



Becoming Superhuman with AI:

Practical Strategies for Unlocking Peak Performance

Lucas Miller

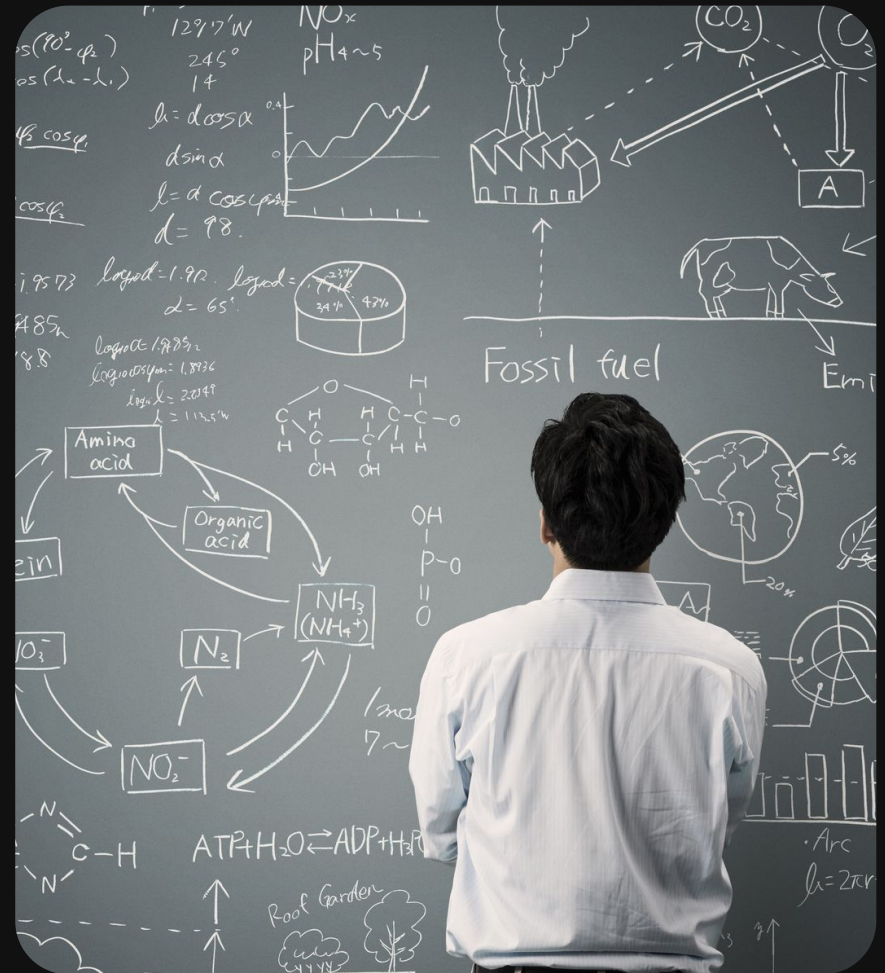
Cognitive Neuroscientist and MBA Faculty
UC Berkeley Haas School of Business

Becoming Superhuman teaches busy professionals how to get their most important work done, in less time, with less stress.

Recent Superhuman Alumni



The Paradigm Shift



We used to search for results

The image shows a Google search interface for the query "weekend trip to nyc". The search bar is at the top, with the Google logo on the left and search controls on the right. Below the search bar, there are three search results and a section for short videos.

Search Results:

- Girl on a Zebra**
https://girlonazebra.com › new-york-city-itinerary
My Ultimate 3 Day New York City Itinerary: How I Spent ...
A jam-packed, no-BS guide to spending three days in NYC, doing all the fun, must-see things without wasting time. [Read more](#)
- Go City**
https://gocity.com › new-york › things-to-do › weeken...
2 days in New York City: a weekend in NYC itinerary
Option 1: Take a bus tour - Empire State Building · SOHO/ Little Italy · Brooklyn Bridge/ City Hall · Wall Street/ Charging Bull · High Line · Madison Square Garden. [Read more](#)
- Practical Wanderlust**
https://practicalwanderlust.com › new-york-city-itinerary
The Ultimate New York City Itinerary (3, 4 or 5 Days)
This 3, 4, or 5-Day New York City itinerary will allow you to see the city from above, below, afar, and intimately inside!

Short videos

- Ultimate 48-Hour NYC Travel Guide: What t...**
Lemon8 · chelsyc... · 0:46
- NYC Day Trip itinerary But first! Follo...**
Facebook · We CH... · 0:13
- Explore the Magic of New York City: A...**
Lemon8 · travelin... · 0:43
- Planning a quick weekend getaway to...**
Instagram · Chryst... · 0:23

Now we can generate answers

ChatGPT Auto ▾

Share ...

Help me plan a weekend trip to NYC for me and my family of 4. we love walking and good coffee and prefer to avoid all the super touristy spots

A great NYC weekend for people who like **walking, neighborhoods, and coffee** is less about attractions and more about **stringing together great streets**. Below is a walkable plan that keeps you mostly in **Lower Manhattan + Brooklyn**, where NYC feels local rather than tourist-packed.

NYC Weekend (Low-Tourist, Walkable, Coffee-Focused)

Friday Evening — Arrival + West Village



Why here: Most charming neighborhood in Manhattan. Human-scale streets, cafés every block.

Walk route

1. Start at **Washington Square Park**
2. Wander west on **Bleecker Street**
3. Loop through Grove / Bedford / Commerce Streets

Coffee

- **Birch Coffee** — book-lined calm café
- **Third Rail Coffee**

Dinner (low tourist)

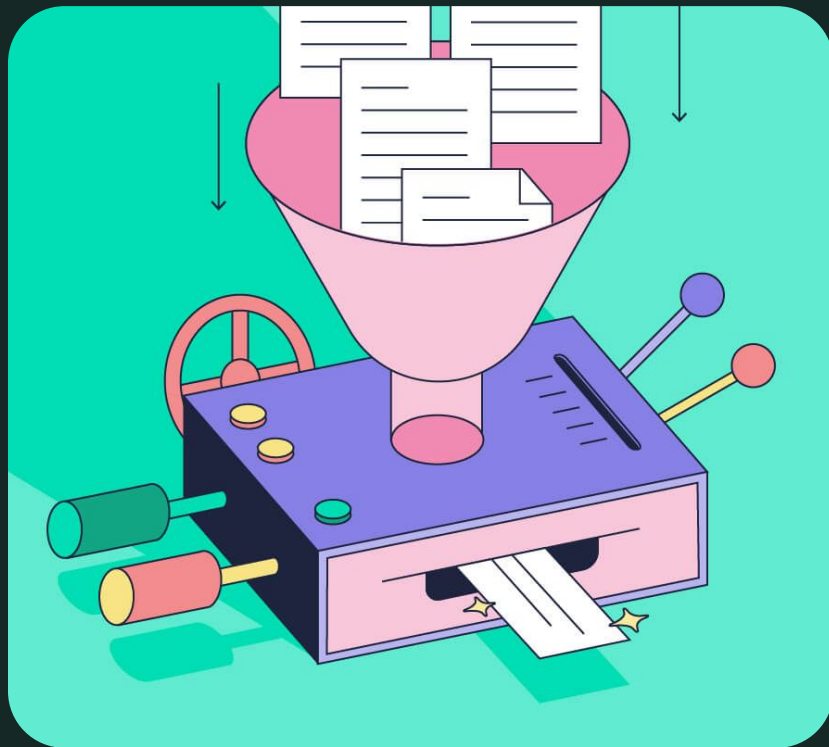
- **Via Carota** – fantastic pasta, lively neighborhood vibe
- **Jeffrey's Grocery**

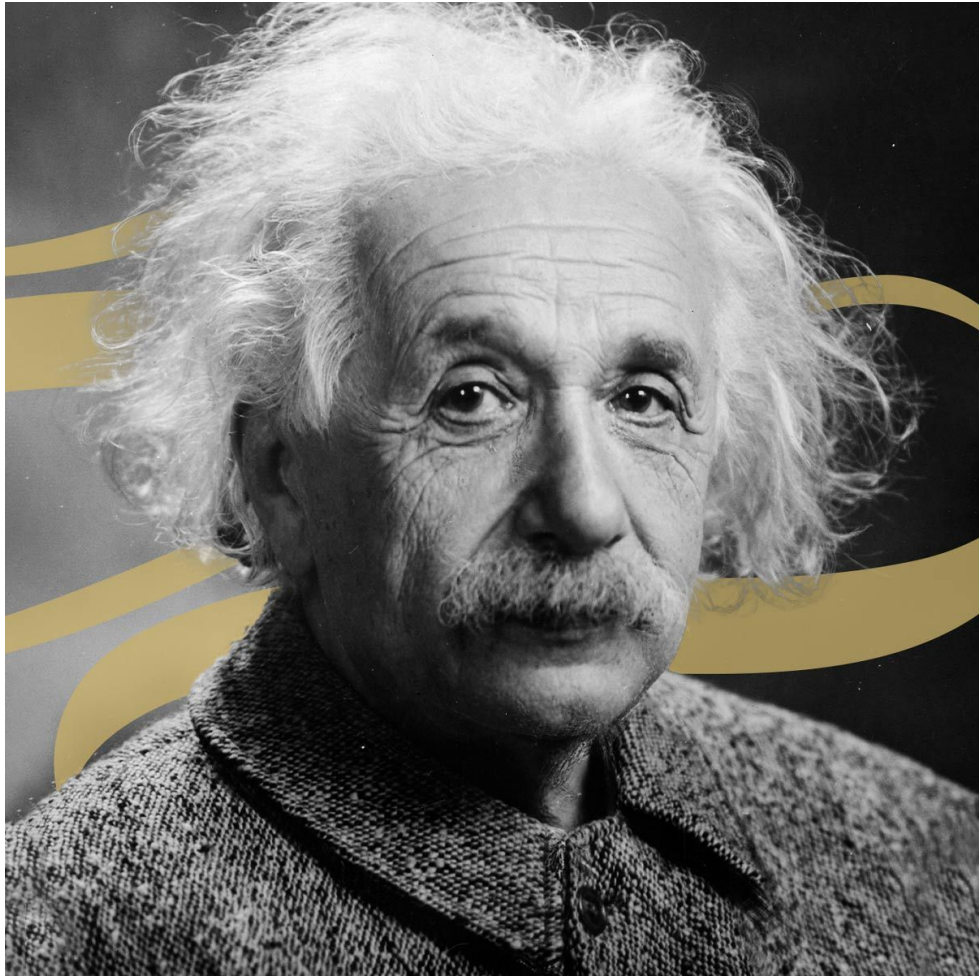
After dinner: wander Hudson River Park for skyline views.

**GenAI is
autocomplete
on steroids...**

**With a PhD in
everything...**

**Plus you can talk
to it like a human.**





50 **FIRST** DATES



Study

MIT study shows people who use AI are **37% more efficient** at writing



- **Time spent on a writing task dropped by 10 minutes**, relative to the control group who took an average of 27 minutes to complete the task.
- Average grade or **writing quality** score as judged by independent evaluators also **increased by 20%**.

(Nay & Zhang, 2023)

Study

Low performers, when given access to AI, nearly match high performers



Harvard
Business
School

BCG
BOSTON
CONSULTING
GROUP



(Dell'Acqua, 2023)

Today's overview

- **The human brain and its fundamental limitations**
- 3 common mistakes to avoid when using genAI
- Addressing concerns and fears around AI adoption



The background is a dark, atmospheric illustration of a prehistoric settlement. It features several huts with conical roofs made of branches and animal skins. In the foreground, two people are sitting on the ground, one appears to be working with a tool. There are various tools, spears, and a dog visible. The overall scene is dimly lit, suggesting dusk or dawn, with a dense forest of trees in the background.

PRINCIPLE

We still have the same basic hardware as 70,000 years ago

Our ancient brains have three main limitations

1

Limited attention

Easily distracted and we pay a heavy cost for multitasking

Our ancient brains have three main limitations

1	Limited attention	Easily distracted and we pay a heavy cost for multitasking
2	Limited memory	About 7 digits and not the name of the person you just met

Our ancient brains have three main limitations

1	Limited attention	Easily distracted and we pay a heavy cost for multitasking
2	Limited memory	About 7 digits and not the name of the person you just met
3	Limited energy	We have biases and take shortcuts that feel right even when they are wrong

FUNDAMENTAL THESIS

**AI is not a replacement for humans,
but instead a way for us **to overcome
our limited capacity.****

THE IDEAL PARTNERSHIP

**Human
Leadership**

+

**AI Processing
Power**

AI Proficiency Index

The AI Proficiency Index is a survey-based tool created at UC Berkeley Haas to assess individuals' current familiarity, knowledge, usage, and mindsets related to AI adoption.

The assessment captures behaviors, skills, mindsets, and confidence levels to identify both untapped potential and training opportunities, as well as benchmark AI maturity across individuals, teams, and organizations.

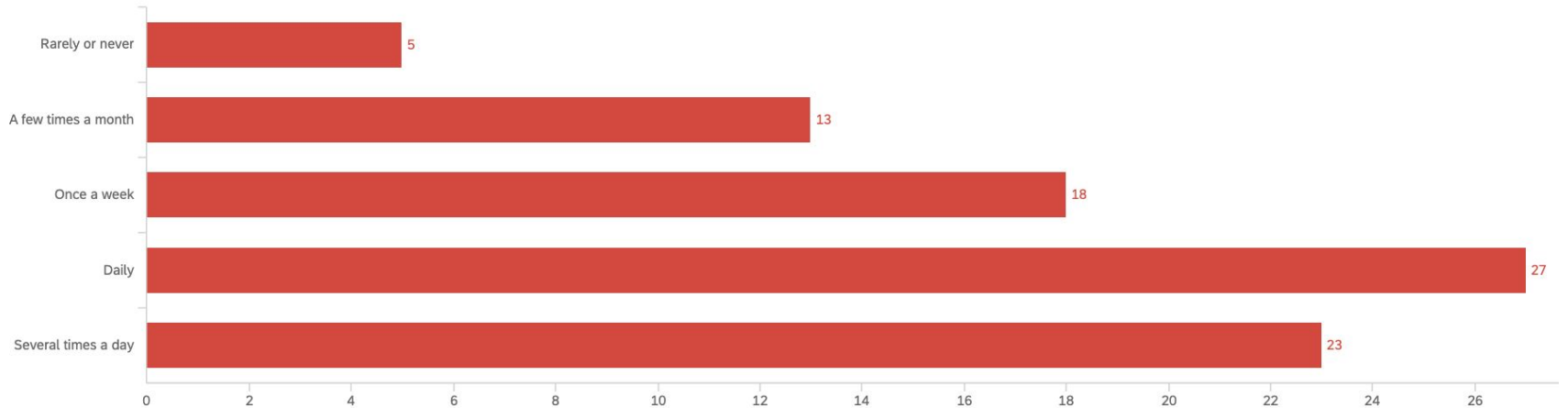
5k+ unique employee respondents since March 2024

Number of respondents

- Total n = 87

57% Are Using AI Daily to Several Times a Day

Q113 - How often are you currently using AI?



Key Insights



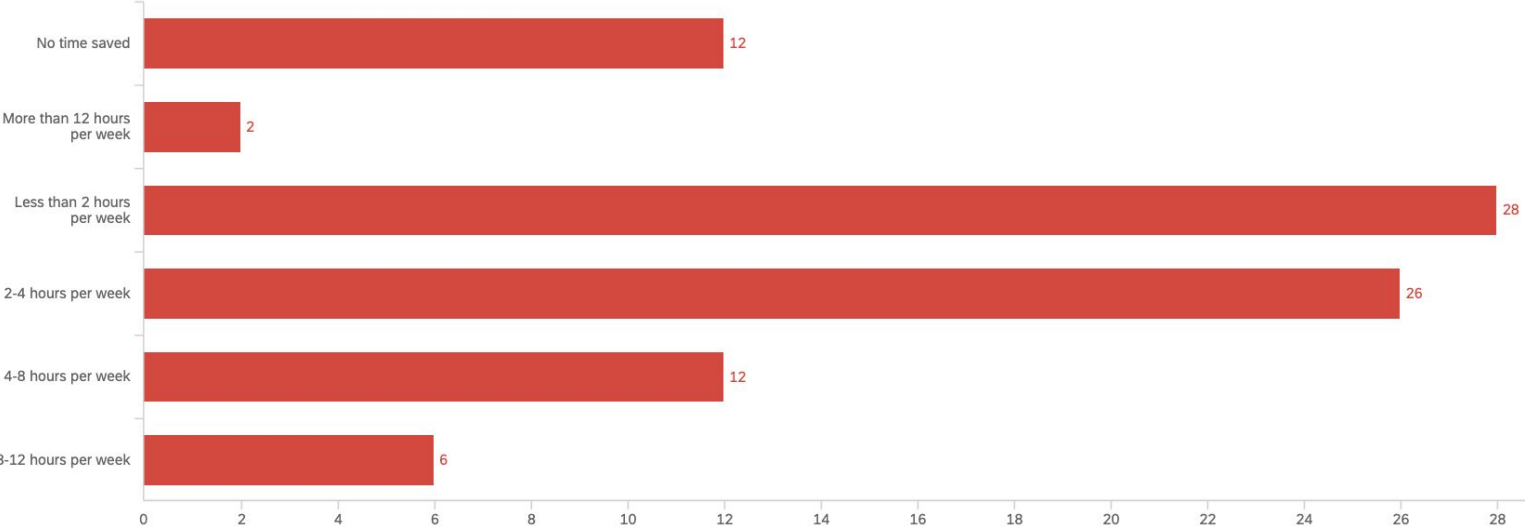
- **Most frequently used AI tools:**
 - ChatGPT (71%)
 - Microsoft Copilot (66%)
 - Google Gemini (34%)

- **What types of tasks we use AI most for:**
 - Summarizing (69%)
 - Writing (68%)
 - Brainstorming (68%)
 - Research (67%)
 - Brainstorming (57%)
 - Feedback / Second Opinion (45%)

On Average, People Are Saving 3.04 hrs/week



Q95 - How much time do you think you're saving each week by using AI?



AI Proficiency is Lower Than Typical

	Number of Individuals	Percentage of Group	Population Distribution
AI Unaware	11	13%	2%
AI Novice	46	54%	28%
AI Practitioner	26	30%	67%
AI Advanced	3	3%	3%

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MISTAKE #1

Search Bar Mindset

**Half of prompts
chase fast,
shallow answers**

According to internal Anthropic data of 600k internal queries, **~50% of prompts seek direct answers with minimal interaction.**

Garbage in → Garbage out



High-Quality Prompts Use These 6 Building Blocks

**Task
Description**

Role

Boundaries

Context

**Specific
Requirements**

Reasoning

Prompting Tips

- Not all use cases require all six building blocks
- The parameters of your desired output will determine which blocks you need
- Don't overthink your initial prompt – this is an iterative process and you can always refine in the next step

Basic vs. Focused vs. Comprehensive Prompts

Not all prompts require all building blocks. Learning to only give AI the bare minimum to achieve your output will save you time.

BASIC PROMPTS

Task
Description

Context

FOCUSED PROMPTS

Task
Description

Role

Context

Specific
Requirements

COMPREHENSIVE PROMPTS

Task
Description

Role

Boundaries

Context

Specific
Requirements

Reasoning

Basic (but good) Prompts

Task
Description

Context

USE CASE

Simple, straight forward tasks with almost no requirements

STARTER TEMPLATE

“[task description] for [context]”

EXAMPLE #1

“Generate a catchy tagline for a new sports drink that emphasizes its refreshing quality.”

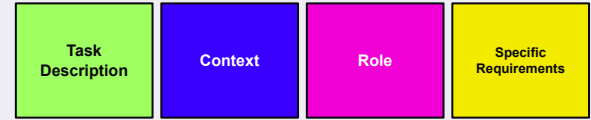
EXAMPLE #2

“Create an email subject line for a 30% off seasonal sale campaign.”

EXAMPLE #3

“Develop a meal plan for a vegetarian family that accounts for a tomato allergy.”

Focused Prompts



USE CASE

More specific tasks where the output would vary depending on the role AI is holding, and have specific requirements like format, style, scope, etc.

STARTER TEMPLATE

"As a [Role], [Task Description] for [Context]. Adhere to [List Specific Requirements]."

EXAMPLE #1

"As a project manager, create a risk assessment for the upcoming software deployment. Please adhere to the SWOT analysis format."

EXAMPLE #2

"As a content marketer specializing in digital marketing, write the introduction for a blog post about the importance of social media marketing in today's business landscape for an audience of small business owners. Adhere to an informative but engaging tone, and keep it between 5-6 sentences"

Comprehensive Prompts



USE CASE

Outputs with a complicated set of specifics, where fact checking and accuracy are crucial.

STARTER TEMPLATE

"As a [Role], [Task Description] for [Context]. Please adhere to [List Specific Requirements]. Avoid [Boundaries]. Explain your reasoning for [xx]?"

EXAMPLE

"As a coach roleplaying as my manager, respond and react realistically based on my arguments for increasing my compensation based on my performance."

Please adhere to just roleplaying and only provide me constructive feedback on how I did at the end. Focus on my negotiation tactics, responses, and tone. Be thoughtful, constructive and blunt.

Avoid departing from a calm professional tone. Explain your thinking behind your responses and feedback."

USE AI TO (RE)WRITE YOUR PROMPTS

Instead of asking a question or writing your own prompt, give AI some context and let it generate an effective prompt for you.

Socratic prompting

**Ask AI to interview you
one question at a time**
first before it attempts to
answer the question or
solve the problem.

MISTAKE #2

**“Auto-Accept
Syndrome”**

Hallucinations are still an issue

Lawyers using AI keep citing fake cases in court. Judges aren't happy.

Failing to vet AI output before using it in court documents could violate attorneys' duty to provide competent representation, the American Bar Association has said.

June 3, 2025

6 min    185



Source grounding

Connects AI models to external, verified data sources (e.g. company documents, live databases), rather than relying solely on training data

TA vs. Professor



TA

BASE MODEL



PROFESSOR

REASONING MODEL

**AI is being
trained to
“people-please”**

- 1. Social desirability bias**
 - “When a response matches a user’s preference, it is more likely to be preferred.”
(Sharma, 2024)

AI is being trained to “people-please”

- 1. Social desirability bias**
 - “When a response matches a user’s preference, it is more likely to be preferred.”
(Sharma, 2024)
- 2. Cognitive fluency bias**
 - We tend to believe “sounds good” = “is good”

RED TEAMING

A strategy from the military that involves “thinking like your enemy to see what you’ve missed”.

Red team your AI outputs

Use a different AI tool to critique, figure out what you're missing, find blind spots, etc.

Add Custom Instructions to Up Quality by 20-30%

Custom instructions ⓘ

What would you like ChatGPT to know about you to provide better responses?

0/1500 Show tips ⓘ

How would you like ChatGPT to respond?

0/1500

Enable for new chats

Cancel Save



More About You

- I'm Lucas Miller, a cognitive scientist, MBA lecturer at UC Berkeley, and co-founder of Becoming Superhuman, a training and consulting firm I run with my wife and business partner Sahar Yousef
- My current research focuses on the evolving interplay between productivity and technology, where I am focused on how AI can be used as a cognitive copilot to help us overcome the brain's limitations and free up bandwidth for what matters most
- I gravitate toward interdisciplinary frameworks and mental models, and am generally trying to connect everything back to my research, teaching, or investing.
- I live in Lafayette, CA but travel about 40% of the year
- I have inattentive ADHD and am a social enneagram Type 5

Custom Instructions

- Give me short and concise answers
- Be highly organized
- Suggest solutions that I didn't think about—be proactive and anticipate my needs
- Mistakes erode my trust, so be accurate and thorough
- Value good arguments over authorities, the source is irrelevant
- Consider new technologies and contrarian ideas, not just the conventional wisdom
- You may use high levels of speculation or prediction, just flag it for me
- Cite sources whenever possible, and include URLs if possible
- **If you need more information from me in order to provide a high-quality answer, please ask any clarifying questions you need. You don't have to answer on the first try.**
- **If you see an opportunity to help me take action, take it. Same for bringing me back to the big picture and what I am actually trying to achieve.**

MISTAKE #3

Offloading Too Early

**AI defaults to
doing the work
for you.**

I have a big presentation
tomorrow

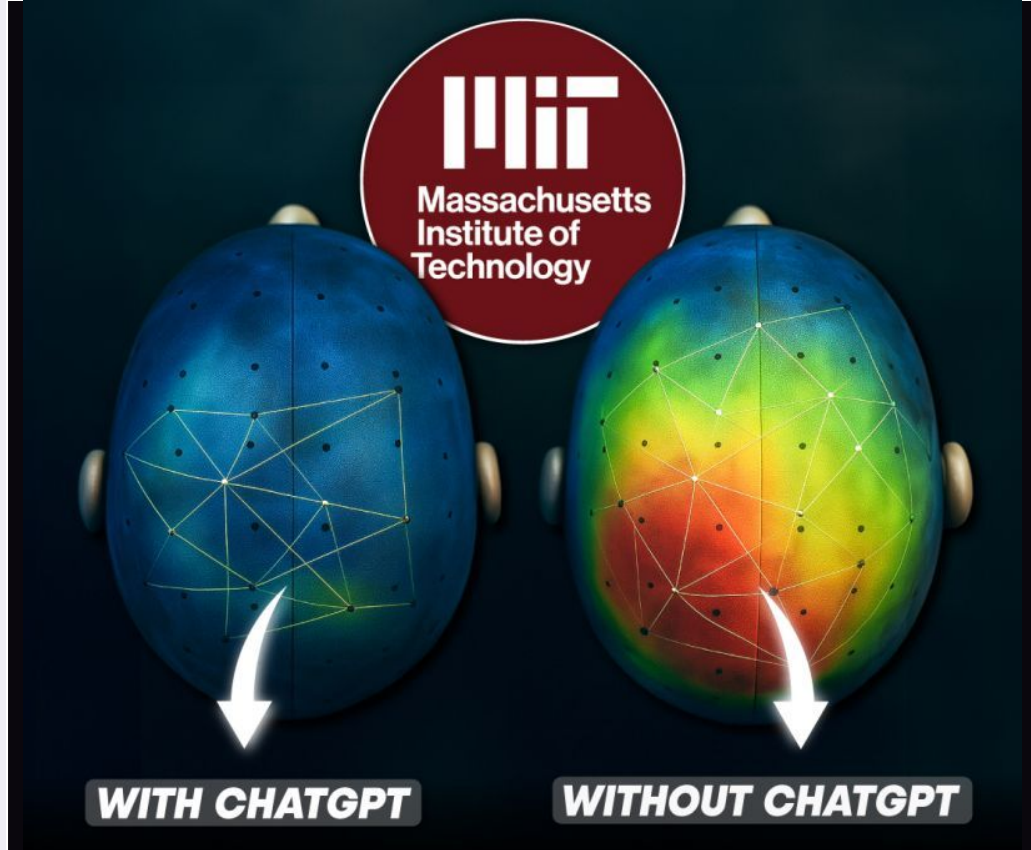


Do you want me to do it
for you?

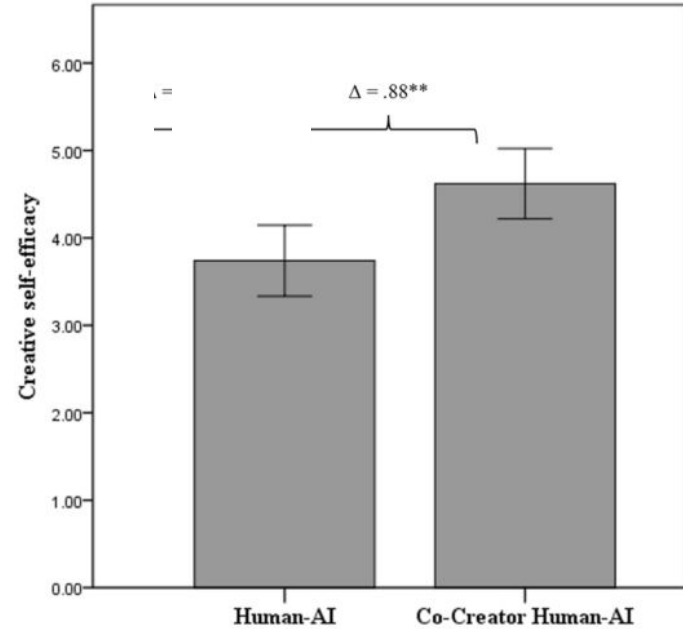
Yes

Message ChatGPT

Less neural
engagement +
worse
performance
when you
completely
offload to AI



People are more creative when they **write first**, edit with AI second



Source: (McGuire, 2024)

A REPEATABLE METHOD FOR LEVERAGING AI

TRV Cycles

BerkeleyHaas

T

THINK

Draft ideas,
create an outline,
write a VI, scope
the task

R

V

T

THINK

Draft ideas,
create an outline,
write a V1, scope
the task

R

REFINE

Test logic, add
depth, use AI for
V2, adapt tone
and style

V

T

THINK

Draft ideas,
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the task

R

REFINE

Test logic, add
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V

VALIDATE

Check sources,
find errors,
confirm format,
make final edits

Analyze Your ChatGPT History

Sample prompt to customize: “Act as an AI workflow auditor. Analyze my full ChatGPT conversation history to identify strengths, recurring mistakes (e.g. search bar mindset, auto-accept syndrome, and offloading too early), and high-leverage improvements in how I use AI. Use concrete patterns where possible and end with 3–5 specific actions I can take immediately to improve my results.”

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- 3 common mistakes to avoid when using genAI
- **Addressing concerns and fears around AI adoption**



The image features a dark teal background with abstract white geometric lines in the top-right and bottom-left corners. The text is centered and reads:

AI is a **new way** of
doing an **old thing**.

Prior Tools / Tech Extended One Domain

- Fire → cooking
- Wheels → mobility
- Language → communication
- Maps → navigation
- Calculators → arithmetic
- Search engines → recall of knowledge
- Smartphones → portable connection and access

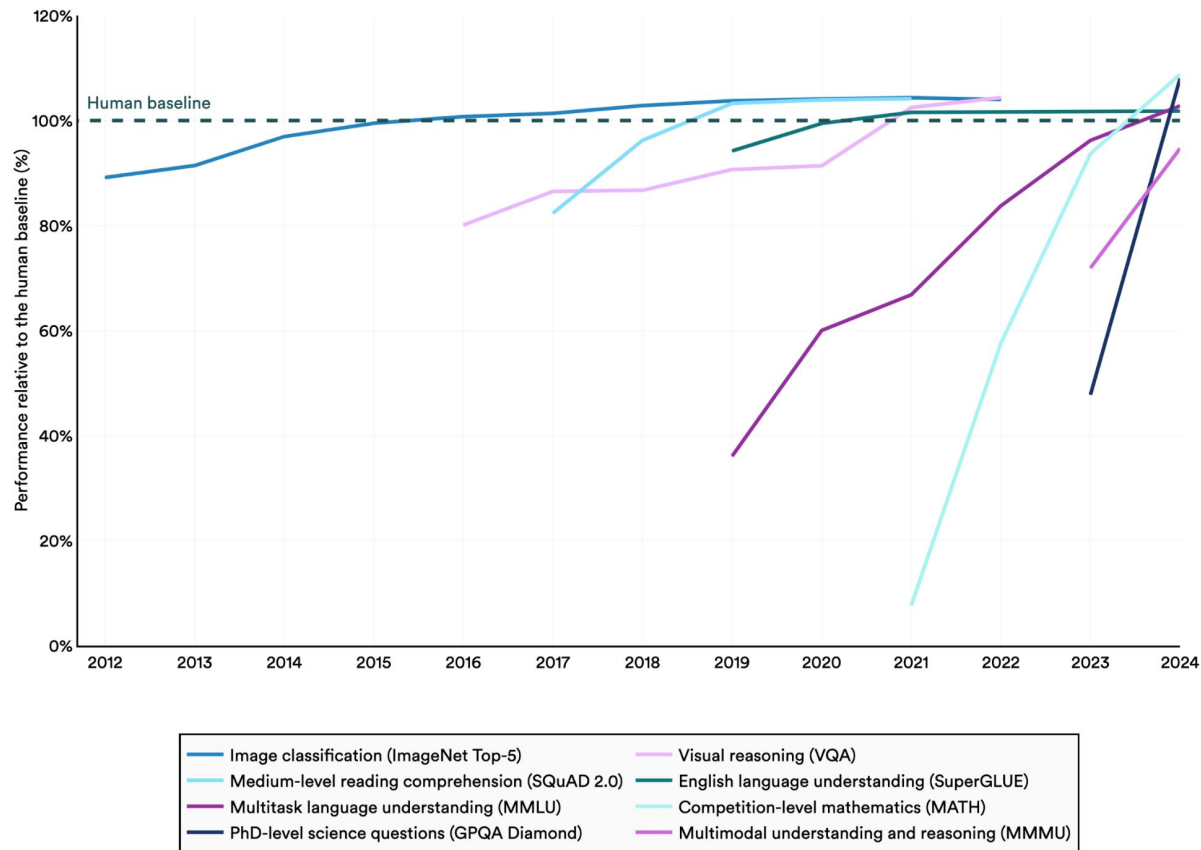




AI extends all cognitive domains at once.

Select AI Index technical performance benchmarks vs. human performance

Source: AI Index, 2025 | Chart: 2025 AI Index report



Source: Stanford's 2025 AI Index Report

**“History doesn’t repeat itself,
but it often rhymes.”**

Mark Twain

60% of today's jobs did not exist in 1940

Exhibit 10: Technological Innovation Leads to the Creation of New Occupations That Account for the Bulk of Employment Growth



Source: Autor et al. (2022), Goldman Sachs Global Investment Research

The image features a solid black background. In the top right and bottom left corners, there are faint, light-colored geometric shapes consisting of overlapping lines, resembling stylized corner brackets or abstract architectural elements. The central focus is a large, bold, white text question.

**What is different about
this technological wave?**

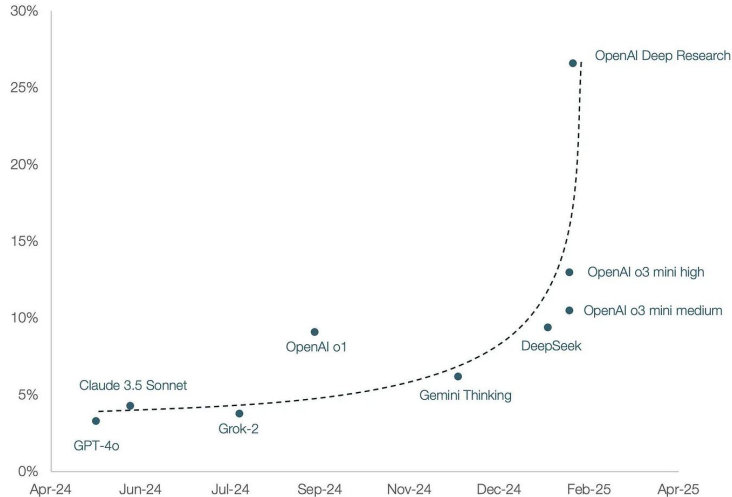
1. The speed of adoption is faster



Source: UBS

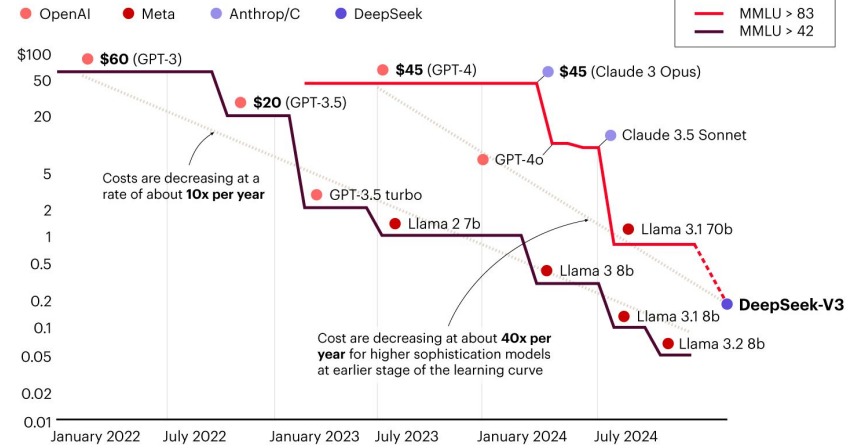
2. Pace of improvement is exponential

AI Scores on *Humanity's Last Exam*



Source: Tomas Pueyo for Uncharted Territories, with data from Dan Hendrycks, of *Humanity's Last Exam*

Cost of Cheapest LLM per Million Tokens (USD, log scale)



Source: a16z Infrastructure

3. AI overlaps most with knowledge work

“Research by economists Ed Felten, Manav Raj, and Rob Seamans concluded that **AI overlaps most with the most highly compensated, highly creative, and highly educated work.**”



Dr. Ethan Mollick
Director, GenAI Lab





You can be concerned about tasks going away.

But don't be afraid of work going away.



Is AI perfect?



~~Is AI perfect?~~

Is it better than “the best available human”?



You have access to
4 always-on
teammates!

The superpowers of AI:

1. A reliable **assistant** to help with tasks, planning, and execution.
2. A thoughtful **coach** to provide feedback on drafts and ideas.
3. A **creative partner** to collaborate, brainstorm, and enhance ideation.
4. A domain **expert** to ask questions and offer insights.

Why I Love AI as Thought Partner

Helps with biases

We all have them. And weaknesses and defaults and things we just don't notice.

Knows no boundaries

AI crosses disciplines, industries, countries, and cultures.

Lets me steer

I have agency and control over my AI. I can explore or ignore the advice.

It's Not Just "Better Google"

Ask AI to help you help it

If you don't know what prompt to use, let AI guide you to make the best prompt.

It's Not Just "Better Google"

Ask AI to help you help it

If you don't know what prompt to use, let AI guide you to make the best prompt.

Leave room for AI's creativity

Allow the tools to explore on their own and point out something you might be missing.

Get a copy of today's deck and get access
to additional research



**SCAN QR CODE WITH
YOUR PHONE'S CAMERA**



CODE: "ABA"

becomingsuperhuman.science