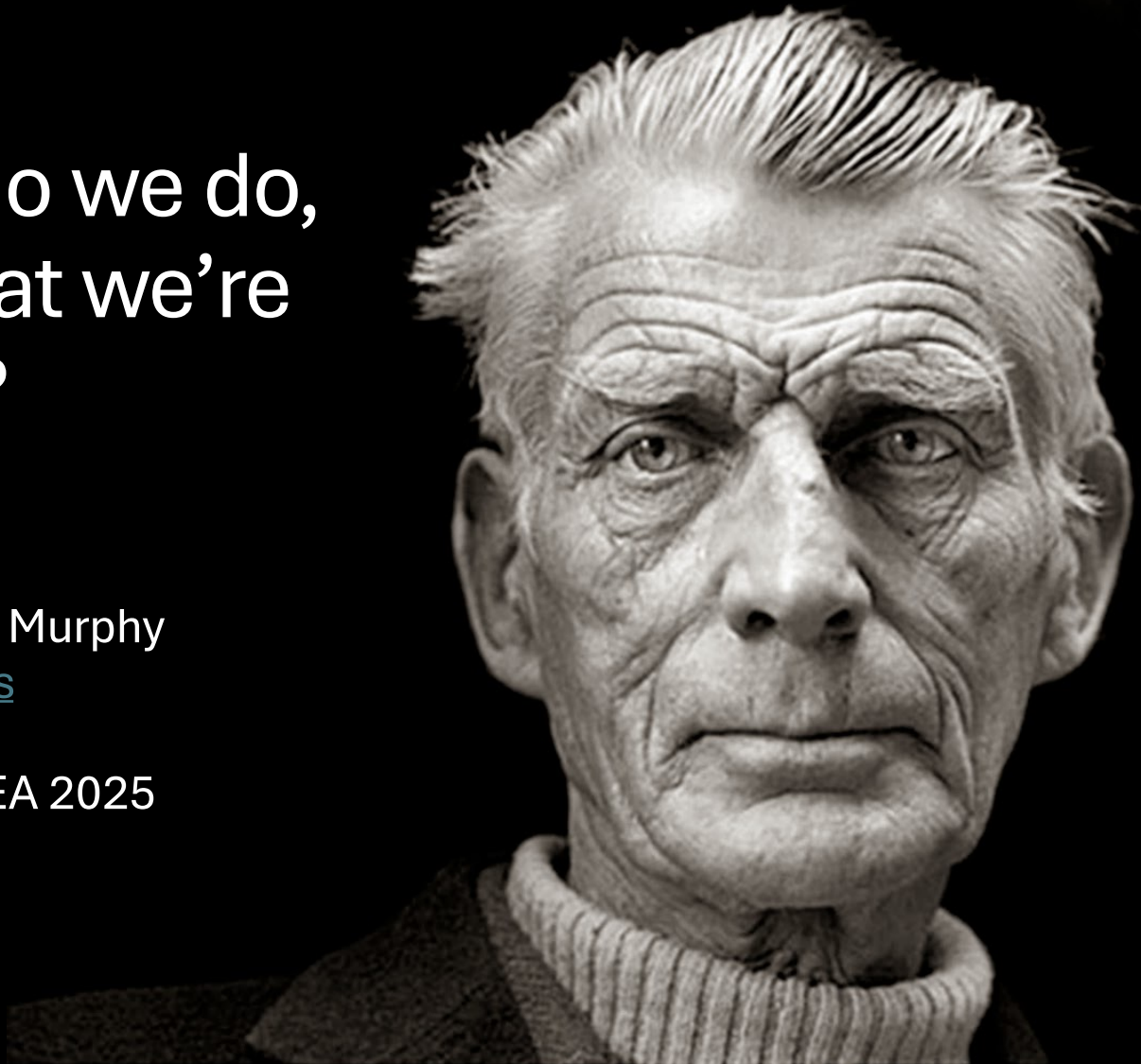


Image credit: Philips

What do we do,
now that we're
happy?

Niall Richard Murphy
niallm@sre.is

SRECon EMEA 2025



This Photo by Unknown Author is licensed under [CC BY-NC-ND](https://creativecommons.org/licenses/by-nc-nd/4.0/)

VLADIMIR: Say you are, even if it's not true.
ESTRAGON: What am I to say?
VLADIMIR: Say, I am happy.
ESTRAGON: I am happy.
VLADIMIR: So am I.
ESTRAGON: So am I.
VLADIMIR: We are happy.
ESTRAGON: We are happy. (Silence.) What do we do now,
now that we are happy?
VLADIMIR: Wait for God.

Waiting for God(ot)

Not just a writer



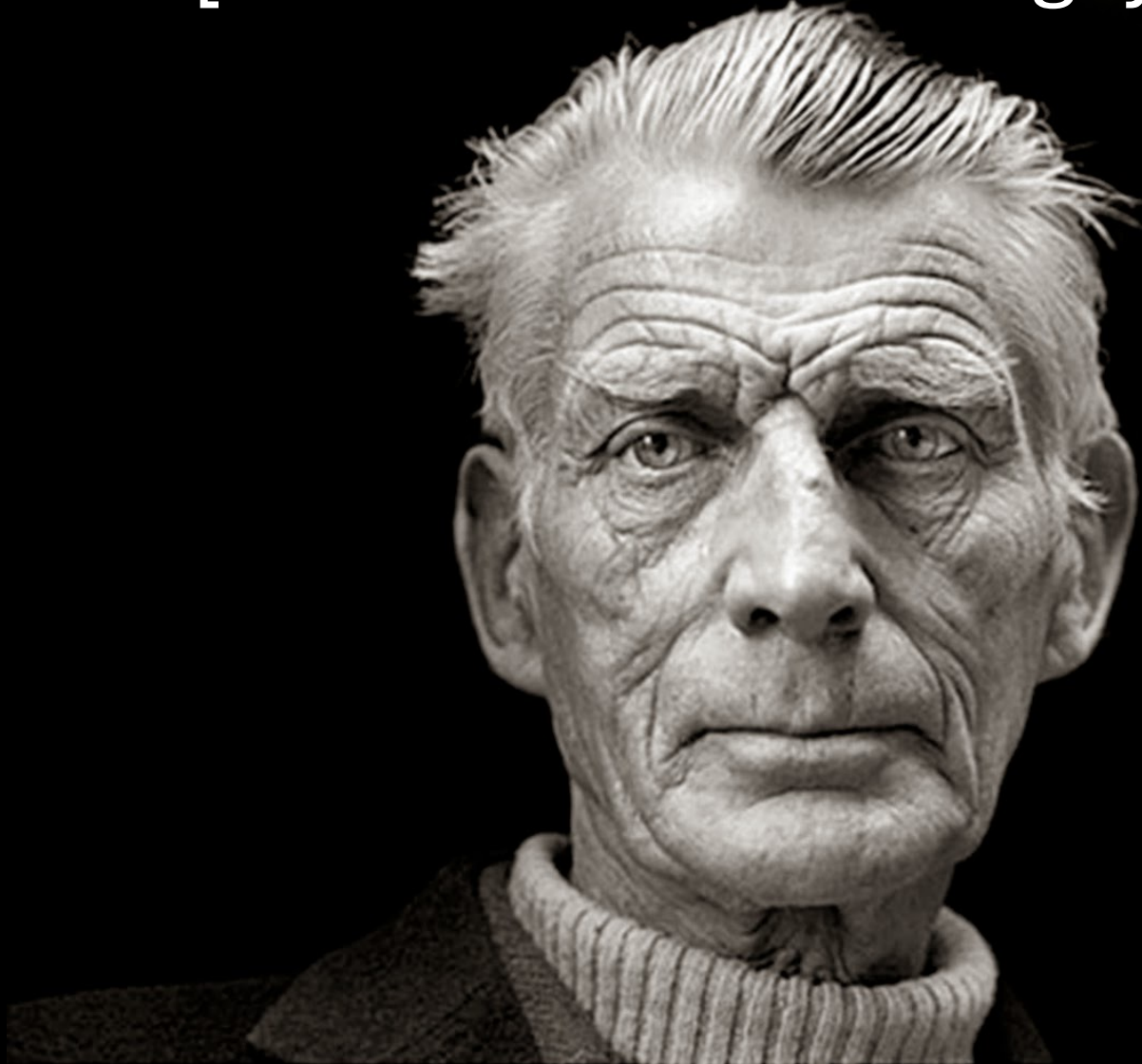
Image credit: Ethna Gaffney



Not just a writer

- Joined the French resistance (twice)
- Drove ambulances

[Not an infrastructure guy]

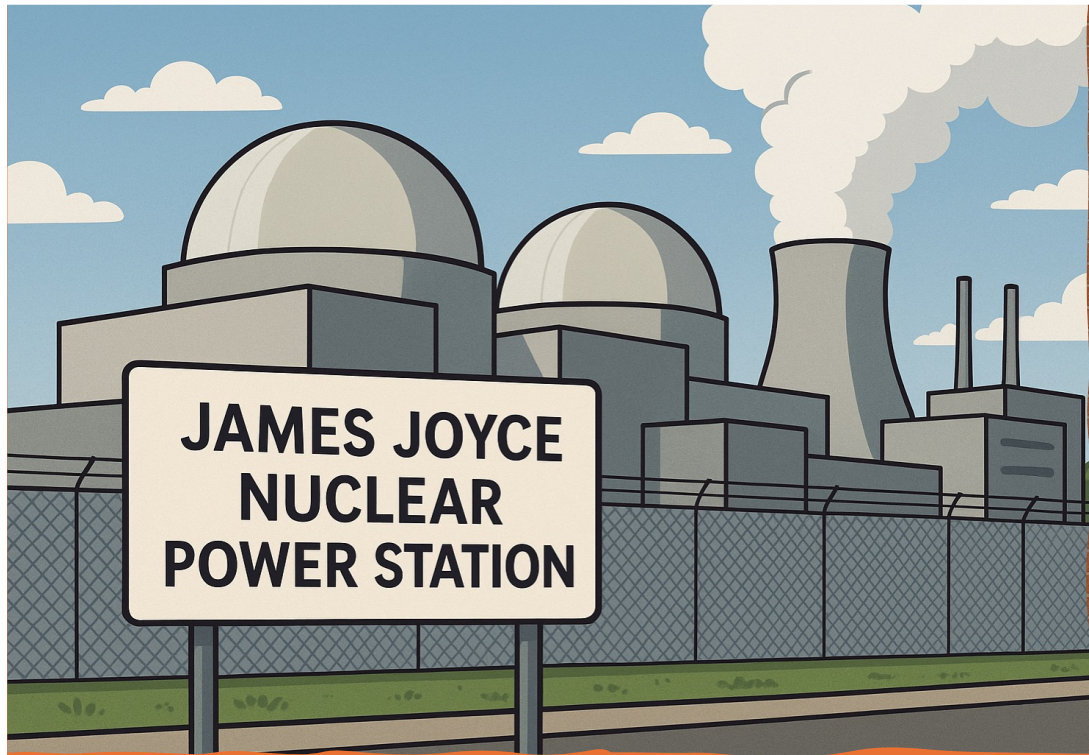


This Photo by Unknown Author is licensed under [CC BY-NC-ND](#)



The Samuel Beckett Bridge

Photo © NRM



- What next?



Even worse...

Sometimes it doesn't work

Image credits: NRM



Image credits: Midjourney

Photo by [Nicole Avagliano](#) on [Unsplash](#)



Competing Visions of the Future

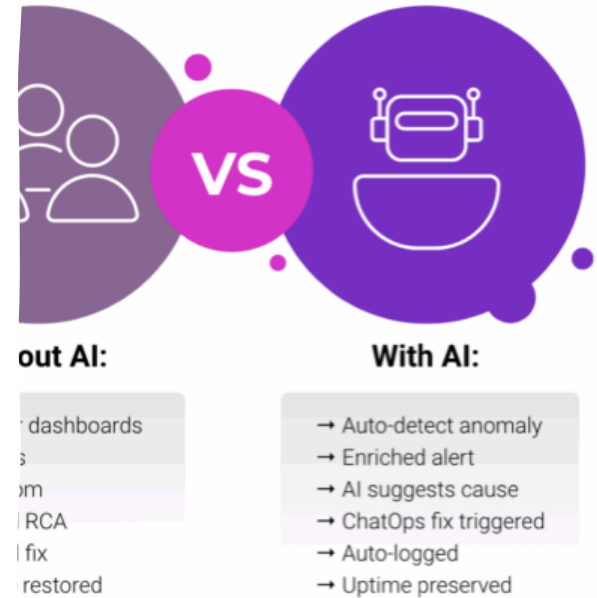
A close-up photograph of a weathered wooden surface, possibly a table or counter, showing signs of decay and peeling paint. A red sign is affixed to the wood, featuring the word 'UTOPIA' in large, bold, black-outlined letters. Below it, the text 'Riverview Garden Restaurant' is written in a cursive script. A yellow hammer and sickle symbol is visible in the bottom right corner of the sign. The background is blurred, suggesting an indoor setting.

Utopian

Photo by [Johnny Cohen](#) on [Unsplash](#)



Instant Response Without AI vs With AI



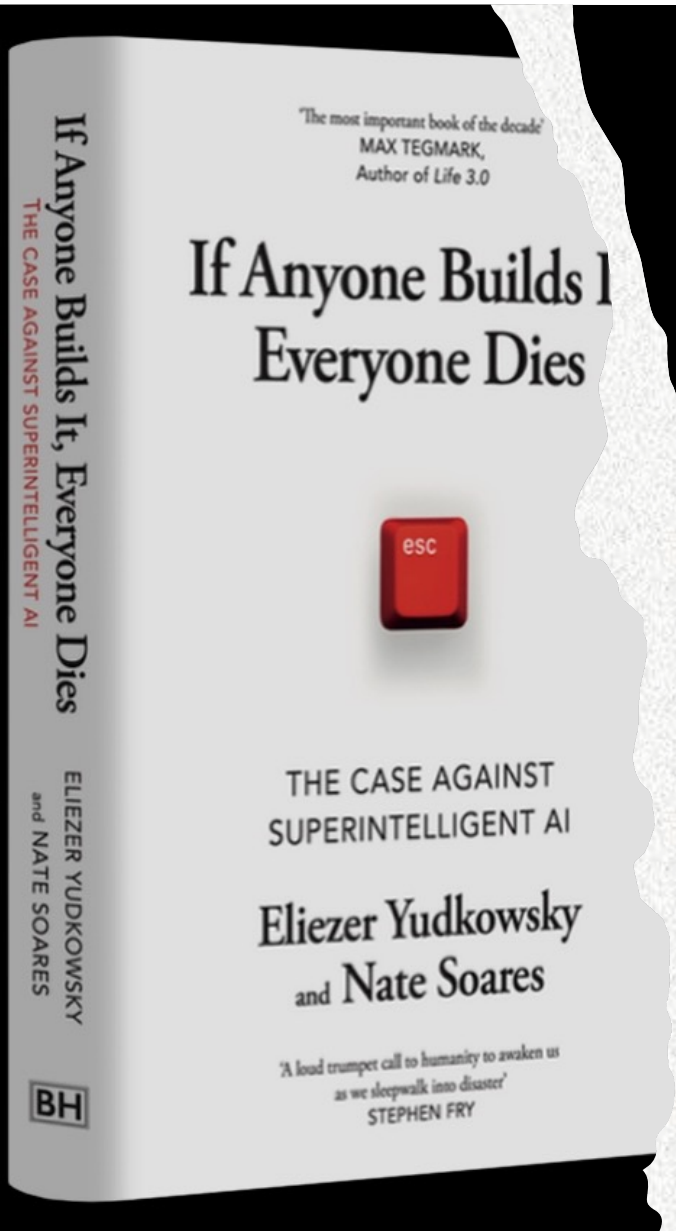
Utopian Promises

- “How Certain Schemes to Improve the Human Condition Have Failed”
 - (*Seeing Like A State*, James Scott)

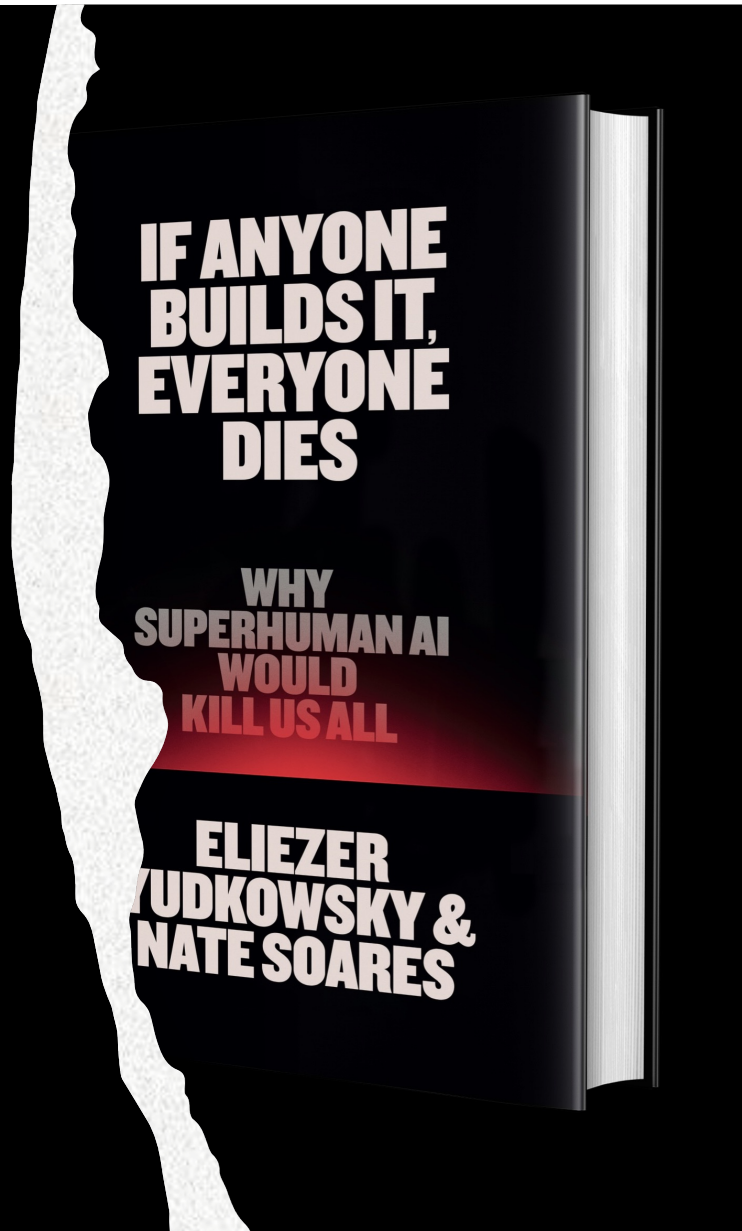
A photograph of an industrial facility, possibly a power plant or refinery, at sunset. The sky is a mix of orange, yellow, and blue, with wispy clouds. A thick layer of white fog or steam covers the ground, obscuring the lower parts of the buildings and structures. Several tall, dark smokestacks rise from the facility, some with red lights at their bases. In the distance, a plume of white smoke or steam rises from a stack. The overall atmosphere is somber and industrial.

Dystopian

Photo © NRM



Dystopian Fears





Noted Extremists

- Dario Admodei, CEO Anthropic: “I think there's a 25% chance that things go really, really badly.”
- Geoffrey Hinton, deep learning inventor: “Mitigating the risk of extinction from AI should be a global priority alongside other societal-scale risks such as pandemics and nuclear war.”

[Arguably infrastructure guys]



Image Credits: AFP, Clément Morin



From where I'm standing

They all seem like possible outcomes

Image: Copilot AI

Tactics versus strategy

- We've spent a lot of time this conference talking about tactics
- I want to talk about where we might end up



Oracle

- No, not that one

ORACLE
Cloud

A composite image featuring a man's face in the foreground on the left, smiling and looking towards the right. The background is a large white yacht with multiple decks and a radar scanner on top, sailing on a body of water. In the distance, there are mountains and a small sailboat. The overall scene is dimly lit, suggesting dusk or dawn.

Oracle

No, not that one

[Not an infrastructure guy]

Theoretical Computer Science Oracle

- A magical black box that answers the question perfectly in one step



Image credit: attributed to Kodros Painter, circa 430 BCE

Let's suppose we had an SRE Oracle

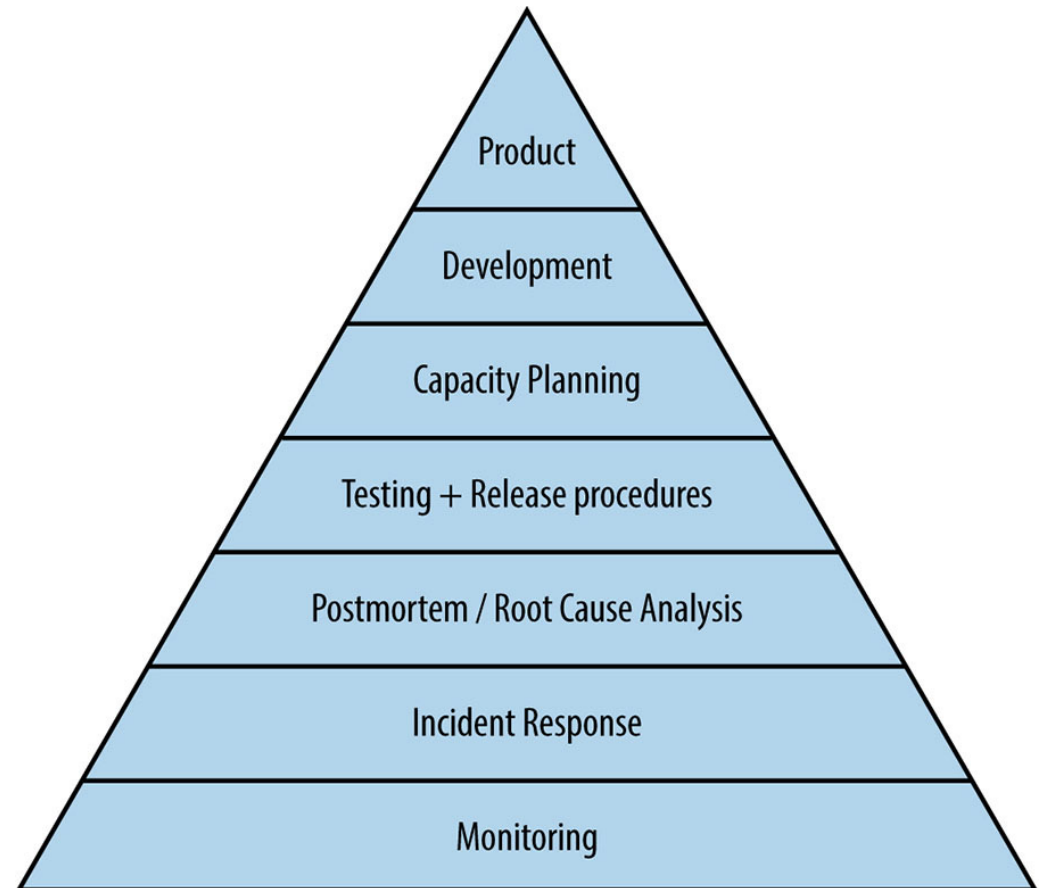
- Essentially: AGI SRE
- What would it do?



Image attributed to Kodros Painter, circa 430 BCE

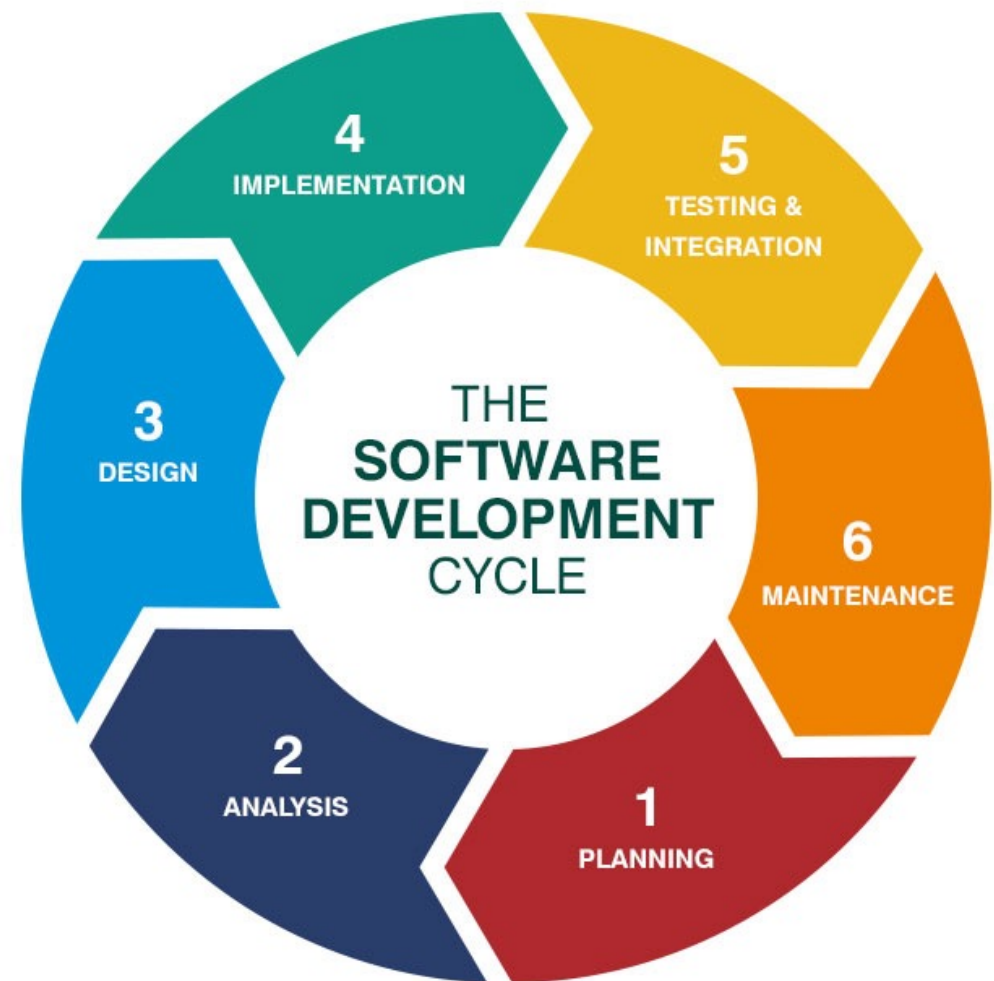
Modelling what we do

Dickerson hierarchy



Modelling what we do

SDLC overlap



Special Note: A(G)I SRE != Incident Response

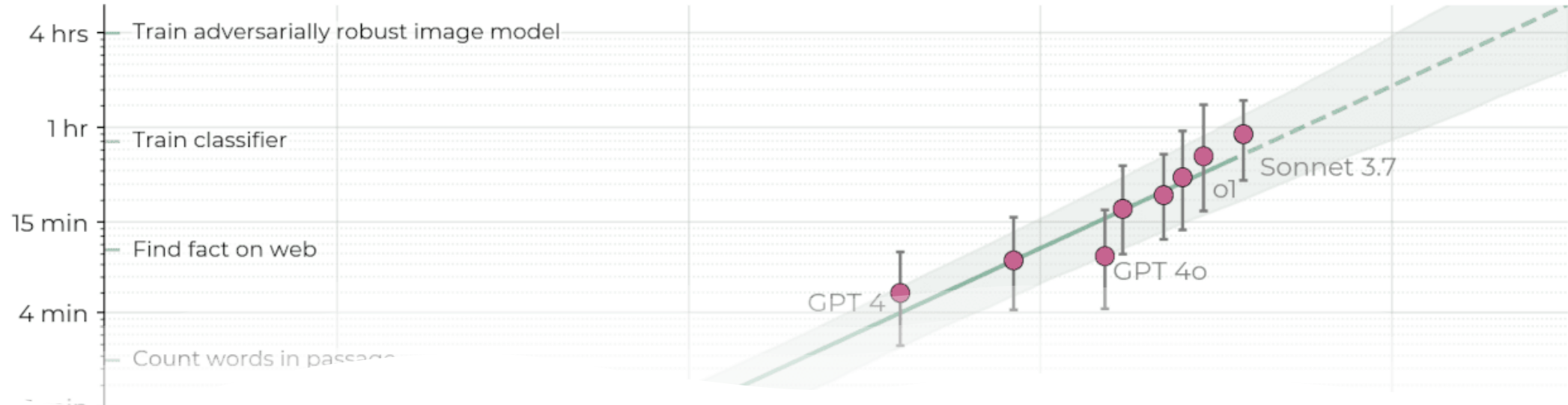


Image credit: National Ambulance Service

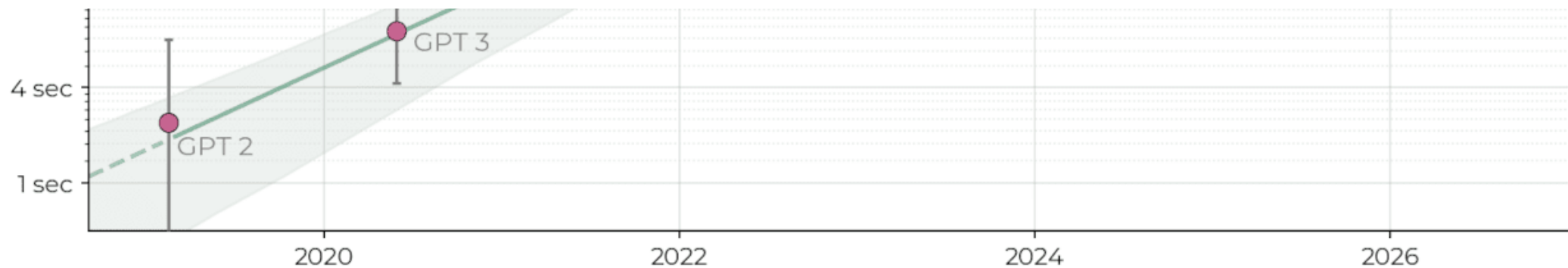
The length of tasks AI can do is doubling every 7 months



Task length (at 50% success rate)

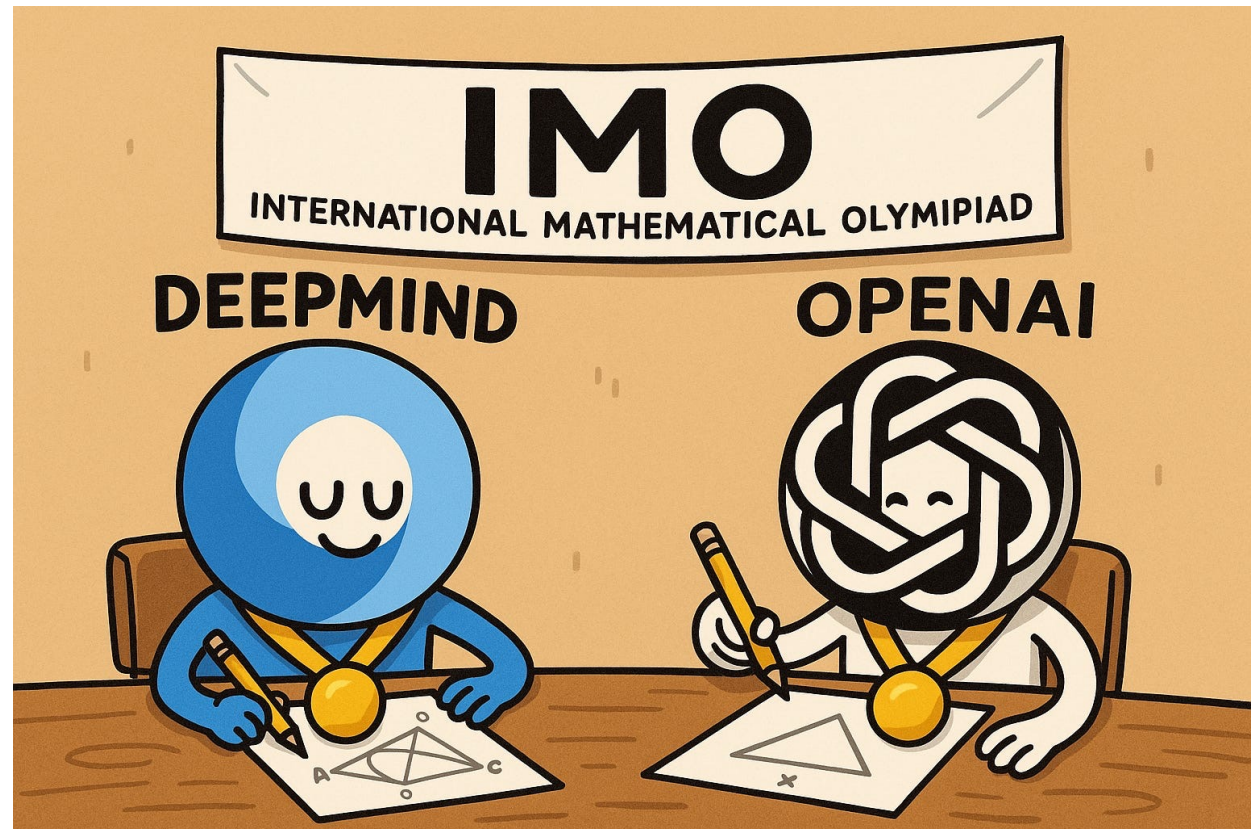


An Oracle is theoretical – is A(G)I SRE?



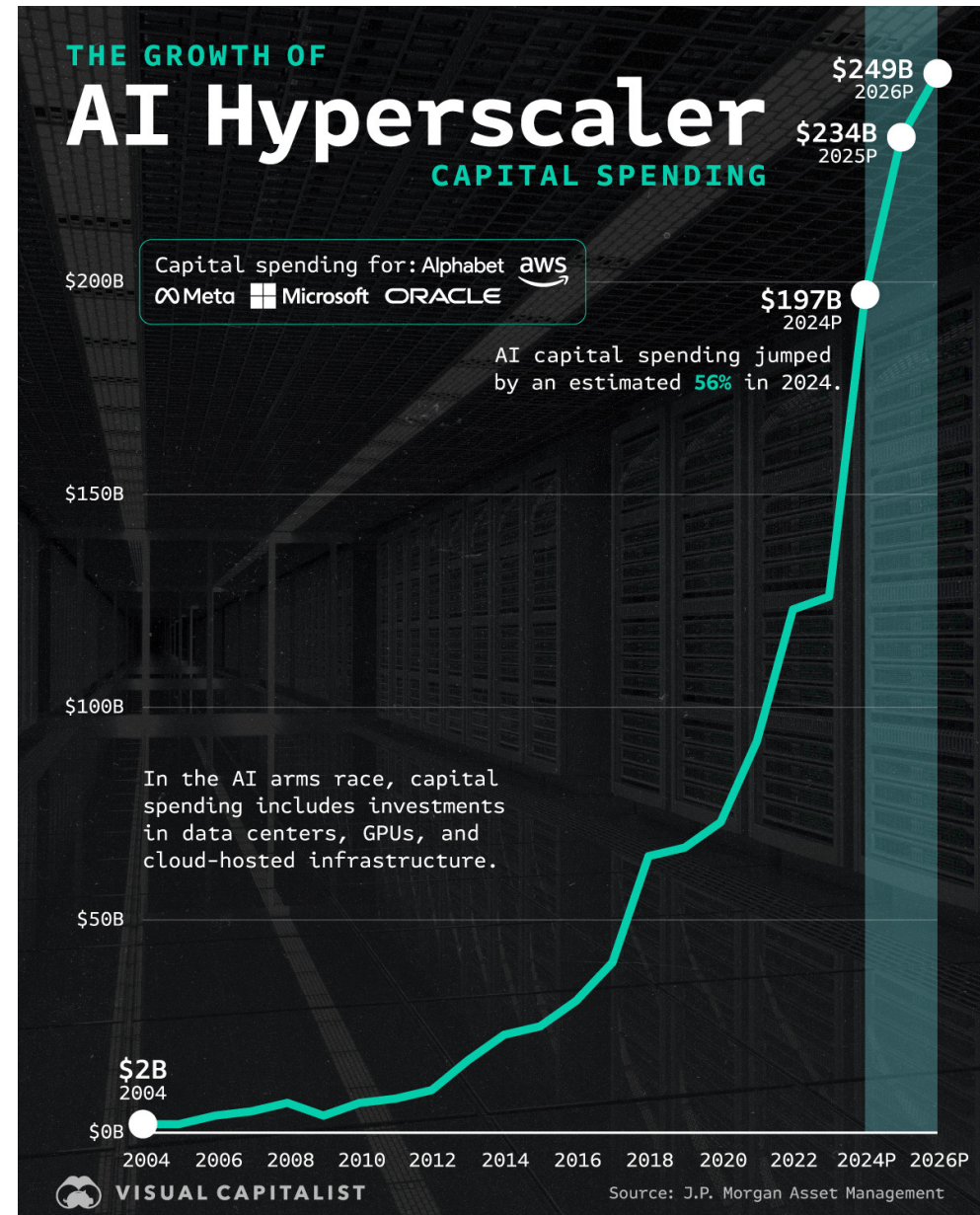
Reasons to believe

- [IMO gold medal progress](#)
 - Very hard problems and fewer special accommodations



Reasons to believe

- [Dollars-spent-on-AI graph](#)
 - If anything can be spent into existence, this seems like a likely candidate





The Law of Requisite Variety: A control system must have as many possible states as the system it wants to control.

Reasons to believe

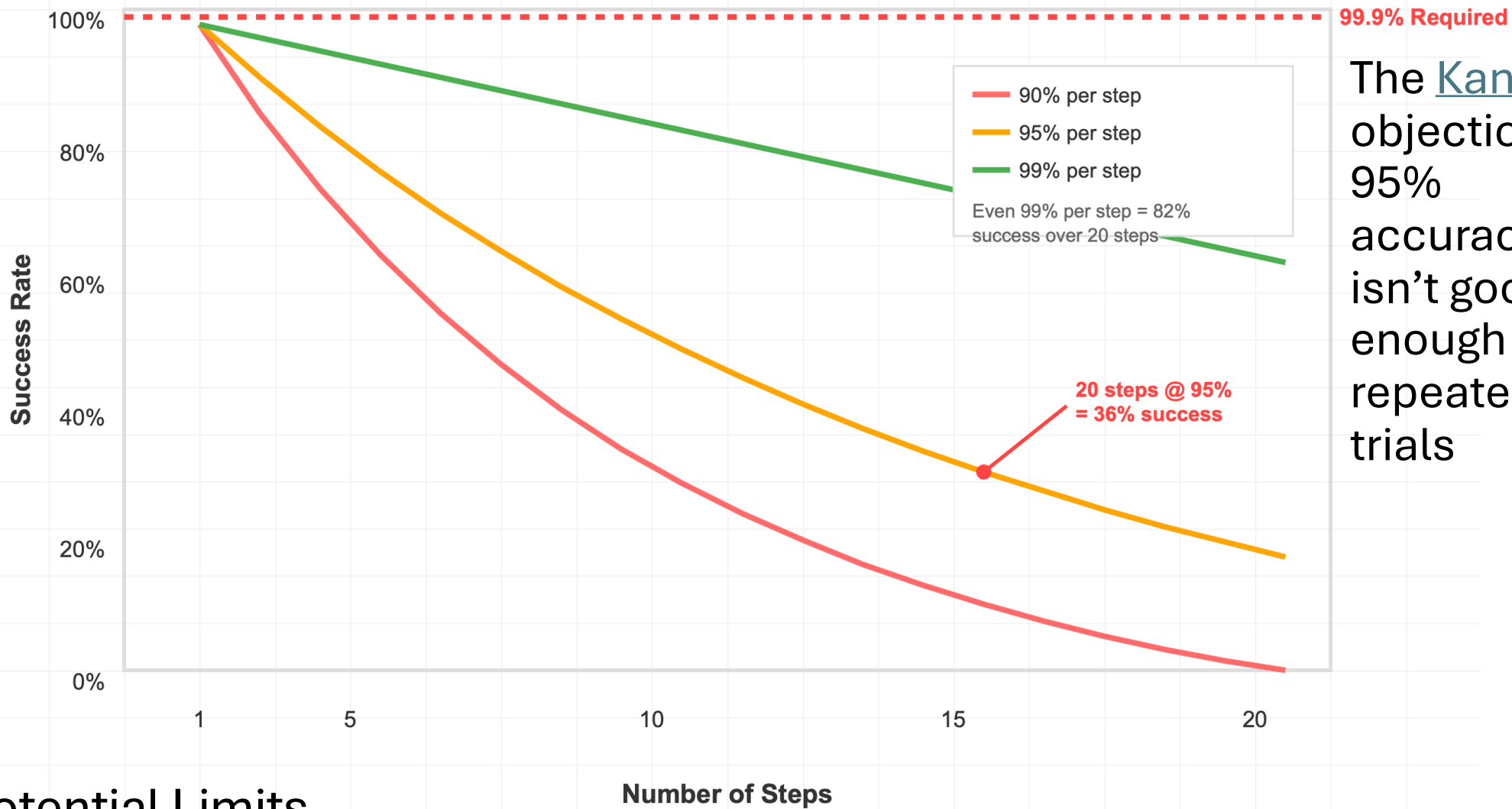
Ashby's Law of Requisite Variety

Reasons to believe

- [The Reverse-Andreesen Objection](#)
 - ~Everyone imagines their specialisation is immune to automation/AI/etc; by the law of hubris, we assume this immunity is less than imagined - similar to surveys of driver performance



Error Compounding: Why Multi-Step Agents Fail



99.9% Required

The [Kanwat](#) objection: 95% accuracy isn't good enough in repeated trials

20 steps @ 95% = 36% success

Even 99% per step = 82% success over 20 steps

Potential Limits

Number of Steps

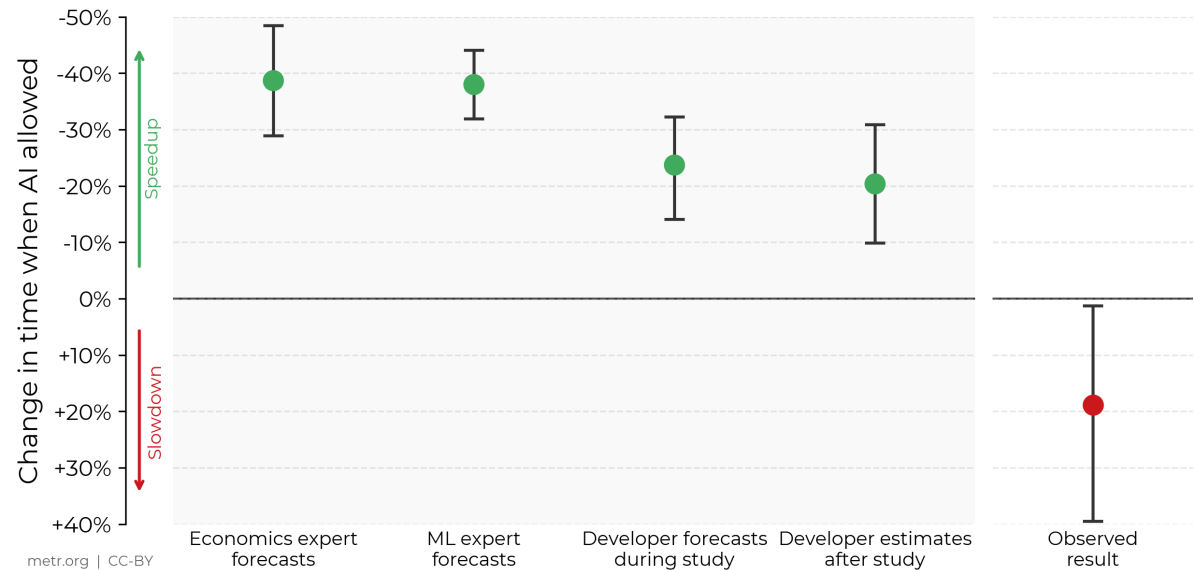
Potential Limits

You spend a lot of time cleaning up/correcting OR maybe it's just not as good as expected

Against Expert Forecasts and Developer Self-Reports, Early-2025 AI Slows Down Experienced Open-Source Developers



In this RCT, 16 developers with moderate AI experience complete 246 tasks in large and complex projects on which they have an average of 5 years of prior experience.



Potential Limits

- “In [economics](#), **deskilling** is the process by which [skilled labor](#) within an [industry](#) or [economy](#) is eliminated by the introduction of technologies operated by semi- or [unskilled workers](#).” (Wikipedia).
- It has huge implications for the staff and the training data
 - https://crowston.syr.edu/sites/crowston.syr.edu/files/GAI_and_skills.pdf

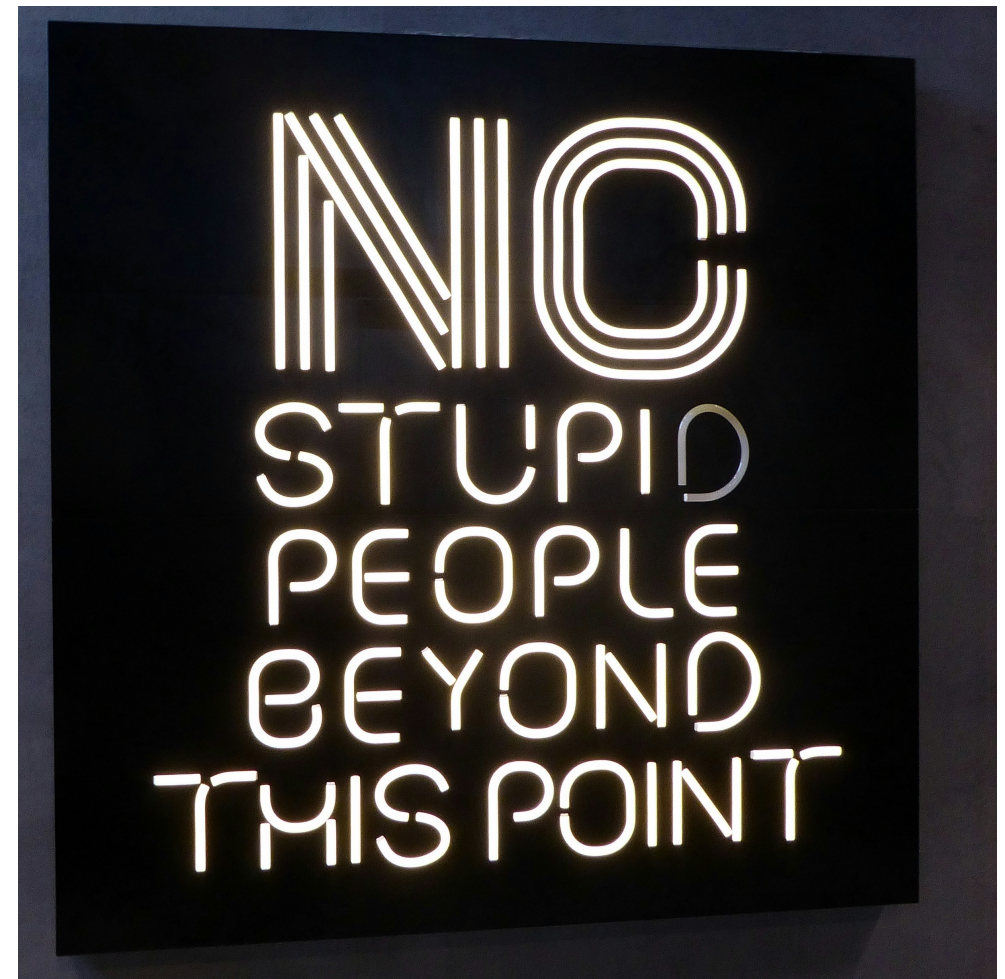
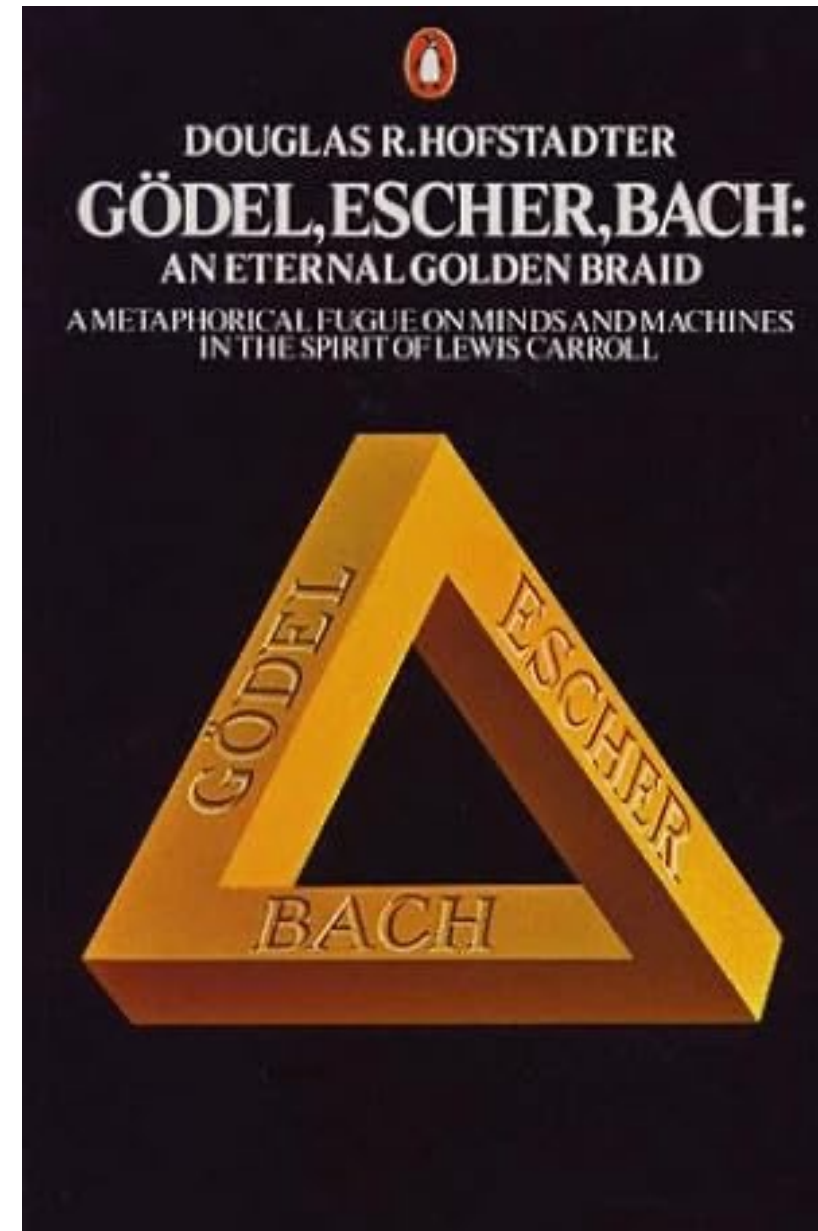


Photo by [Nick Fewings](#) on [Unsplash](#)

Potential Limits

- Agents have trouble with world models and short-term/long-term tradeoffs
 - Reminder: Eurisko story

Image credit: Penguin Books



Potential Limits

- The it-works-in-theory objection - <https://thehill.com/policy/technology/5460663-generative-ai-zero-returns-businesses-mit-report/>.

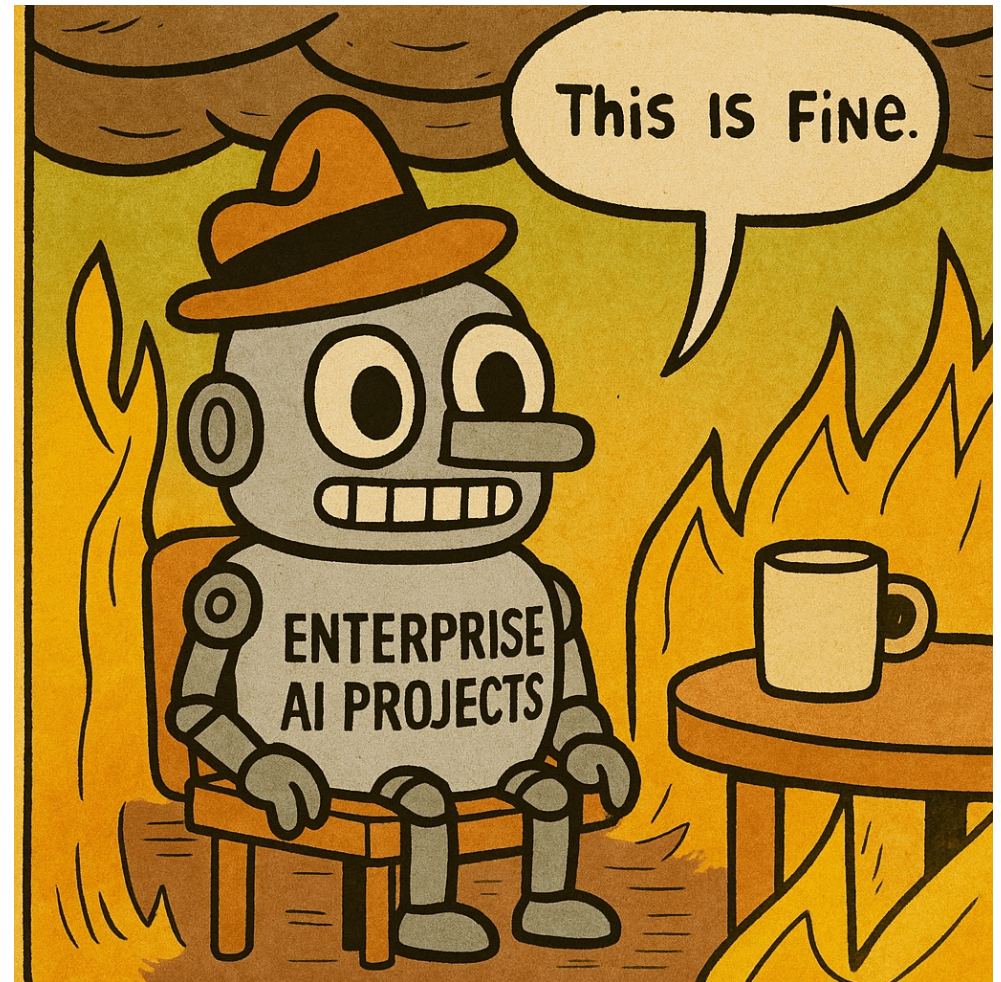


Image credit: Seth Levine/Loris

Potential Limits

- The LLMs-aren't-the-right-architecture-objection
 - <https://blog.relyabilit.ie/llms-wont-save-us/>



Image credit: Midjourney

[Not an infrastructure guy]

Potential Limits

- Donald Rumsfeld Quadrant

<p>[KK] : Knowledge</p> <p>Known Knowns</p>	<p>[KU] : Awareness</p> <p>Known Unknowns</p>
<p>[UK] : Bias</p> <p>Unknown Knowns</p>	<p>[UU] : Ignorance</p> <p>Unknown Unknowns</p>

Image credits: thierry ehrmann/Flickr, fairing.co

Image credit: The Big Lebowski/Wiki

But actually it mostly doesn't matter

Likely (short-term?) Consequences

- More lines of code
- Staffing reductions
- More edge cases
- Concentration of risk
- Senior-weighted roles
- Deskilling
- Easy things easier, hard things impossible
- Swiss cheese

Likely consequences

- We already know we're going to get more lines of code
 - Either our model that kLoC is somehow proportional to risk will change, or we'll have more risk
 - Regardless, we'll have more bottlenecks and edge cases

Image credit: Outdoors.com



Likely consequences

Staffing reductions
(maybe temporarily)



Likely consequences

More edge cases



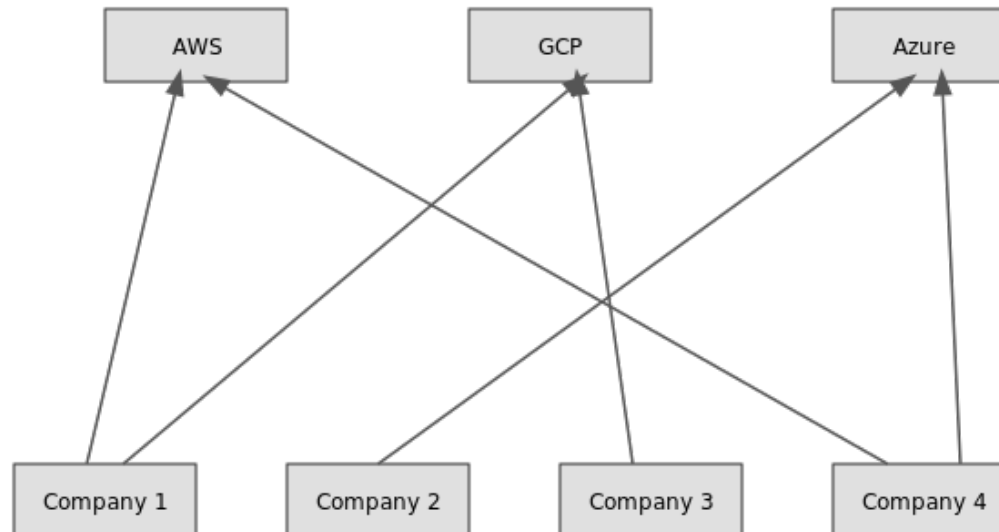
A world map is shown with numerous small, colorful plastic figures (orange, yellow, green, blue) placed on it. The figures are most densely clustered on the African continent, illustrating the concept of 'Concentration of risk'. The map includes labels for 'Europe de l'Ouest', 'Afrique du Nord', 'Afrique Orientale', and 'Océan Indien'.

Likely consequences

Concentration of risk

Risk Concentration

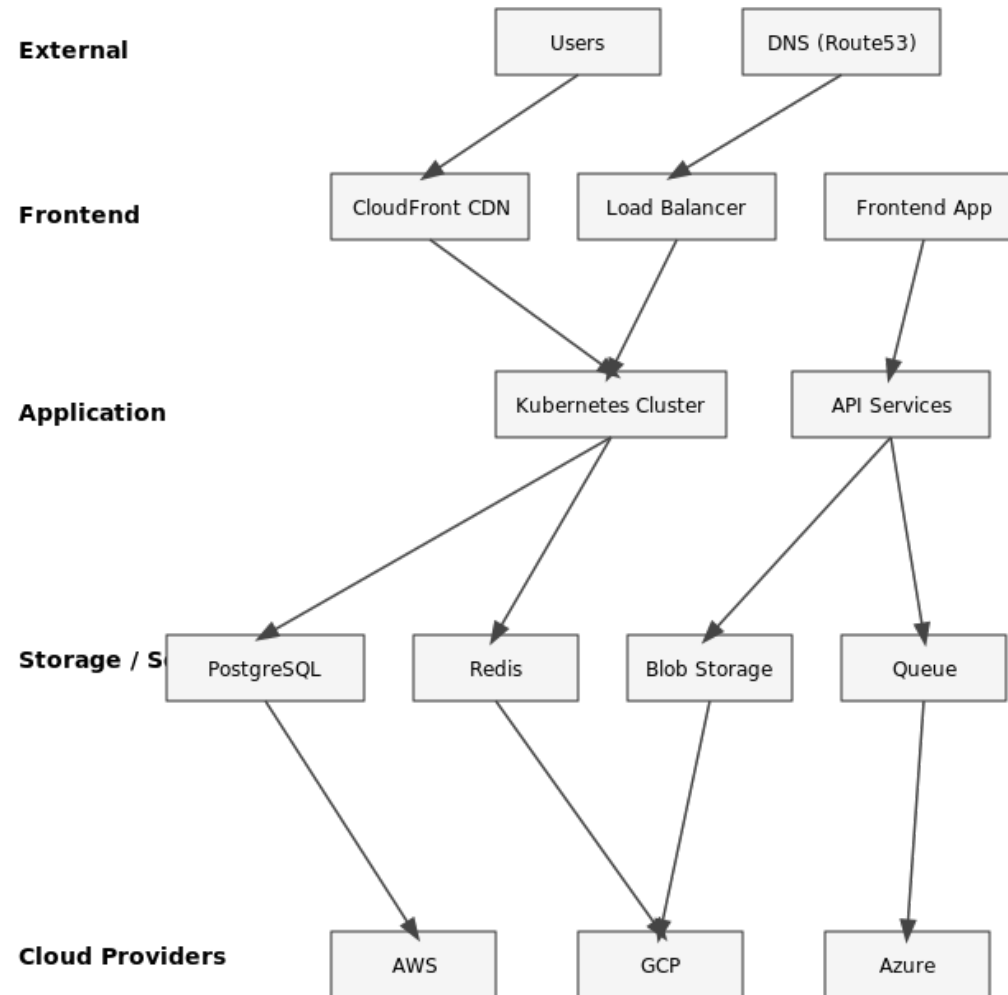
We (might) think of it like this



Risk Concentration

But of course it's more like this (internally)

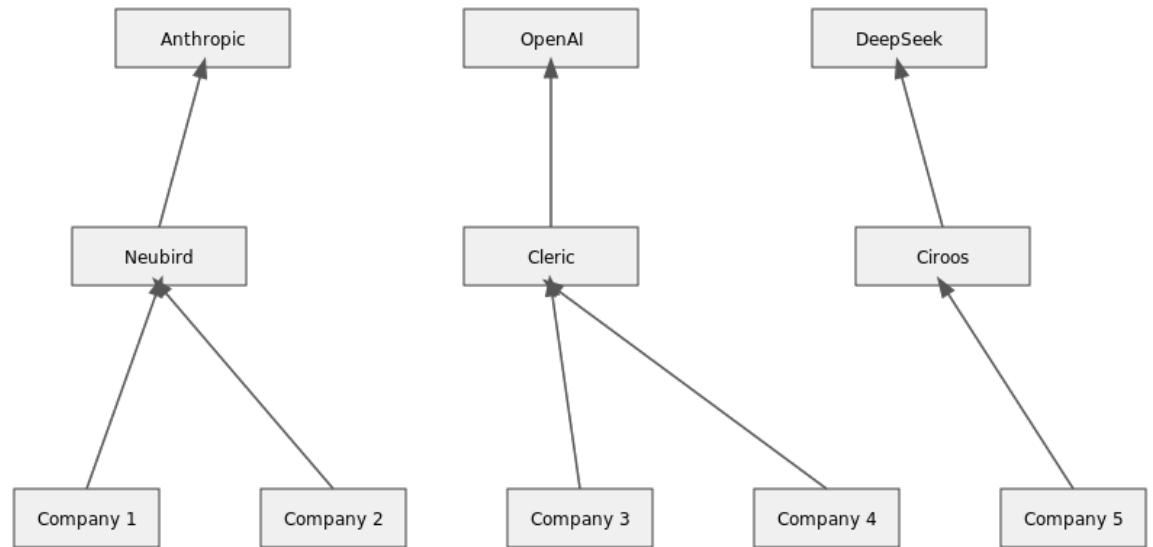
(Actually hilariously wrong)



Risk Concentration

But what I really mean is this

More reliance, *during instability*, on centralized platforms with correlated ways of responding



Senior-weighted roles

- Juniors are already (imagined as) a significant cost
- Will be expected to ramp-up sooner, do more
- Overall stack more complex – can we forget/make details irrelevant at a faster rate than we create ones we have to remember?

Photo by [Vlad Sargu](#) on [Unsplash](#)

Likely consequences

- Deskillling
 - But also, cognitively-cached workflows growing stale
 - Analogy: is this like long division? Or like surgery?



NIC
STUPID
PEOPLE
BEYOND
THIS POINT

Likely consequences

Old-style Google: toolchain made easy things hard and impossible things hard



New-style AI: toolchain incentivizes making easy things easier and hard things harder

Likely consequences

Swiss cheese model of SRE

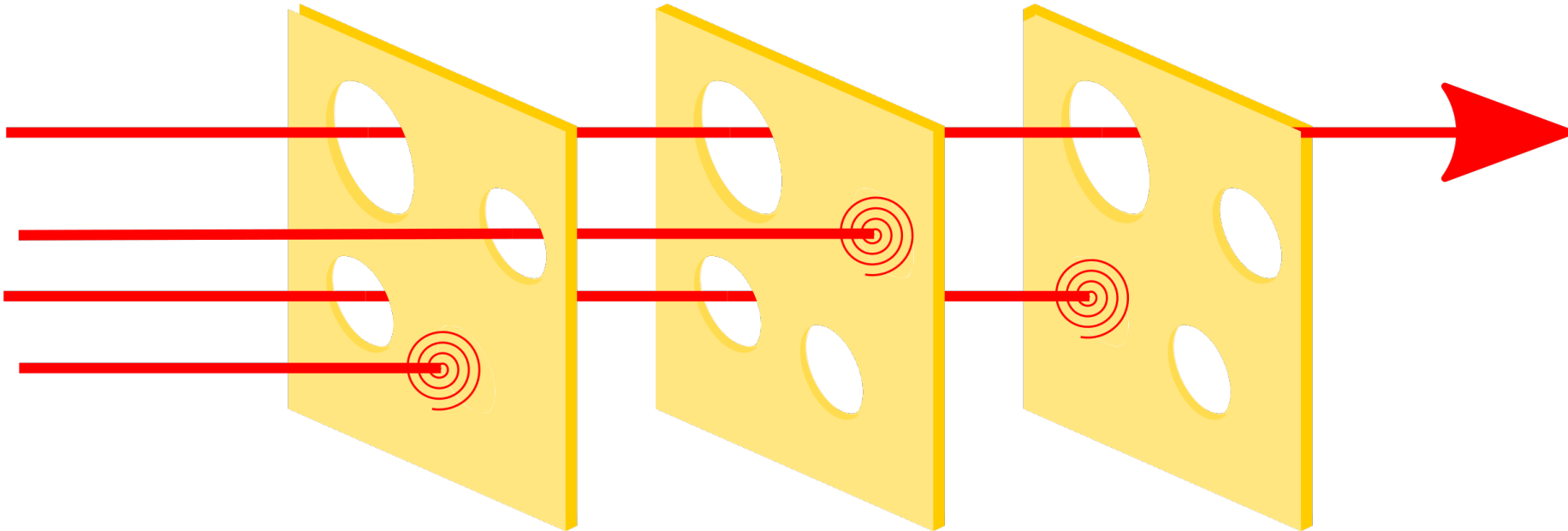


Image credit: Wikimedia



What do we do...

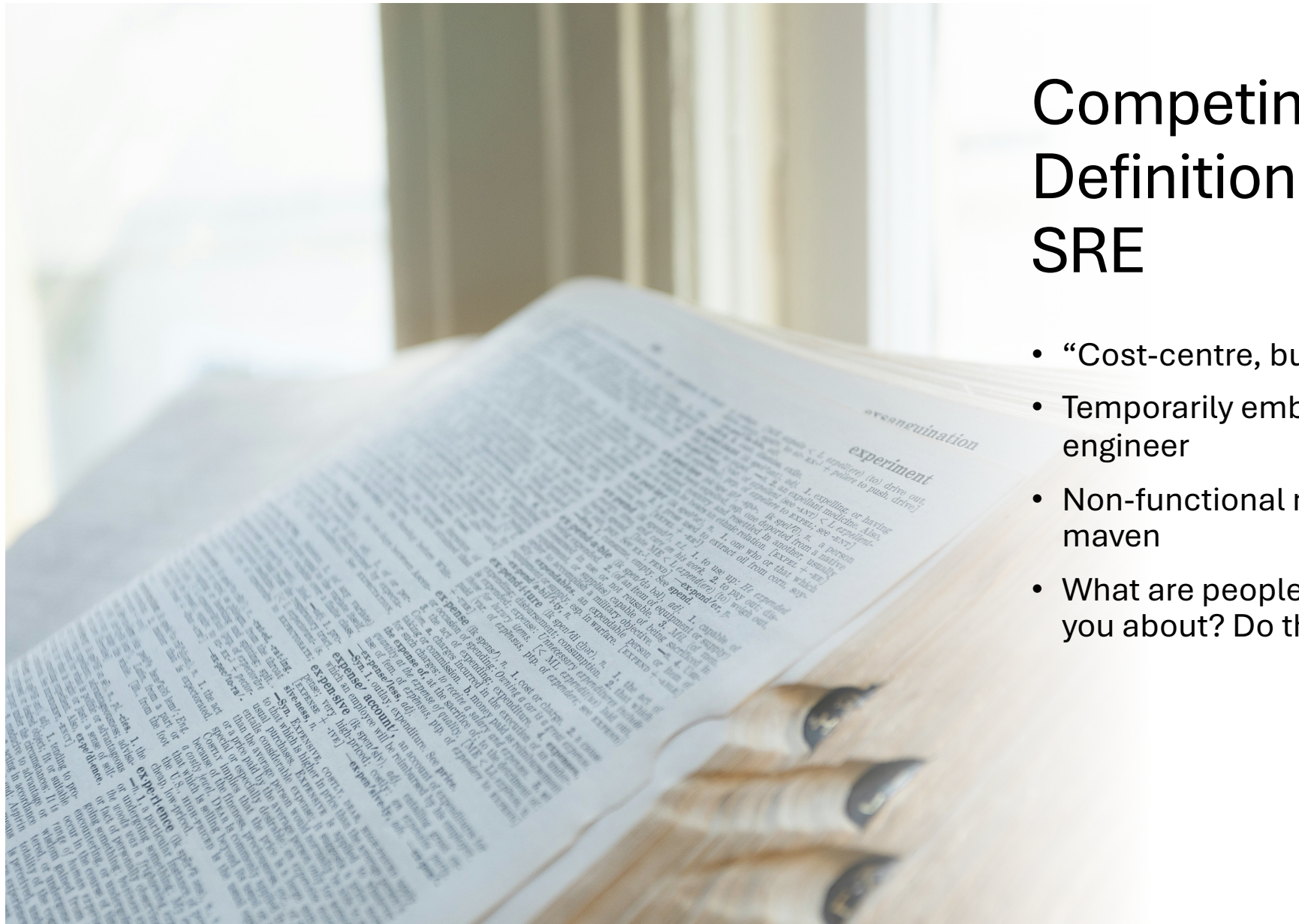
- ... now that we're happy?
- Now that we've achieved the machine doing more/all of our work for us?
- Are we more about senior, human-interfacing glue-work style roles?
- The profession looks different, but I think there's still a need
 - Even if it's not well/widely-understood immediately
 - We just added a ton of complexity and we'll add more
- Even if we're not called SRE, plenty of staff engineers not doing mostly business logic, plenty of folks in DX
- Lots of positive possibilities! New capabilities! Lots of energy, excitement!

What do we do...

- (All this defined only for pre-AGI)

Competing Definitions of SRE

- “Cost-centre, but good”
- Temporarily embarrassed staff engineer
- Non-functional requirements maven
- What are people shouting at you about? Do that



What to do in times of change

- ~~(Even if you can't) Join the resistance~~

Image credit: Dobrador

JOIN

THE



Ωhm



RESISTANCE

Drive ambulances during the war



Image Credit: BBC



Photo © Ethna Gaffney