AI your company's priorities, seasonal topics, and audience insights; it can propose a balanced schedule and identify gaps.
- Audience research: AI tools can analyze past webinar attendance, engagement, and industry trends to suggest topics likely to resonate.
- Guest speaker scouting: AI can scrape LinkedIn, conference speaker lists, and podcasts to find relevant experts and draft outreach messages.

- **Human's role:** Final decision-making. Choosing which ideas actually fit your brand and cultivating

Ask anything



Ask me anything

