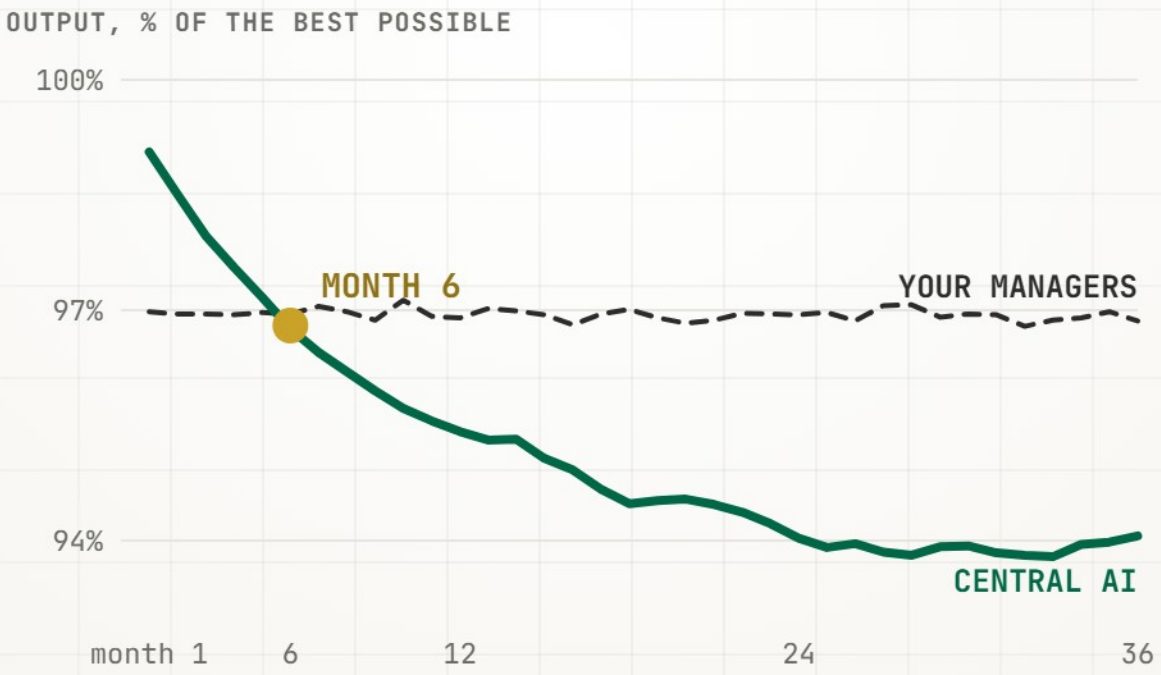
AI · STRATEGY · A SIMULATION

Your AI will out-plan your managers. For about six months.

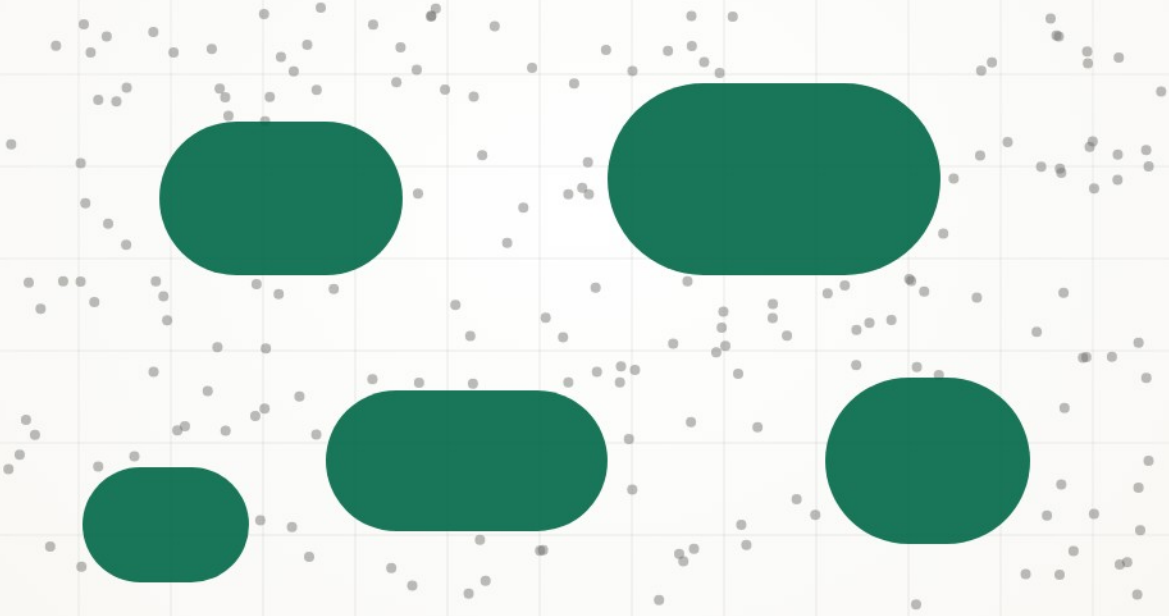


A 1936 debate, a 2026 boardroom, and a simulation.

My simulation · analysis/honeymoon.py

NABIL EL MAHYAOUI

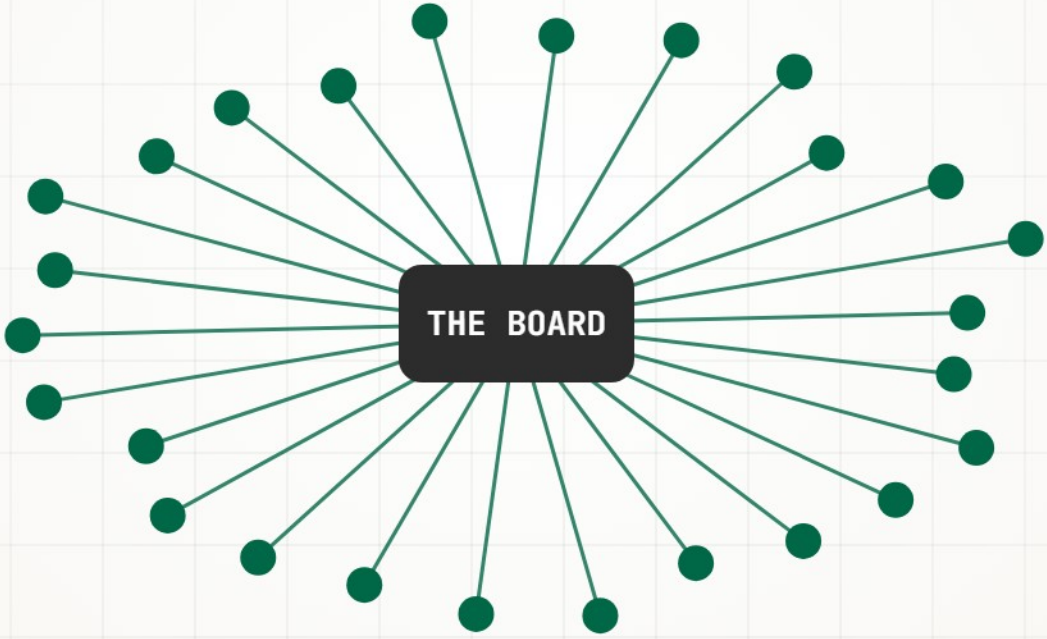
Every firm is a small planned economy.



"ISLANDS OF CONSCIOUS POWER IN THIS OCEAN OF UNCONSCIOUS CO-OPERATION" · D. H. ROBERTSON, QUOTED BY COASE

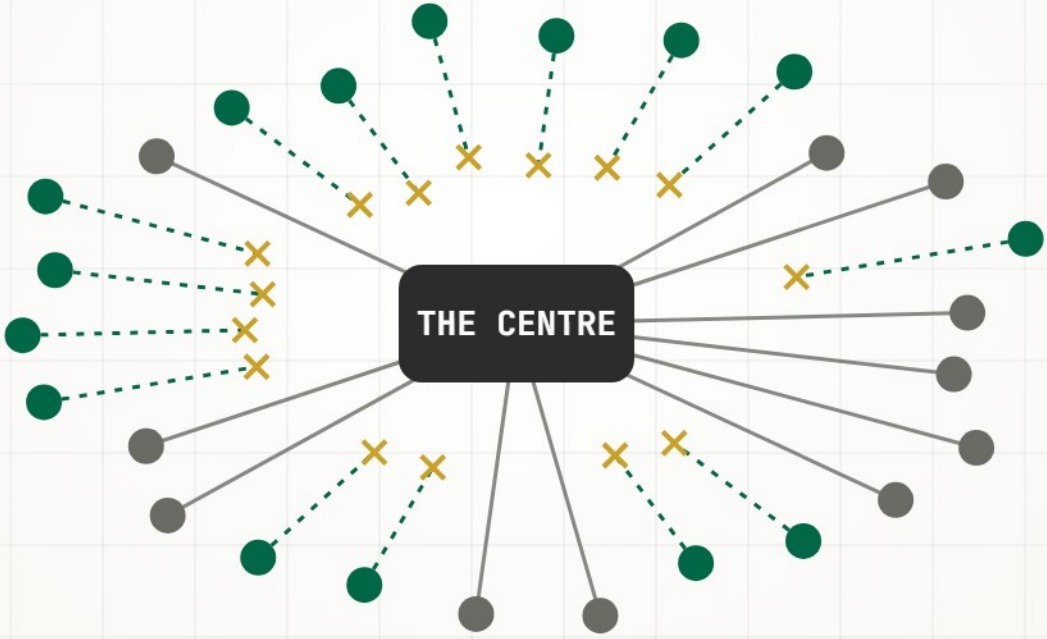
> *"If a workman moves from department Y to department X, he does not go because of a change in relative prices, but because he is ordered to do so."*
>
> RONALD COASE, 1937

The planner sees more.



> *“The Central Planning Board has a much wider knowledge of what is going on in the whole economic system than any private entrepreneur can ever have.”*
>
> OSKAR LANGE, 1936

What matters never reaches the centre.

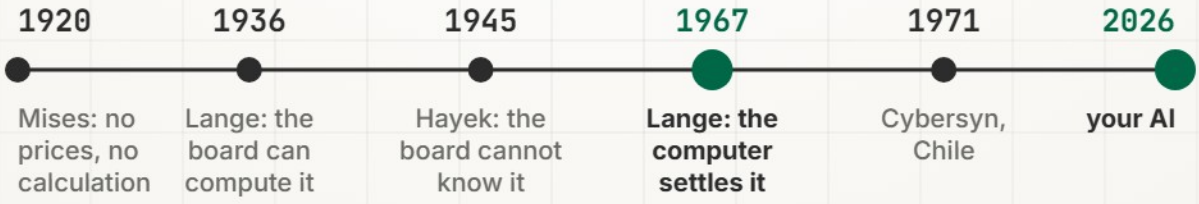


> *“Knowledge of the kind which by its nature cannot enter into statistics and therefore cannot be conveyed to any central authority in statistical form.”*
>
> FRIEDRICH HAYEK, 1945

“So what’s the trouble?”

“Let us put the simultaneous equations on an electronic computer and we shall obtain the solution in less than a second.”

The market, he added, “may be considered as a computing device of the pre-electronic age.”



Lange's argument is back. With better hardware.

AMAZON, OCTOBER 2025

"Organized more leanly, with fewer layers and more ownership."

14,000 corporate roles cut; AI called "the most transformative technology we've seen since the Internet."

NBER, SEPTEMBER 2025

AI makes local, tacit knowledge transferable.

Brynjolfsson and Hitzig: that shifts control towards headquarters, larger firms, less local autonomy.

On computation, Lange has won. The question is the other half.

Two problems. AI solves one.

LANGE'S PROBLEM

Compute the best allocation.

SOLVED

In less than a second, as he promised.

HAYEK'S PROBLEM

Know what is true here, today.

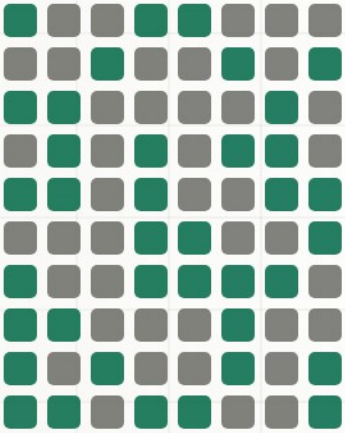
OPEN

Some of it only appears when someone acts.

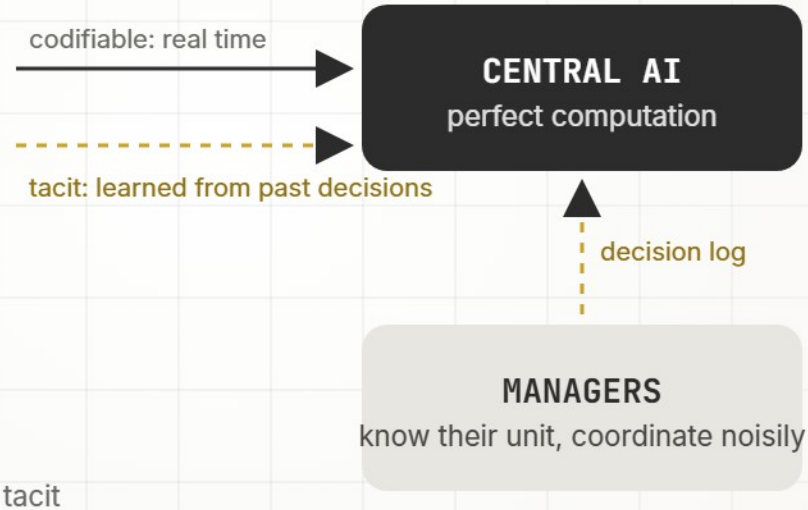
> *"A procedure for discovering facts which, if the procedure did not exist, would remain unknown or at least would not be used."*
>
> HAYEK ON COMPETITION, 1968

Lange 1967 · Hayek 1968, p. 9

So I built a small firm.



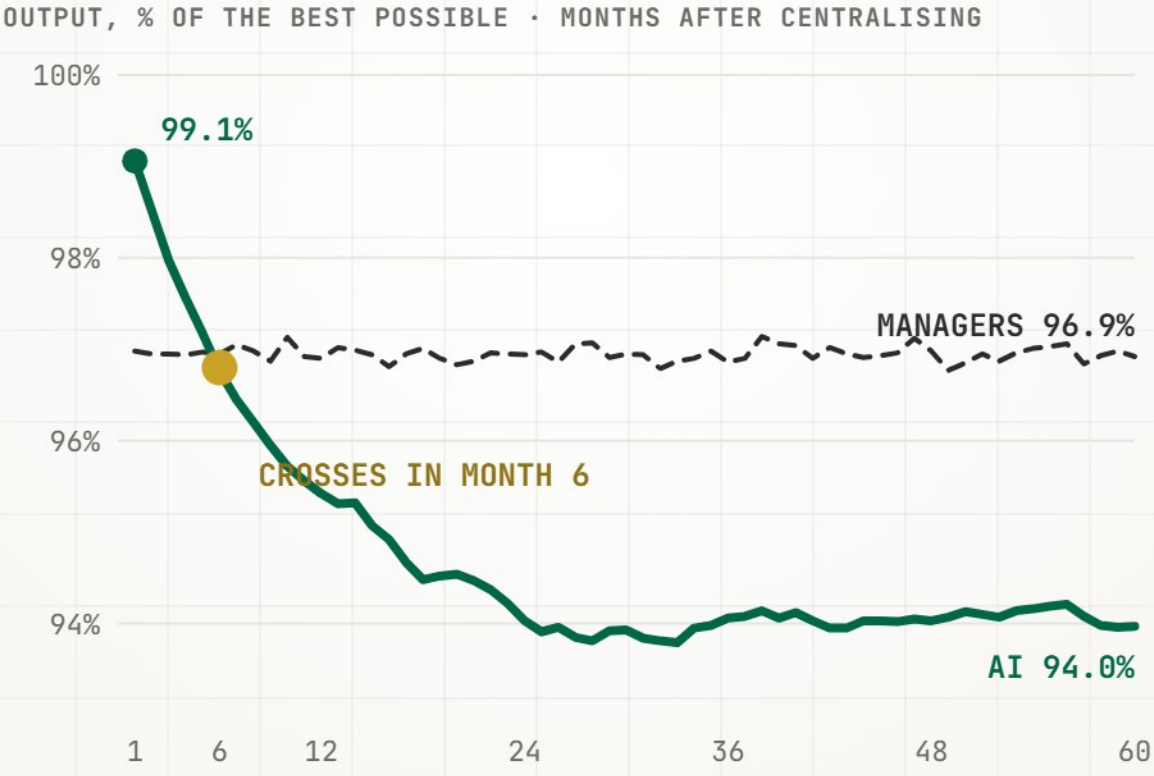
400 LOCAL UNITS
productivity = codifiable × tacit



Month 0: the firm centralises. The AI has learned everything the managers knew.

From then on, codifiable data keeps flowing. Tacit knowledge stops: nobody local decides any more.

Month 1, the AI wins. Month 6, it loses.



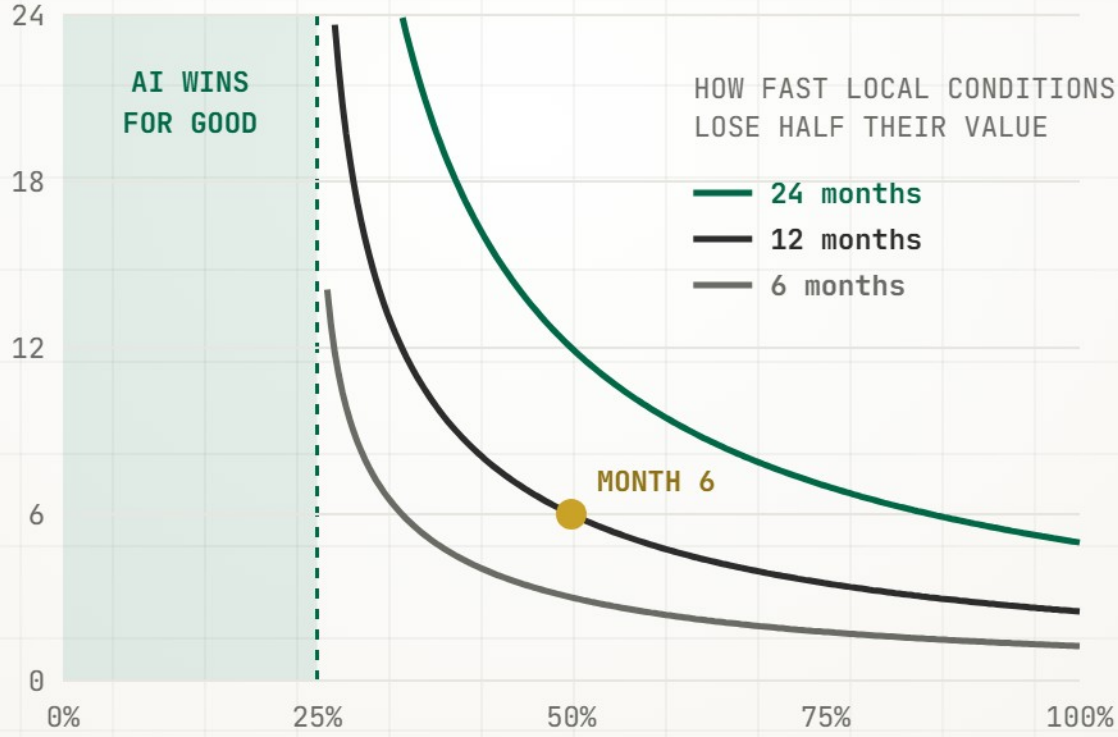
Its losses go from 0.9% to 6%: **six times larger**, and they stay there.

My simulation · tacit 50%, half-life 12 months

NABIL EL MAHYAOUI

How long the honeymoon lasts depends on one number.

MONTHS BEFORE THE AI FALLS BEHIND · BY SHARE OF KNOWLEDGE THAT IS TACIT



Left of 25%, what matters fits in a dashboard. Right of it, the clock starts the day you centralise.

Closed form, checked by simulation

NABIL EL MAHYAOUI

Reality agrees.

A RETAILER, A FIELD EXPERIMENT

Merchants who overrode the algorithm lost money overall, and made money on new products.

Where the data is thin, local knowledge pays.

AN AI RAN A SHOP

Anthropic gave it an AI boss. The boss "shared the same blind spots".

What fixed it: procedures. "We rediscovered that bureaucracy matters."

It learned from decisions you stopped making.

BEFORE

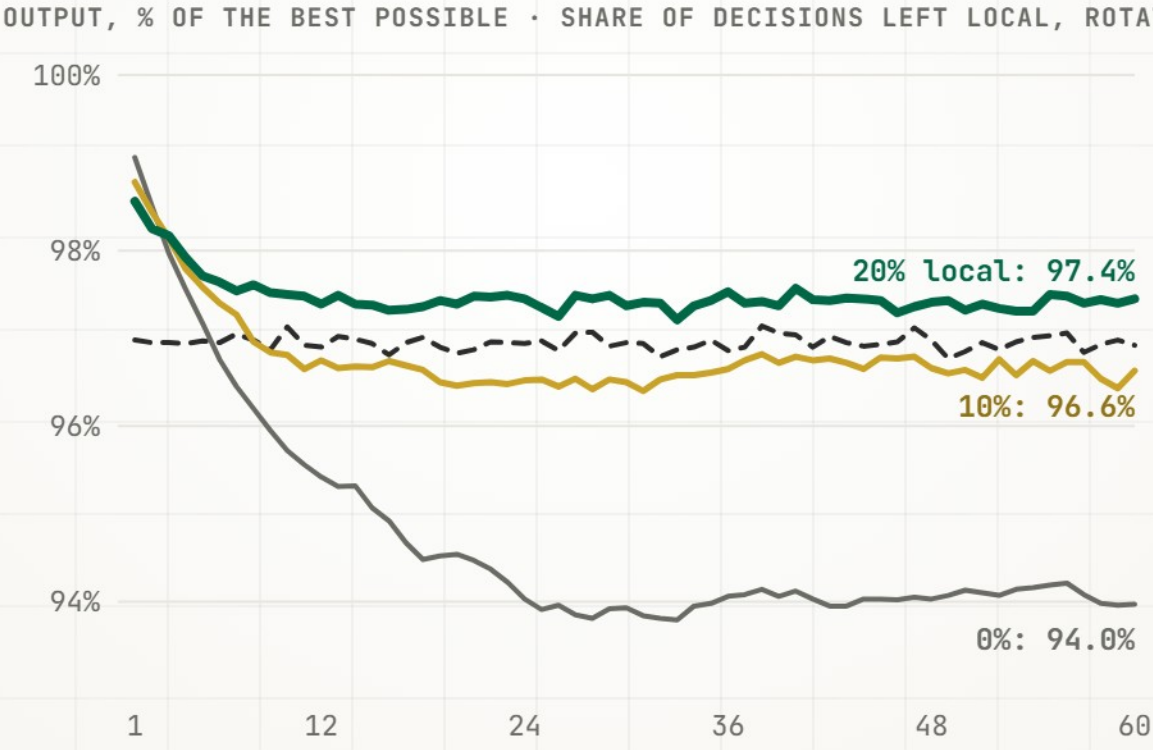
managers decide — their decisions are logged — the AI learns from the log

AFTER

the AI decides — its own decisions are logged — it learns from itself

The knowledge did not move to the AI. It was copied once, and it ages at the speed of your market.

The Hayek budget: keep 20% of decisions local.



Those local decisions are not a cost. **They are the AI's data supply.**

My simulation · tacit 50%, half-life 12 months

NABIL EL MAHYAOUI

Four questions before you centralise a decision.

1. What share of what matters here never reaches a dashboard?
2. How fast does it go stale? That is how long your honeymoon lasts.
3. Whose decisions did your AI learn from, and are they still being made?
4. What is your Hayek budget: which decisions stay local, on purpose, in rotation?

A toy model, on purpose.

MODEL

400 units share a resource; output = productivity × √resource. Productivity = codifiable × tacit, both drifting (AR(1)).

PLAYERS

Central AI: perfect computation, real-time codifiable data, tacit knowledge learned from 12 past decisions per unit. Managers: full local knowledge, noisy coordination.

PARAMETERS

Tacit share 50%, half-life 12 months, coordination noise 0.5, 20 runs. The AI wins for good when the tacit share is below 25%.

NOT MODELLED

Incentives, managers' biases (discretion can hurt too), new sensors that turn tacit knowledge into data.

TO END

Lange solved the equations.

Hayek's problem was never the equations.

Send this to whoever is centralising your decisions.