

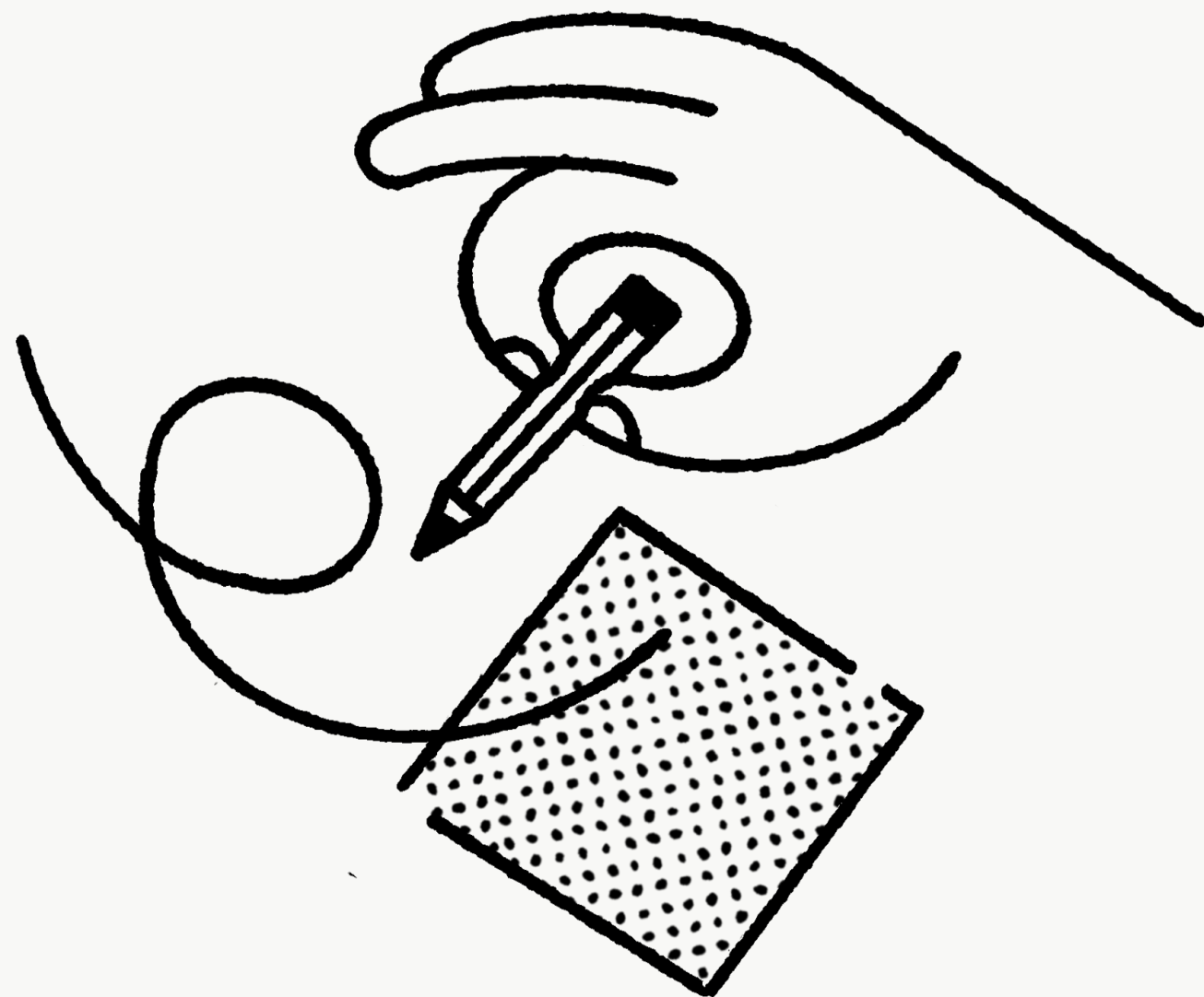
How much does a
user's skill with AI shape what
AI actually delivers for them?

Published report: [A paradox of AI fluency](#)

Research by Chris Potts + Moritz Sudhof

The conventional story about AI is "good model = good outcome."

This isn't the complete reality.



The user's behavior is a major variable. The same AI can deliver wildly different value to two different people based on whether they push back, iterate, and verify, or just accept what they get.

Fluent users are augmentative. Novice users are delegative.

Using an annotated sample of 27K transcripts from WildChat-4.8M, Bigspin found that fluent users take on more complex tasks than novices and adopt a fundamentally different interactional mode:

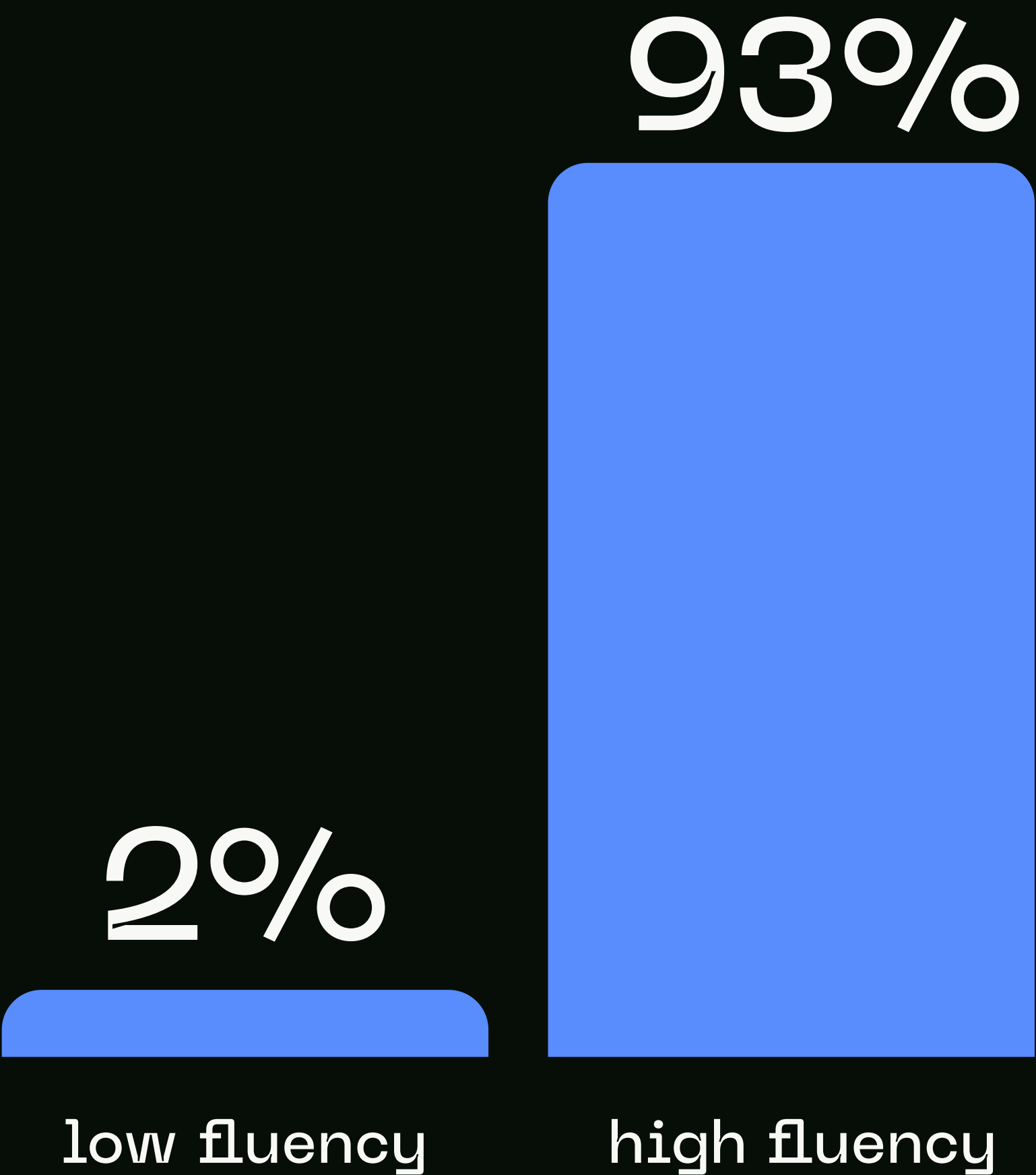
Fluent users are augmentative: iterating with AI, refining goals, critically assessing outputs

Novice users are delegative: passively accepting AI's responses, often missing what they need

93% of high-fluency interactions are augmentative vs. under 1% for the lowest fluency users

93% of high fluency users work augmentatively vs. 2% of low fluency users

The behavior most strongly associated with low fluency is **passive acceptance**, taking AI outputs at face value without examining them. It is essentially absent in expert users.



Fluent users take on substantially more complex work.

3.1 vs 1.5

average task complexity: expert vs novice

On a five-point complexity scale, the mean task complexity for high-fluency users is 3.1. For minimal-fluency users it is 1.5. That gap holds across both successful and unsuccessful conversations. Experts aren't just better at AI, they use it for harder things.

So who fails more, experts or novices?

Experts attempt harder tasks and approach AI more critically. The intuitive answer is that they should fail less...

Let's see what the data says



Experts fail more than twice as often. But the failures are different.



64% of expert conversations contain a failure vs 24% of novice conversations.

59% of expert failures are visible: they notice the problem and address it.

86% of novice failures are invisible: the conversation looks fine but misses the mark.

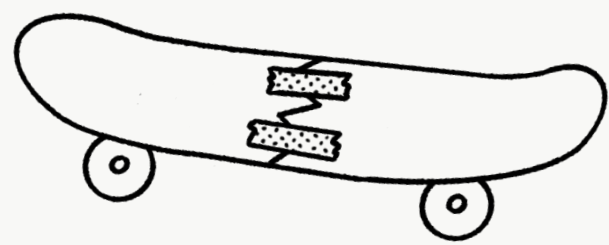
Why? Because engagement makes failure visible for high fluency users

Experts catch failures because they push back, ask questions, probe. This critical engagement is what makes the failures observable.

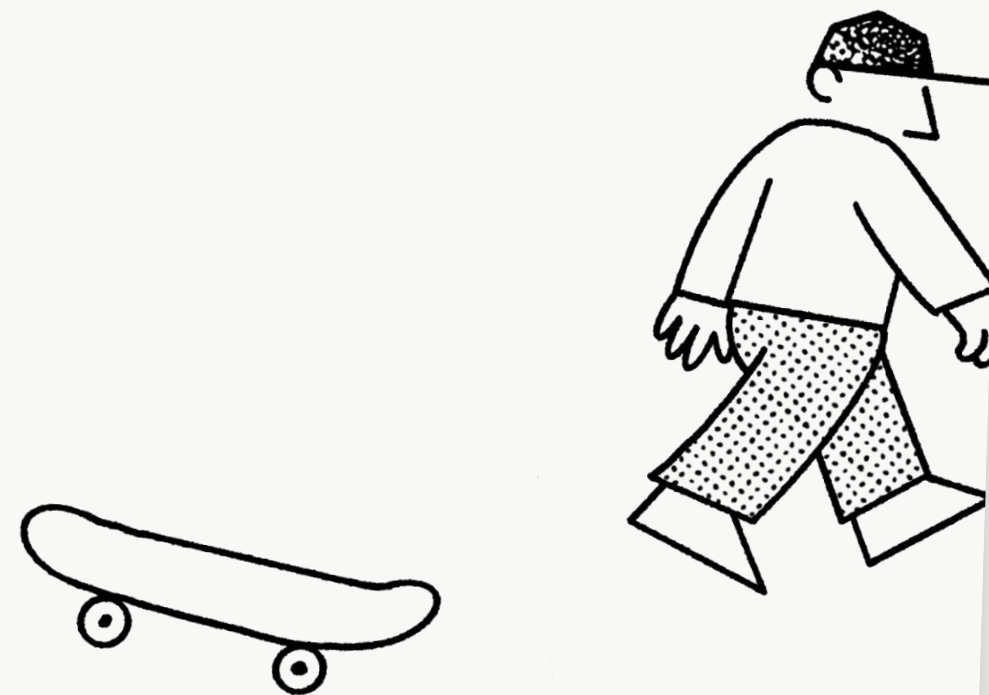
Novices don't catch failures because they aren't looking or understanding that they can push back. This passivity is what makes the failures invisible.

Expert users are most associated with the "Partial Recovery"

The Partial Recovery



The Walkaway



Across the eight invisible failure archetypes from prior Bigspin research, two patterns dominate by fluency level:

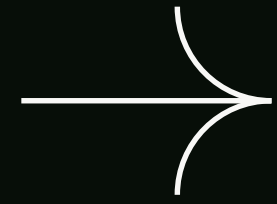
- Expert users are most strongly associated with the partial recovery, hitting a problem and salvaging value.
- Novice users are most strongly associated with the walkaway, abandoning the conversation without resolution and without flagging the failure.

Failure isn't the opposite
of success with AI.

Rather, it's a key part in
how success happens.

What this means 

What this means for each of us

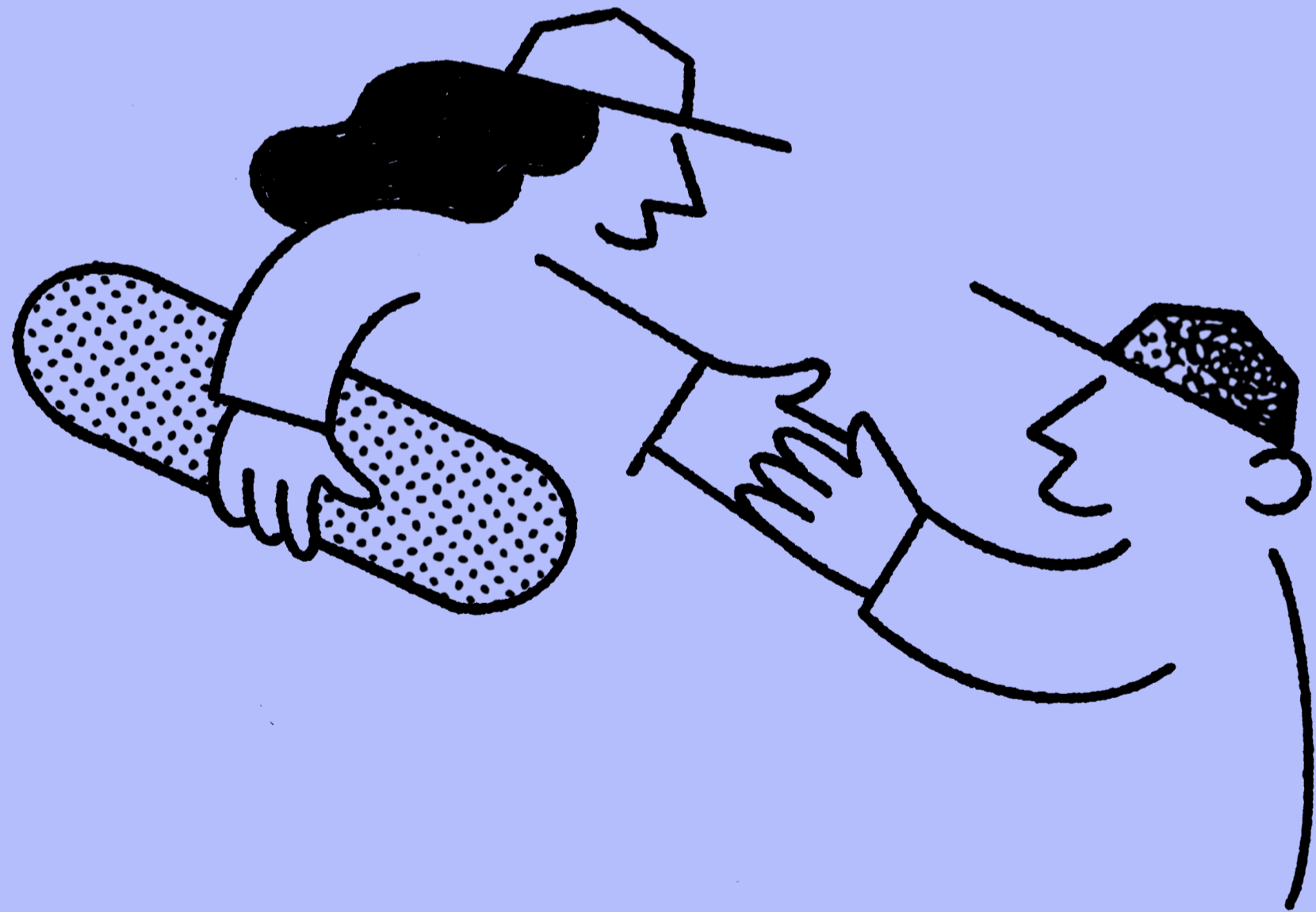


For individuals: Engage, don't defer. Question outputs. Refine goals mid-conversation. Treat plausibility with suspicion.

For product builders: You're shaping user behavior, not just model behavior. Frictionless \neq good. Design for engagement.

For culture: The "AI as oracle" narrative works against users. Augmentative behaviors are specific and learnable so teach them.

AI expertise predicts
whether AI is a tool
or a lottery.



Success with AI depends on more than model capabilities. User engagement is the deciding factor. The full technical report and dataset are open and available.

Full report:

<https://arxiv.org/pdf/2604.25905>