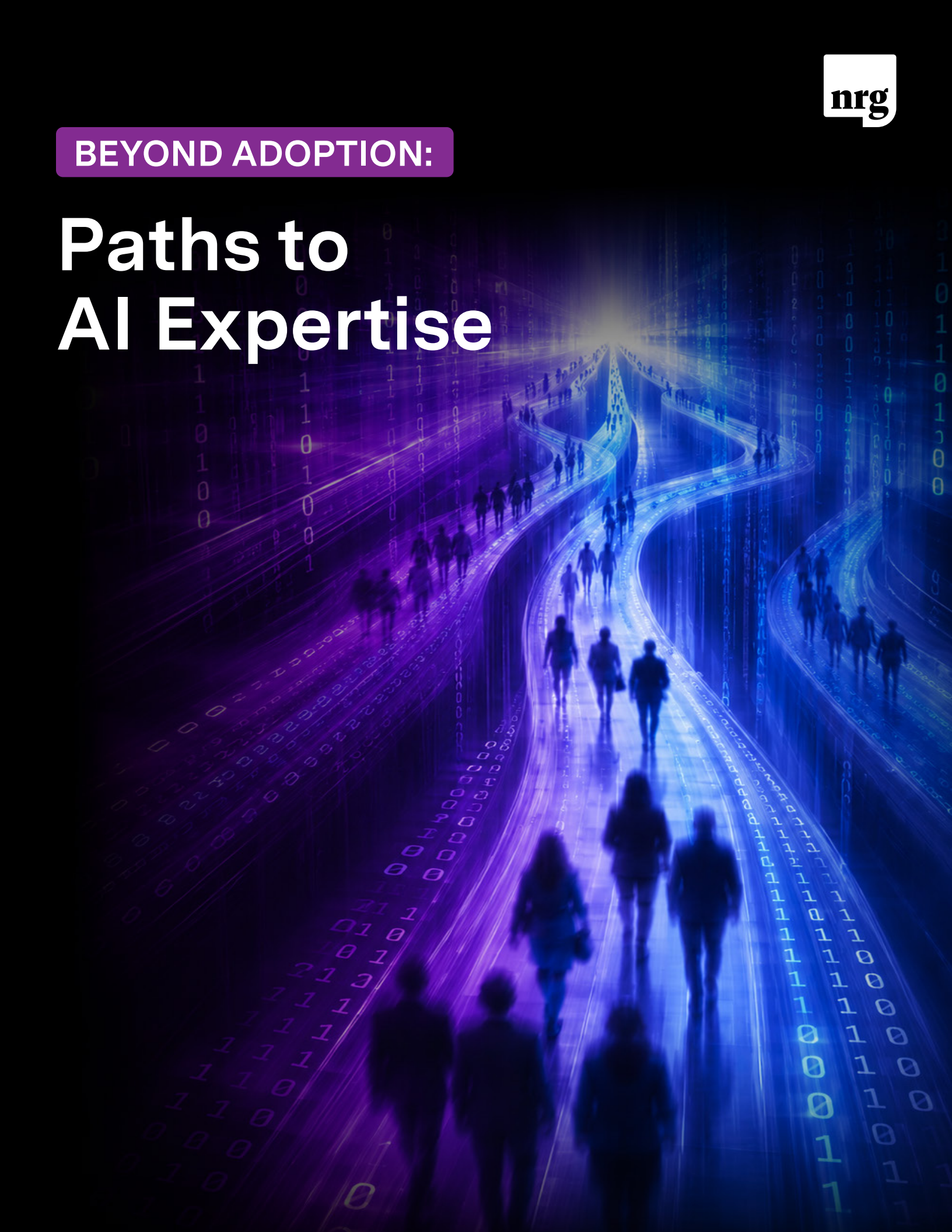
BEYOND ADOPTION:

Paths to AI Expertise

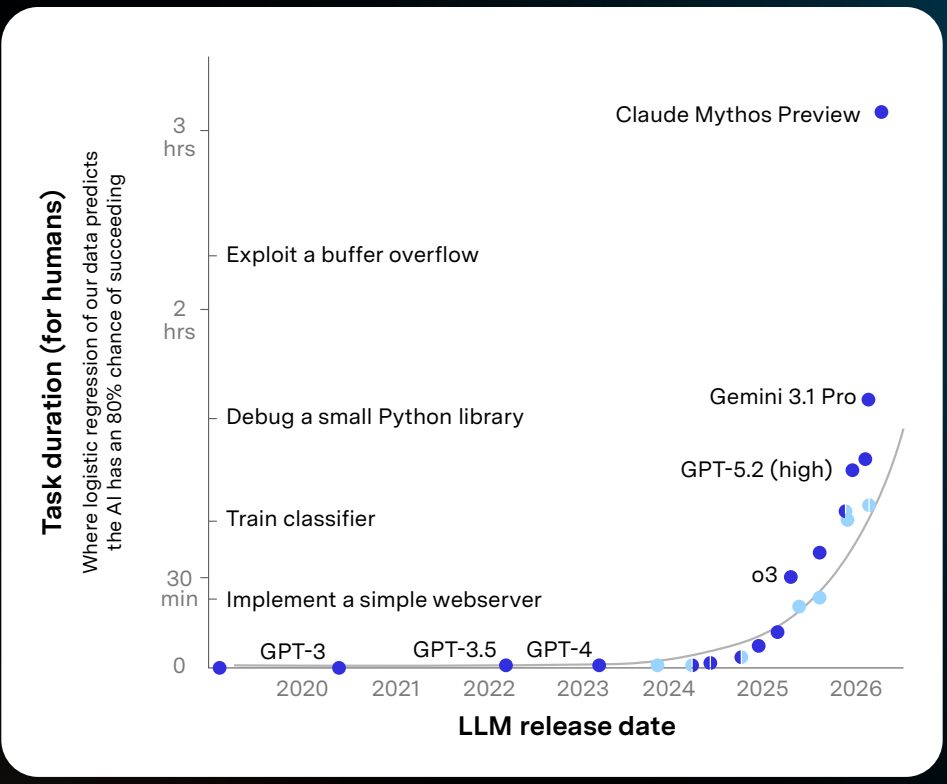


Users aren't fully leveraging AI.

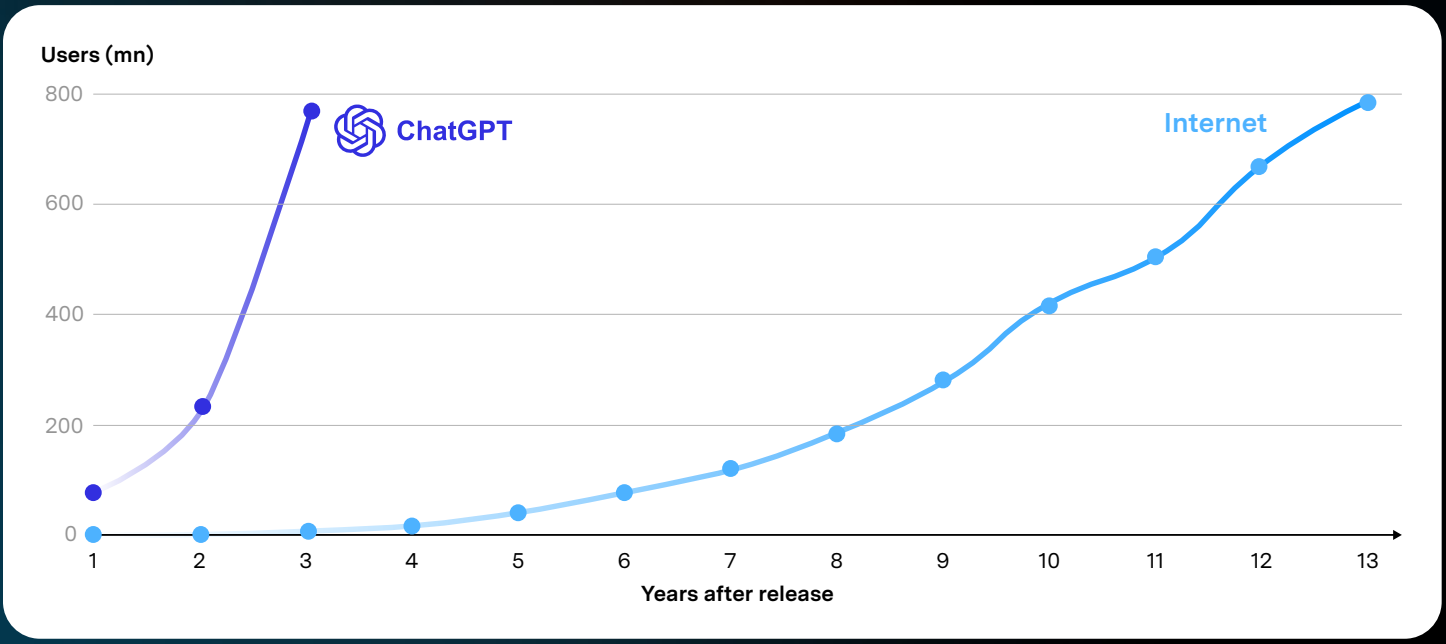
AI has three speeds: the speed at which the technology advances, the speed of basic adoption, and the speed of sophisticated use. **On the first two counts—technological advancement and basic adoption—AI has progressed at an almost unthinkable pace.**

Model intelligence and capabilities jump with nearly every major release. And Americans are adopting AI faster than any other modern technology, with over half now using AI weekly. **But the average AI user seems stuck using and understanding AI at a basic level.**

Growth in AI capability on software engineering tasks[1]



ChatGPT adoption compared to the internet[2]



[1]METR, "Task-Completion Time Horizons of Frontier AI Models", METR, May 8, 2026
[2]Financial Times, "Can AI Be Your Personal Assistant?", Financial Times, October 2025

Data—both from NRG's monthly AI Observatory study and from our proprietary panel of AI superusers, known as "Trailblazers" —shows that today's beginners face two difficult barriers to attaining expertise. **Both barriers are human: They revolve around how people interact with technology and how people in their lives react, rather than problems with the technology itself.**

Barrier to expertise #1: The search mindset.

Inexperienced AI users and non-users tend to understand AI, and use it, as if it's nothing more than a superpowered version of traditional web search.

Barrier to expertise #2: The new social stigma.

Unlike previous generations of AI adopters, the current crop of beginners feel judged by their peers. This pressure—distinct from some of the negative political sentiment around AI—is a new social, psychological barrier to use.

The data suggests that **there are human solutions to these problems.** But they might require rethinking how users interact with AI and how companies present themselves to the public.

METHODOLOGY:

The following data, unless otherwise specified, comes from two sources: The first is a study of 129 AI "Trailblazer" panelists, conducted during Q1 2026. The second is a March 2026 general population study of 1,009 Americans, ages 18-64, weighted to reflect the nation's age, racial/ethnic, gender, political, and educational makeup.

NRG Trailblazers is a proprietary panel of AI superusers. These are everyday AI consumers who have transformed their lives through AI. They report using major LLMs daily or more and engaging in multiple "power user behaviors," such as automating tasks, creating media, advanced prompting, or creating custom agents. More information about the selection criteria for Trailblazers can be found in the appendix.

BARRIER TO EXPERTISE #1

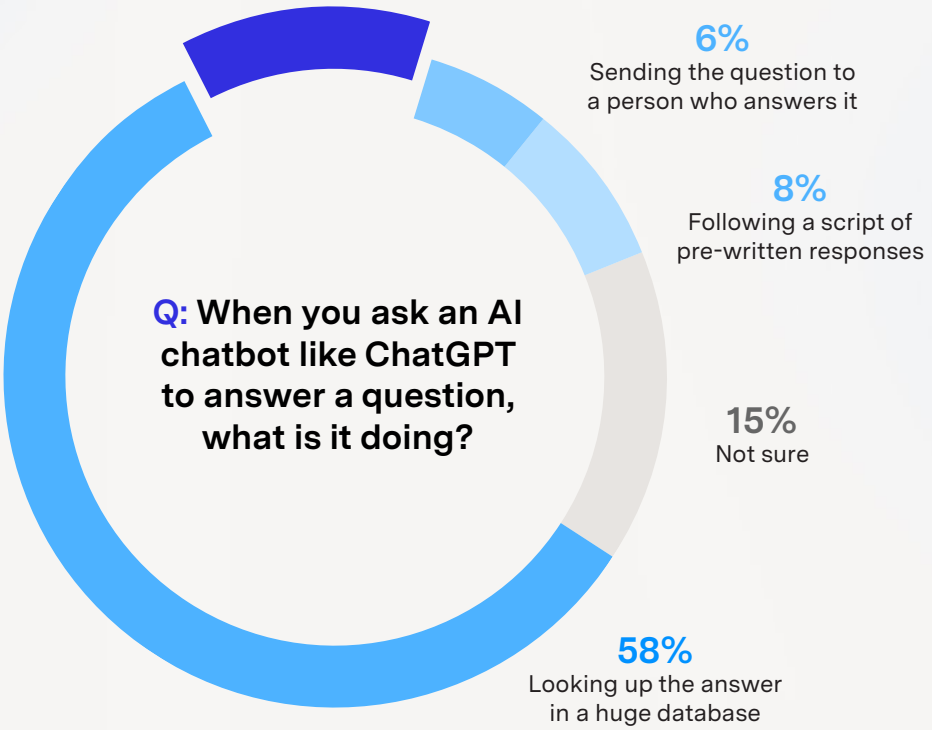
Beginners often get stuck using AI as search.

Many AI users believe and act like AI is simply search.

In our March general population study, we presented respondents with a multiple choice question around how AI works. Most got it wrong.

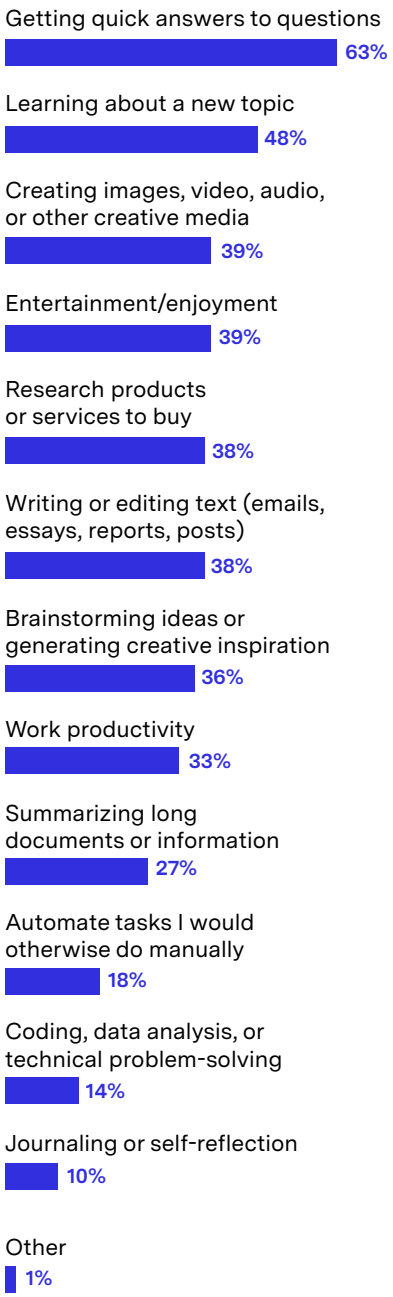
These results might seem shocking. But Tavern Research, a Democratic polling firm, asked a very similar version[3] of this question in August 2025 and they found a 45% plurality of Americans overall thought AI was a database with "exact" answers to questions. Only 28% of their sample correctly said that AI learned patterns from text and guessed subsequent words.

When people see AI as a big table of questions and answers, they tend to use it for search. More results from NRG's March survey:



Q: In the last month which, if any, of the following did you use AI to do?

Among those who use AI more than seldom/never



[3] AI Toplines, Tavern Research, 2025

Most AI users reported using tools to answer quick questions or learn about a topic, and researching products also made the top five. These are classic use cases for basic web search. Less than 40% of respondents reported actively using AI outputs (text or image) and a very small number said they use it for technical tasks or automation.

This poll question isn't a perfect measure of usage. A respondent might overreport creating AI images if creating their first AI image felt memorable to them. Or they might underreport less exciting tasks like work productivity. But these poll numbers measure what people think they use AI for, and many think of AI as a search tool.

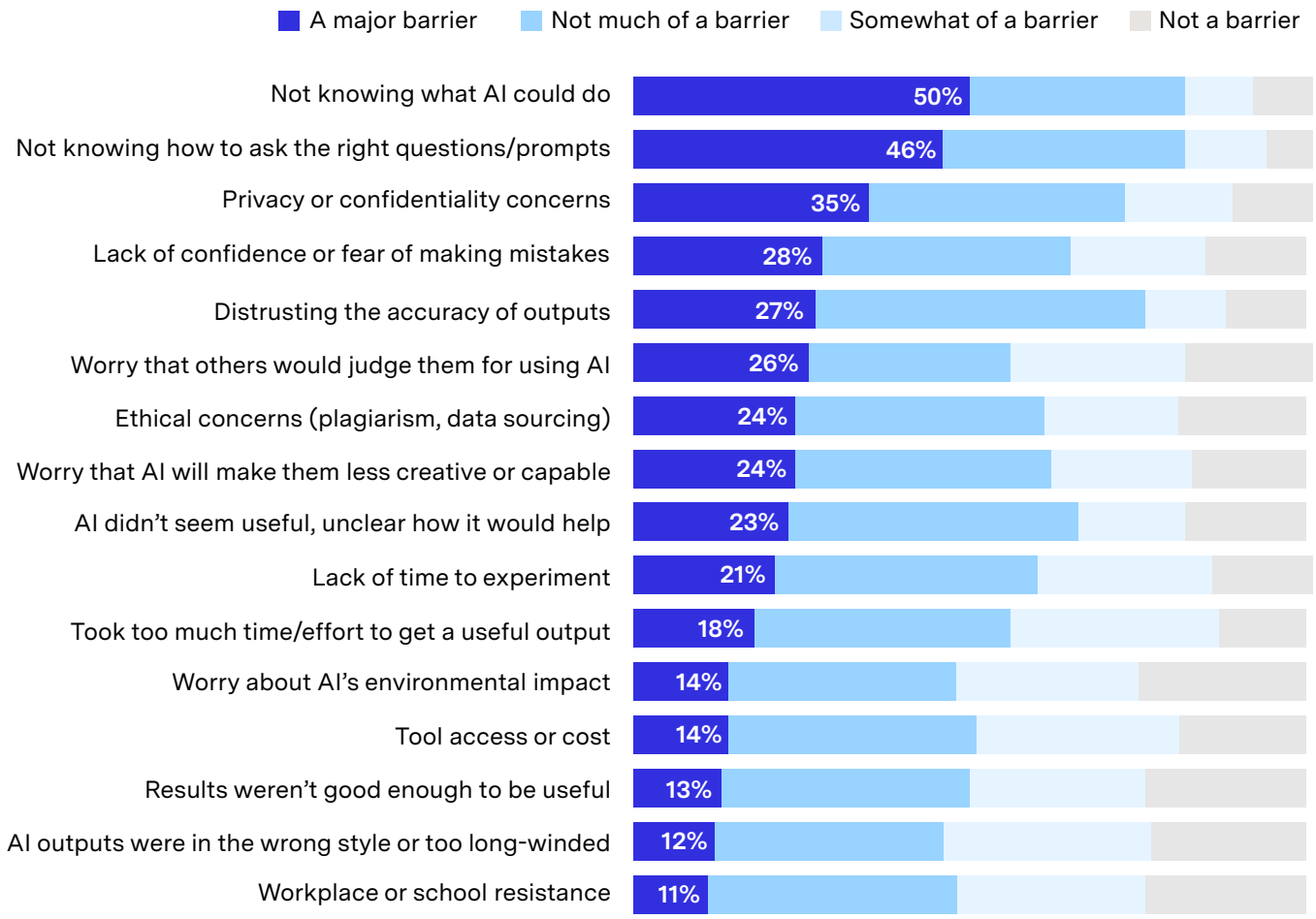
In an open-ended question, many Trailblazers described getting stuck in an AI-as-search mindset as a major barrier in their AI learning journey:

> At first I thought AI was just like a better Google...the biggest barrier was realizing I had to actually be MORE specific and give context instead of just typing one blurb. What you put in is what you get it seems.

> "I started using AI more sophisticatedly once I stopped treating the AI prompt box like it was the Google search bar and using brief keywords and started treating it like a brilliant, context-hungry intern—the friction and basic generic responses disappear."

For AI newcomers, understanding is the core barrier.

Q: How much of a barrier are each of the following for non-adopters you know?



Trailblazers often report similar issues among peers who don't use AI well or frequently. When we asked respondents to think about "the group of people you know who haven't adopted AI," the top two barriers were not knowing what AI could do and not knowing how to prompt effectively.

In a related open-ended question, Trailblazers reported that less skilled users struggled to adapt their habits to the new tool. One put it tersely: "They don't know how to construct questions effectively."

These data points flow together and paint a clear picture: When a non-expert opens a chatbot and sees a text box, they don't know how to prompt and often default to using it like a search engine. **Using AI in this way isn't a problem—AI-powered search yields fantastic results. The problem is that many users see AI as nothing more than search and leave more sophisticated uses on the table.**

BARRIER TO EXPERTISE #2

New AI adopters face new social stigmas.

Another new, more subtle problem: social stigma. Trailblazers reported elevated levels of negative social pressure around AI among the novices they know.

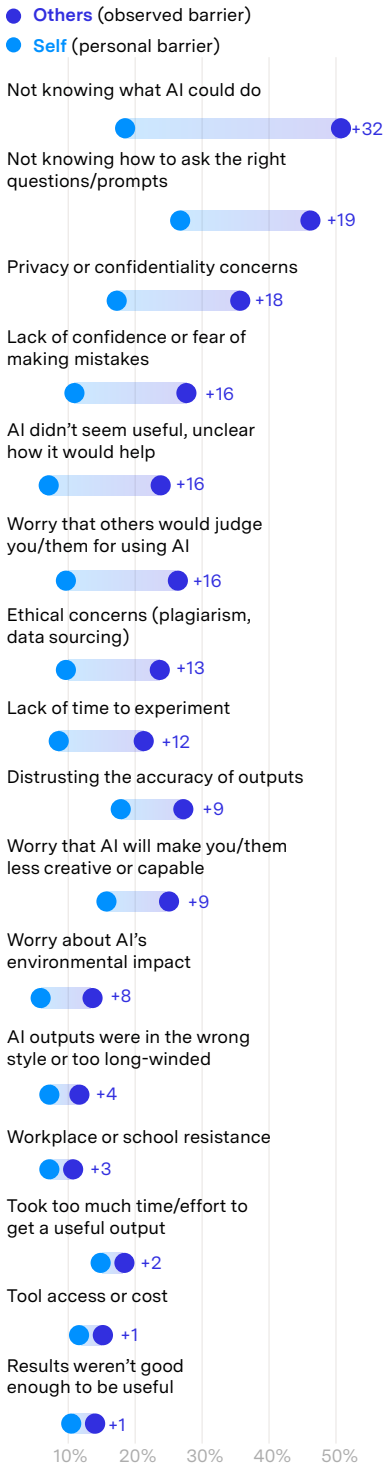
The survey asked two questions that reveal the issue. First, it asked Trailblazers whether a set of factors was a major barrier, somewhat of a barrier, not much of a barrier, or not a barrier at all when they were learning to use AI. Later it asked whether the same factors are currently a barrier to inexperienced AI users they know.

Current AI novices face a different set of barriers than their first-mover peers.

Both superusers and novices lacked knowledge and skill at first. Learning takes time and prompting takes practice. But in the eyes of Trailblazers, today's AI novices are facing greater privacy worries, lower confidence in AI, new fear of judgment, and ethical concerns. They described why potential users don't do as much as they could with AI.

Major barriers to AI adoption

% rating each as a "major barrier" - own experience vs. observed in non-adopters



> "I think most people just assume it's too complicated, or they think it's cheating. They don't realize how useful it is for everyday stuff like emails or organizing ideas. It's more of a mindset thing than an actual tech problem."

> "For the socially adept people in my life, they suffer from pressure of the collective consensus condemning the use of AI."

> "The younger people who don't use AI frequently avoid using it to complete their assignments for school in fear of being cited for plagiarism."

These concerns sit squarely in the potential user's immediate social world. According to the Trailblazers, neither the quality of model outputs, environmental concerns or institutional resistance at work or school are significant issues.

Instead, novice AI users are concerned about what other people think, making these worries distinct from the rising political uneasiness around AI and the individual-level barriers to adoption. Those concerns will likely require a set of messages and tactics different from those used in the political or purely personal realms.

Paths to expertise: many superusers say UX matters.

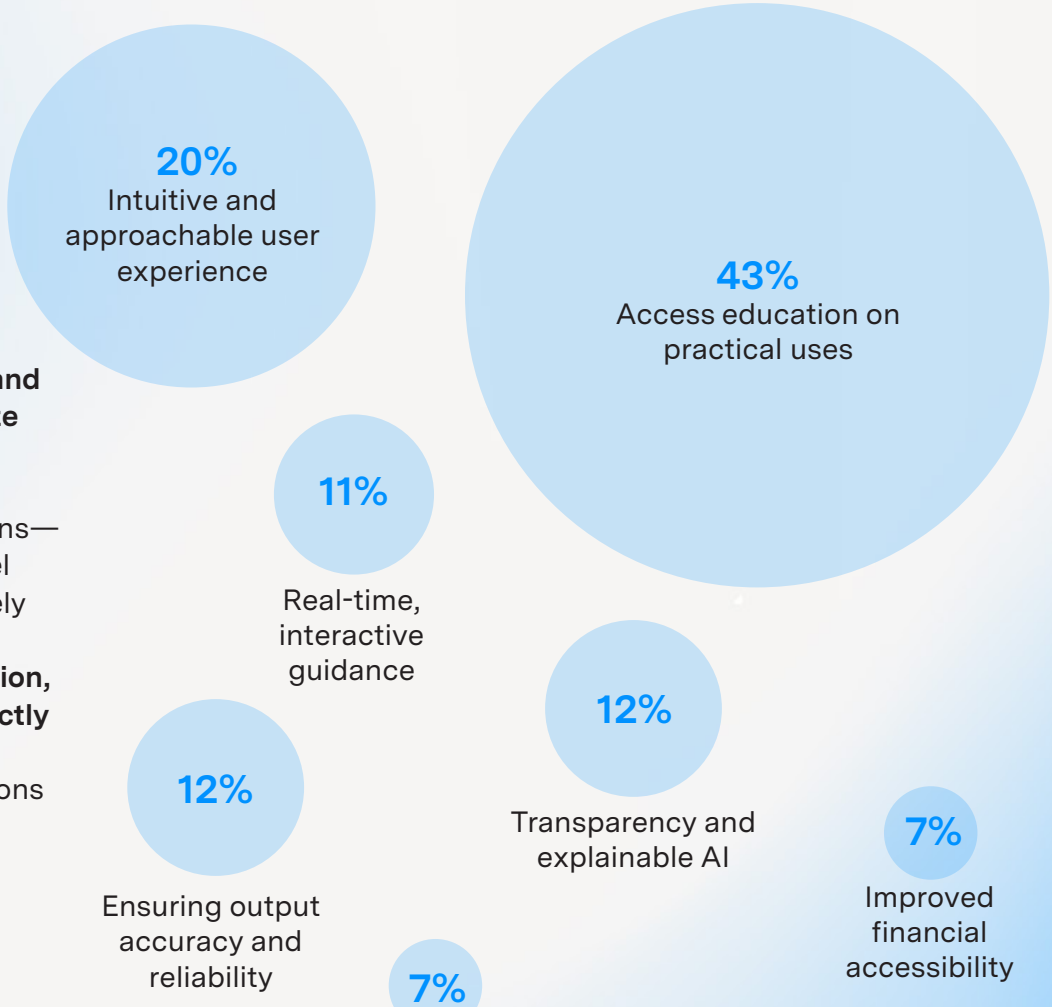
The survey also asked our expert panelists to, in their own words, describe the single most important thing AI companies could do to help more people become confident, effective AI users. The results, coded by AI, revealed that **UX changes and messaging could accelerate sophisticated AI adoption.**

Some of the popular solutions—education, increasing model accuracy—are helpful, widely cited solutions. **But the second-most popular solution, changing AI UX, could directly address the AI-as-search issue.** Some recommendations from the panel:

> "Make it feel normal. That's it. Right now, a lot of people still feel like they're using a tech thing. There's pressure to prompt correctly... If AI companies focused less on flashy capabilities and more on guiding people in real time — showing them how to ask better questions, suggesting clearer prompts, gently reshaping vague requests into stronger ones — confidence would skyrocket. Not tutorials. Not long help docs. Just built-in guidance that teaches while you use it."

What superusers say AI companies should prioritize

Top coded themes: 'Single most important thing AI companies could do'



> "Teach people how to think with AI, not just hand them the tool. Right now a lot of people open an AI app and stare at the blank prompt box like, 'Okay now what?' That moment of uncertainty stops a lot of people before they even start."

> "I would suggest that these companies offer suggestions or most likely prompts rather than a blank text box. This will help people know how best to structure a request."

Put differently, they think the blank text box isn't working. Some feel intimidated by these tools, and they might break out of search-like habits or simple questions if they had a little more hand-holding.

New interfaces and new messages might unlock AI for many.

Other new AI users might need an entirely new way to interface with AI to reach expertise. As Ben Thompson pointed out in Stratechery[4], the personal computer exploded in popularity when the mouse, clickable icons, and program windows made the technology feel accessible and intuitive to more people. Wearables, such as AI glasses, could be the next step. But the AI industry might need to find its computer mouse before everyone can use the models to their fullest.

The opinions of the Trailblazers suggest AI companies also need a different messaging strategy. They emphasized that novices feel intimidated by AI, which comes from the mystique of tech itself. As one Trailblazer said:

> "Most people I know are like, 'AI is too techy' or 'I don't know where to start.' Main reason: probably fear of the unknown, or thinking it's only for tech people."

Another Trailblazer offered a simpler explanation:

> "Fear of people judging them for using AI"

In essence, for AI companies, the messaging war has a new front. Everyday users, who could become superusers, face new social pushback from people in their world. This sort of peer pressure differs from the negative stories they see in the political press or the initial resistance they might feel to adopting any new technology. It's relational, and it will require a new social and messaging strategy. **NRG is well-positioned to research what tactics will (and won't) work to solve this problem.**

[4]Ben Thompson, "The Gen AI Bridge to the Future", Stratechery, December 2, 2024

As Americans adopt AI, the technology will face new challenges. The issues that AI companies had to overcome to make half of the country into weekly users are separate from the obstacles to making half of Americans sophisticated weekly users. The Trailblazer panel data shows that AI-as-search and social pressure are the technology's current hurdles. If AI companies can break through to those novice users, possibly through UX and messaging solutions, they can accelerate the speed of sophisticated adoption.

If not, AI might stay stuck in second gear.

APPENDIX:

More on NRG Trailblazers and expert panels

NRG has built three proprietary expert panels: key opinion leaders in tech policy (known as KOL), high follower count social media creators (the Creator Hub), and AI superusers (Trailblazers). This report leverages insights from the third group.

All AI Trailblazer panelists use AI at least daily, use two or more major LLMs, try new tools early, pay or express willingness to pay for AI tools, and exhibit at least three "power user" behaviors (such as multimodal usages, building a custom bot/agent, combining multiple input types in workflows, and more).

Our panel includes knowledge workers, technical professionals, creatives, students, and parents.

How Trailblazers use AI – in their own words

DEEP TECHNICAL USES

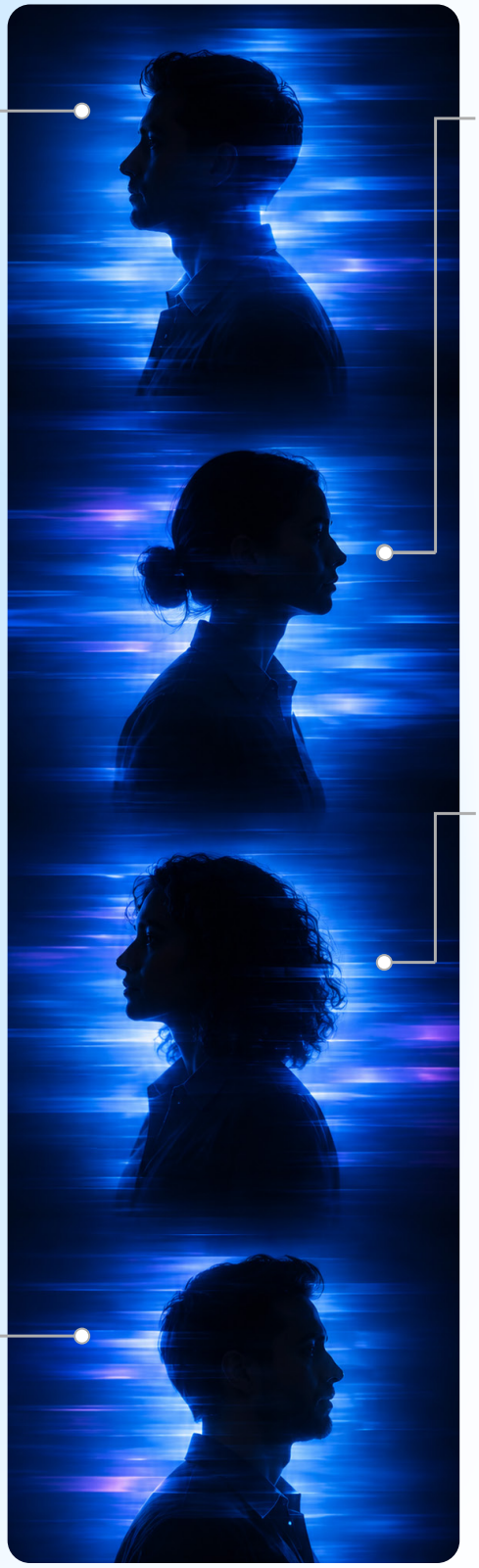
AJAY

"When I use Visual Studio code, I have copilot always on. I can have it literally run through my code, go through my entire workspace, execute functions, evaluate complex mathematical info, check my code, rewrite my code if needed. I worked on creating an image segmentation deep learning algorithm with UCI researchers and we used OpenAI's API. I've used it to basically help predict brachial cardiovascular functions."

WORK + FULL AI INTEGRATION

MILEMENES

"A great deal of our workload at my company is portioned with AI from inventory tracking, management to reorder. A lot of our marketing is done with it, and even complex engineering tasks. Whether it's making the back end for our website or even helping out with some financial calculations, AI has really changed the way we do business and the cost of doing business."



HOME/PERSONAL

SARAH

"When I first started using AI, I used it for almost as if I was using a search engine, now I'm using it for much more detailed things like creating new clip art for web photos, editing photos or interior design in my home. I use it for meal planning, to figure out workouts, setting a schedule reminders, entertainment - all kinds of things."

MULTIMODAL

LISA

"I work for a nonprofit as a fundraiser. I use it to analyze data. I'll upload spreadsheets and ask for patterns. I use Canva to create graphics, and I use the video editing service from Microsoft to snip together videos from work. [AI use] morphed from words to the other ways that I mentioned."

About NRG

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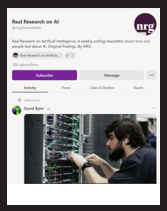

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How businesses are responding to the rise of shadow AI

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