AI eats the world

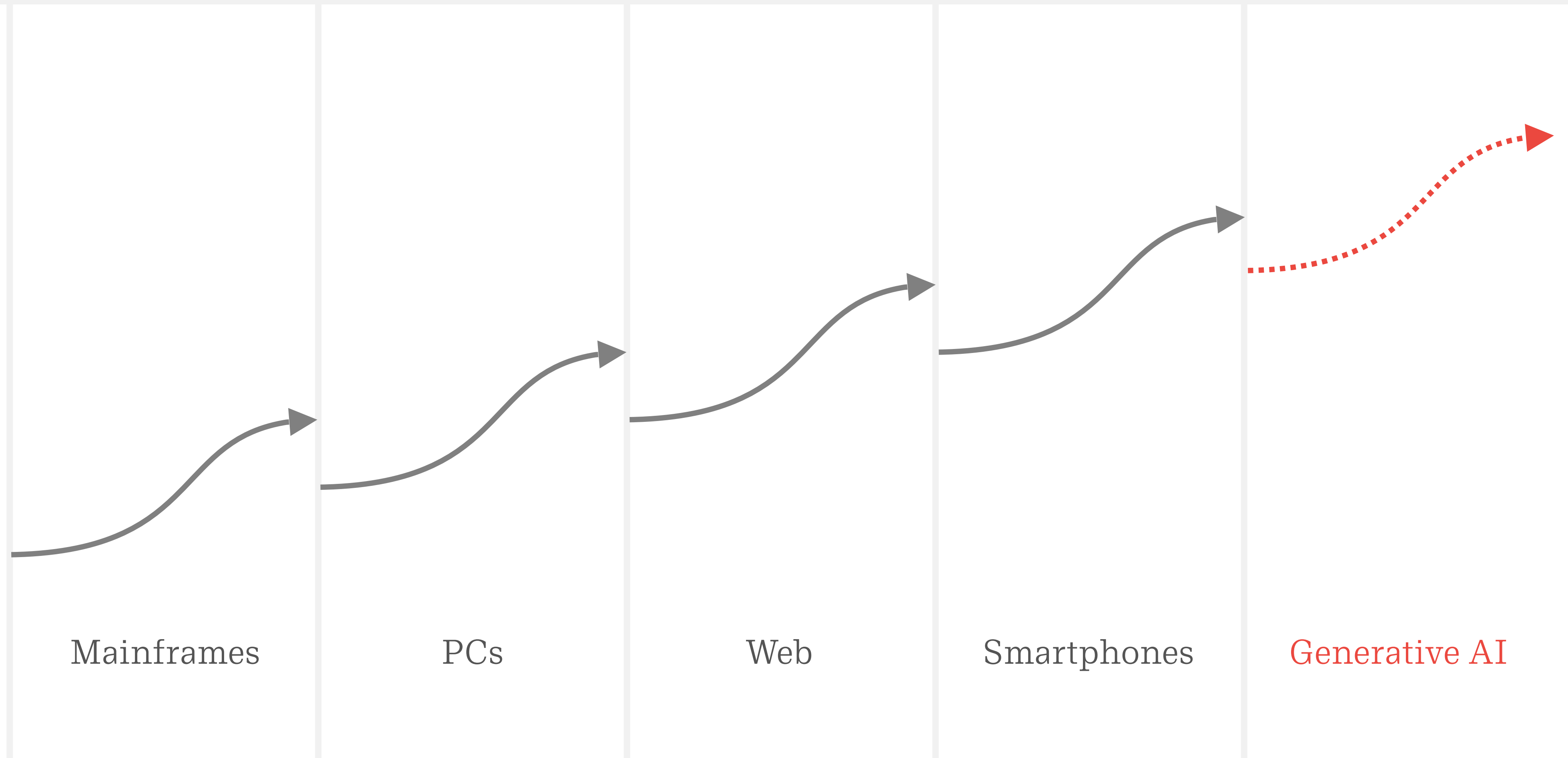**Benedict Evans**

November 2025

www.ben-evans.com

The next platform shift

Every 10-15 years, a platform shift reshapes technology

Mainframes   PCs   Web   Smartphones   Generative AI

What happens in a platform shift?

Who is affected, and how much?

The New Thing!

All tech innovation, investment and company creation switches over

Inside tech

New gatekeepers, new value capture

New and bigger markers

Outside tech

Is this a new tool, new revenue, or an existential threat?

Dominance is won and lost
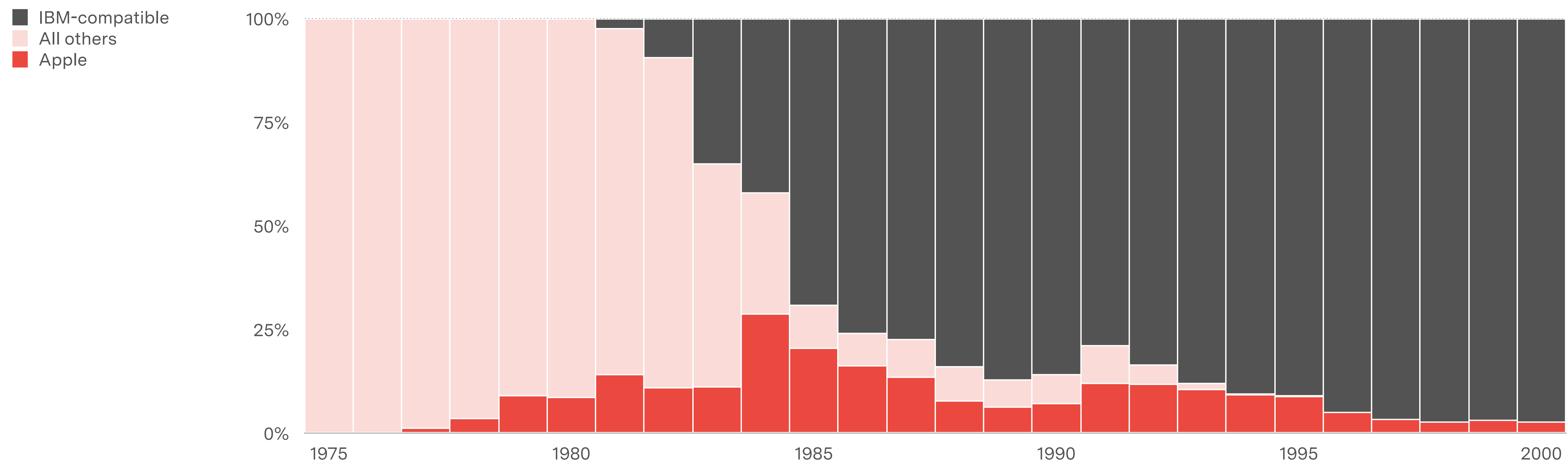
Microsoft dominated the PC era, but when the centre of gravity shifted to smartphones it became irrelevant
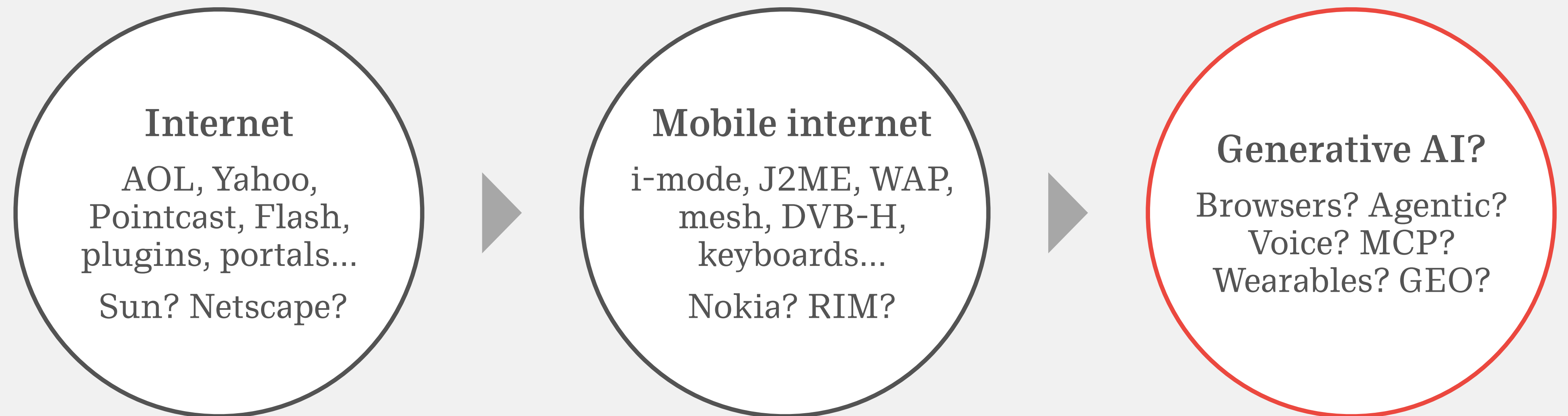
Microsoft OS share of global computer unit sales
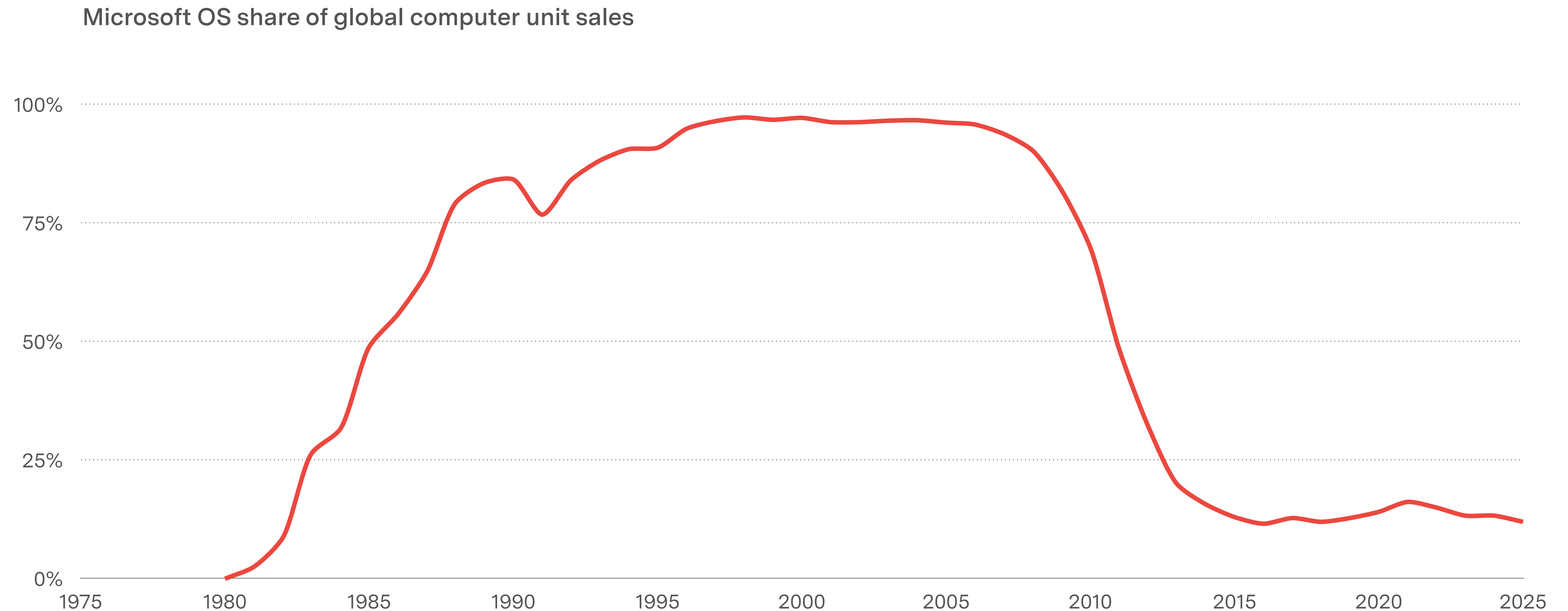
Early leaders often disappear

The 'first' was not the winner in PCs, browsers, search, social or smartphones
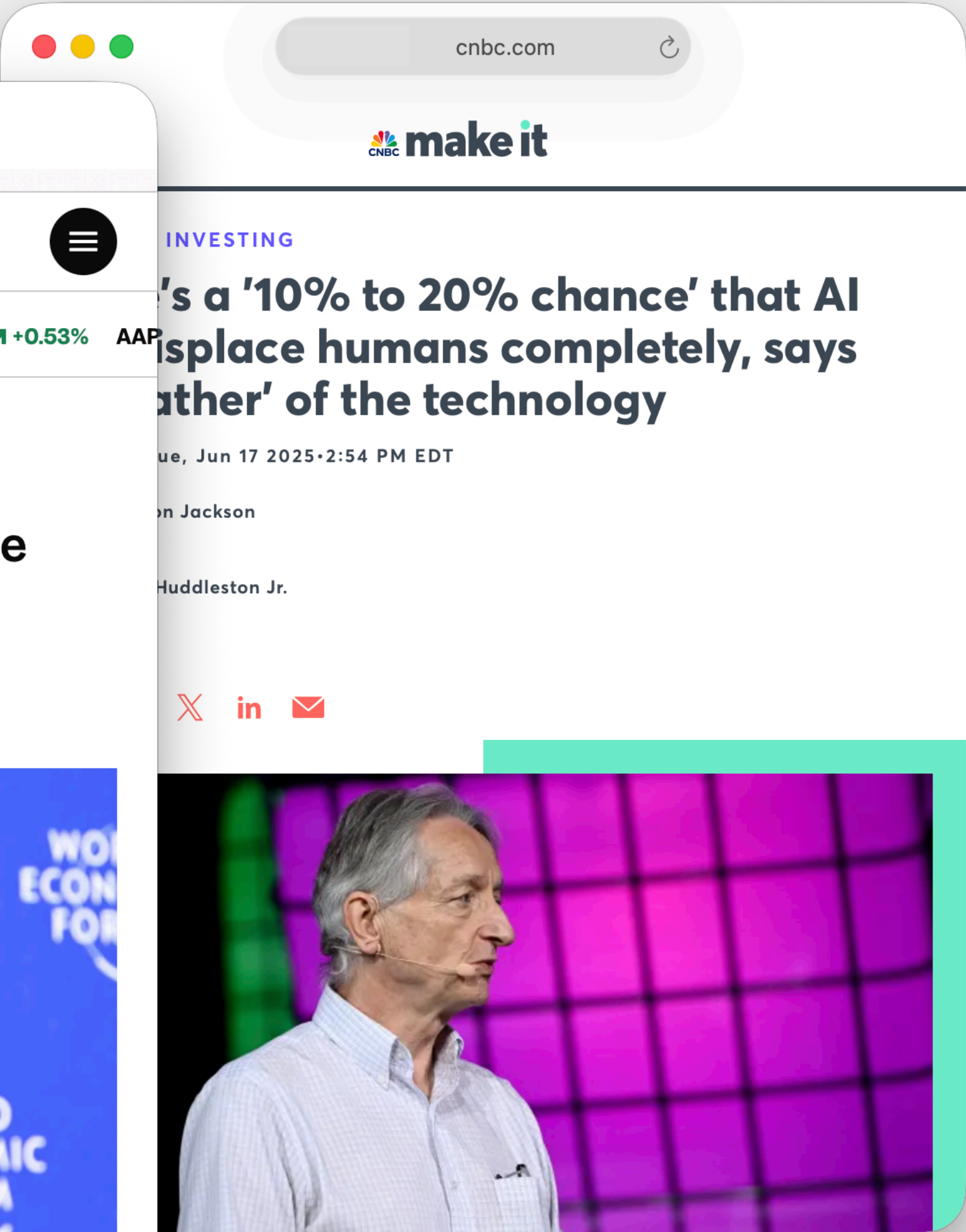
Global PC unit sales share

- IBM-compatible
- All others
- Apple

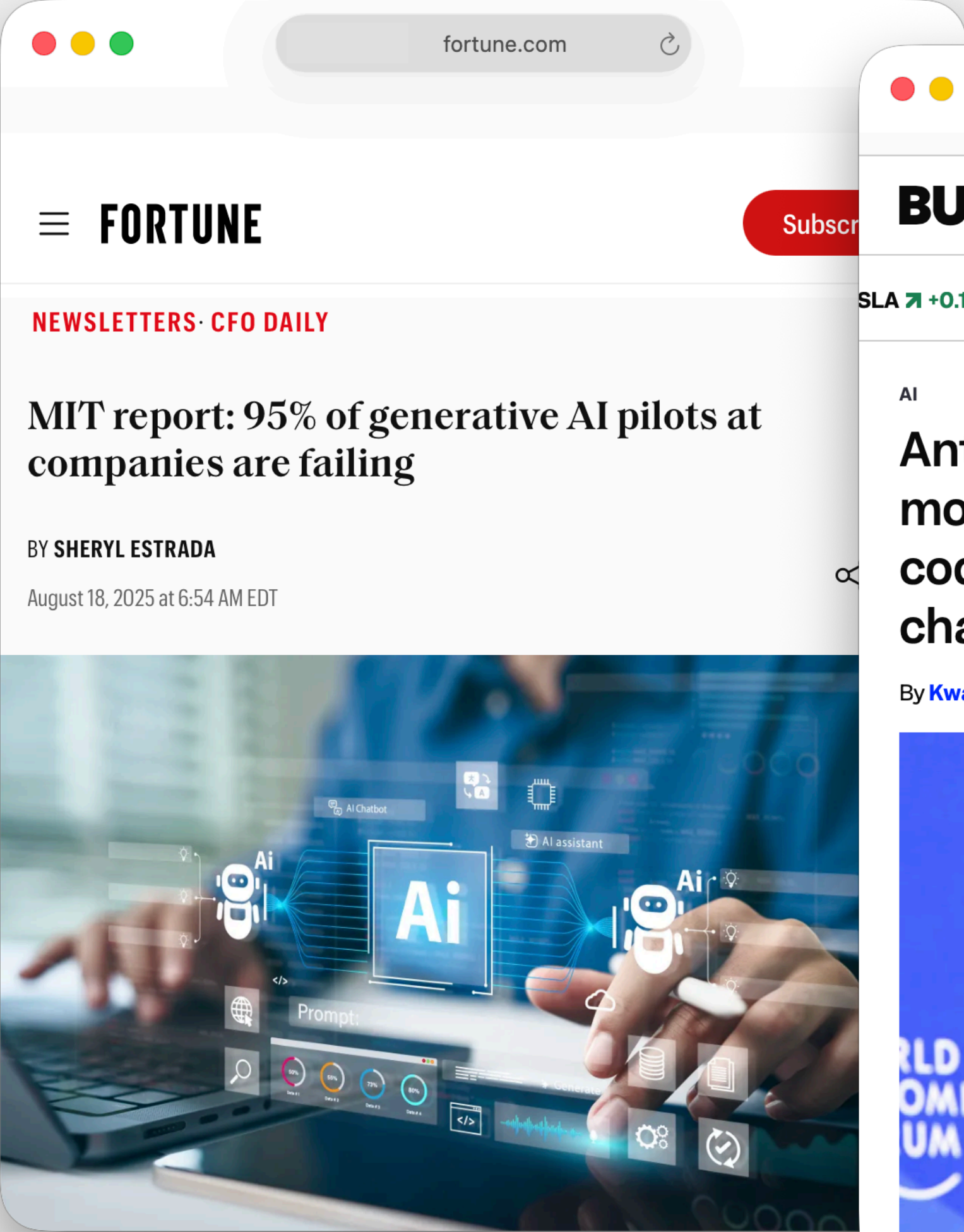# How will the new thing work? We don't know

For every new platform, we forget how many ideas failed and how unclear everything was

Internet

AOL, Yahoo,
Pointcast, Flash,
plugins, portals...

Sun? Netscape?

Mobile internet

i-mode, J2ME, WAP,
mesh, DVB-H,
keyboards...

Nokia? RIM?

Generative AI?

Browsers? Agentic?
Voice? MCP?
Wearables? GEO?

Noise, hype, anti-hype

When things are exciting, people get excited

FORTUNE

NEWSLETTERS · CFO DAILY

MIT report: 95% of generative AI pilots at companies are failing

BY SHERYL ESTRADA

August 18, 2025 at 6:54 AM EDT

BUSINESS INSIDER

SLA ↗ +0.1%   DOW JONES ↗ +0.52%   NASDAQ ↗ +0.65%   S&P 500 ↗ +0.53%   AAP

AI

Anthropic's CEO says that in 3 to 6 months, AI will be writing 90% of the code software developers were in charge of

By Kwan Wei Kevin Tan   + Follow

CNBC make it

INVESTING

's a '10% to 20% chance' that AI splace humans completely, says ather' of the technology

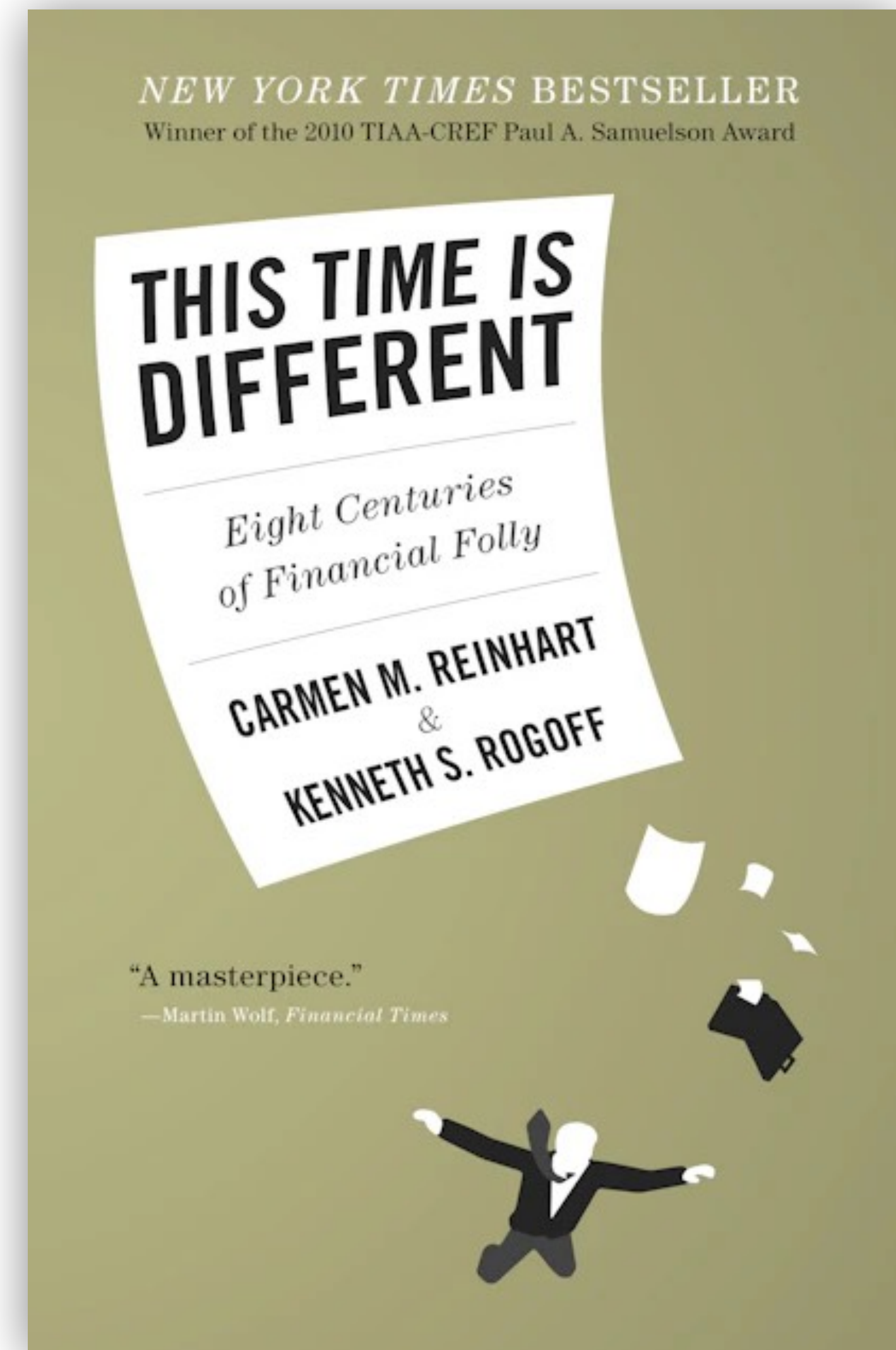ue, Jun 17 2025·2:54 PM EDT

n Jackson

Huddleston Jr.

This often brings bubbles

People draw straight lines on log scale charts

They forget that exponential growth is generally an exponential curve
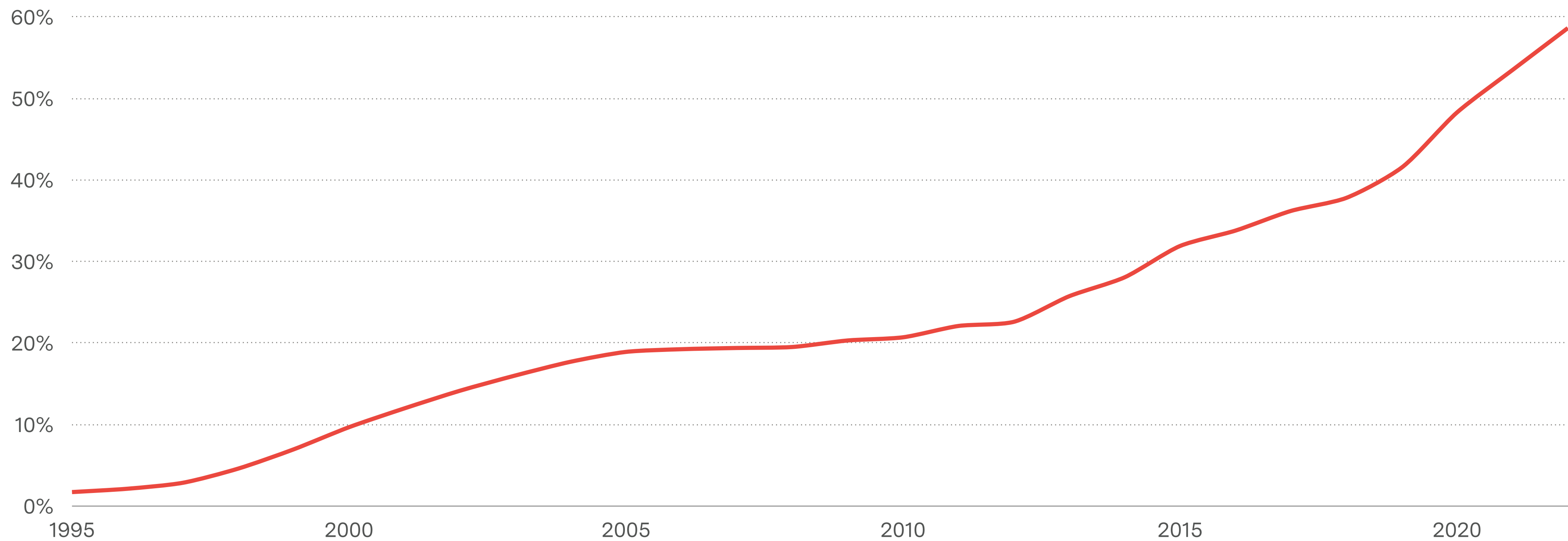
And always say "this is different"

The trouble is, they're generally *right* - every bubble is different! But it can still be a bubble

But when the dust settles, the world has changed

The internet has gone from the New Thing to a basic part of daily life

US heterosexual couples who met online, by year of meeting

New platforms mean new tools (and new revenue)

SaaS means the typical large enterprise in the USA now uses 4-500 apps

Mainframes
One app

➤

PCs
Dozens of apps

➤

SaaS
4-500 apps*

➤

LLMs
What can we automate next?

*Source: Productiv

One way this platform shift *is* different, though

For PCs, the web or smartphones, we knew the physical limits of what could happen next year
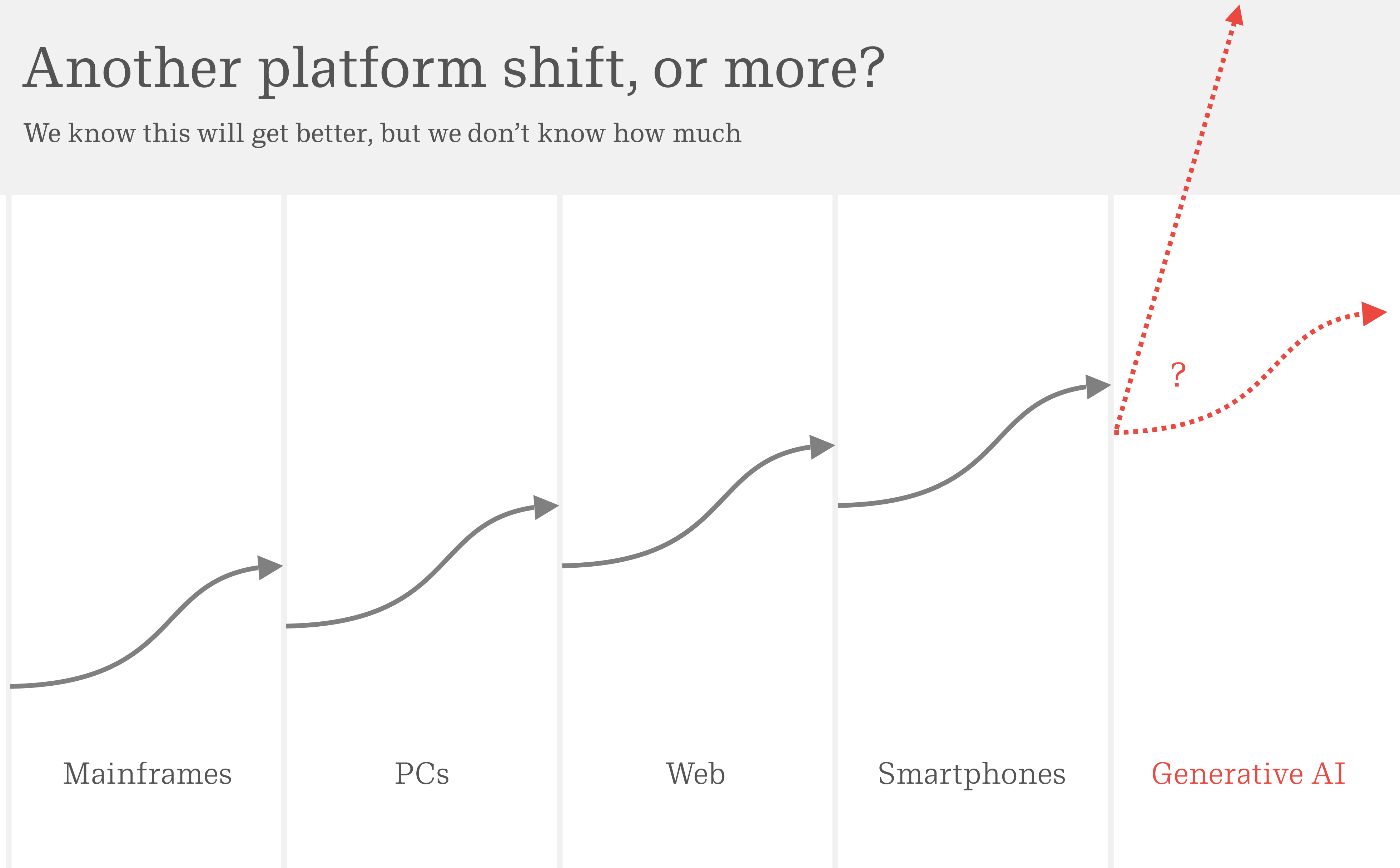
With LLMs, we don't know how much better this could get

"The race to AGI is afoot"
Sergey Brin

"AGI needs multiple further breakthroughs"
Demis Hassabis

Another platform shift, or more?

We know this will get better, but we don't know how much

| Mainframes | PCs | Web | Smartphones | Generative AI |

?

So how will the new thing turn out?

If this is 'only' as big as mobile or the internet, that seems like enough

How will this work?

How will this be useful?

Where is the distribution, value capture, and value destruction?

Inside tech

"The risk of under-investing is significantly greater than the risk of over-investing"

Sundar Pichai, Q2 2024

"The very worst case would be that we have just pre-built for a couple of years"

Mark Zuckerberg, Q3 2025

Three years of FOMO in Big Tech

"This is a huge new market, a huge threat to all our existing businesses, and we can't miss it"

"This is a huge opportunity and threat

We can't miss it"

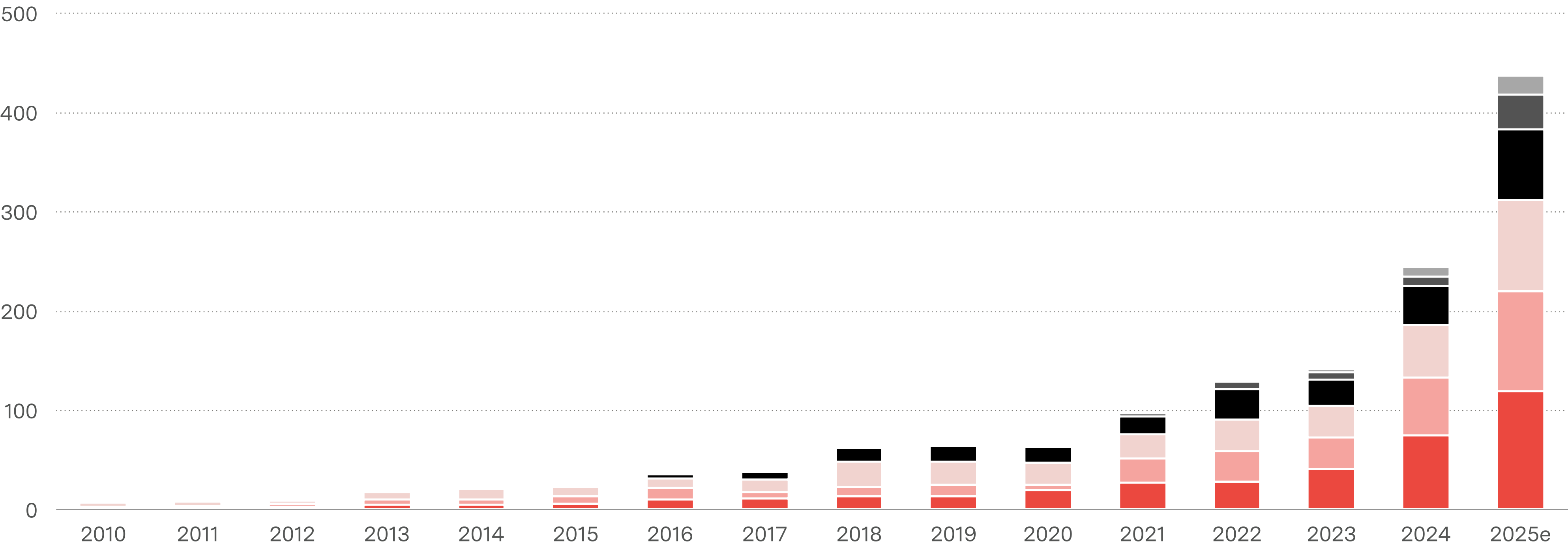"It keeps getting better with more capex"

How much better?

How much capex?

FOMO drives a capex surge

~$400bn in 2025 for the big four alone (for comparison, global telecoms is ~$300bn)

Capex ($bn)

Legend:
- Coreweave
- Oracle
- Meta
- Alphabet
- AWS*
- Microsoft

Source: Companies, company guidance. Includes capital leases
* Amazon does not break out AWS capex directly

Benedict Evans –– November 2025   17

Planned 2025 growth almost doubled - in 2025

~$350bn in 2025 for the big four alone (for comparison, global telecoms is ~$300bn)

Capex ($bn)

Legend:
- Coreweave
- Oracle
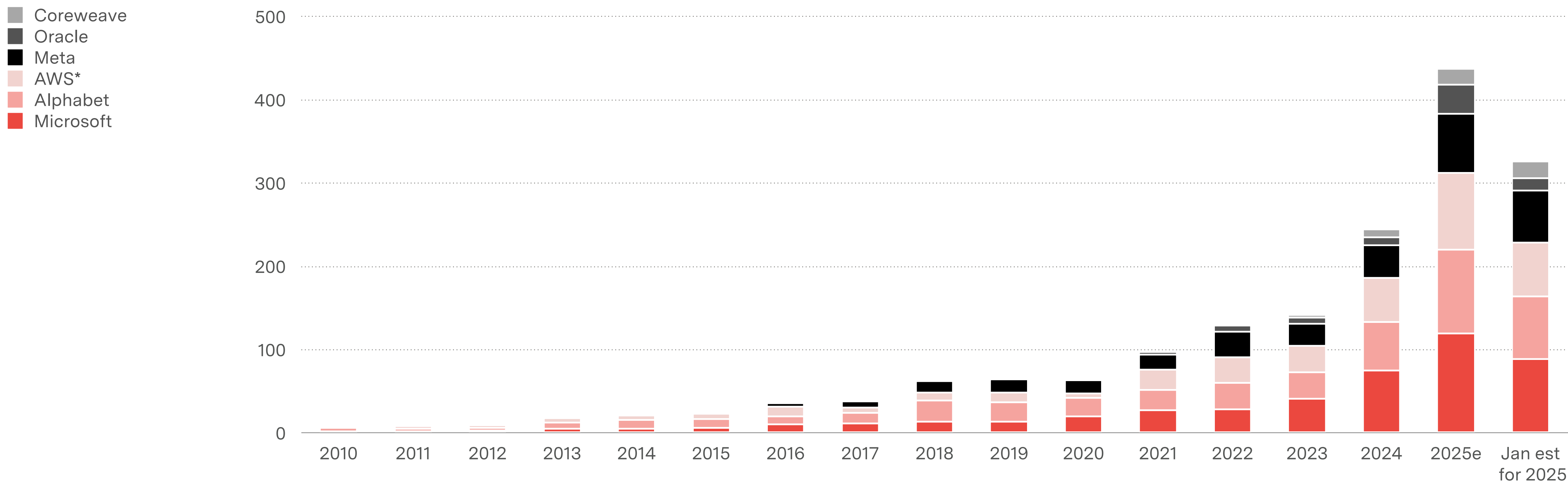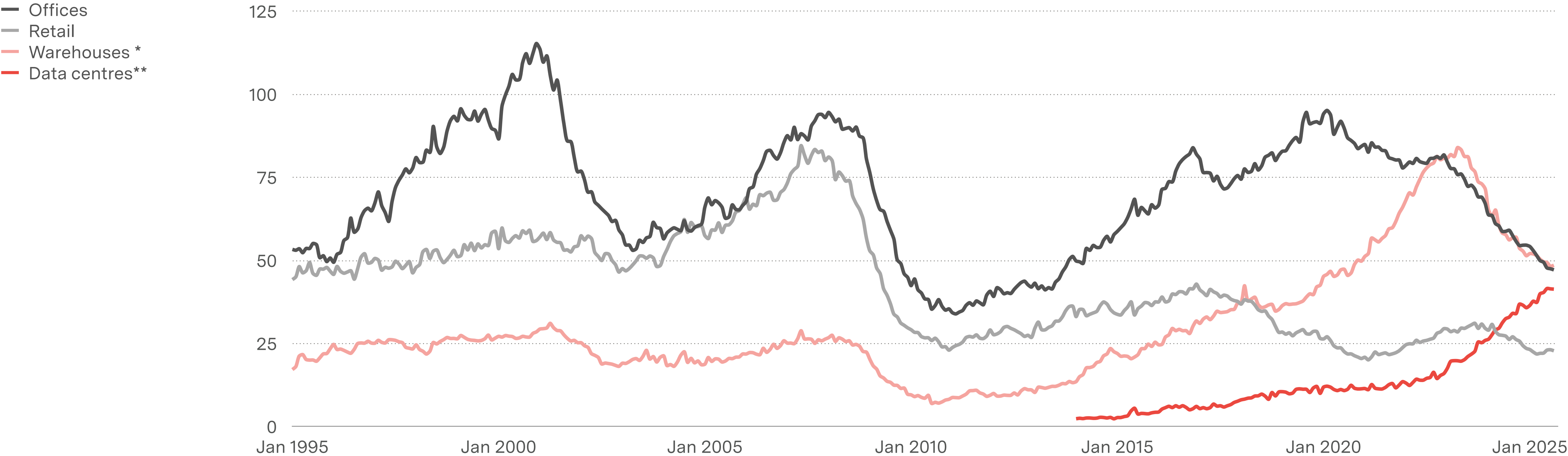- Meta
- AWS*
- Alphabet
- Microsoft

A new investment cycle

US data centre construction overtaking offices

US construction value (2025 $bn, seasonally adjusted annual rate)

Legend:
- Offices
- Retail
- Warehouses *
- Data centres**

Nvidia can't keep up

Trying to build a new Sun Microsystems (though China and hyperscalers' own chips are coming up behind)

Quarterly revenue ($bn)

Intel
Nvidia
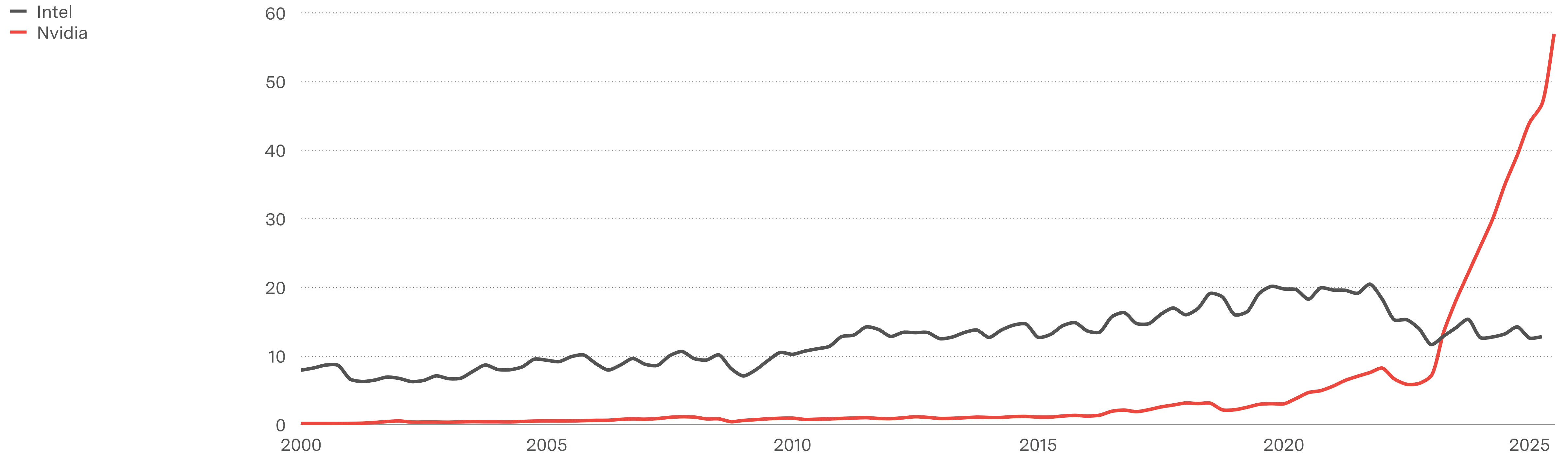
Nvidia can't keep up (neither can TSMC)

TSMC unwilling/unable to expand capacity fast enough to meet Nvidia's book

Quarterly revenue ($bn)

Legend:
- Intel
- Nvidia
- TSMC
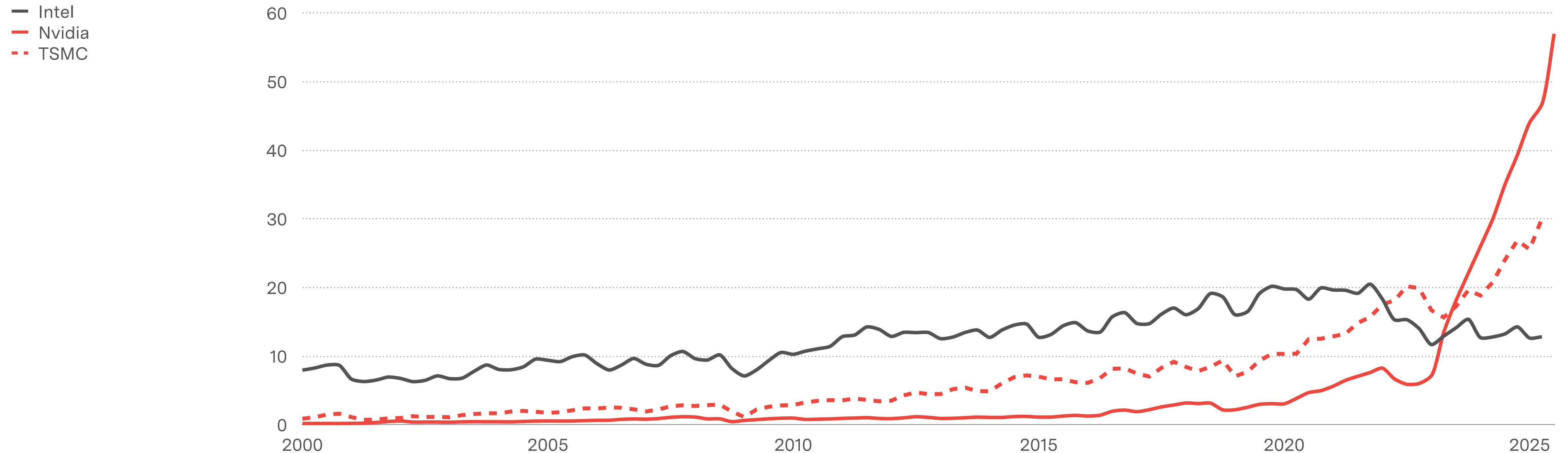
US power backlogs becoming a major issue

US power demand growth is ~2%, and AI might add 1% that's hard to build fast (this is not an issue in China)

Main constraints to data centre construction, USA (February 2025)

Legend:
- Somewhat significant
- Very significant
- Extremely significant

Y-axis: 100%, 75%, 50%, 25%, 0%

X-axis categories: Utility power, Access to chips, Fibre, Permitting, Water availability, Access to natural gas, Land, Public opposition
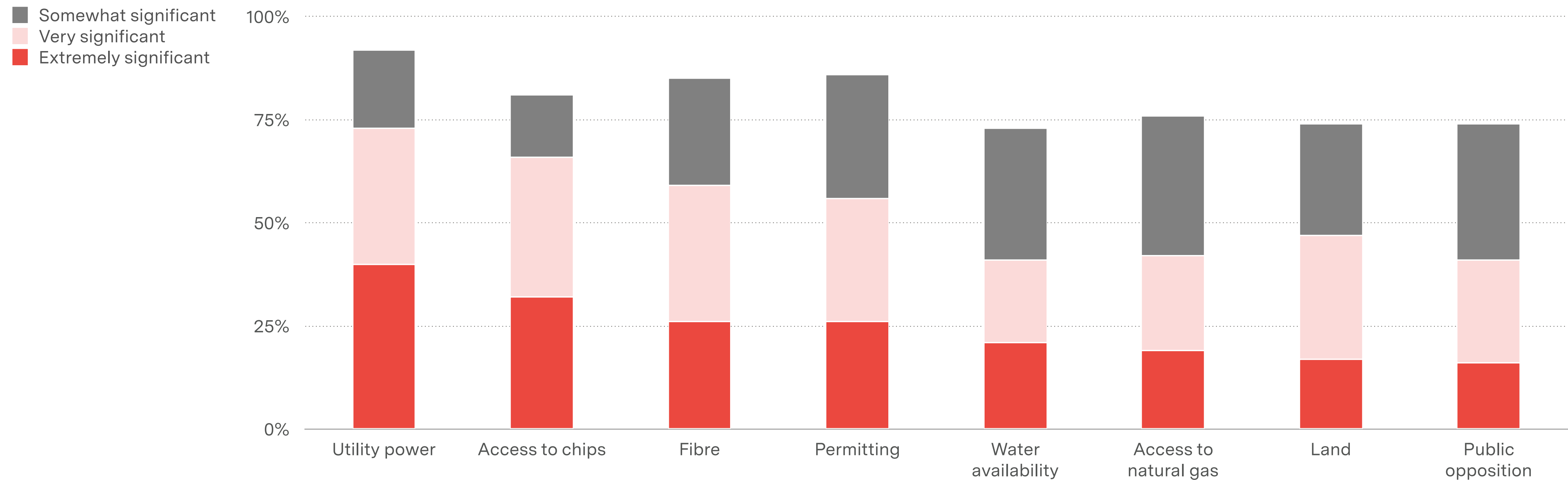
"It's been almost impossible to build capacity fast enough since ChatGPT launched"

Kevin Scott, Microsoft CTO

"We now expect the FY26 growth rate to be higher than FY25" - Microsoft

"Capex dollar growth will be notably larger in 2026" - Meta

"We expect a significant increase in 2026" - Alphabet

Data centre capacity triples? For $3tr? $5tr? More?

Some very large numbers (although some of the 'bragawatts' may be more performative than real)

Global data centre capacity estimates, H1 2025 (GW)

■ Current
■ Est. of 2030 plans
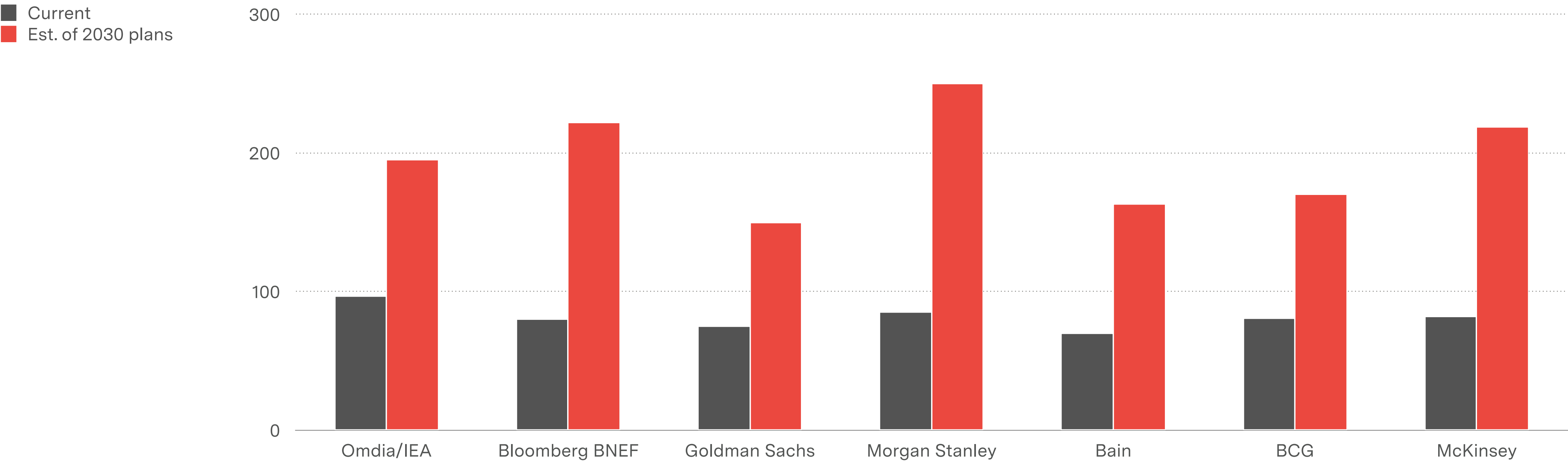
"Three trillion dollars!"

Annualised AI capex aspirations are a similar magnitude to mature global capital-intensive industries

Global
telecoms
~$300bn

Oil & gas
'upstream'
~$540bn

US private
sector
~$20.1tr

GenAI
$500-750bn
annual?

Source: ITU, IEA, ONS
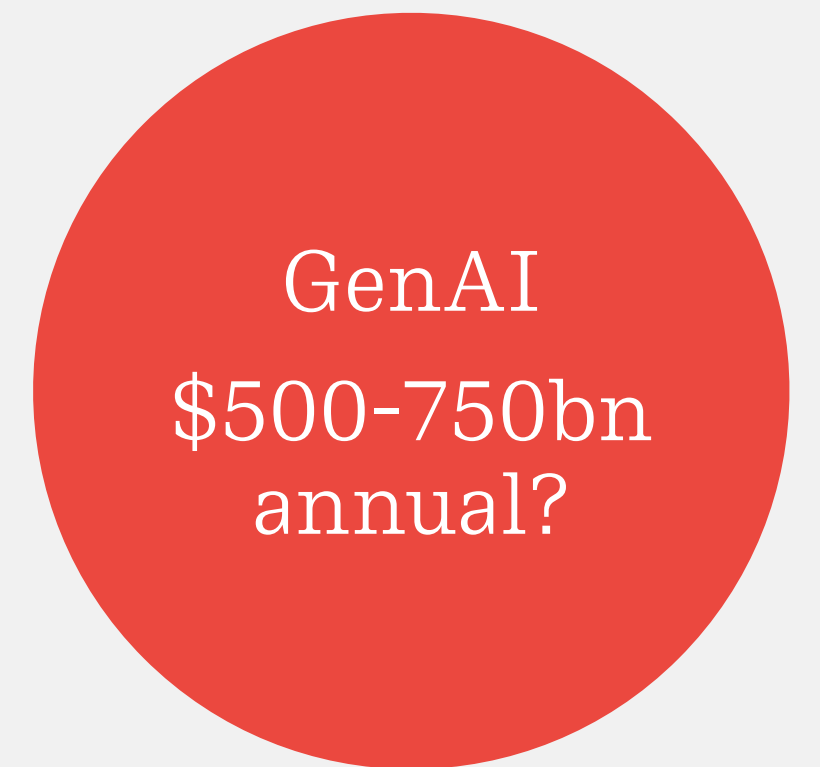
The hyperscalers can afford it...

Big Tech cashflow has surged since the Pandemic, and most of that growth is going on AI capex

Annual Capex and Free Cash Flow, 2010 to 2025e ($bn)

Legend:
- Cash capex (red)
- FCF (dark grey)

Categories: Alphabet, Amazon, Meta, Microsoft
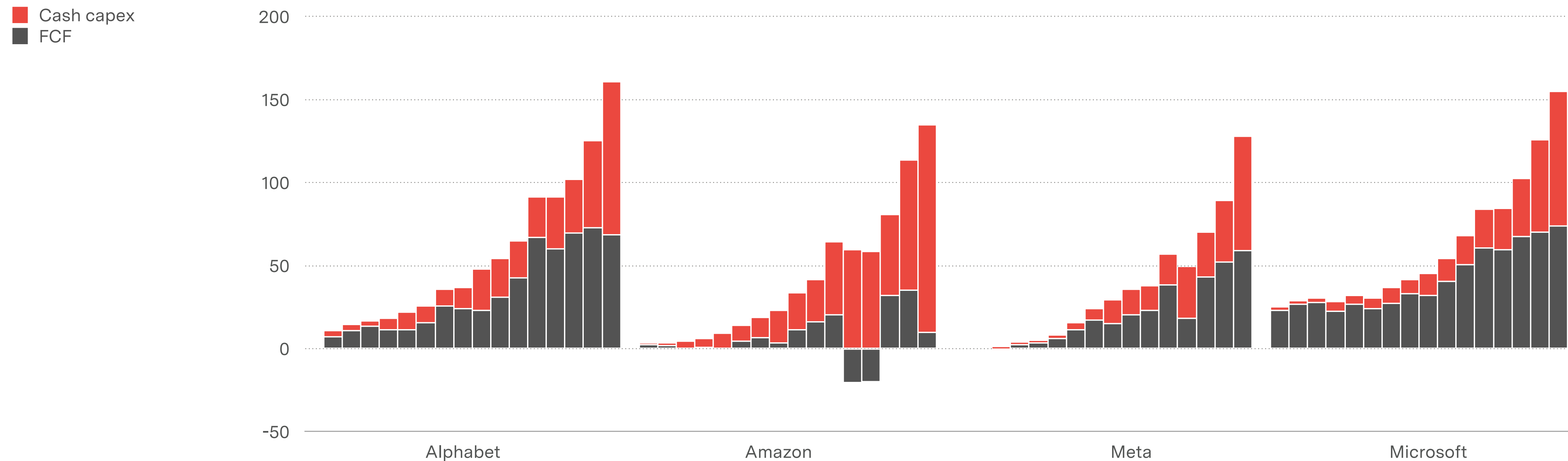
The hyperscalers can afford it... up to a point

Capital leases are not new, but they've got a lot bigger

Annual Capex and Free Cash Flow, 2010 to 2025e ($bn)

- Leases (red)
- Cash capex (light gray)
- FCF (dark gray)

Alphabet — Amazon — Meta — Microsoft
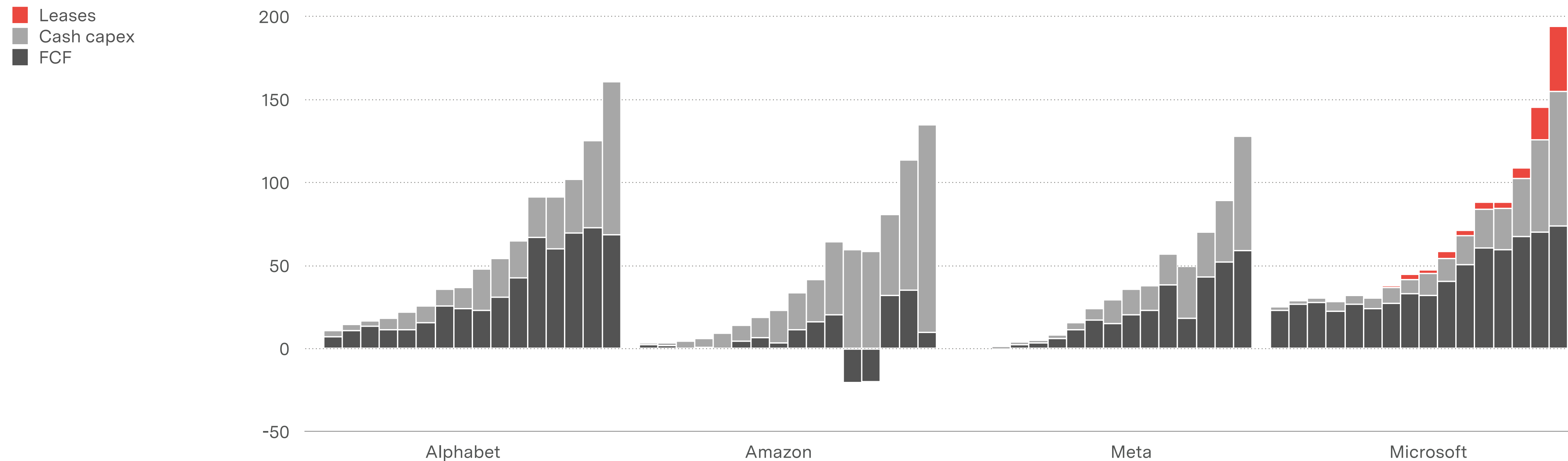
Up to a point

Hyperscalers add leases and debt, while some analysts suggest Oracle's cloud capex might be >100% of revenue

FINANCIAL TIMES

Big Tech + Add to myFT

'Absolutely immense': the companies on the hook for the $3tn AI building boom

Private capital joins Big Tech in seeking to capture rewards from historic expansion of data centres

© FT montage/The Washington Post/Ge...

WSJ

Oracle Isn't Answering the Hardest Questions About Its AI Plans

Software giant boosts long-term targets, but paying for an artificial-intelligence build-out will stretch its resources

By Dan Gallagher | Follow |

Oct. 17, 2025 at 5:30 am ET

Reuters

My News

Meta taps PIMCO, Blue Owl for $29 billion data center expansion project, source says

By **Chandni Shah** and **Surbhi Misra**

August 7, 2025 11:10 PM EDT · Updated August 7, 2025

A Meta logo is pictured at a trade fair in Hannover Messe, in Hanover, Germany, April 22, 2024.

OpenAI joins the club

Announced commitments for 30GW+ of capacity at $1.4tr

Aspiration for 1GW/week of new construction at $20bn/GW = ~$1tr annually...

Equivalent to 2/3 of total current global base, every year
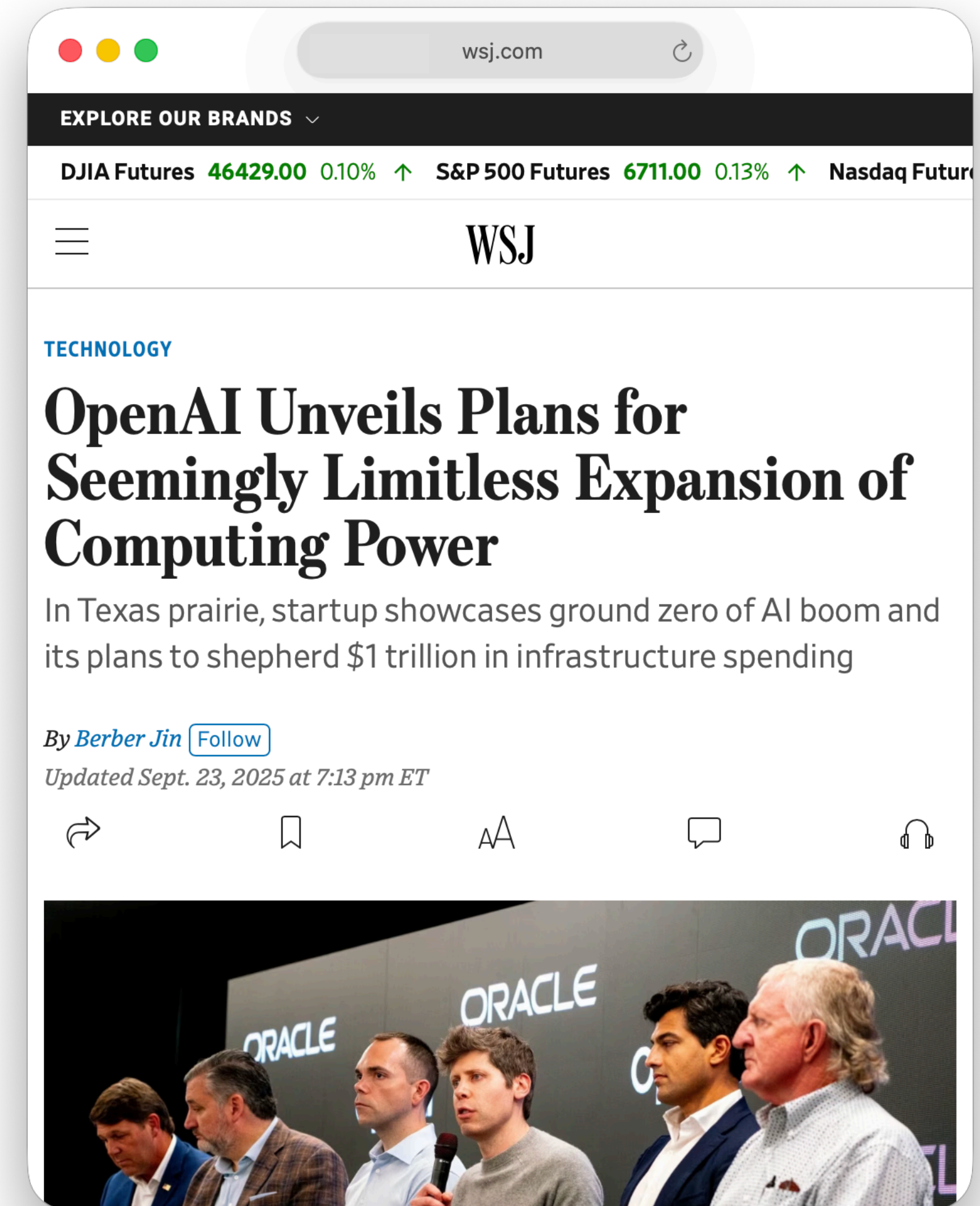
"Circular revenue"

Without its own cashflows, OpenAI partners with Nvidia, Oracle, Softbank, petrodollars...

OpenAI is buying Nvidia chips with Nvidia's cashflow...

Which comes from the hyperscalers...

and using Nvidia's cash to turn AMD into an Nvidia competitor, and pay Broadcom to make its own chips...
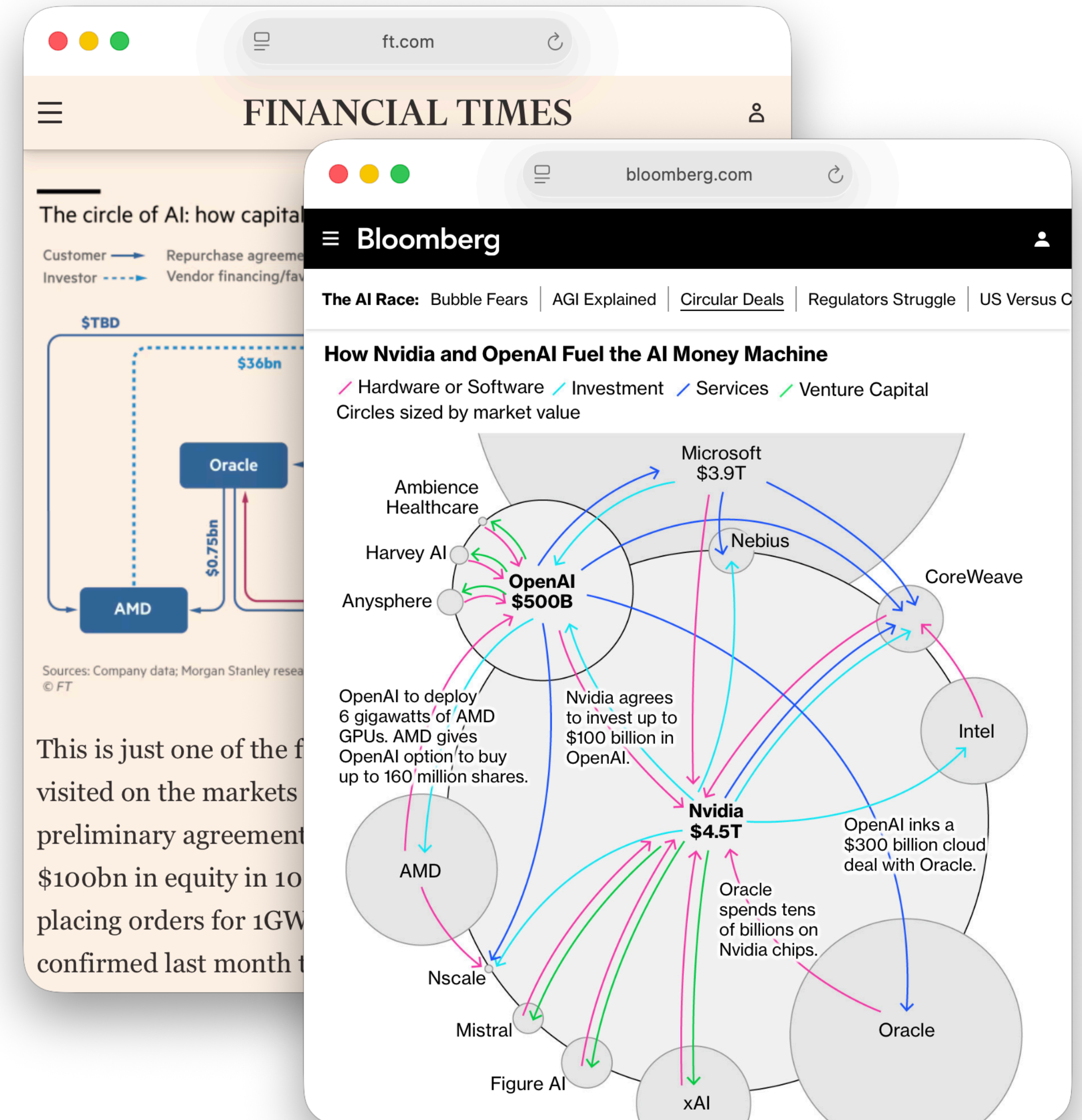
Rational actors?

What would you do if your company was sitting on a bubble?

Nvidia has $72bn of TTM FCF* and TSMC can't keep up with demand ·······▶ Use your excess cash to buy demand, FOMO and platform lock-in

OpenAI has mindshare and expensive stock, but no platform, infra or moat ·······▶ Swap your paper for hard assets and market position

Oracle is a cash-generative legacy business losing share to cloud and now to AI ·······▶ Gear up and burn your way into the new thing?

*Source: Nvidia

Yes, but where has all this money got us?

After three years, lots more science and engineering, but no real clarity on the shape of the market

Models still improving

Far more models, China, OSS

Lots of new acronyms

No apparent moats

No clarity on product or value capture

Far more models

Every week - new models, new (problematic, gamed, saturated) benchmarks, new acronyms

Models by aggregate benchmark score

- OpenAI
- All other

Source: ArtificialAnalysis
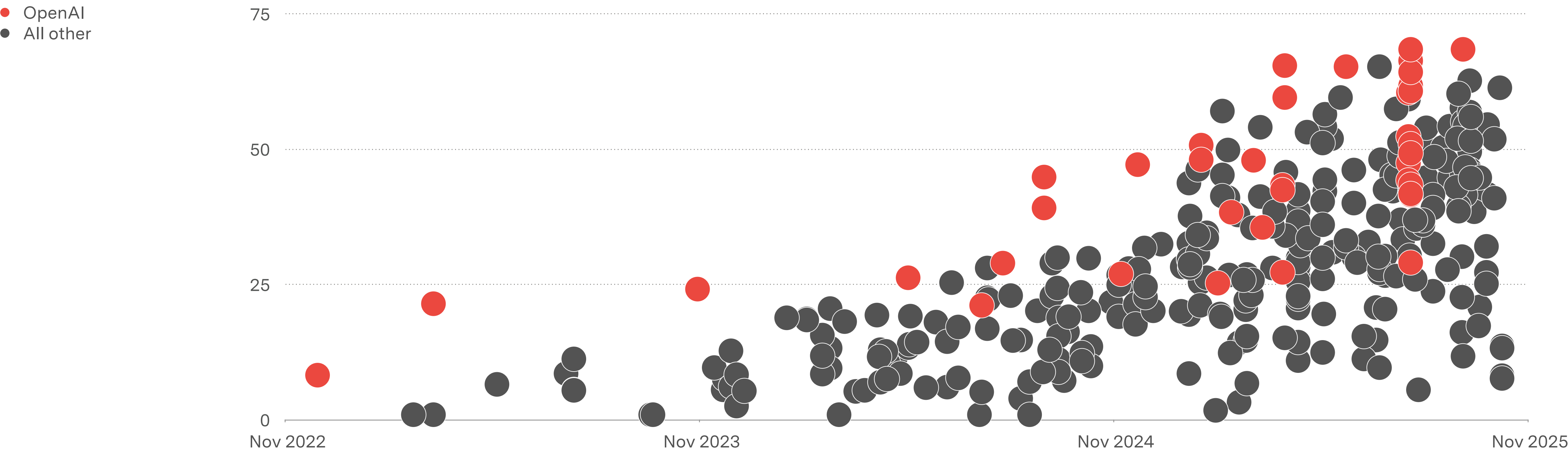
Models converge and leaders change weekly

Dozens of (saturated) benchmarks to choose from, but on the most general, the leaders are very close

Best scoring model relative to leader, October 2025

Legend:
- Anthropic
- Google
- OpenAI
- Other: China
- Other: Western

100%

95%

NB truncated axis 90%

LMArena Text

MMLU-Pro
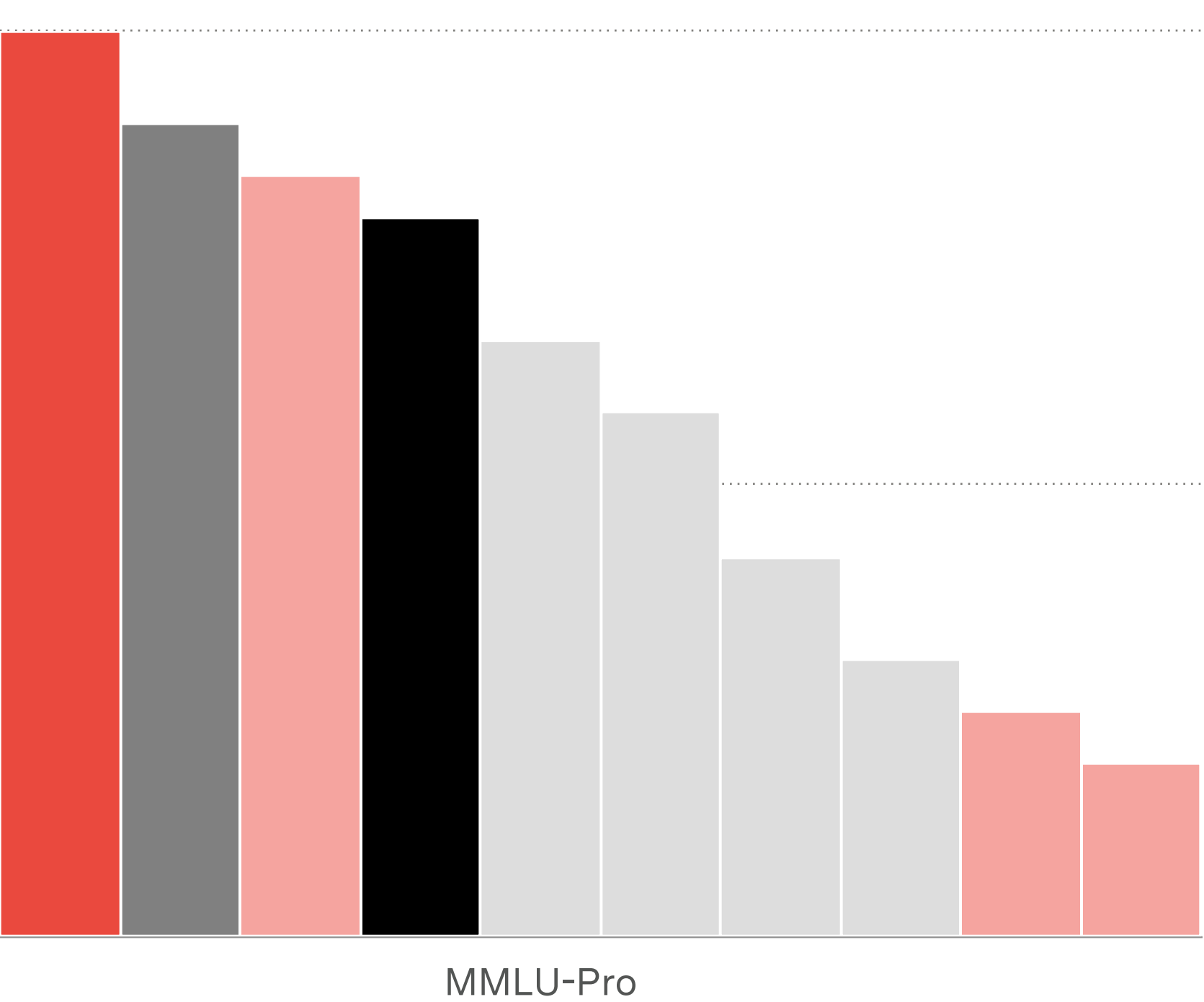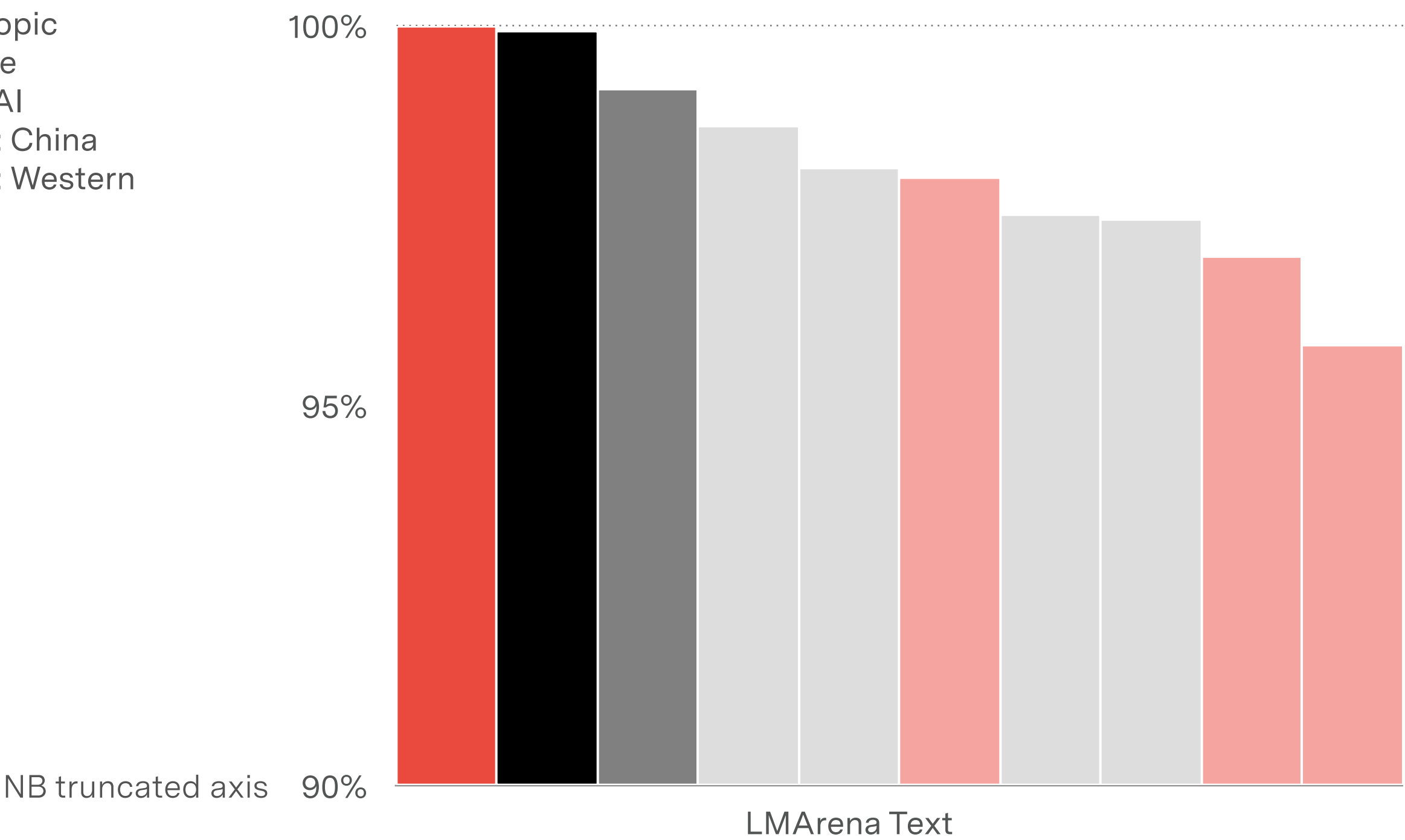
Tech versus brand versus distribution?

The models may be close to commodities (especially for general use), but market position is not, so far

Weekly active users of generative AI tools as share of the population, June 2025

Legend:
- ChatGPT
- Google Gemini
- Meta AI
- Microsoft Copilot
- Grok
- Claude
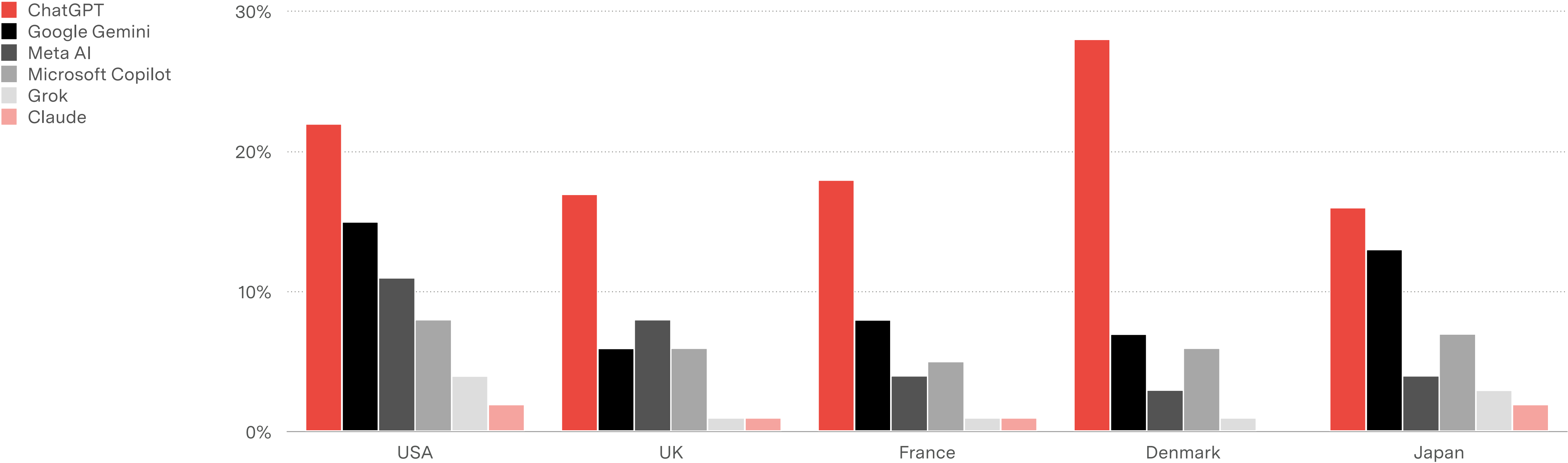
"Everyone is already using this!"

800m weekly users, but apparently only 5% are paying - and why announce WAU and not DAU?

ChatGPT global weekly active users (m)
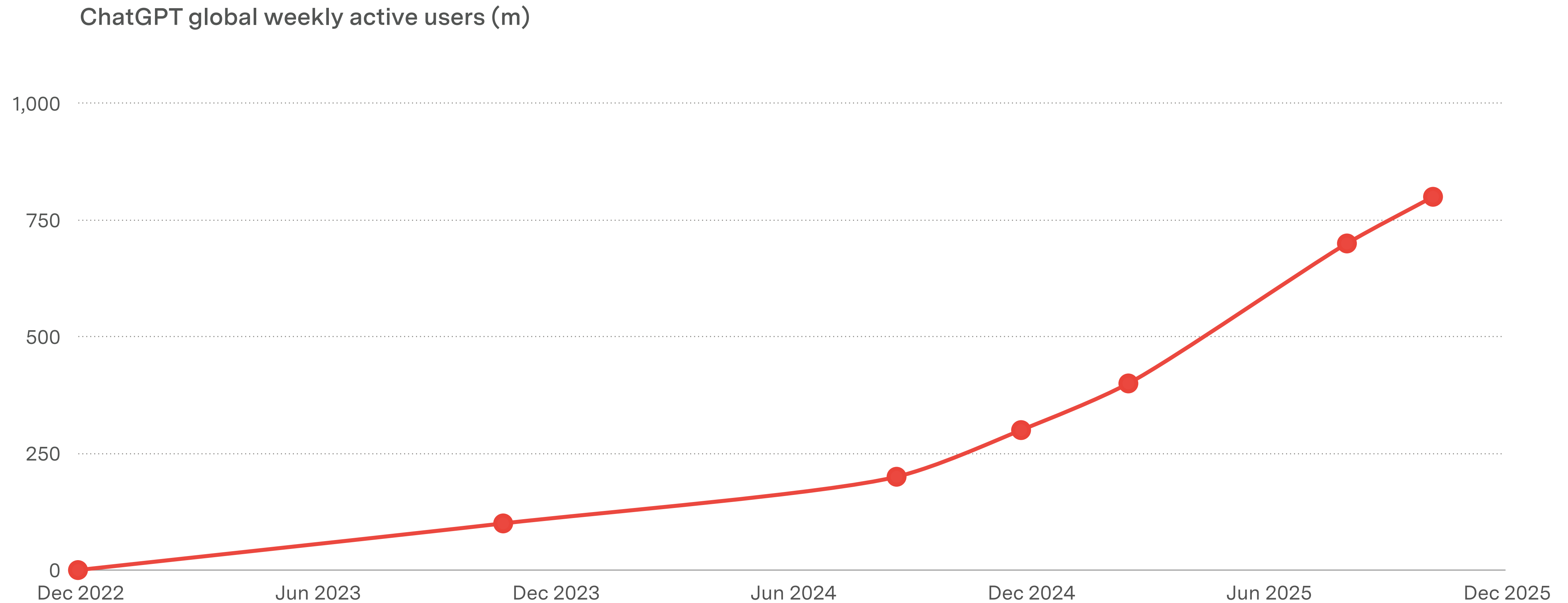
Still more experimentation than daily use

So far, many more people use chatbots occasionally than make them part of their daily lives
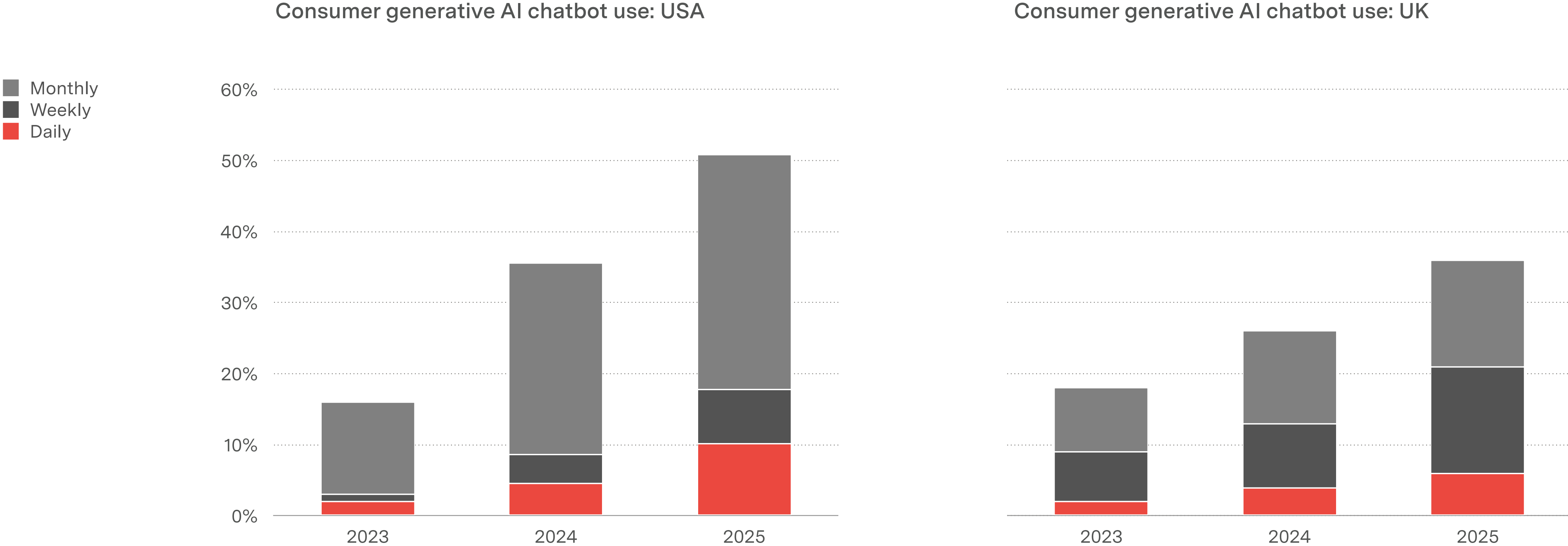
Consumer generative AI chatbot use: USA

Consumer generative AI chatbot use: UK

- Monthly
- Weekly
- Daily

Most data shows the same picture

Surveys are early, scattered and inconsistent, but an engagement gap seems clear

How many people use generative AI chatbots in the USA?

■ Weekly active
■ Daily active
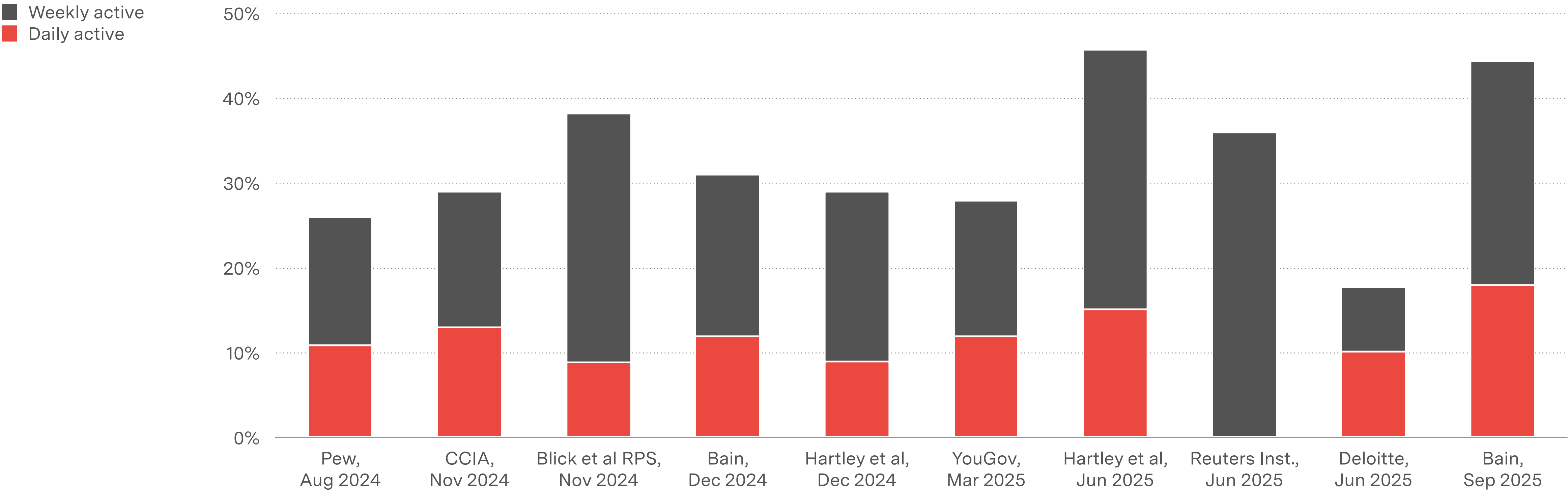
Is this just early? Or a harder problem?

Why do most users of ChatGPT only use it a little bit?

How many use cases are an obvious easy fit?

▶

Who has a flexible job...

And consciously looks for ways to optimise?

▶

For everyone else, do you need to wrap this in tooling and product?
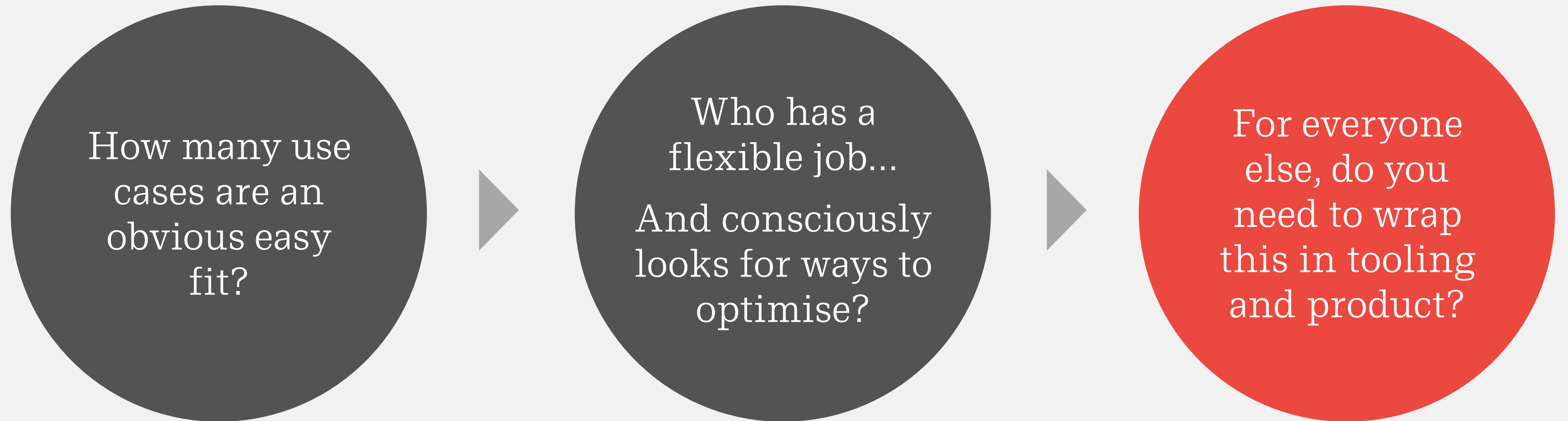
"People don't know what they want until you show it to them"

"You've got to start with the experience and work backwards to the technology"

Steve Jobs

So where does a model lab compete?

Where is the value capture for a research-heavy, capital-intensive commodity?

Go down the stack

Win on scale?

(see: aircraft, AWS, chips)

◀

If the models are commodities?

And don't have network effects?

▶

Go up the stack

Win on network effects & product?

(See: software)
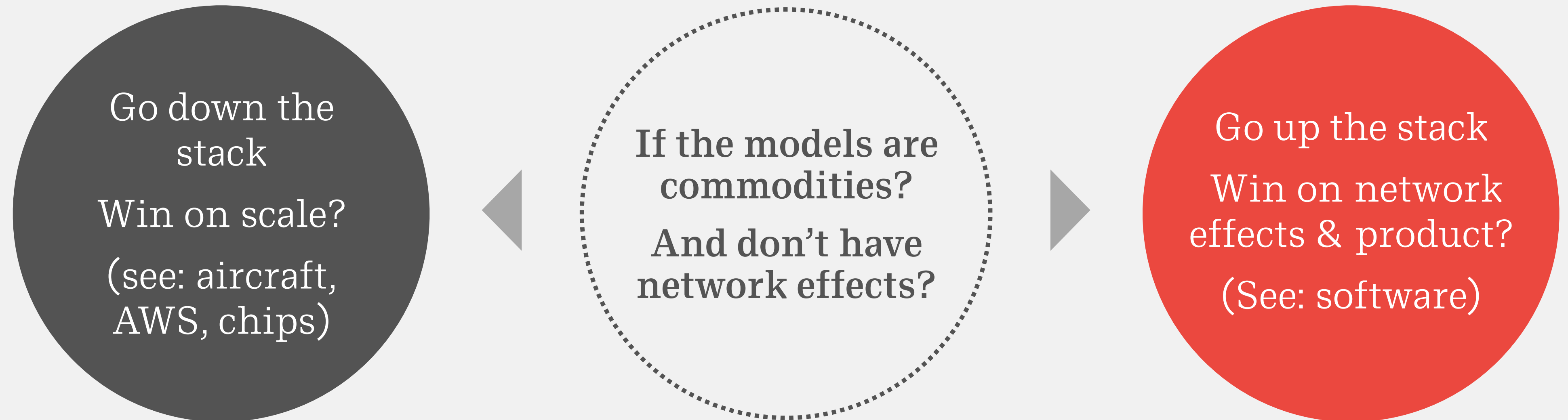
Microsoft's shift away from network effects?

From competing on network effects to competing on access to capital?
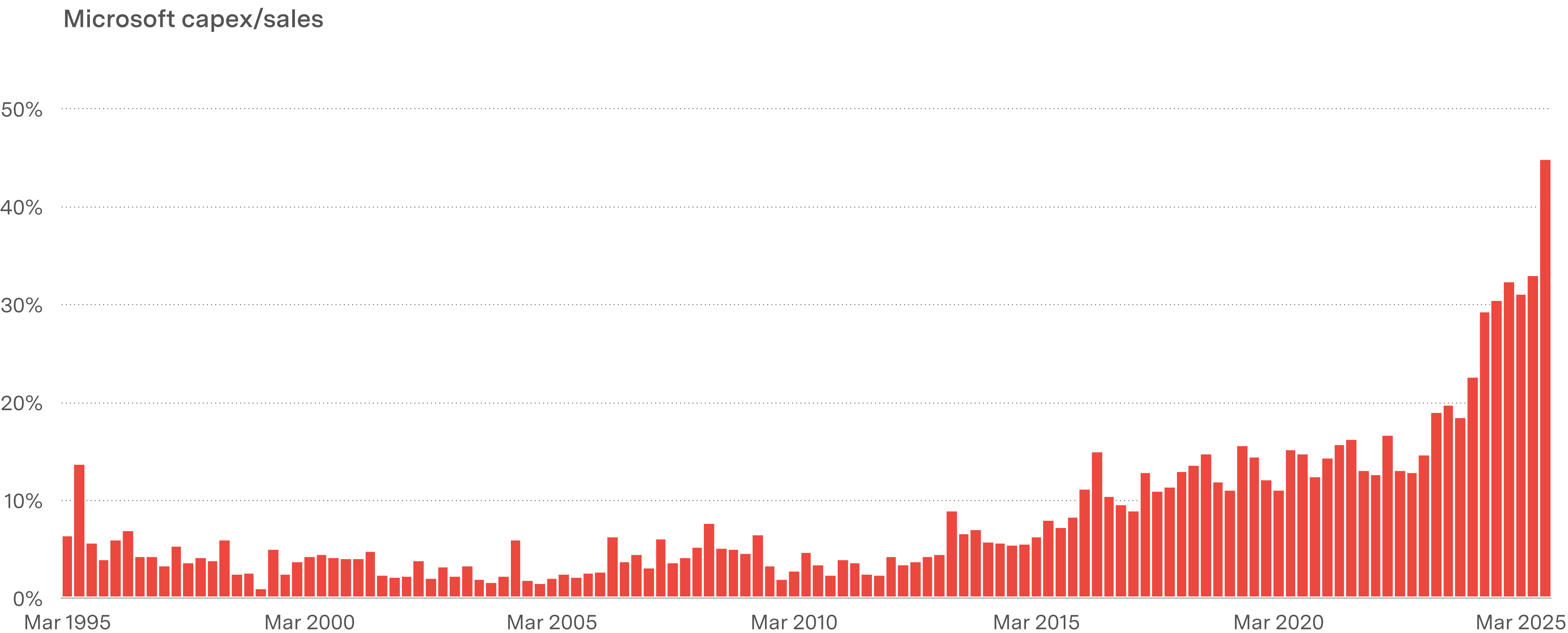
Microsoft capex/sales

For OpenAI, "yes!' to everything

Everything, everywhere, yesterday (on other people's balance sheets), before the market slips away

Infra deals with Oracle, Nvidia, Intel, Broadcom, AMD...

Ecommerce integrations, ads, vertical data sets

App platform, social video, web browser

Robots
Jony Ive
Biotech

"There are two ways to make money.
You can bundle, or you can unbundle"

Jim Barksdale

OpenAI bundles and unbundles use cases

What's the right experience? The right distribution? And why isn't it just the ChatGPT app?
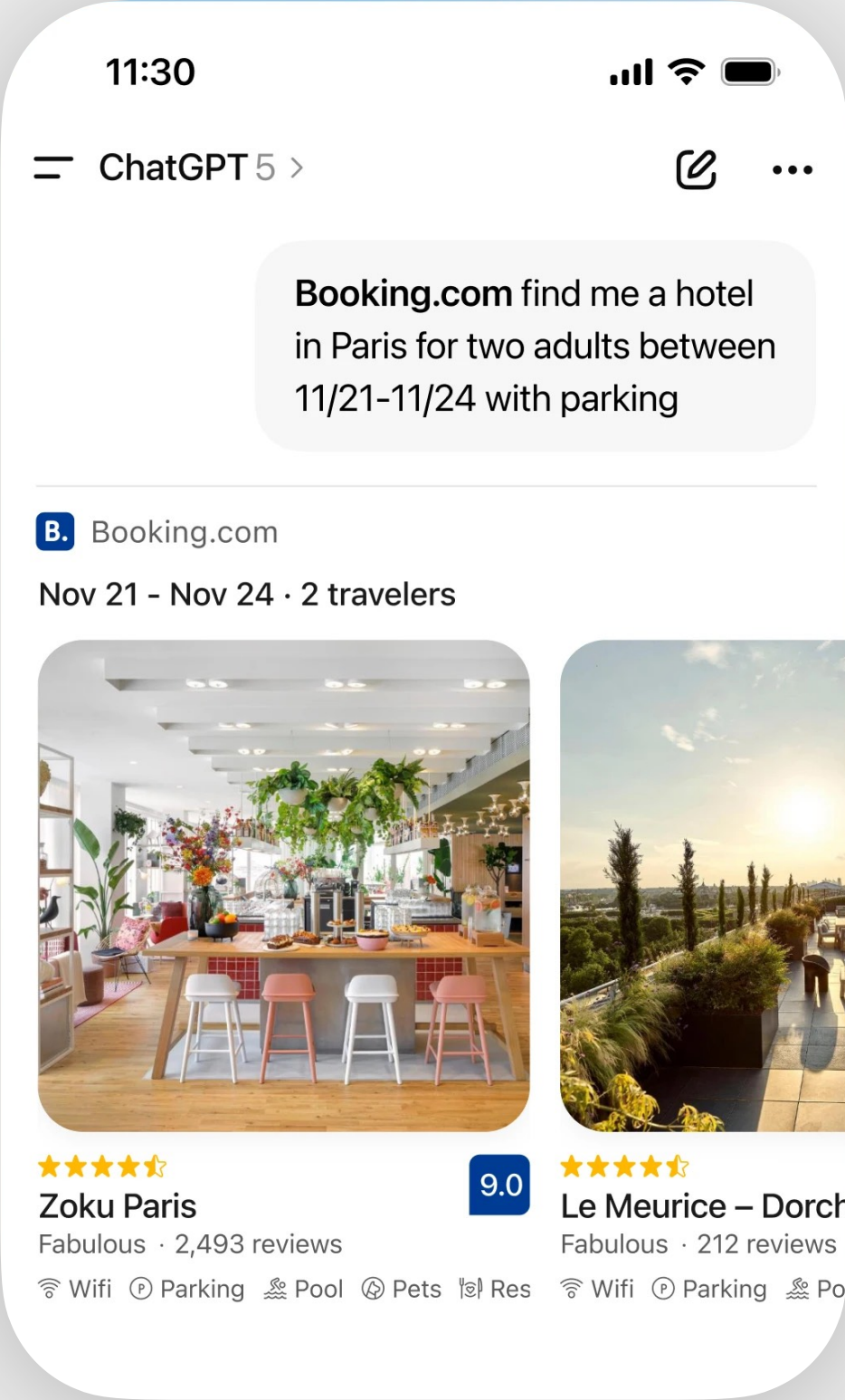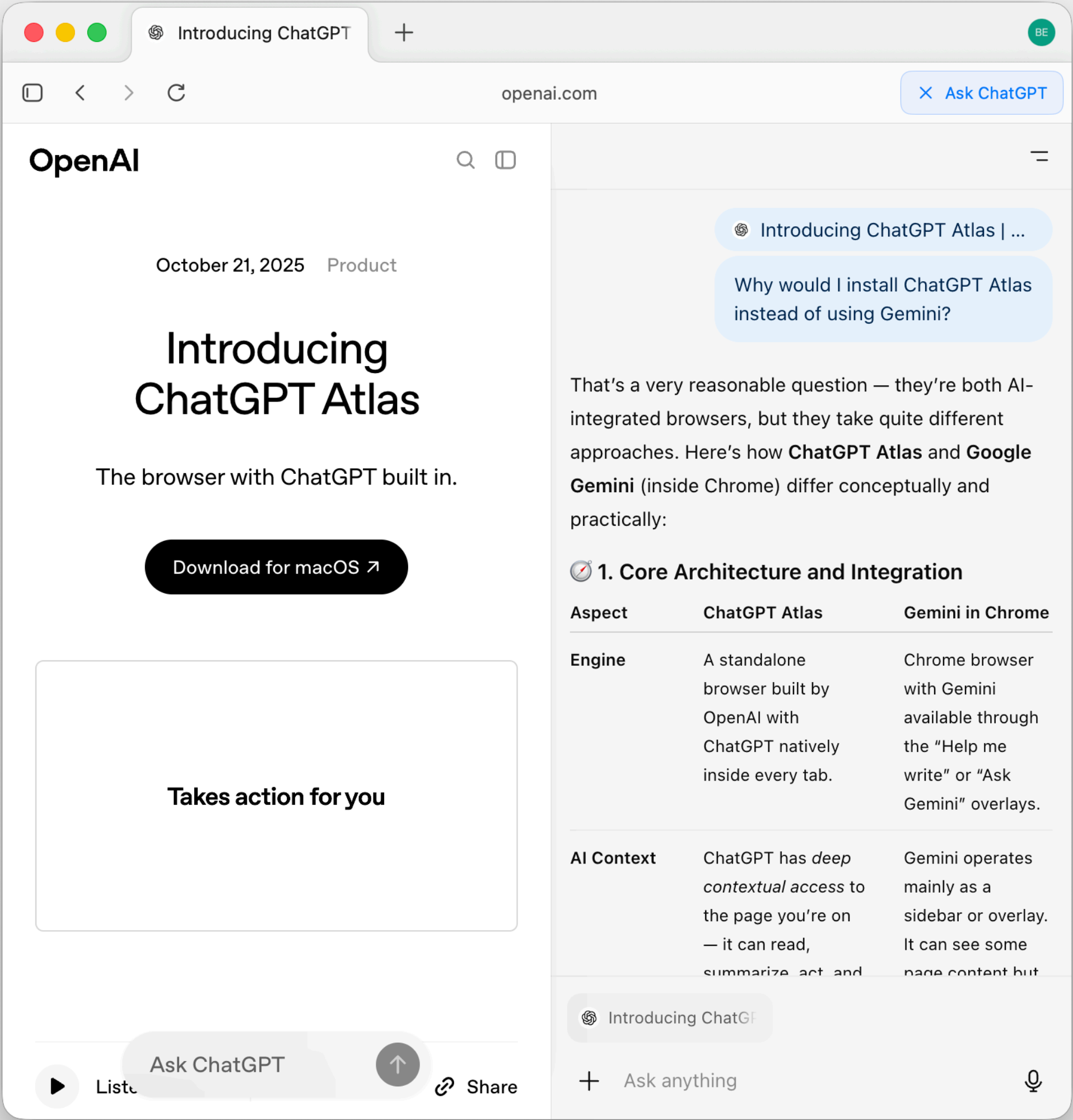
Startups exist to unbundle use cases

The coming wave of AI startups trying to unbundle Google, Excel, email and Oracle... and ChatGPT

Y Combinator startups by field

Legend:
- Other
- AI

X-axis: W 2015, W 2016, W 2017, W 2018, W 2019, W 2020, W 2021, W 2022, W 2023, W 2024, F 2024, S 2025

Y-axis: 0, 100, 200, 300, 400, 500
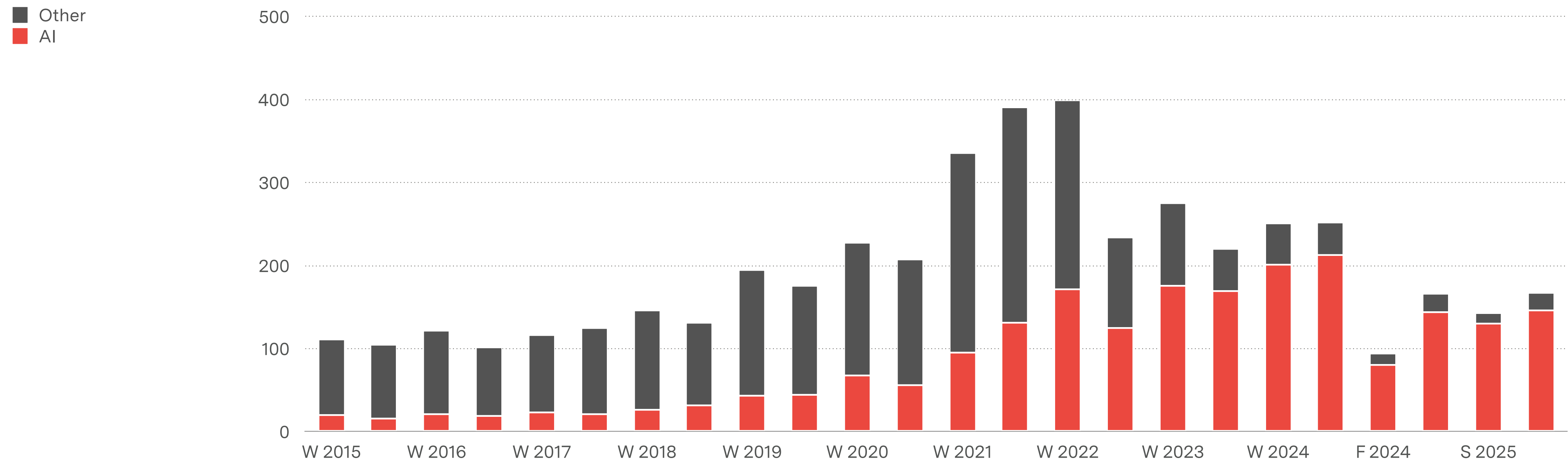
Where is the value capture?

If models are near-commodities, and we don't know the right product, where will the value be?

~~Best model?~~
Most capital?

Proprietary
vertical data?

Distribution
& GTM?
Product?
UX?

Building
'normal'
software
companies?

Outside tech

"What's our AI strategy?" Well, what's the pattern?

How do we *always* deploy new technologies?

Absorb

Automate obvious use-cases

Make it a feature

Innovate

New products, bundling and unbundling

Disrupt

Redefine the question

So far, most successful use-cases are 'absorb'

Where is it easy and obvious to use generative AI?

Coding

Marketing

Customer support

Automation

AI coding as the new AWS

"Vibe coding" as the new abstraction layer, after AWS, libraries, operating systems…

A new step change reduction in software creation costs

When we raised our seed rou...

In the next few years, we'd li...
delightful, and fun than the ...
where it's impossible to writ...
PRs with 50 lines of pseudo...
question answered instantly...
code itself starts to melt aw...

It's been exciting to see the ea...

We're obsessed with the magi...
with AI. Internally, we often tal...
great Cursor can become, and...

Today, we're pleased to annou...
D of $2.3B at a $29.3B post-m...
our work with existing investo...
Horowitz, and DST, and welco...

We've grown to a team of over...
and operators, with ambitious...
crossed $1B in annualized rev...
and many of the world's most...
as our customers. And our in-...
than almost any other LLMs in...

TECH

Y Combinator startups are fastest growing, most profitable in fund history because of AI

PUBLISHED SAT, MAR 15 2025·11:17 AM EDT   UPDATED FRI, MAR 21 2025·2:34 PM EDT

Kate Rooney
@KROONEY

WATCH LIVE

KEY POINTS

- Y Combinator CEO Garry Tan says for about a quarter of the current YC startups, 95% of the code was written by AI.

- "What that means for founders is that you don't need a team of 50 or 100 engineers," Tan said. "You don't have to raise as much. The capital goes much longer."

- The winter 2025 batch of YC companies in aggregate grew 10% per week, he said.

How do you know what to automate?

Step one: ask your systems integrator

Accenture reported new quarterly 'generative AI' contracts ($m)
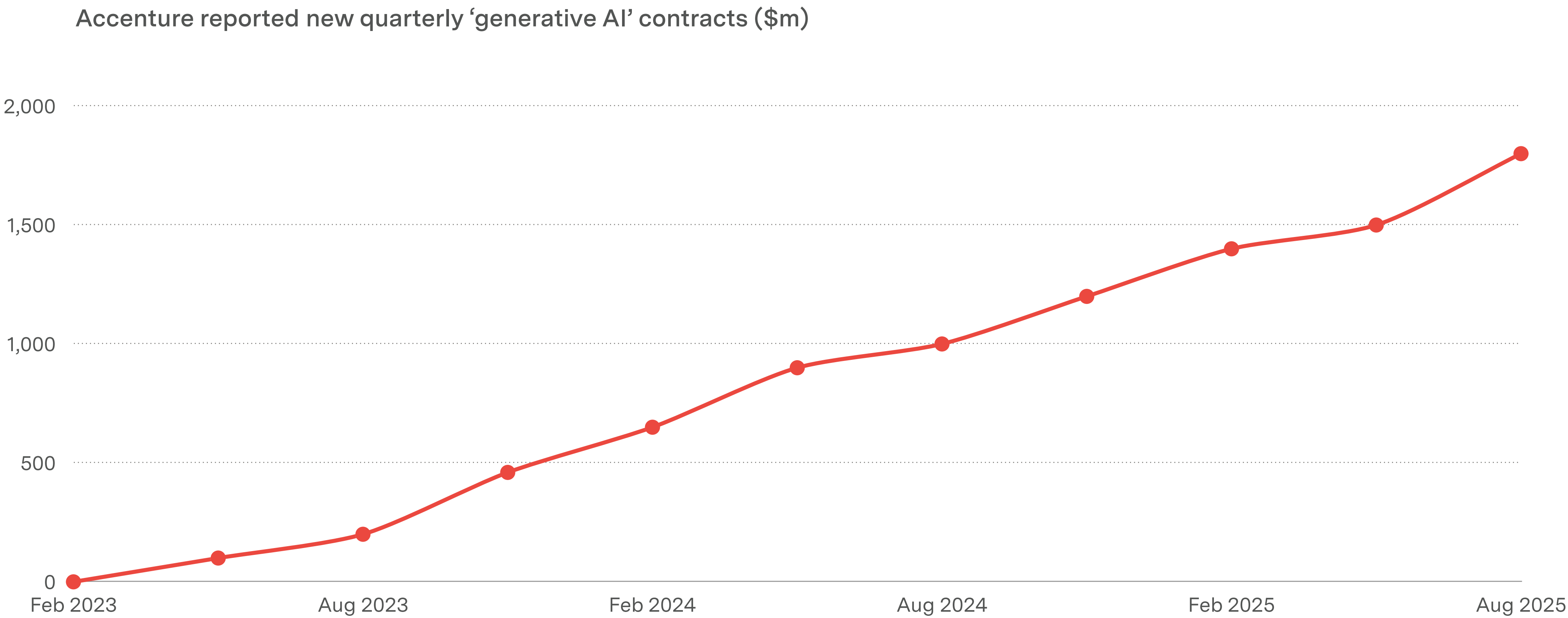
How do you know what to automate?

Step two: buy some SaaS from Dr Evil

Palantir quarterly revenue by segment ($m)

Legend:
- Enterprise
- Government
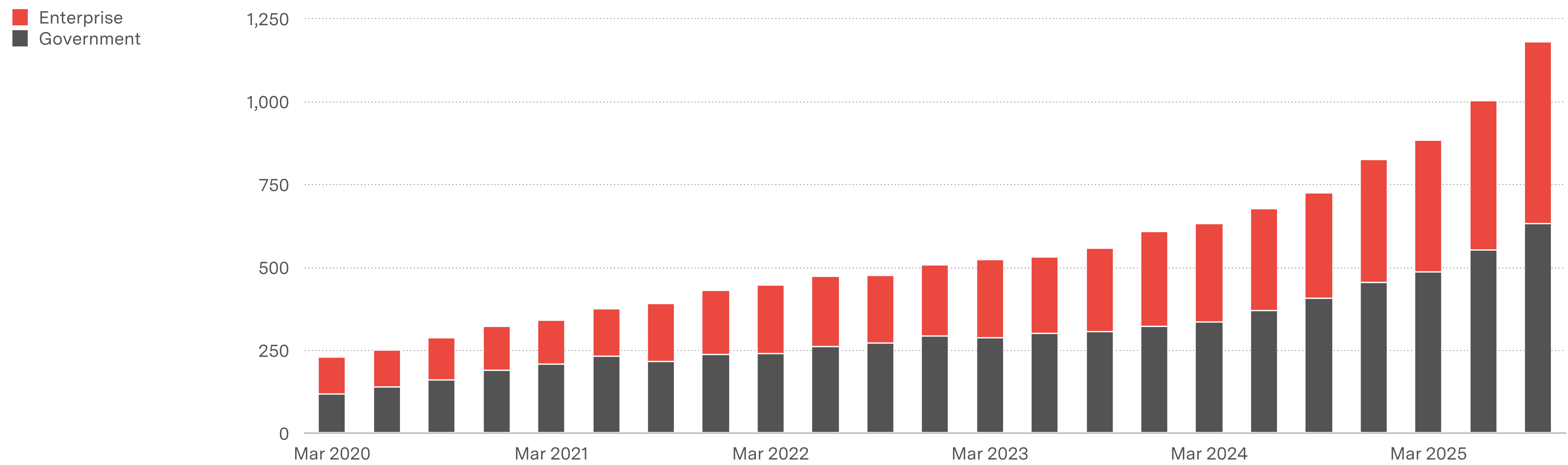
Pilots come first and deployment takes time

"Agentic!' is 2025's buzzword, but deployment takes longer

AI 'agent' use by business function, where Generative AI is already used. June 2025

Legend:
- Experiment (light grey)
- Pilot (dark grey)
- Deploying (light pink)
- Deployed (red)

Categories (x-axis): IT, Knowledge management, Marketing, Service, Product, Software development, HR, Supply chain, Manufacturing

Y-axis: 0%, 10%, 20%, 30%
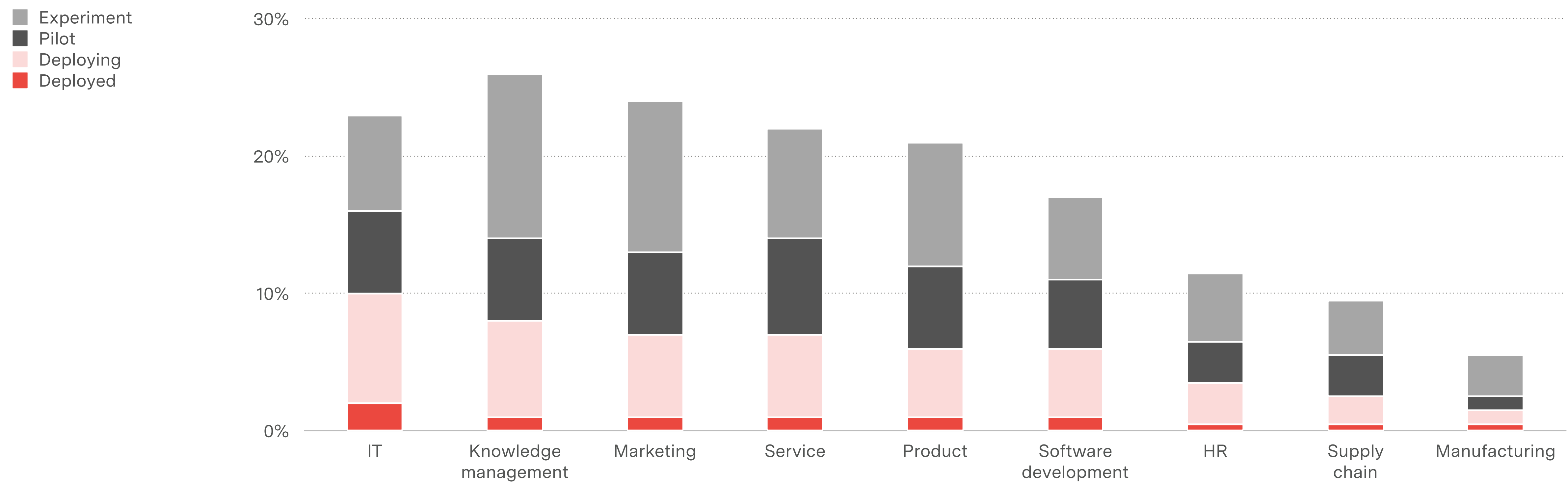
Not everything works? Welcome to tech

"Why did our AI pilot fail?" That's a CTO question, not an AI question

Security, privacy, IPR, error rates, legal

Data integration & legacy systems

Finding the right solution for the right people

The same issues as deploying any new tech

The future can take time

A quarter of CIOs have launched something - but 40% don't plan anything until at least 2026

CIO expected timing for first LLM projects in production, September 2025

Already deployed at least one project	H2 2025	2026	Later or no plan

0%   25%   50%   75%   100%
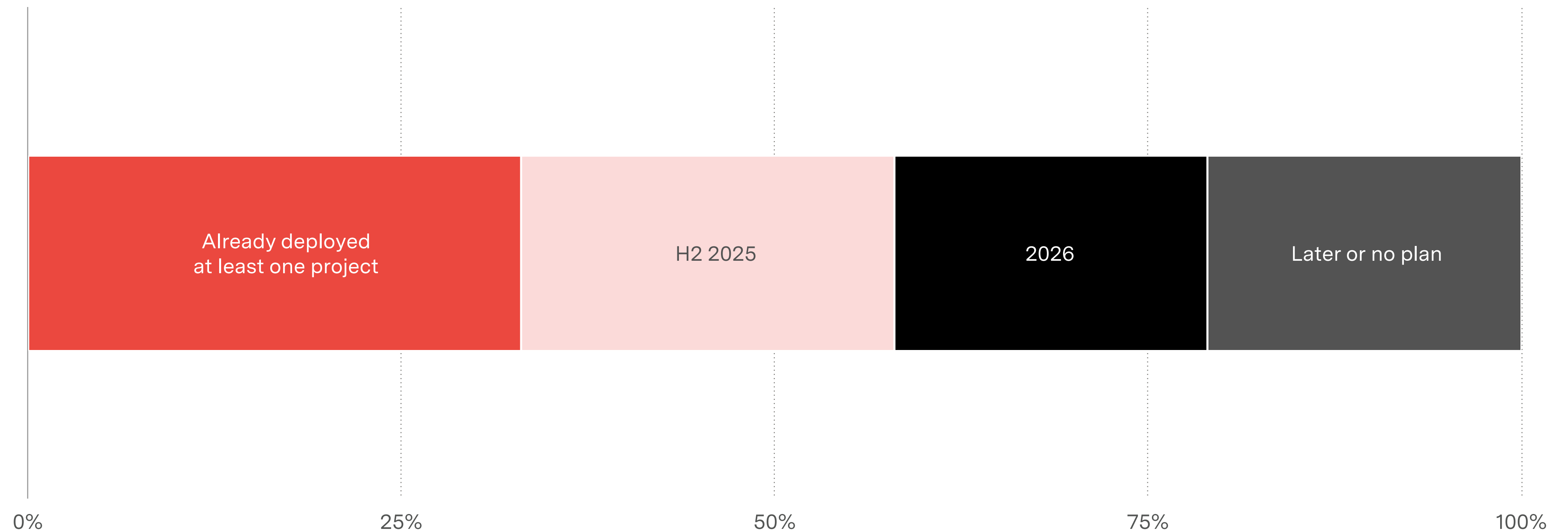
But the future always takes time

Cloud is old and boring - but still only 30% of workflows

Enterprise workloads in public cloud

Legend:
- Today
- Expected in 3 years
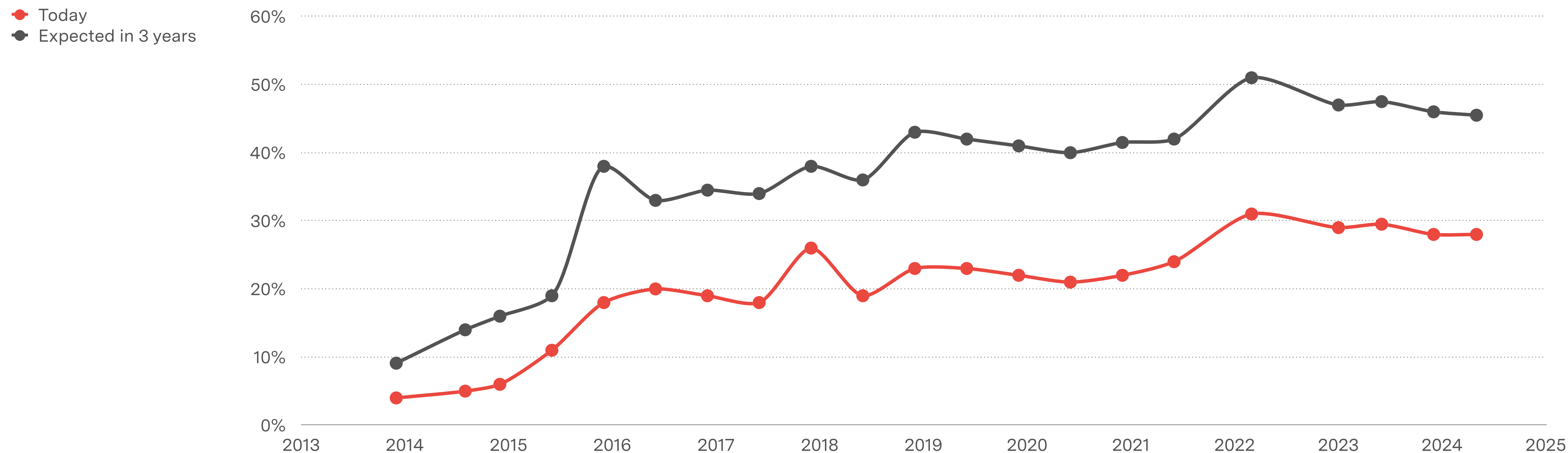
Sometimes 'automation' alone is a big deal

UPCs, barcodes and databases let retailers manage 5x more SKUs

Average SKUs per supermarket, USA

Grocery barcodes launched in 1974
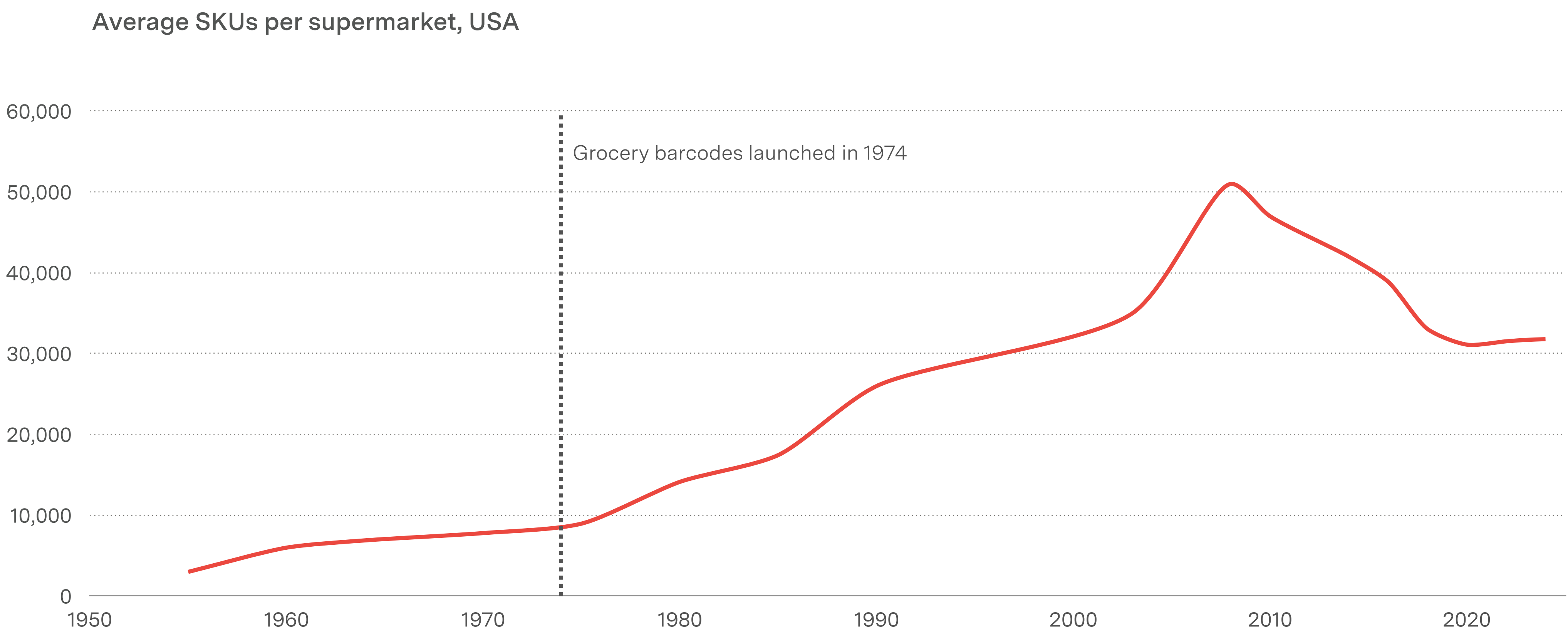
But…

"We've all seen lots of AI presentations now, and we've deployed a bunch of stuff. Is that it? What's next?"

F100 Retailer CMO, summer 2025
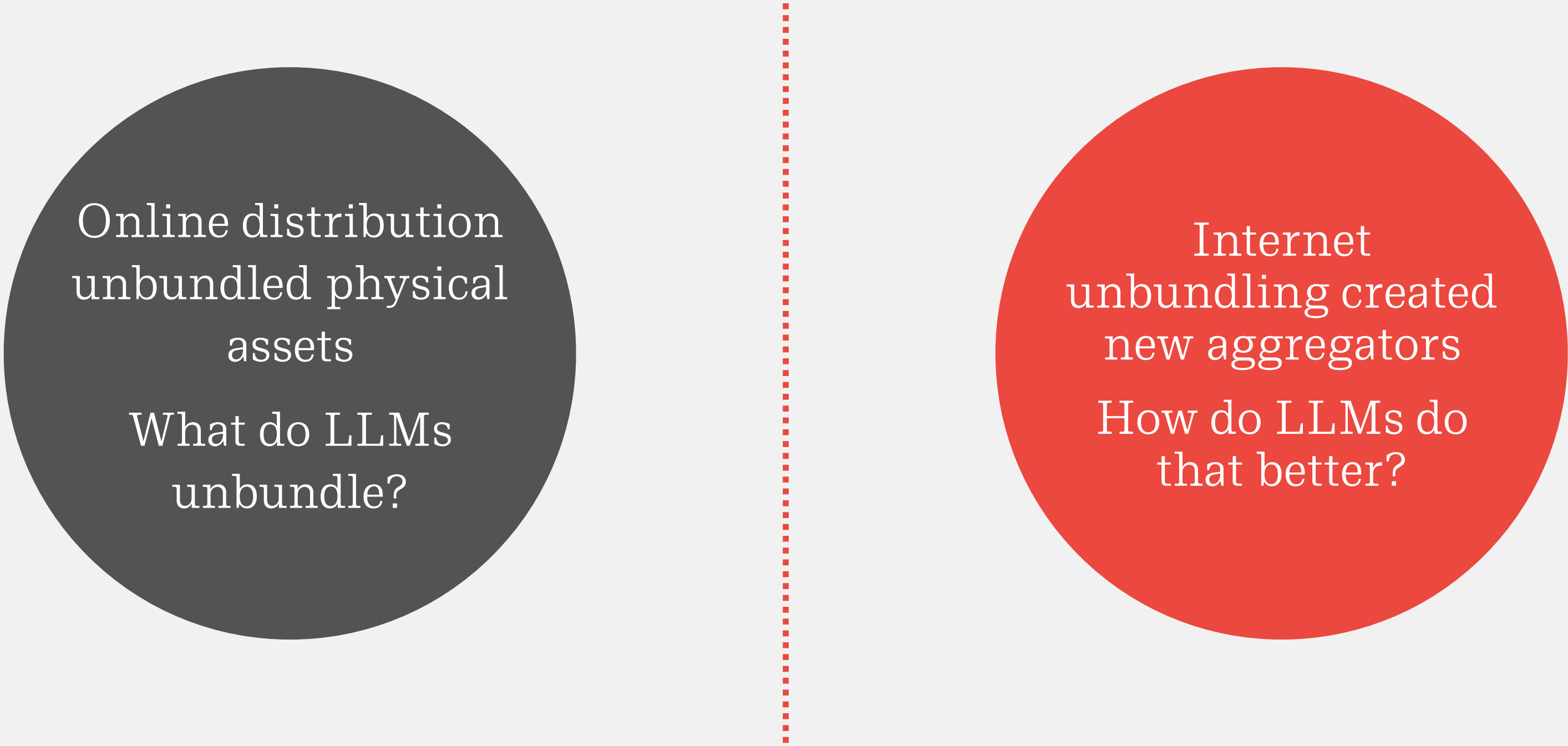
What next?

What comes after automating the obvious, easy things?

Absorb

Automate obvious use-cases

(20 years more deployment to come!)

▶

Innovate?

New products, bundling and unbundling

▶

Disrupt?

Redefine the question

Where might we look for change?

What can LLM automation unbundle? What things did we not realise were bundles?

Online distribution unbundled physical assets

What do LLMs unbundle?

Internet unbundling created new aggregators

How do LLMs do that better?

"AI gives you infinite interns"

How do we use automation that makes 'mistakes'?

We have no indication that error rates will go away, so where's the human in the loop?

Do 'errors' matter?

▶

Can you automate verification?

▶

Is human verification efficient?

▶

How much do we need to wrap the LLM in software?
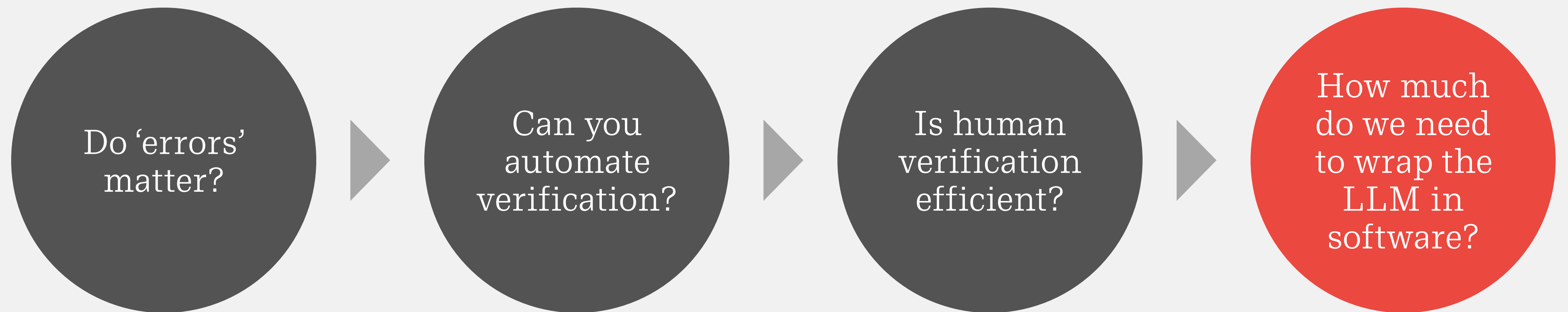
What do 'automated interns' change?

The Jevons paradox - applied price elasticity

Do you do the same work with fewer people?

Or more work with the same people?

▶

Was employing lots of people your moat?

▶

What becomes possible when you don't need millions of people to do that?

300m interns? Jevons paradox at work

Steam engines gave Britain the equivalent labour of (very roughly) 5x its total population by 1900

UK population and steam engine labour unit equivalent (m)

Legend:
- Population
- Steam engine equivalent
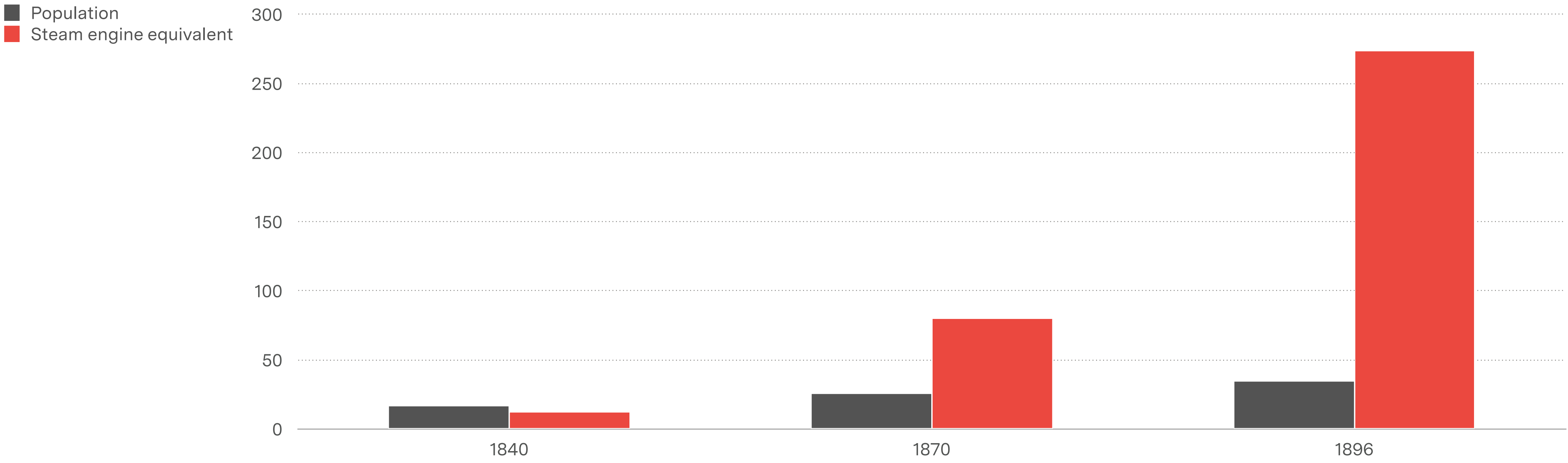
Where's the human in the loop?

All recommendation systems today work by driving, capturing and analysing user activity

Pre-internet

Human editors, for both retail & media

Physical assets as moat

▶

Internet

All of us are mechanical turks feeding algorithms

Network effects as moat

▶

GenAI?

Can an LLM do this better?

Can an LLM do it without needing a user base?
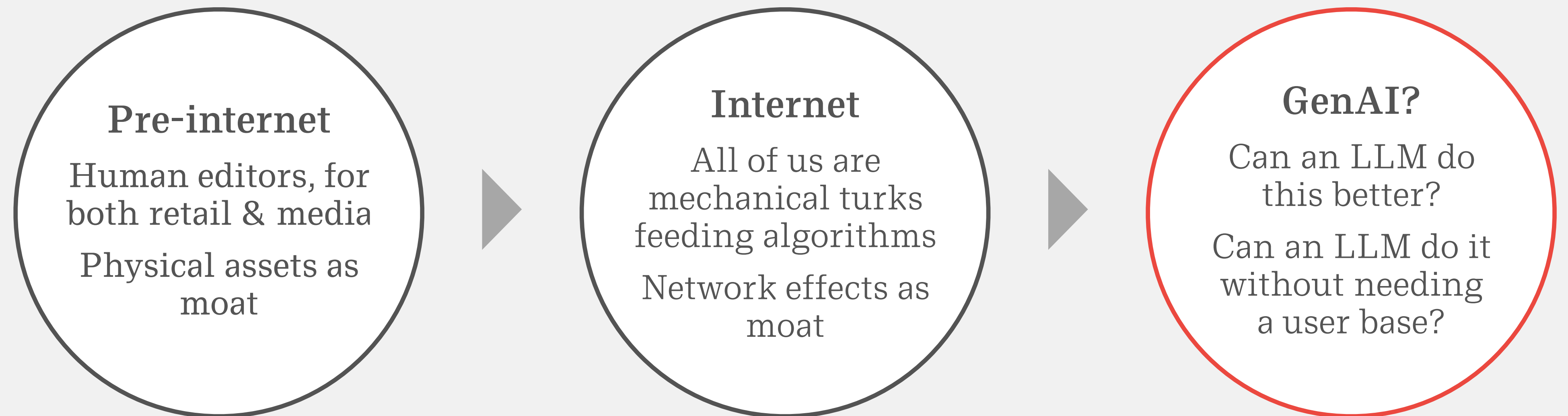
Value to capture!

Brands spend a trillion dollars a year to talk to consumers - plus rent, shipping, marketing, returns...

Global ad revenue, 2024 ($bn)

Google Search	Gogole Network	YouTube	Meta	Amazon	All other ex-China	China

0   100   200   300   400   500   600   700   800   900   1,000   1,100
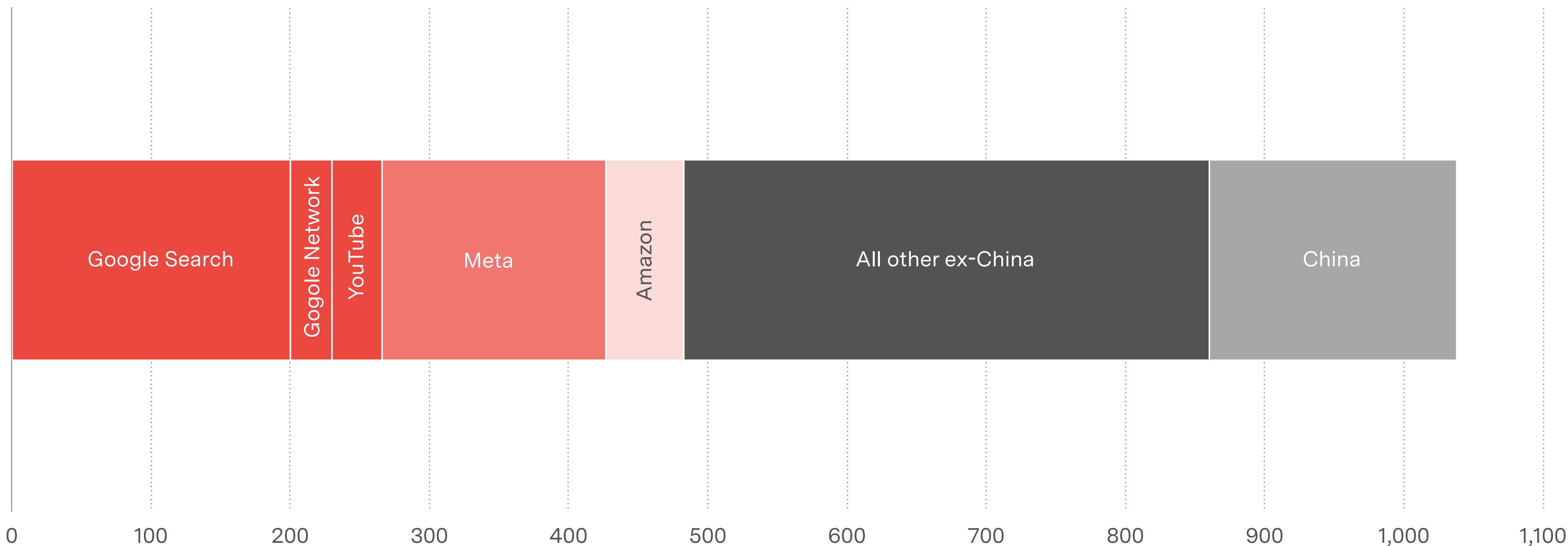
Source: Companies, WPP Media
NB: 'China' represents spending in China, not global spending by Chinese companies

"Our new AI recommendation model drove 5% more ad conversions on Instagram and 3% on Facebook"

Meta, Q2 2025

"Advertisers that activate AI Max in Search campaigns typically see 14% more conversions"

Google, Q2 2025

Absorb the new thing, automate what you know

Ad asset creation costs ~$100bn globally: now add 10-20x more assets and unlock cheap video for everyone

loreal.com

Augmenting creativity with Generative AI

CreAltech is revolutionizing beauty content creation at L'Oréal, augme... the creativity of our marketing and content teams with the powe... Generative AI. Combining a modular ecosystem of models, expe... technologies, and partners - including Google, Adobe and OMI- CreA... empowers marketers to generate thousands of unique, on-brand ima... texts, and videos for diverse platforms and global audiences.

As L'Oreal Groupe, we have decided that we will not use AI Generated 'lif... face, body, hair or skin, to support/ enhance product benefits, in our ext... communication. CreAltech prioritizes responsible AI asset production v... a robust ethical framework, focusing on commercially safe AI-gene... materials for core activities:

- **Early Ideation & Prototyping:** Generating initial concepts, creating b... and quickly developing storyboards. · Visual Innovation: Inspiring visual codes of beauty and pushing creative boundaries.
- **Scaled Production:** Efficiently creating a high volume of conten... ingredients, textures, formulae, backgrounds, and product shots levera... commercially safe models. We learned that Gen AI's true strength li... enhancing, not replacing, human creativity: · Combining Expertise:... platform empowers teams to combine their creative expertise with... power of AI, leveraging effective prompt engineering and a...

unilever.com

How AI is helping drive Desire at Scale across Unilever

Published: **30 September 2025**

AI-powered content creation is fuelling a marketing transformation that is delivering growth and reach across our brands. Here are four Unilever AI case study success stories.

- AI is making it possible to create assets up to 30% faster than before
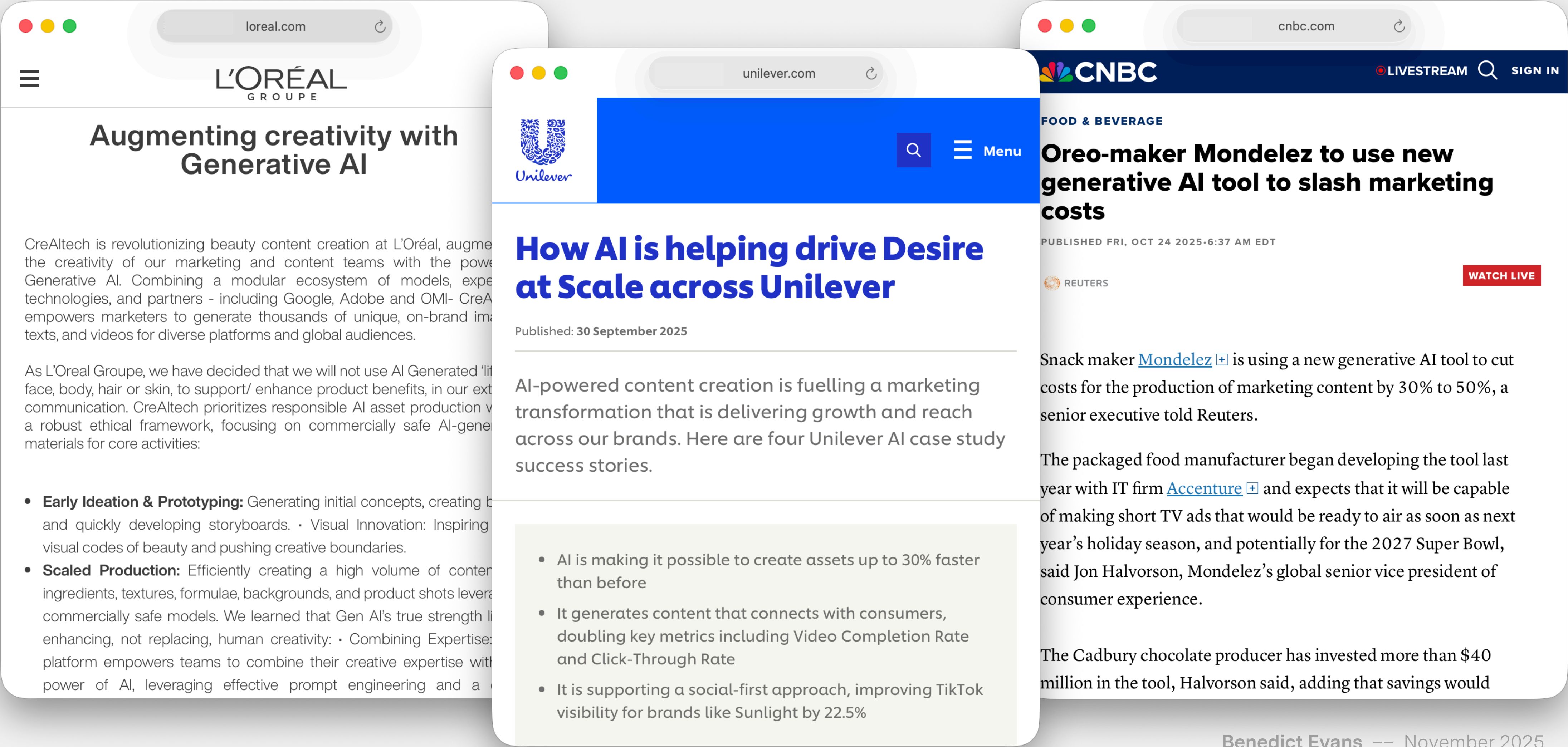- It generates content that connects with consumers, doubling key metrics including Video Completion Rate and Click-Through Rate
- It is supporting a social-first approach, improving TikTok visibility for brands like Sunlight by 22.5%

cnbc.com

CNBC ●LIVESTREAM SIGN IN

FOOD & BEVERAGE

Oreo-maker Mondelez to use new generative AI tool to slash marketing costs

PUBLISHED FRI, OCT 24 2025·6:37 AM EDT

REUTERS WATCH LIVE

Snack maker Mondelez ⊞ is using a new generative AI tool to cut costs for the production of marketing content by 30% to 50%, a senior executive told Reuters.

The packaged food manufacturer began developing the tool last year with IT firm Accenture ⊞ and expects that it will be capable of making short TV ads that would be ready to air as soon as next year's holiday season, and potentially for the 2027 Super Bowl, said Jon Halvorson, Mondelez's global senior vice president of consumer experience.

The Cadbury chocolate producer has invested more than $40 million in the tool, Halvorson said, adding that savings would

Old: "half of AI will be turning three bullet points into emails, and the other half will be turning emails into three bullet points"

New: half of AI will be turning three bullet points into 300 ads, and the other half...

Again, this is early

Use so far may be more additive and experimental than substitution (and this includes Gemini)
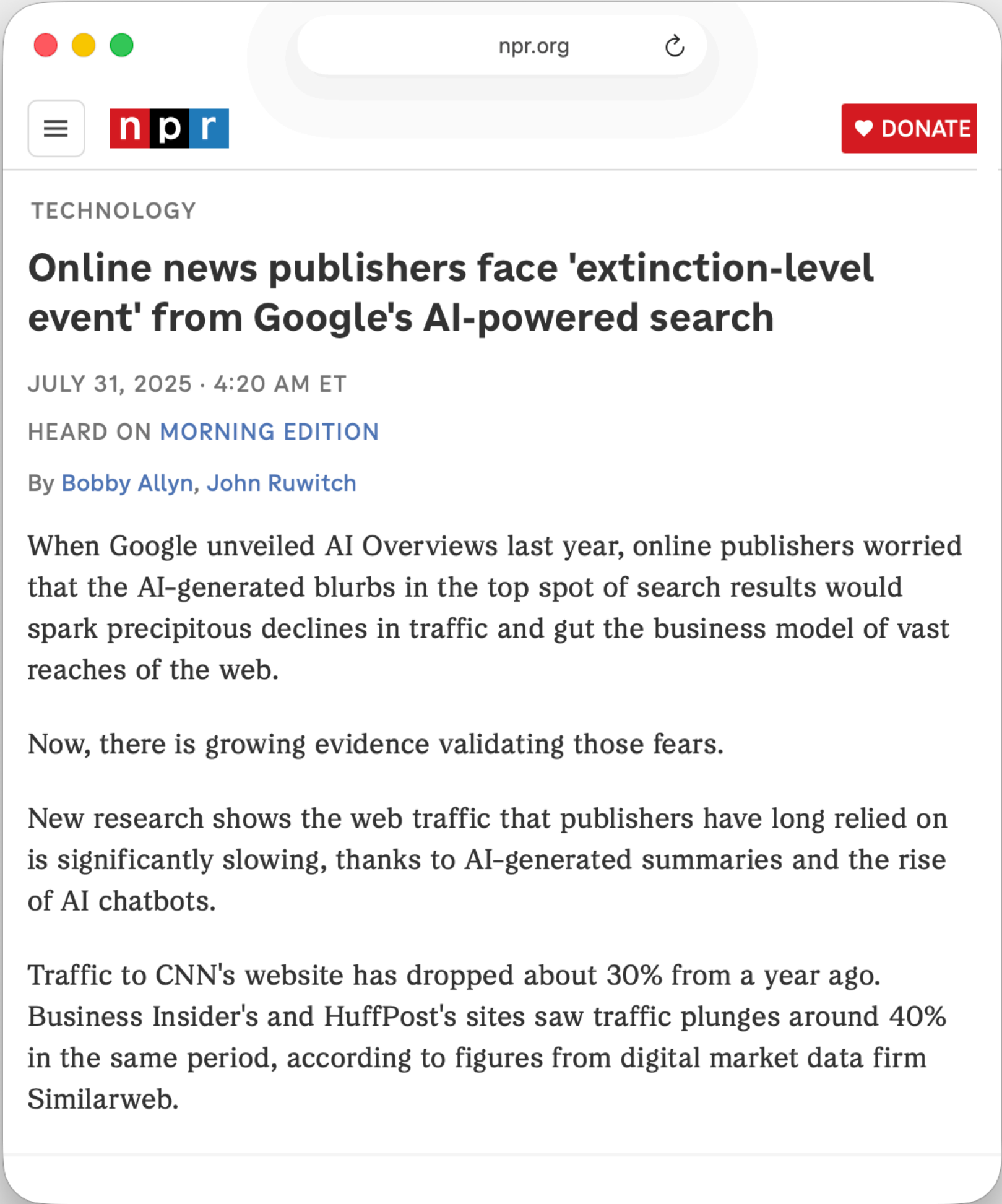
US consumer search preference (September 2025)

- ■ Always search
- ■ Mostly seach
- ■ Mixed
- ■ Mostly GenAI
- ■ Always GenAI

Source: Bain
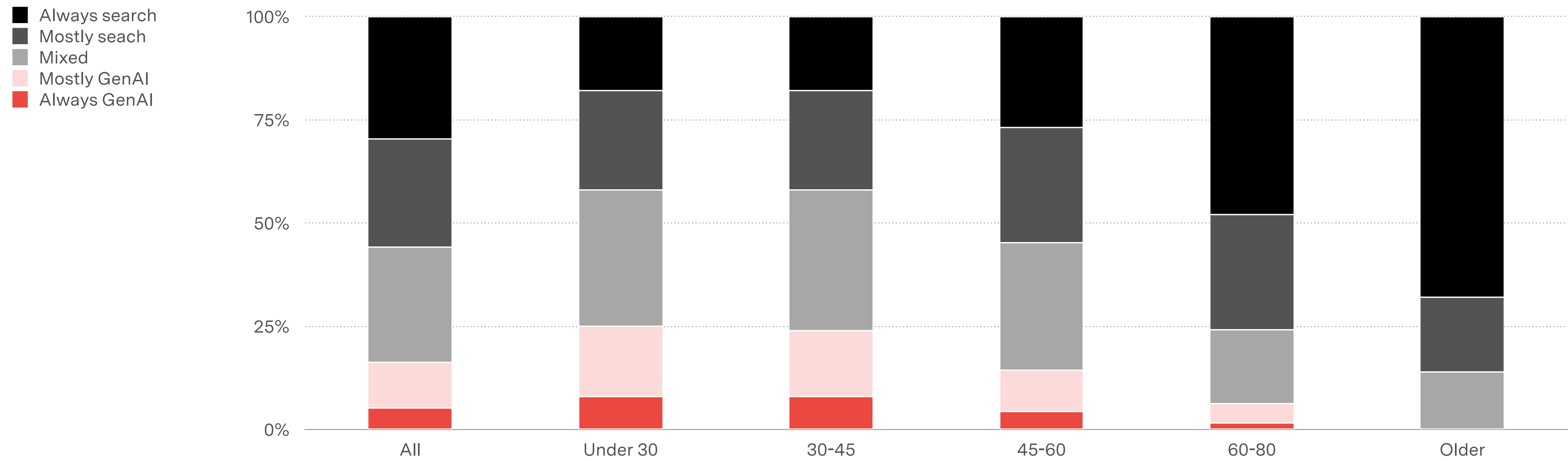
The web has been dying since 1997

Remember how early this is, and how hard it is to know how the new thing will work

WIRED cover: *We interrupt this magazine for a special bulletin — PUSH! Kiss your browser goodbye: The radical future of media beyond the Web. By the editors of Wired*

WIRED cover: *The Web is dead. WHAT HAPPENED AND WHY. BY CHRIS ANDERSON / BY MICHAEL WOLFF*

npr.org

TECHNOLOGY

Online news publishers face 'extinction-level event' from Google's AI-powered search

JULY 31, 2025 · 4:20 AM ET

HEARD ON MORNING EDITION

By Bobby Allyn, John Ruwitch

When Google unveiled AI Overviews last year, online publishers worried that the AI-generated blurbs in the top spot of search results would spark precipitous declines in traffic and gut the business model of vast reaches of the web.

Now, there is growing evidence validating those fears.

New research shows the web traffic that publishers have long relied on is significantly slowing, thanks to AI-generated summaries and the rise of AI chatbots.

Traffic to CNN's website has dropped about 30% from a year ago. Business Insider's and HuffPost's sites saw traffic plunges around 40% in the same period, according to figures from digital market data firm Similarweb.
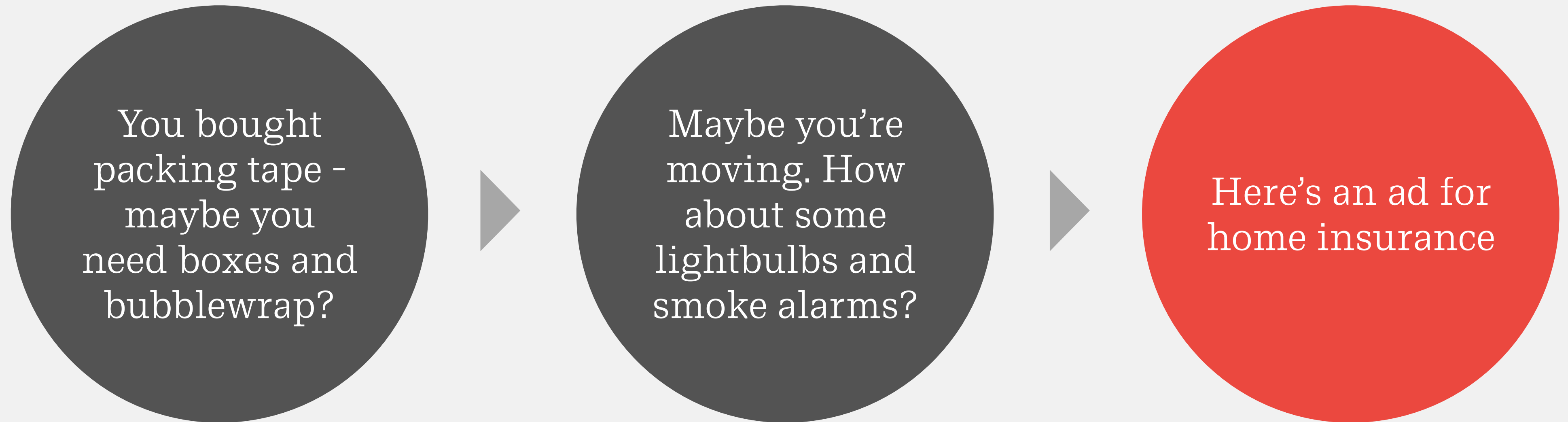
Source: Zeldman

But where are we going?

What if recommendations go from correlation to an understanding of what those SKUs really represent?

You bought packing tape - maybe you need boxes and bubblewrap?

▶

Maybe you're moving. How about some lightbulbs and smoke alarms?

▶

Here's an ad for home insurance

How do we know what we might want?

For 30 years we've had infinite product, infinite media and infinite retail

Now we have a machine that sees all of it, and sees us

What does it recommend?

Source: Morioka Shoten

And what gets unbundled?

What do you actually want? What are you trying to do? Why? What do you care about?

Logistics, data utility, answers

Solve my problem

Why did you ask for that?

Do you care where it comes from?

Experience, curation, enjoyment, authenticity

"What's our AI strategy?"

Is this a question for the CIO? CMO? CEO?

Accenture? Publicis? Bain/BCG/McKinsey?

Is this a new tool or a new industry?

AI eats the world

The old stuff from before ChatGPT is still here

Excluding gas and grocery, 30% of US retail sales are now online

E-commerce as % US retail sales
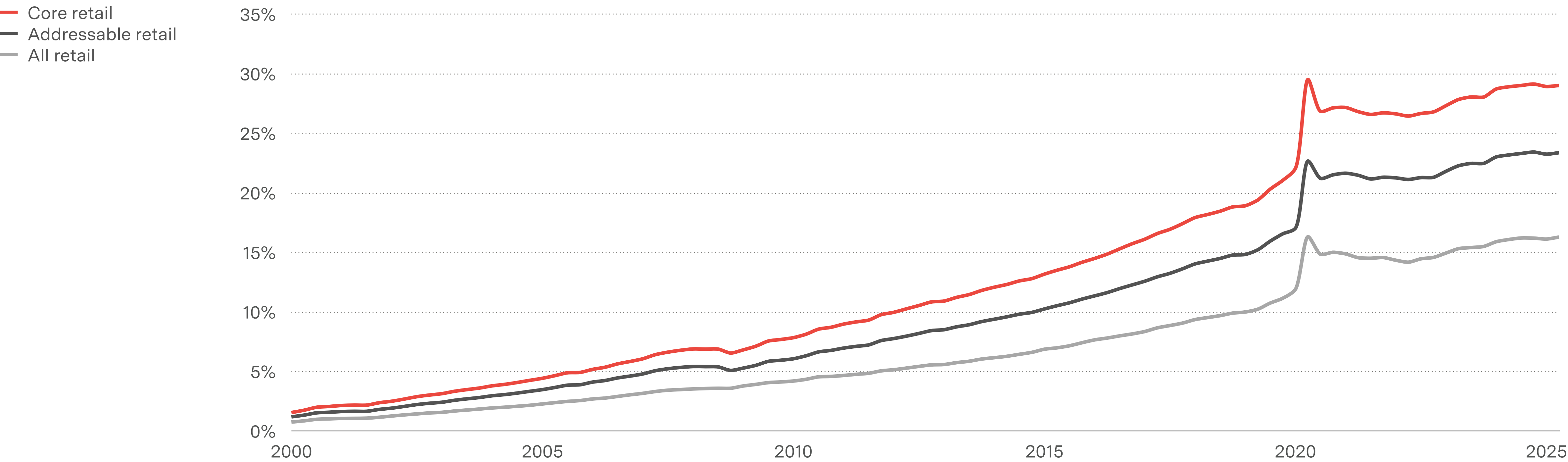
Legend:
- Core retail
- Addressable retail
- All retail

And all the *other* new stuff

After a decade of promises and tens of billions of dollars, 'automatic cars' might be starting to work

Monthly 'robotaxi' trips in California

● Waymo
● Cruise
● Tesla
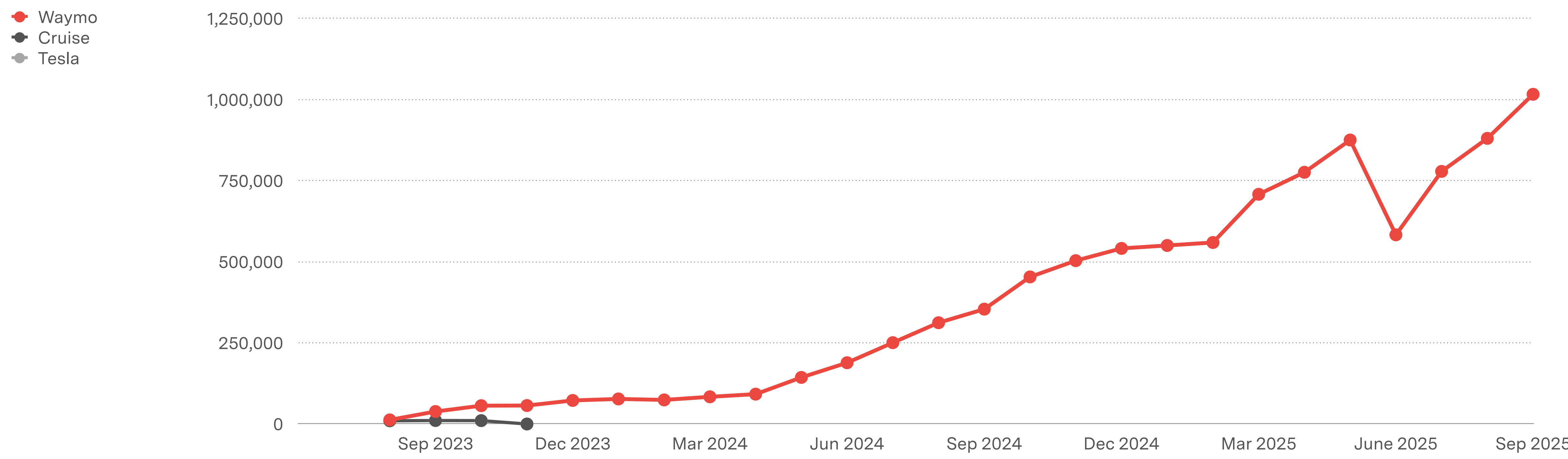
How many times have we been here before?

We've had radical change (and bubbles) before

And we've also done automation before

'Automation and technological change', 1955

AUTOMATION AND TECHNOLOGICAL CHANGE

REPORT

OF THE

JOINT COMMITTEE
ON THE ECONOMIC REPORT

TO THE

CONGRESS OF THE UNITED STATES

JANUARY 5, 1956.—Ordered to be printed

UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON : 1956

71006

"Automation"

In the course of the hearings, the subcommittee considered specifically six different industrial situations in the metalworking, chemical, electronics, transportation, and communications industries, together with data processing and officework. These industries were selected merely as illustrative of the kind of problem which may be faced in the trend toward automation. There are, of course, many other industries which might have been studied with interest and profit had time permitted. The fact that these particular industries were chosen should not for a moment obscure the fact of rapidly advancing technology in other areas. To mention only a few such areas, one might cite the canning and bottling industries. One might cite also petroleum refining, the processing of commercial-bank paperwork, the basic steel industry, the use of ready-mixed concrete, coal mining, the use of electronically controlled elevators in our modern skyscrapers, and numerous others.
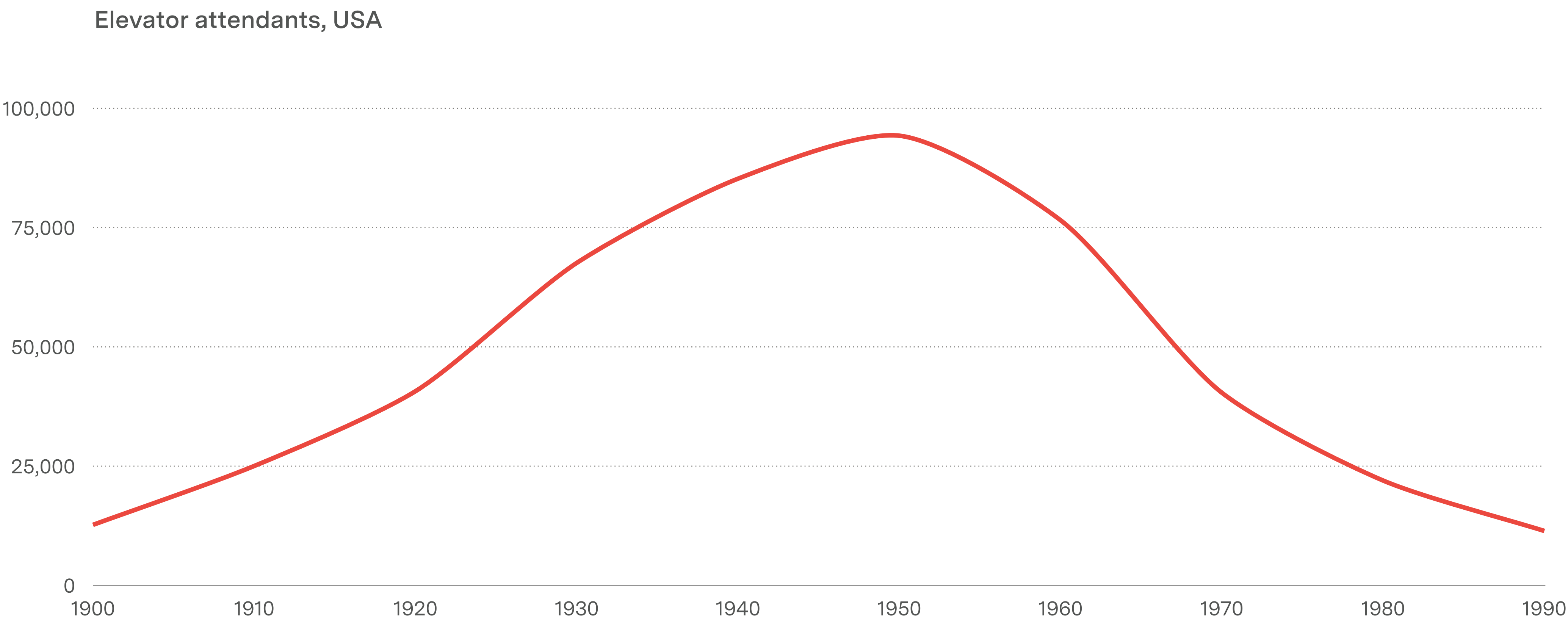
"Automation"

When automation works, it disappears

Otis launched the 'Autotronic' automatic elevator in 1950

Elevator attendants, USA

"AI is whatever machines can't do yet"

Larry Tesler, 1970

Thank you

What matters in tech? What's going on, what might it mean, and what will happen next?

I've spent 25 years analysing mobile, media and technology, and worked in equity research, strategy, consulting and venture capital. I'm now an independent analyst, and I speak and consult on strategy and technology for companies around the world. Mostly, that means working out the right questions.

For more, see www.ben-evans.com

Thank you

Benedict Evans

November 2025

www.ben-evans.com