



The Factory Floor

AI, work, and the organization we have to rebuild around it

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Photo: Machine shop with original line shafting and belts, White Company, Cleveland. Library of Congress, HAER OHIO,18-CLEV,25C-24 — no known restrictions

ELECTRIFICATION, 1880–1920

1880s

The electric motor is available.

1900

Under 5% of factory power is electric. The first motors simply turn the old line shafts.

1920s

Unit drive: a motor on every machine, floors rebuilt around workflow. Productivity finally moves.

40 years

to rebuild the factory around the motor

Stages of Transition



The line shaft

One steam engine. One shaft across the ceiling. Leather belts to every machine. Where a machine sits, and what a worker does, is dictated by distance to the power.



The first motor

The electric motor arrives. Factories bolt it to the end of the old shaft. Same belts, same layout, same jobs. Faster, quieter, and nothing about the floor has changed. This is where most AI deployment sits today.



Unit drive

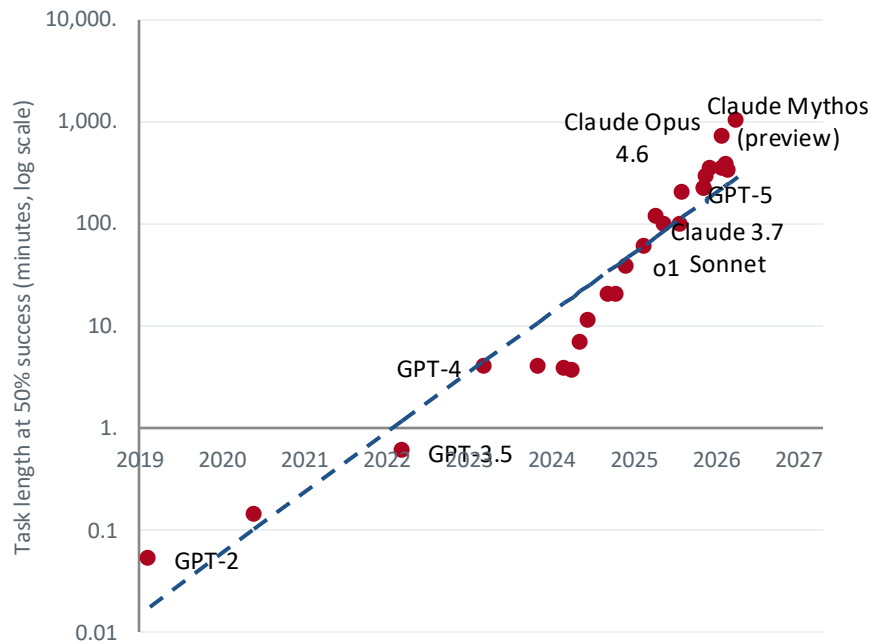
A motor on every machine. The shaft comes down and the floor is rebuilt around the flow of work. New buildings, a new code, a new profession: the electrician. The questions stop being about the motor.

AI has arrived at unit drive. Most of us are still bolting a motor to the old shaft.

The power is growing.

7 → 4

months per doubling of the task length a frontier agent can complete at 50% success — 188 days across 2019–26, 129 days since 2023. Seconds in 2019; a working day today.



Data: METR, Time Horizon 1.1, 50% time horizons of frontier models, 2019–26. Dashed line: 188-day doubling fit (points over 16 hours excluded, per METR).

A Barcelona comedy club started charging differently.

The story

Spain raised the tax on theatre tickets from 8% to 21%. Teatreneu's audience fell by about 30% in a year. They made admission free and put a tablet on the back of every seat.



Facial-recognition software on each seatback watches the face in front of it.



Every laugh is counted: €0.30 a laugh, sent to a server as it happens.



Capped at €24 — eighty laughs — so nobody can be ruined by a good show.

What happened

+€6

per person versus the old
flat ticket

+35%

attendance

Nobody paid for a show they did not enjoy. And the theatre, for the first time, knew exactly how good each night had been.

Two ways to pay for value

The traditional way: the ticket



Buyer pays

a price set before anyone knows how good the show will be



Buyer enjoys the value

or does not; the risk sits with the buyer



Seller learns nothing

except the size of the audience

The new way: pay per laugh



Buyer enjoys the value

admission is free



Seller measures it

a meter on every seat, every laugh, in real time



Seller charges for value created

and the risk moves to the seller

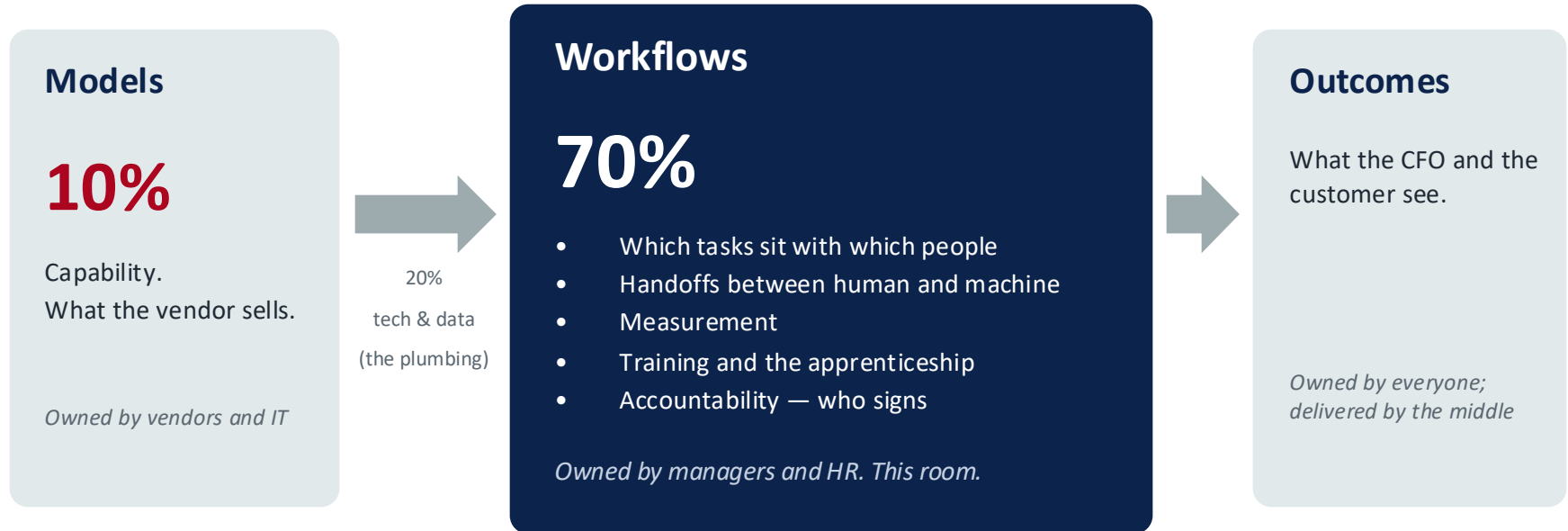
The whole model rests on the middle step. AI is starting to be sold this way — per resolved ticket, per completed task — and the value of your own people will increasingly be described the same way.

Who owns the meter in your organization?

Vendors now pricing customer-service AI per resolved conversation rather than per seat include Intercom (Fin) and Zendesk; see also BCG's 10-20-70 rule on where the value of AI is made.

Value is made in the middle.

BCG's rule of thumb: a tenth of the work of getting value from AI is the algorithm. Seventy percent is people, process and context.



2016

"People should stop training radiologists now."

Geoffrey Hinton, Toronto, 2016 — one of the most cited AI researchers alive and Nobel Prize Winner

What do you think happened?



Screenshot: Fortune, Quiroz-Gutierrez, July 19, 2026 — fortune.com

2026

\$571K average radiologist salary in 2025, up 9% in a year

7,469 open radiology postings in May 2026; 1,470 open for 60+ days

Imaging volume up 31% since 2018; reads per radiologist flat at ~49 a day

Why?

The machine reads scans as well as he said it would.

Jobs are bundles. Bundle strength is a design choice.

Reading the scan was the task. The job was the bundle: talking to patients, consulting surgeons, owning the hard cases — and signing the final read that Medicare will pay for.



Weak bundle

- Tasks separate cleanly
- AI takes the task
- The job narrows to what is left
- Shell jobs; pay falls with the bundle



Strong bundle

- Shared metrics and shared accountability
- Synchronized handoffs, knowledge spillovers
- AI works inside the job
- The human stays; the premium moves to judgment

What happens to a job depends on how the bundle was built.

Autor, Levy & Murnane (2003); Acemoglu & Autor (2011); Acemoglu & Restrepo (2018, 2019, 2022); Brynjolfsson, Mitchell & Rock (2018); Eloundou et al. (2023); Felten, Raj & Seamans (2023); Autor & Thompson (2025); Garicano, Li & Wu (2026); Anthropic Economic Index (2026).

What happens when you actually deploy

Three stories. All three land on your desk.



Compression

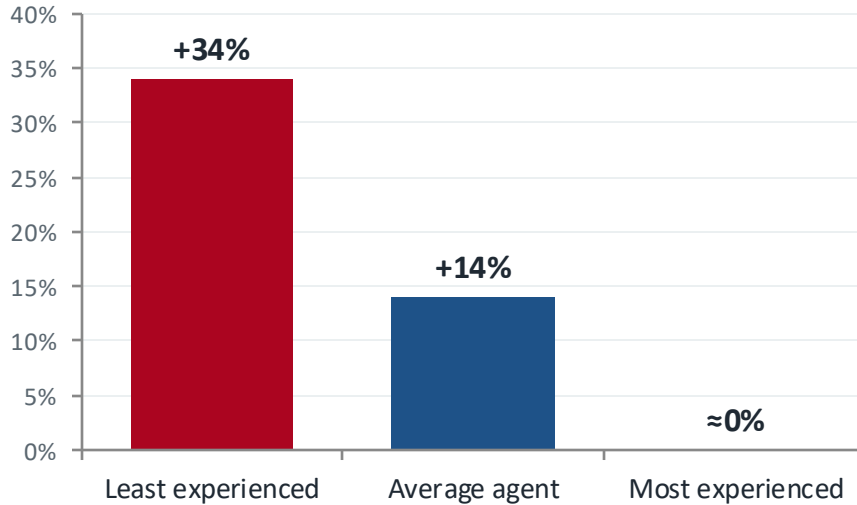


The perception gap



The canaries

The AI assistant lifted the newest support agents the most, and the veterans hardly at all.



Productivity gain with an AI assistant, by agent experience

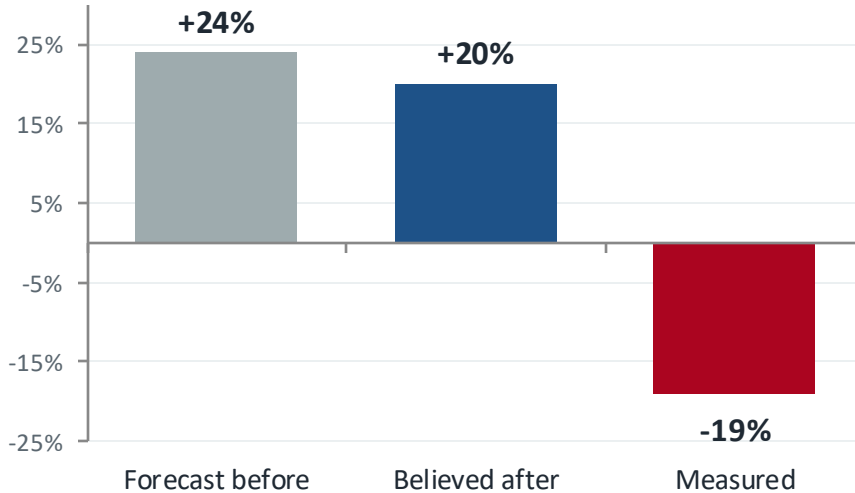
The story

A Fortune 500 software company's chat-support floor, more than five thousand agents. The AI assistant watched each conversation and suggested replies it had learned from the top performers. Two months with the assistant matched six-plus months without it. Customers were happier and attrition fell, most of all among the newest agents.

Same shape with 758 BCG consultants: the bottom half gained 43% in quality, the top half 17%.

What does that do to a pay band built on a gradient? To a promotion gate that says "three years"?

Veteran developers were 19% slower with AI, and believed they had been 20% faster.



Change in time to complete tasks with AI tools, experienced open-source developers

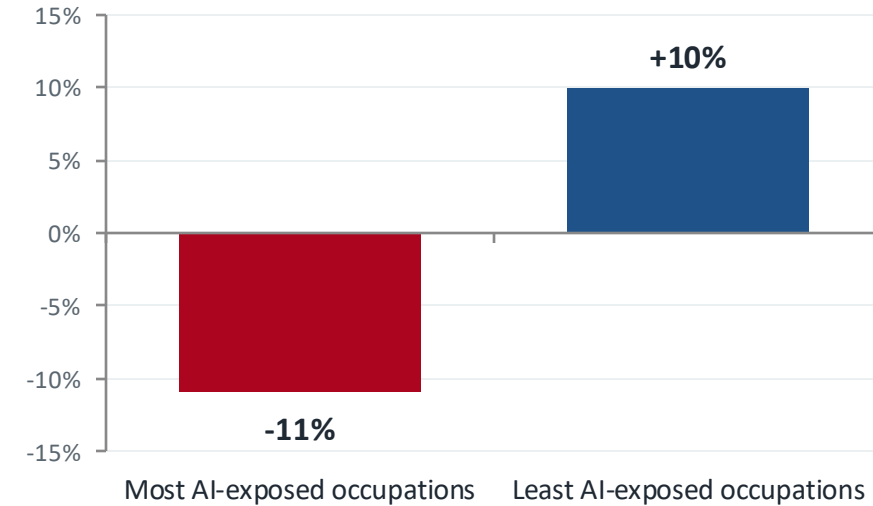
The story

Sixteen veteran developers, years of history in their own open-source repositories. 246 real tasks, each randomly assigned AI-allowed or not, screens recorded while the clock ran.

The jagged frontier, same year: 758 consultants were 40% better inside the frontier and 19 points more likely to be wrong outside it — and could not tell which side they were on.

Your engagement survey on AI is measuring feelings. Who in your company runs the field experiment?

Employers stopped hiring the class of 2025.



Employment of 22–25-year-olds, Nov 2022 → Jun 2026, ADP payroll data

The story

Payroll records covering millions of U.S. workers. No economy-wide displacement; experienced staff in AI-exposed jobs held steady. But 22–25-year-olds in those jobs now sit 19% below where they would be had they kept pace with less-exposed peers. Software developers and customer-service reps fell sharply from late 2022. The mechanism is hiring, not separations, and it is concentrated where AI automates rather than augments.

Pull your own requisitions. How many are entry-level this year, against 2022?

Who is your senior engineer in 2041 if you didn't hire the junior in 2026?

Apprentices pay for their training by doing the menial work.

AI does that work now.

Three months of routine AI assistance cost experienced endoscopists a fifth of their unassisted skill.

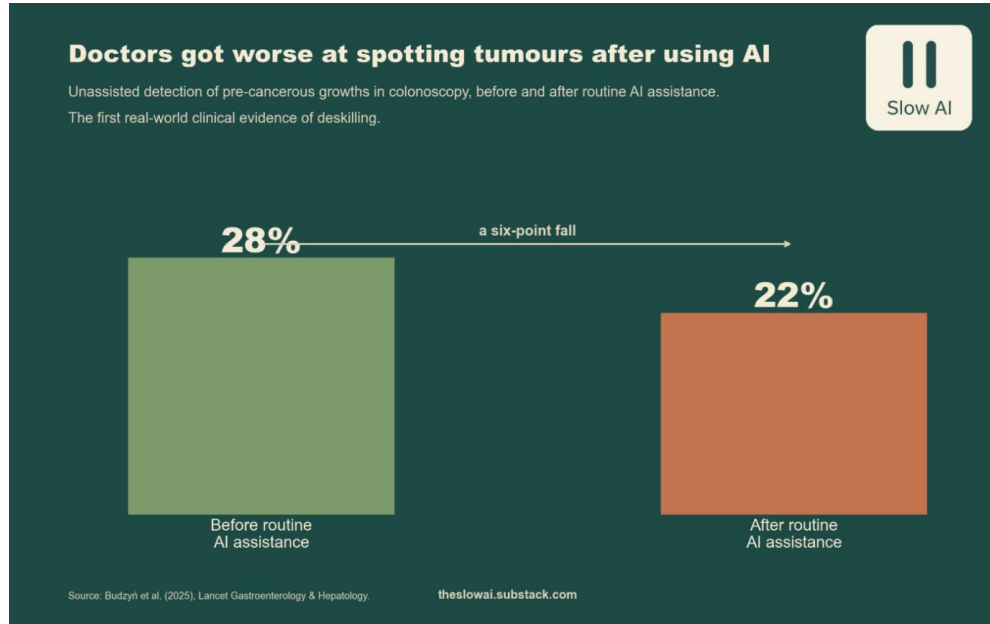


Figure: Slow AI / Sam Illingworth (June 2026), data from Budzyń et al. (2025)

28.4% → 22.4%

unassisted adenoma detection, before and after three months of routine AI-assisted colonoscopy

Four endoscopy centres in Poland. 1,443 unassisted colonoscopies, three months before and three months after routine AI use. Seasoned specialists, and the skill went in a quarter. The paper calls it deskilling; a 2026 follow-up adds the sharper word for trainees who never build the skill at all: never-skilling.

When the AI approved it, who signed?

Budzyń et al. (2025), Lancet Gastroenterology & Hepatology; Ferdman (2025), "AI deskilling is a structural problem," AI & Society; Illingworth (2026), Slow AI; Davies (2024), The Unaccountability Machine.

In the loop, or on the loop?

In the loop

A human independently reviews the evidence before the decision. The machine focuses attention; the person decides.

On the loop

The machine recommends. A person looks for twenty seconds and approves. Presence becomes a legal or moral ritual. Speed pushes every organization here.

Autopilot has flown airliners for decades.

Modern systems fly the route and land in fog no human could see through. And since 2013 the FAA has warned airlines that crews who lean on the automation lose the ability to fly without it.

So what does the FAA ask airlines to make their crews do?

Fly by hand. Regularly, on purpose, in normal operations — so the skill is still there on the day the automation is wrong.

Where in your organization do people work without the assistant, on purpose?

The motor was the easy part.



Unit drive. The wiring diagram. The shop floor design.

None of it came from the people who built motors. It came from people who understood how work actually flows across a floor.

Who is going to build it for your company?

RISE

Reskilling for Impact, Scale and Enterprise leadership

Eller's new approach to continuing education, built for one audience: the talent development professionals of Arizona.

The workforce has to reskill. The future belongs to the innovative.

Photo: Eller College of Management



University of Arizona

RISE works at three altitudes



Practical sessions

Like this breakfast — working through the evidence together, with the people who have to act on it.



Executive education

For the leaders who have to make the redesign decisions: what to bundle, who to hire, where the human stays.



Formal continuing education

Credentials for the people who will actually do the work — starting with data and AI.

No upskilling strategy is complete without data and AI



How a merchandiser decides what to stock



How a nurse manager staffs a floor



How a customer service rep gets a first draft

Two years ago these were skills for the technical team.

Essential literacy, at every level of the workforce — shaping how organizations make decisions, serve customers, and stay competitive. RISE's programs take direct aim at exactly this skill set.

We hope this morning is the beginning of a long partnership with Eller.

Sources (1 of 2)

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Photo and figure shot list

#	Subject	Where to get it	Credit line (already under the frame)
01	Line-shaft machine shop (EMBEDDED — LOC original)	cdn.loc.gov/service/pnp/habshaer/oh/oh0100/oh0112/photos/125802pv.jpg	Library of Congress, HAER OHIO,18-CLEV,25C-24 — no known restrictions
02	METR time-horizon chart (NATIVE CHART built from METR data)	metr.org/time-horizons — benchmark_results_1_1.yaml	Data: METR, Time Horizon 1.1 (2026)
03	Radiologist pay chart (EMBEDDED)	marithealth.com/posts/radiology-shortage-ai-was-supposed-to-prevent	Marit Health (Anderson & Sabnani, May 2026)
04	Fortune article, browser screenshot with headline (EMBEDDED)	fortune.com/article/ai-godfather-radiologists-obsolete-salaries-up-to-571k-demand-growing/	Fortune, Quiroz-Gutierrez, July 19, 2026
05	Deskilling figure, 28% → 22% (EMBEDDED)	theslowai.substack.com/p/how-to-stop-ai-deskilling	Slow AI / Sam Illingworth (2026), data from Budzyń et al. (2025) — ask before reuse
06	Eller College	Eller	Eller College of Management