MIT Sloan Management Review

The Future of AI and the Workforce

Sam Ransbotham

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15 October 2024

Who is actually using Artificial Intelligence? And how?

Vandi Verma, NASA

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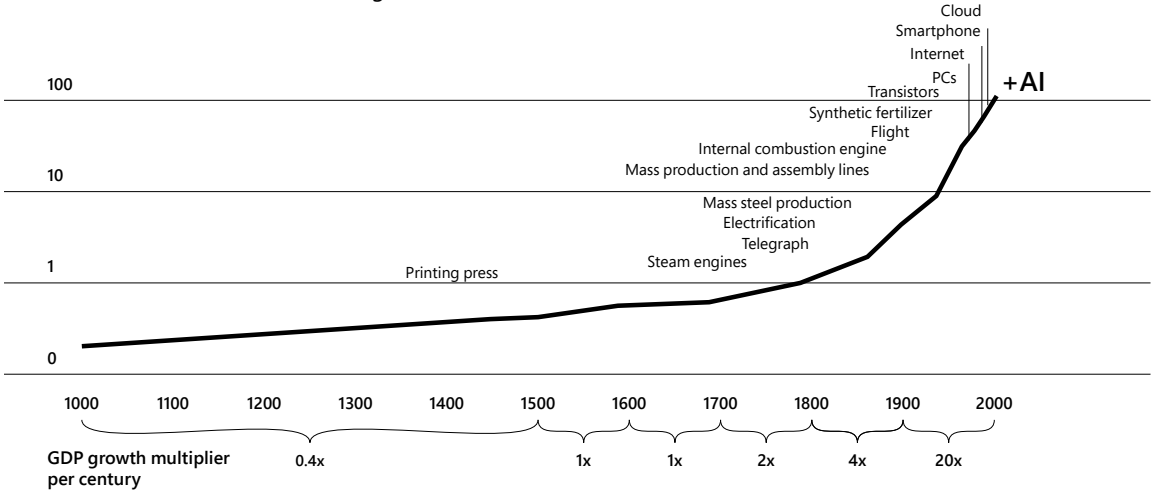
Point 1: AI use is no longer hypothetical, science fiction.

Global GDP and Technological Revolutions

Real GDP in trillions of 2011 GK$, logarithmic scale



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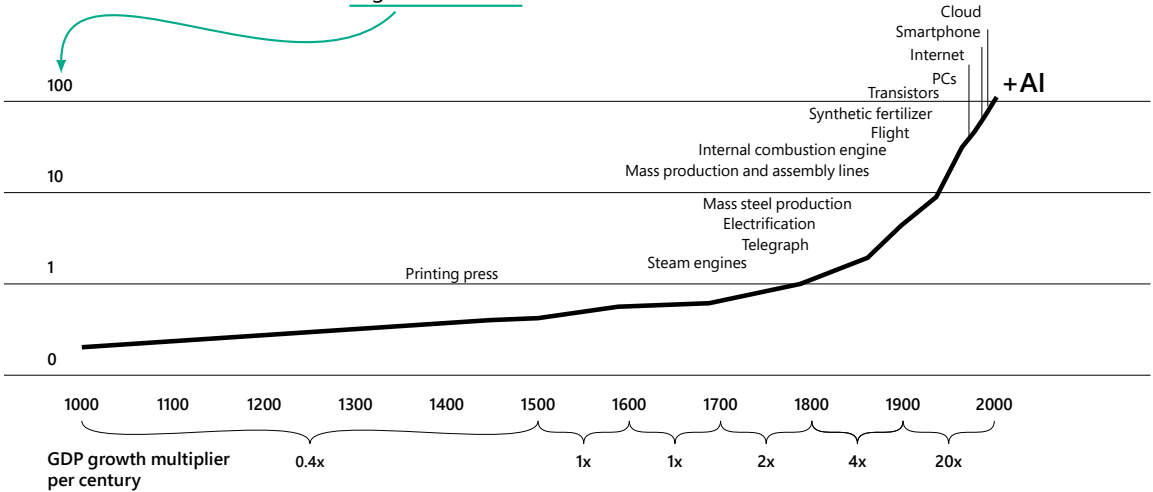

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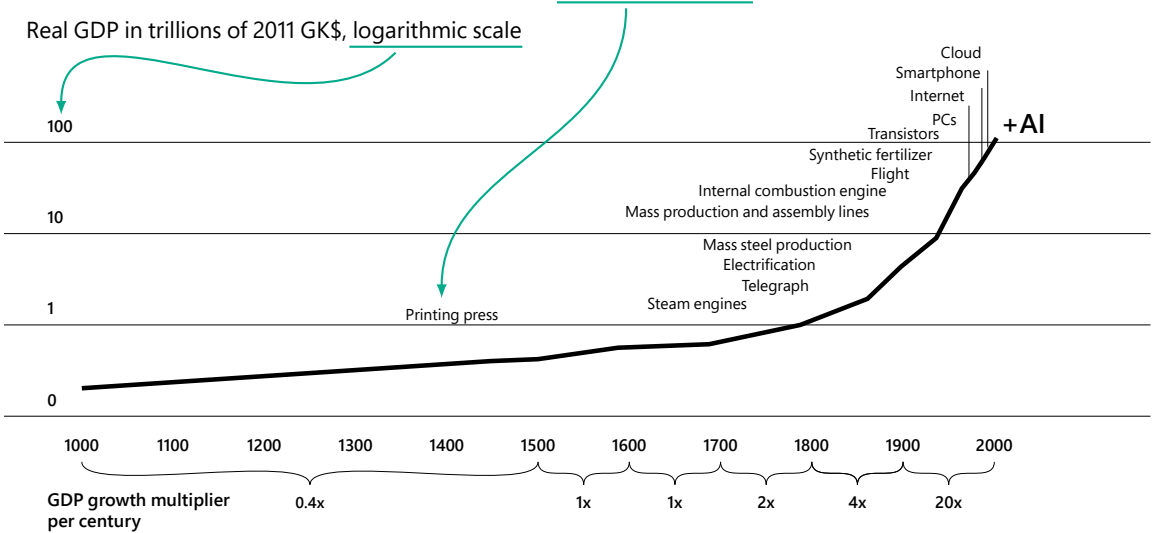

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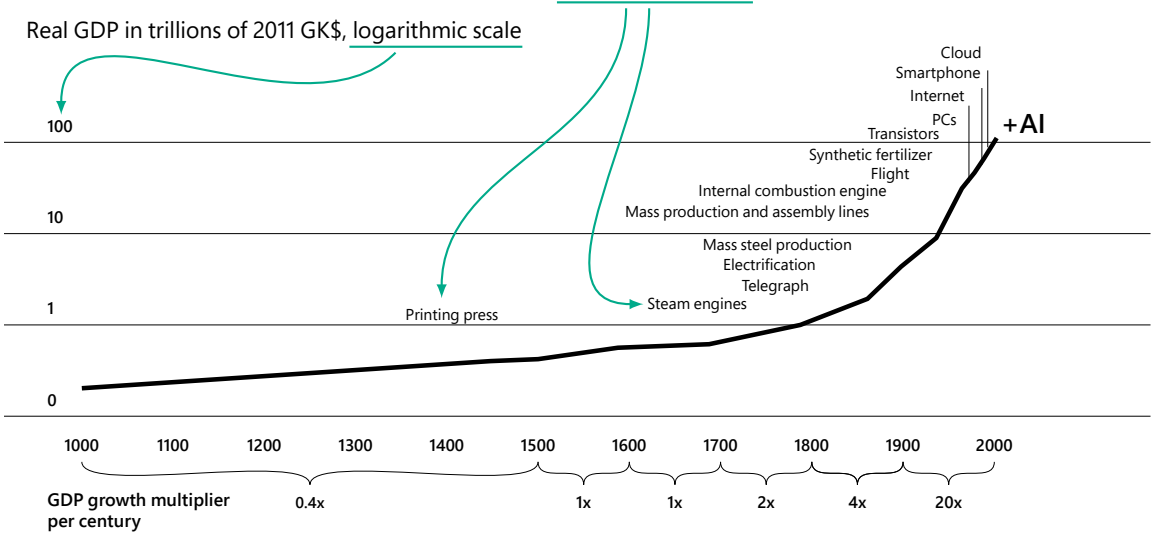

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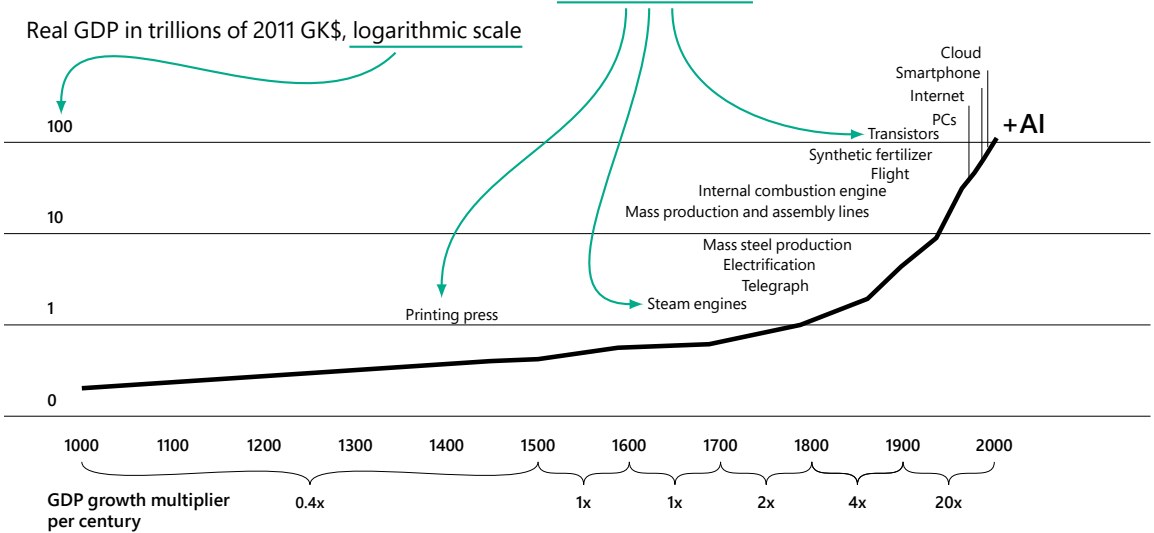

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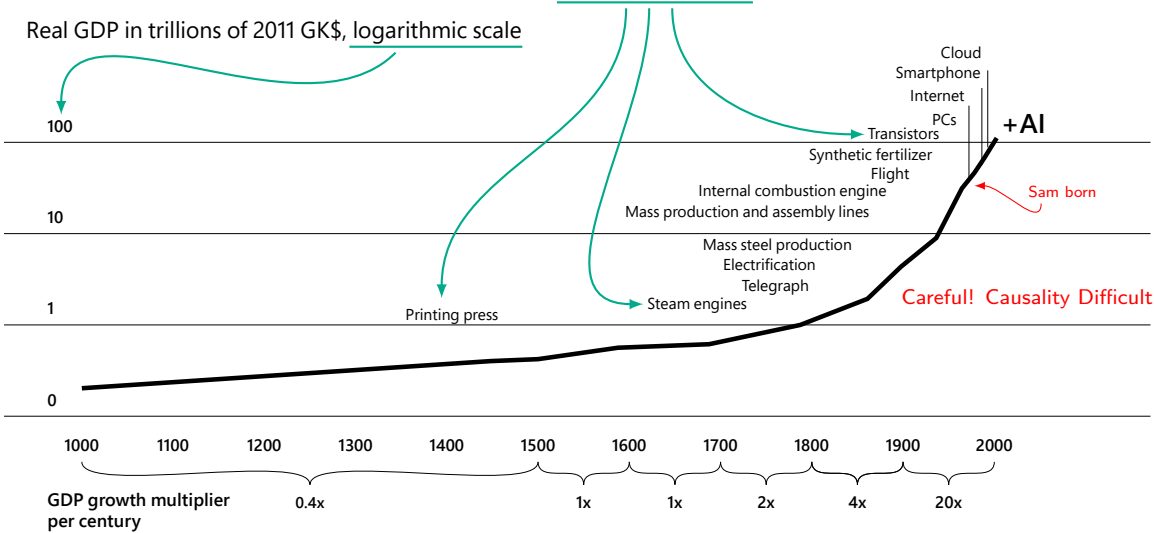

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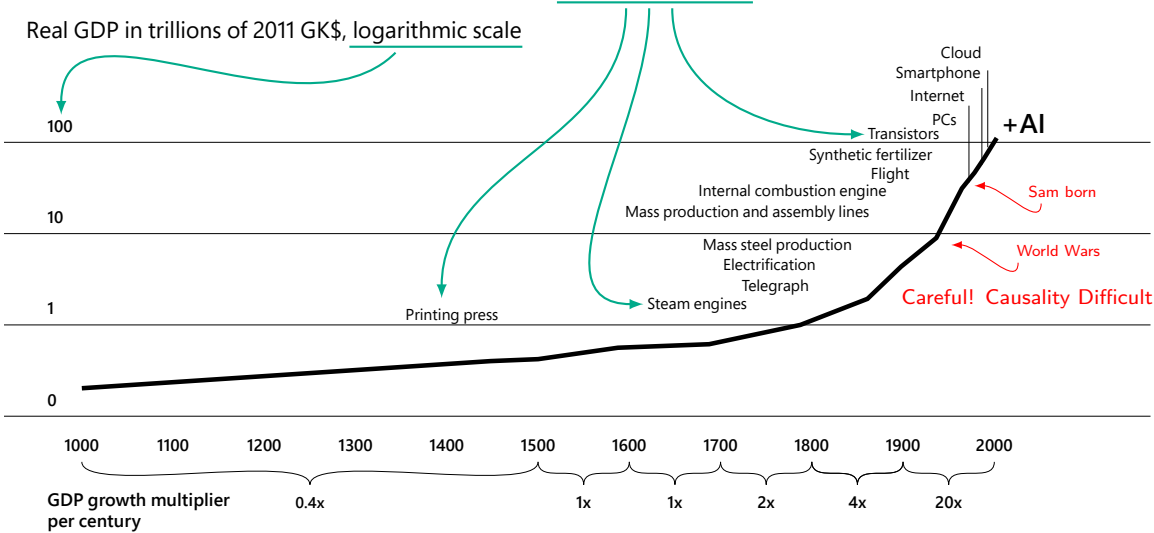

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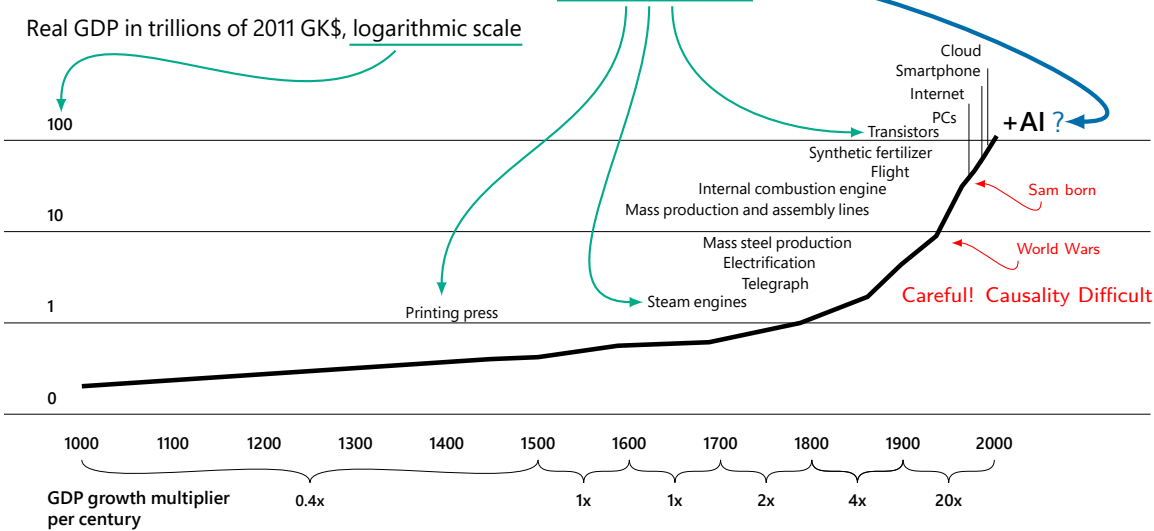

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How much are you personally using AI now in your job?

(a) Not at all; (b) Minimally; (c) Moderately; (d) Significantly; (e) Extensively

https://sloanreview.mit.edu/projects/achieving-individual-and-organizational-value-with-ai/

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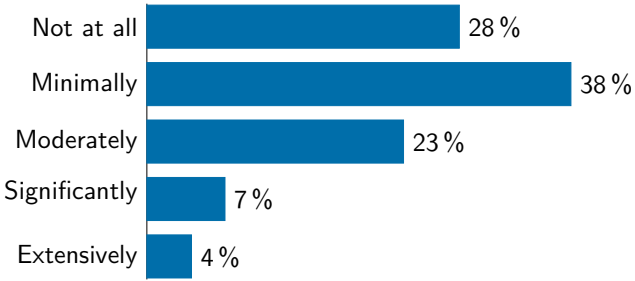

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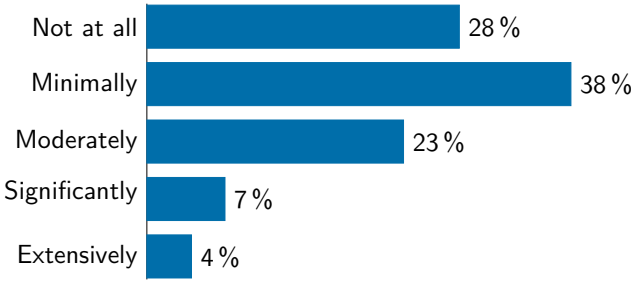

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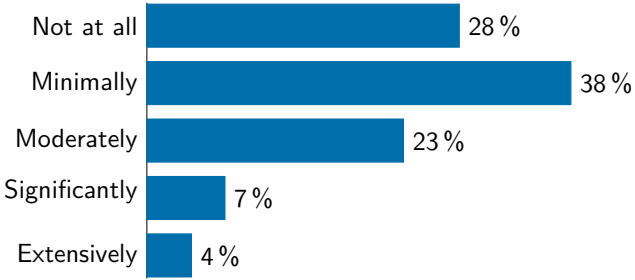

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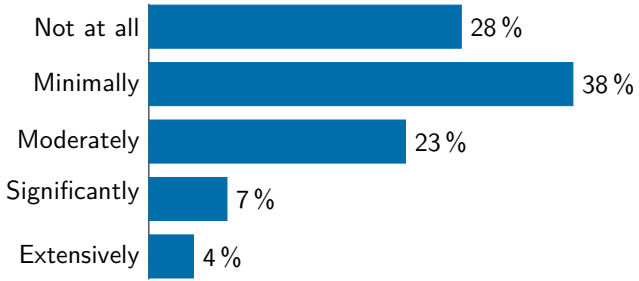

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But when we prompted about specific AI products...

$\Rightarrow$ 43% ...acknowledge they regularly or sometimes use business products with AI components.

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Using AI?

People often say “using AI” as if they were referring to using a tool, like a stapler. But...

- People know when they are using a stapler.
- Understanding the inner workings of a stapler is not necessary to use it.
- Stapling is monolithic with a consistent meaning in different contexts.

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Fiona Tan (CTO, Wayfair)

"Achieving Individual — and Organizational — Value With AI" (Ransbotham et al., 2022)

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Point 2: Widespread use of AI. But wildly varying degrees and awareness.

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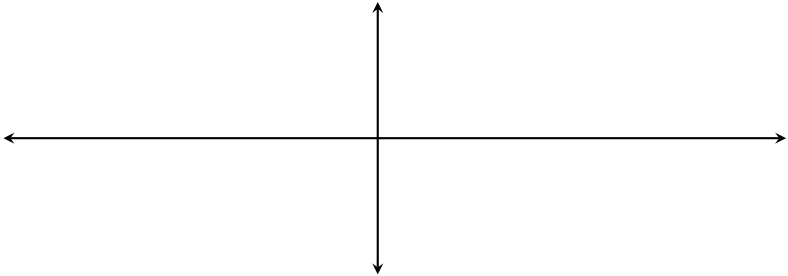
Many many types of AI applications...



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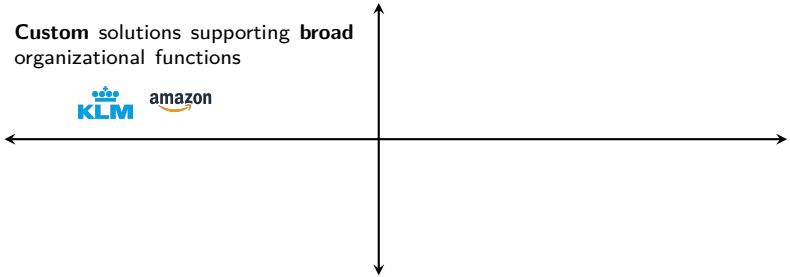

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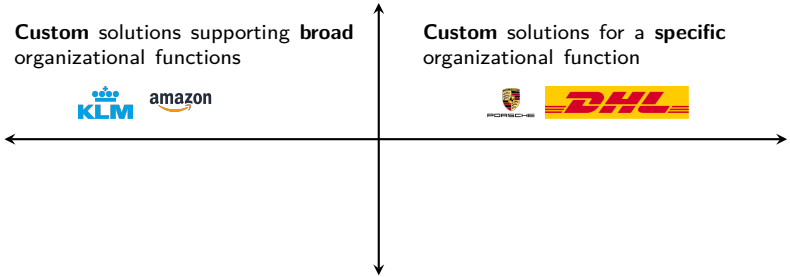

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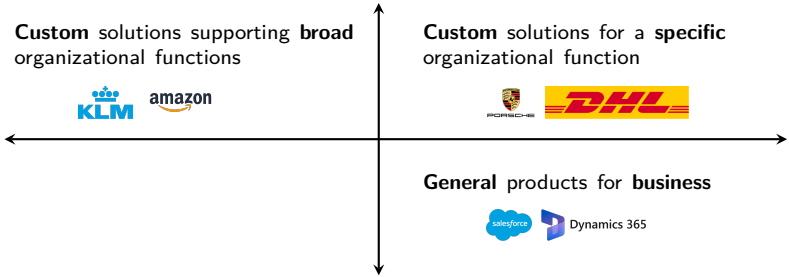

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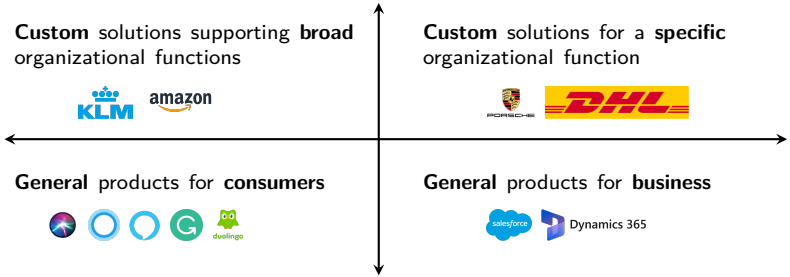

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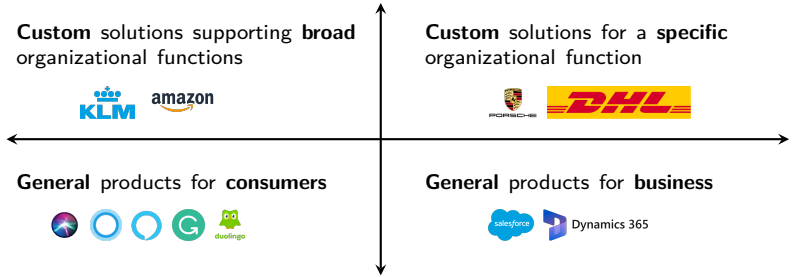
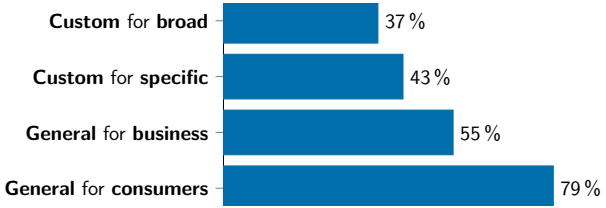


...with a wide variety of adoption.



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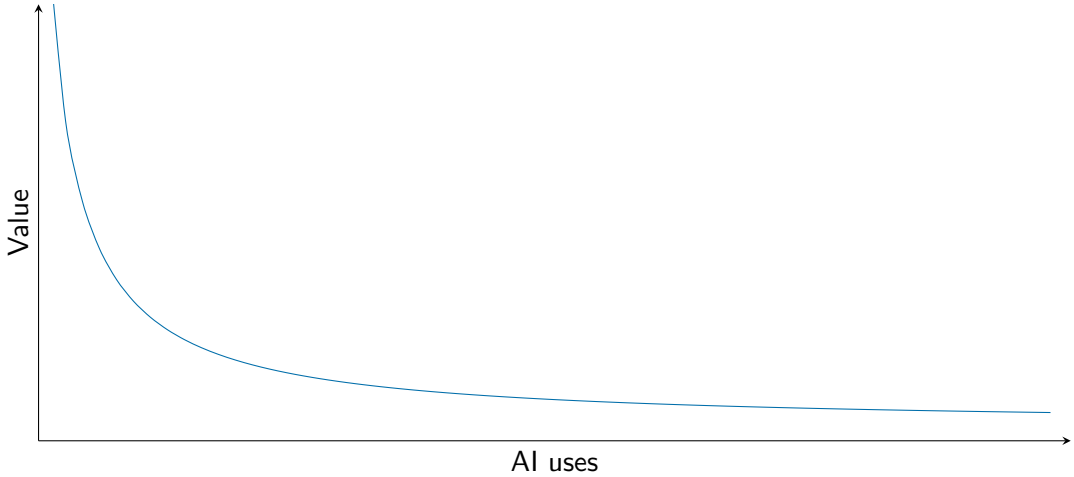
When widespread use intersects with variety? The Long Tail of AI



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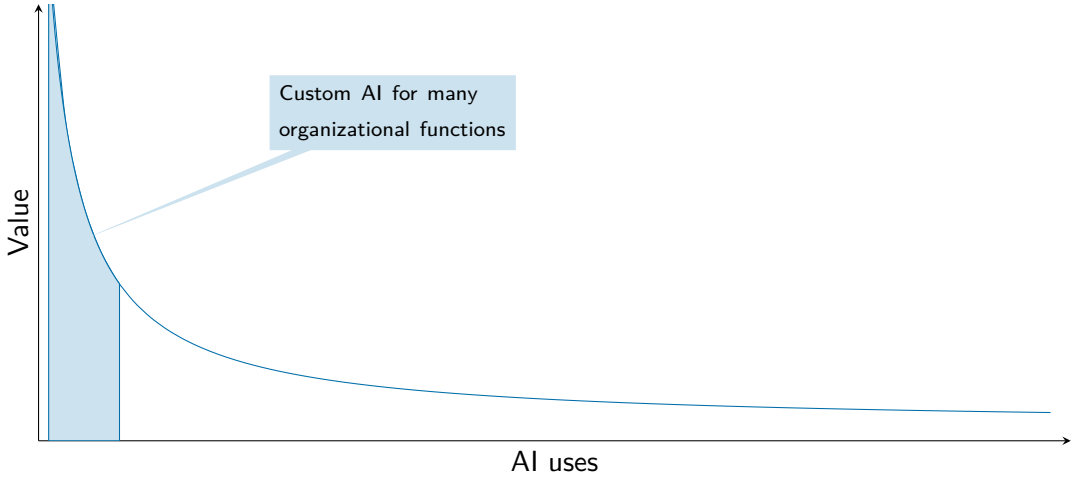

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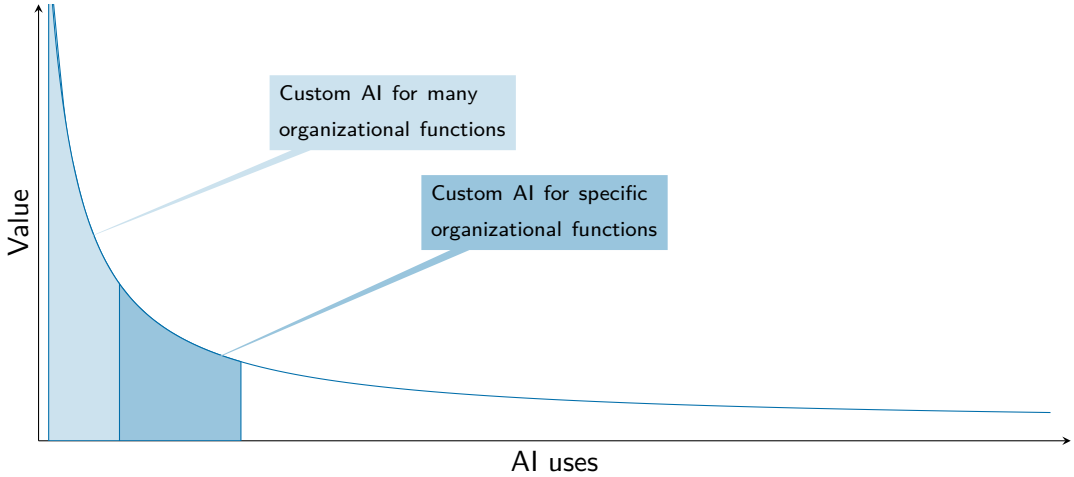

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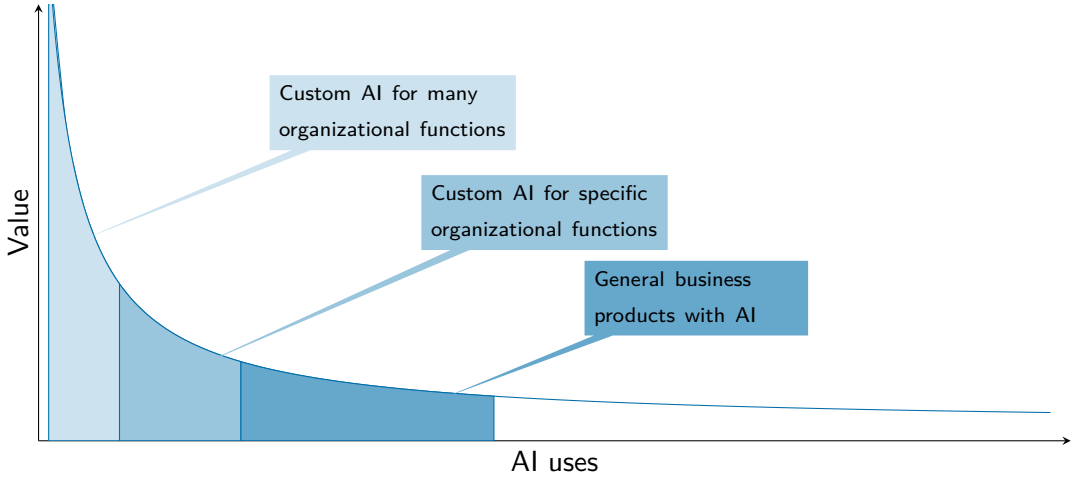

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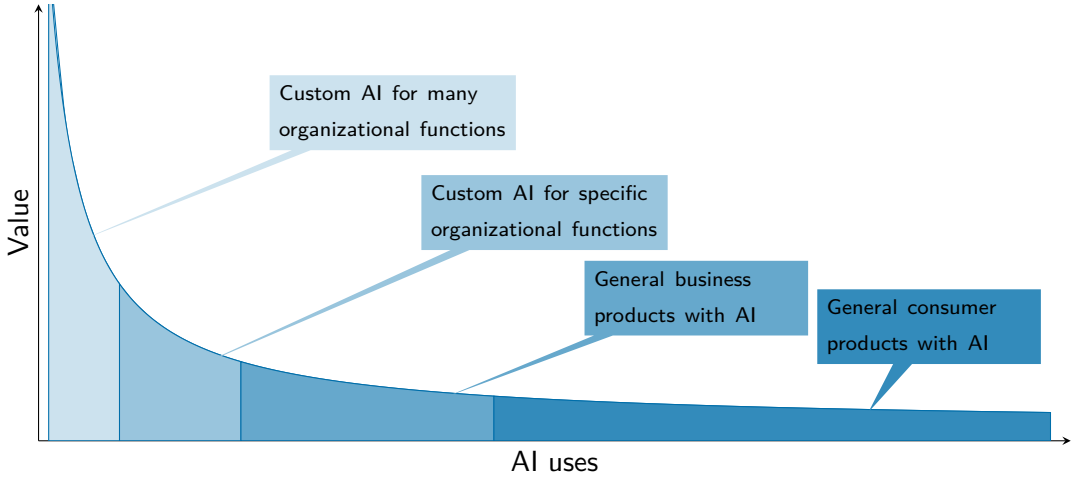

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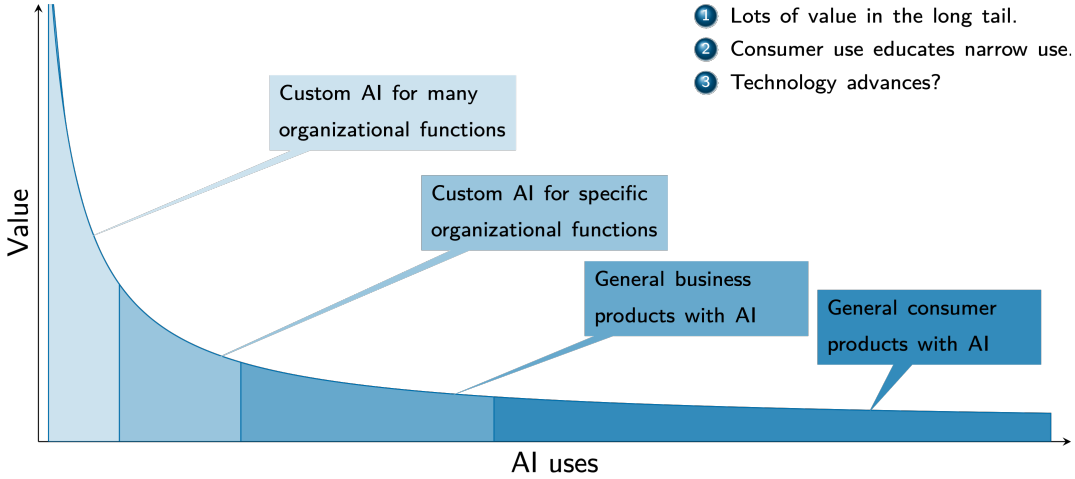

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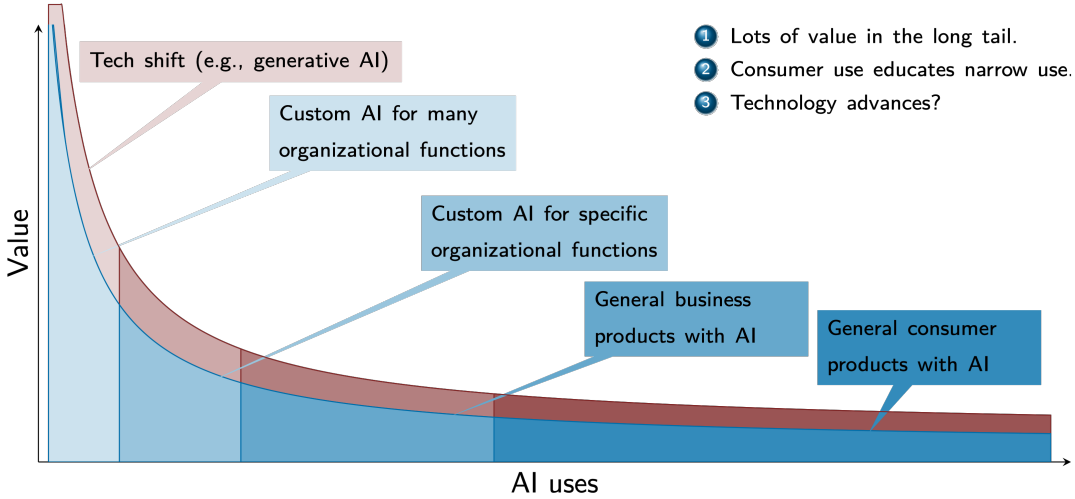

1. Lots of value in the long tail.
2. Consumer use educates narrow use.
3. Technology advances?

Using? Yes... Value?

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...but only 11% of organizations report significant financial benefits.

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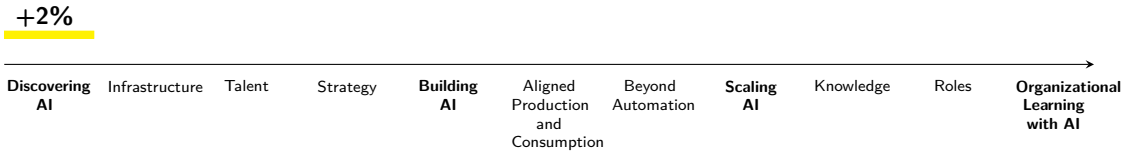
What increases an organization's chances of being in the 11% who get significant financial benefits?



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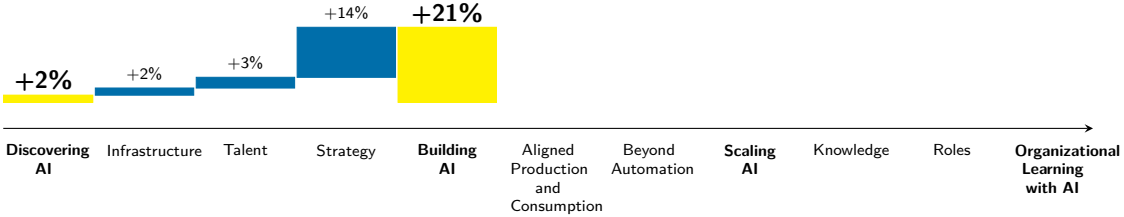

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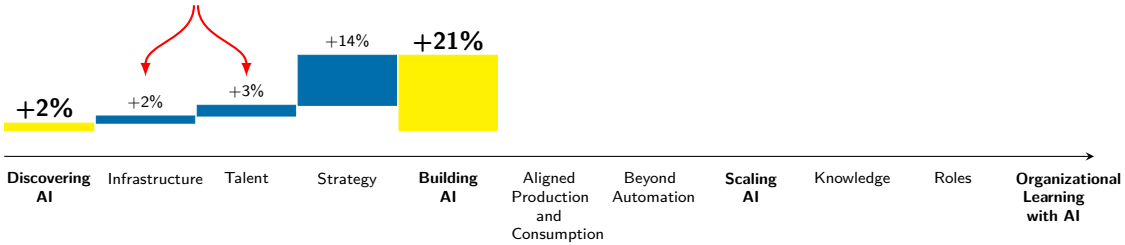
Lots of attention on these!

Necessary, not sufficient.



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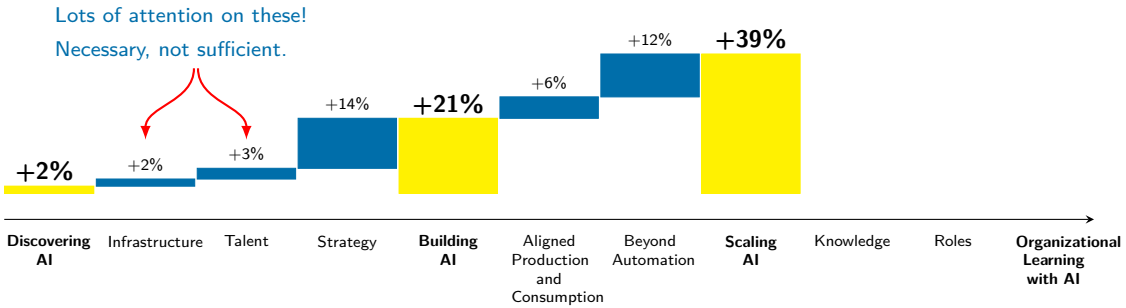

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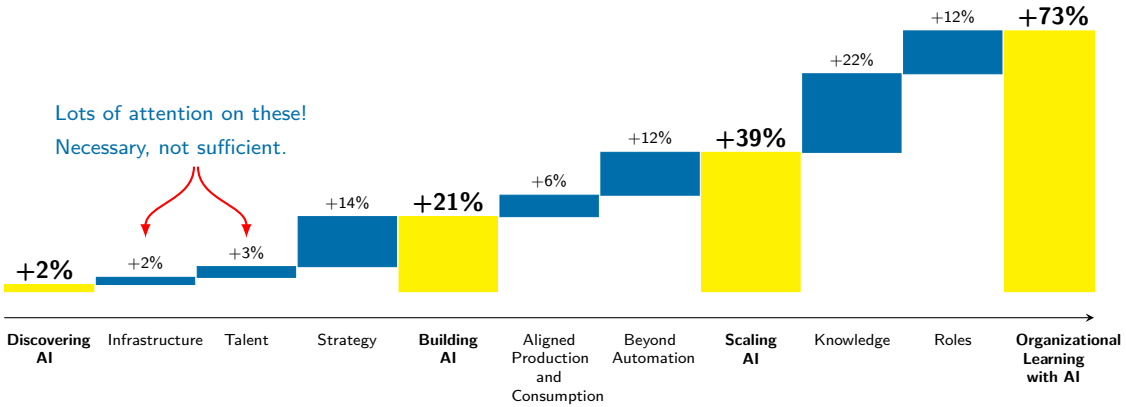

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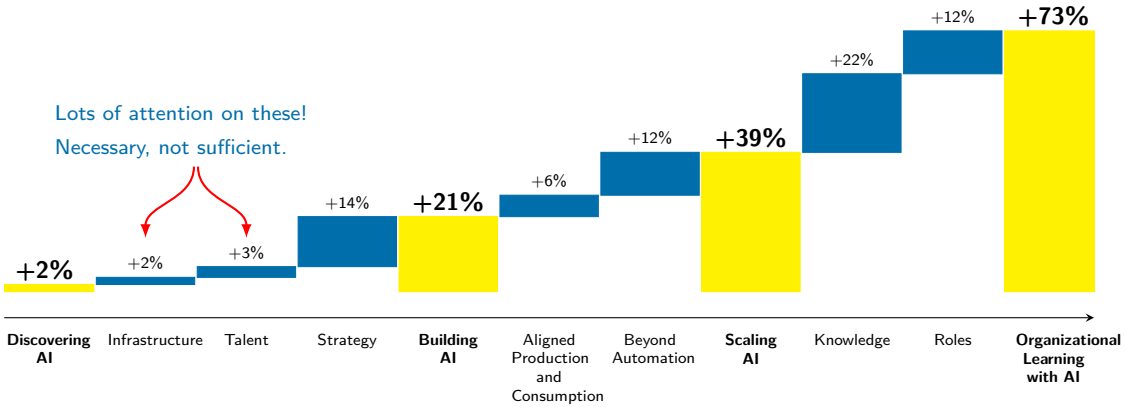

Point 3: Significant value from AI is difficult.

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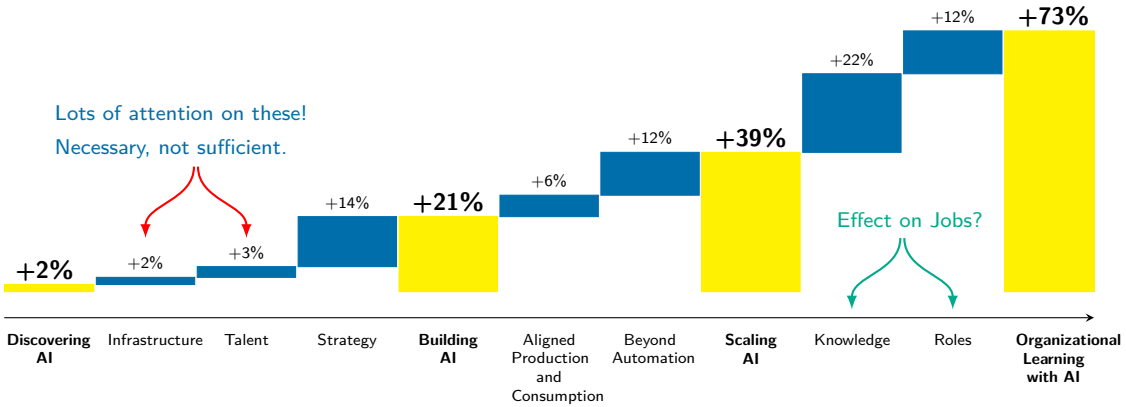

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> People using AI are starting to replace people who don't use AI, and that trend will only accelerate.
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https://sloanreview.mit.edu/projects/achieving-individual-and-organizational-value-with-ai/

But not all is optimistic

Comparative advantage arguments? Weaker if humans compete for resources with AI (e.g., energy). Or if AI use exacerbates inequality. Or if individuals get displaced.

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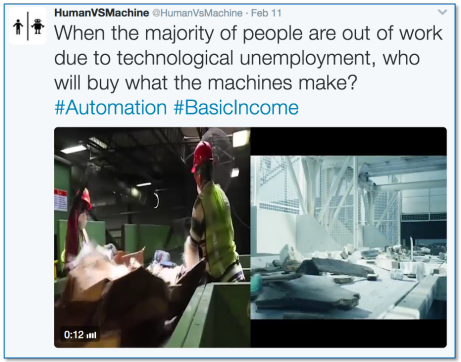

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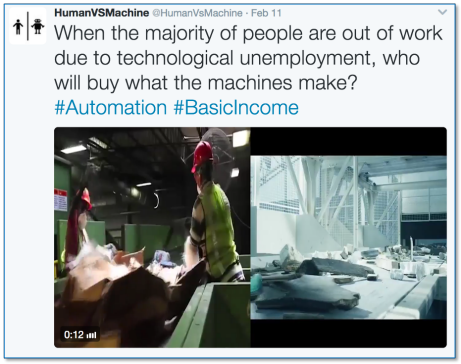
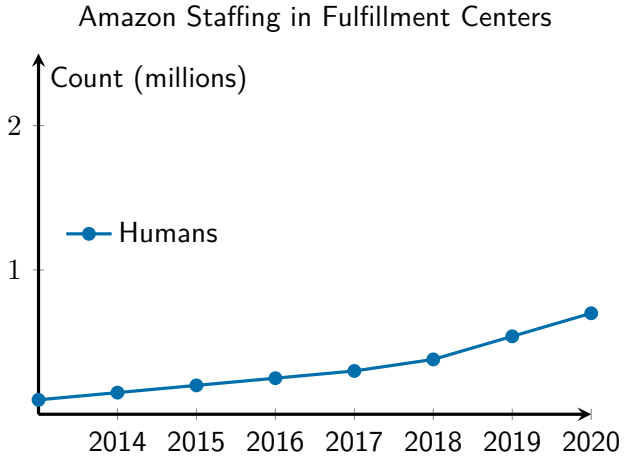


AI is part of a larger transition from labor to capital expense, from variable costs to fixed costs, leading to significant benefits from scale.

Not hypothetical



https://www.theverge.com/2019/5/1/18526092/amazon-warehouse-robotics-automation-ai-10-years-away

https://twitter.com/CBinsights/status/895747298197725184/photo/1

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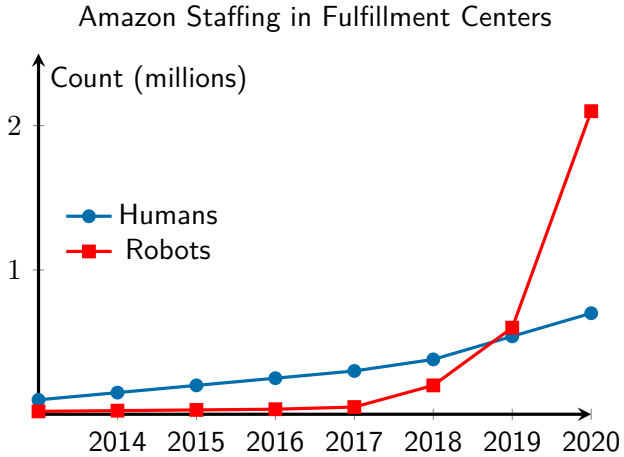

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A huge change over the last 500 days is "which jobs".

Pew Research Center

Most Americans haven't used ChatGPT; few think it will have a major impact on their job

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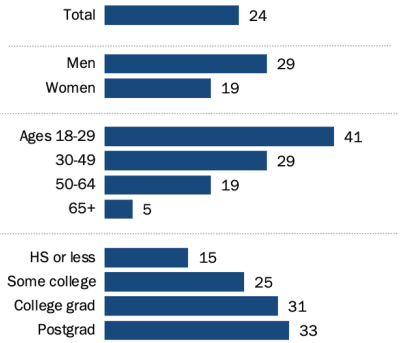
ChatGPT use in the U.S. varies widely by age and education

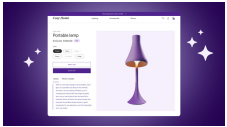
Among U.S. adults who have heard of ChatGPT, % who say they have ever used it



Note: All percentages are based on those who have heard of ChatGPT. Those who did not give an answer are not shown.

www.pewresearch.org/short-reads/2023/08/28/most-americans-havent-used-chatgpt-few-think-it-will-have-a-major-impact-on-their-job/

Write



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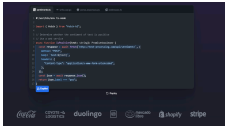

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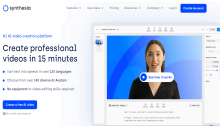
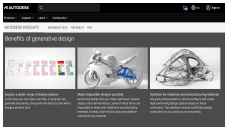


Style

Coach

Engineer



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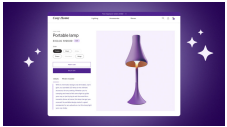

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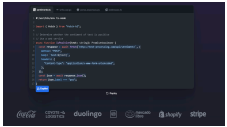

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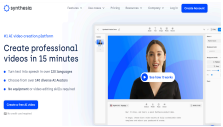

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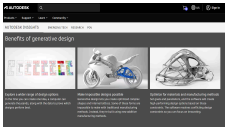
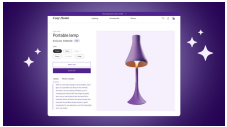


Point 5: Generative tools increasingly effective at knowledge work.

Write



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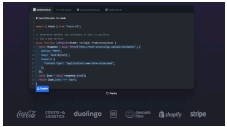

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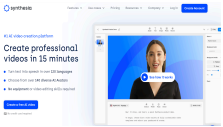

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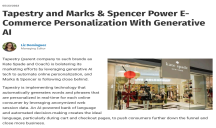

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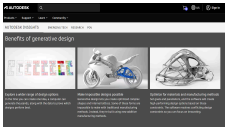

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Harvard Business Review

Find the AI Approach That Fits the Problem You're Trying to Solve **Westerman, Ransbotham, Farronato**

Leaders everywhere are rightly asking about how GenAI can benefit their businesses. However, as impressive as GenAI is, it's only one of many data science techniques.

https://hbr.org/2024/02/find-the-ai-approach-that-fits-the-problem-youre-trying-to-solve

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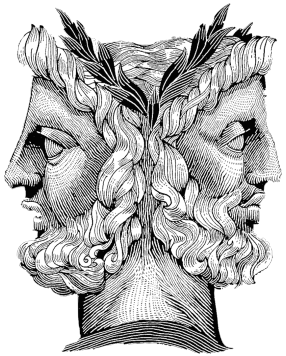

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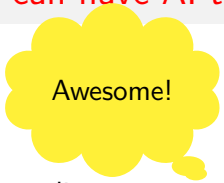

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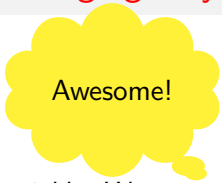

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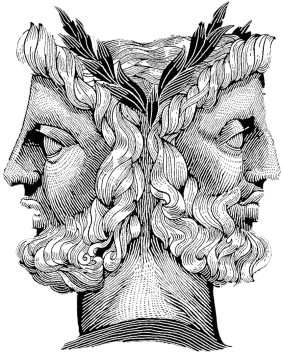

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Is it "Philosophy" for the next decade?

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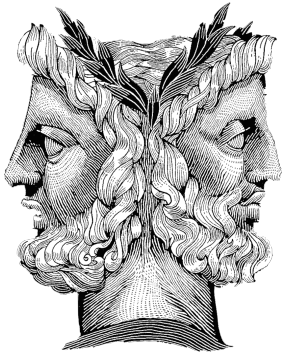

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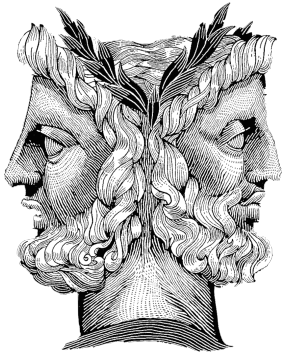

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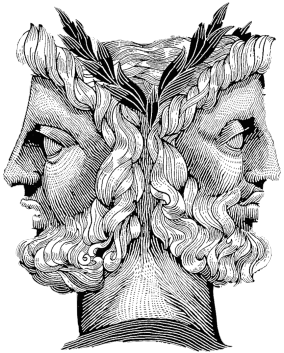

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"By the end of the decade [1980's] Sabre was running on over 130,000 travel agency terminals worldwide."

https://www.sabre.com/files/Sabre-History.pdf

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Point 6: Agnostic + Hidden + Speed + Scale ⇒ Trouble.

Focal points and corresponding questions

- AI use is no longer hypothetical, science fiction.
- Widespread use of AI. But wildly varying degrees and awareness.
- Significant value from AI is difficult.
- AI replacement is not the imminent worry.
- Generative tools increasingly effective at knowledge work.
- Agnostic + Hidden + Speed + Scale $\Rightarrow$ Trouble.

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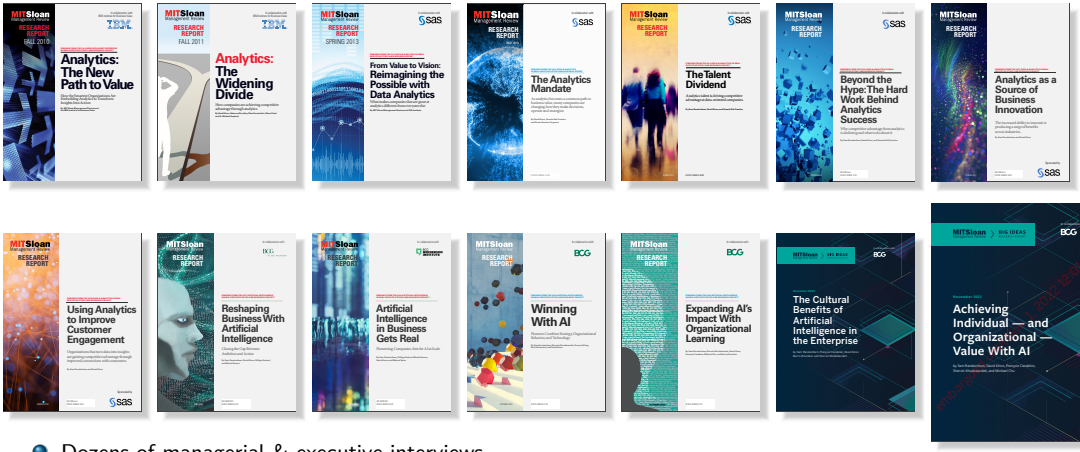
AI is developing rapidly. "Right" answers evolve rapidly. We need to work together to learn how to use and not misuse.

AI and Business Strategy



- Dozens of managerial & executive interviews
- Large (3K+) global survey

New Report Coming 12 November

https://sloanreview.mit.edu/big-ideas/artificial-intelligence-business-strategy/

“Me, Myself, and AI” podcast: 10th Season

Please listen! Do you have know of an interesting story? Contact me: ransboth@bc.edu.

https://sloanreview.mit.edu/audio-series/me-myself-and-ai/