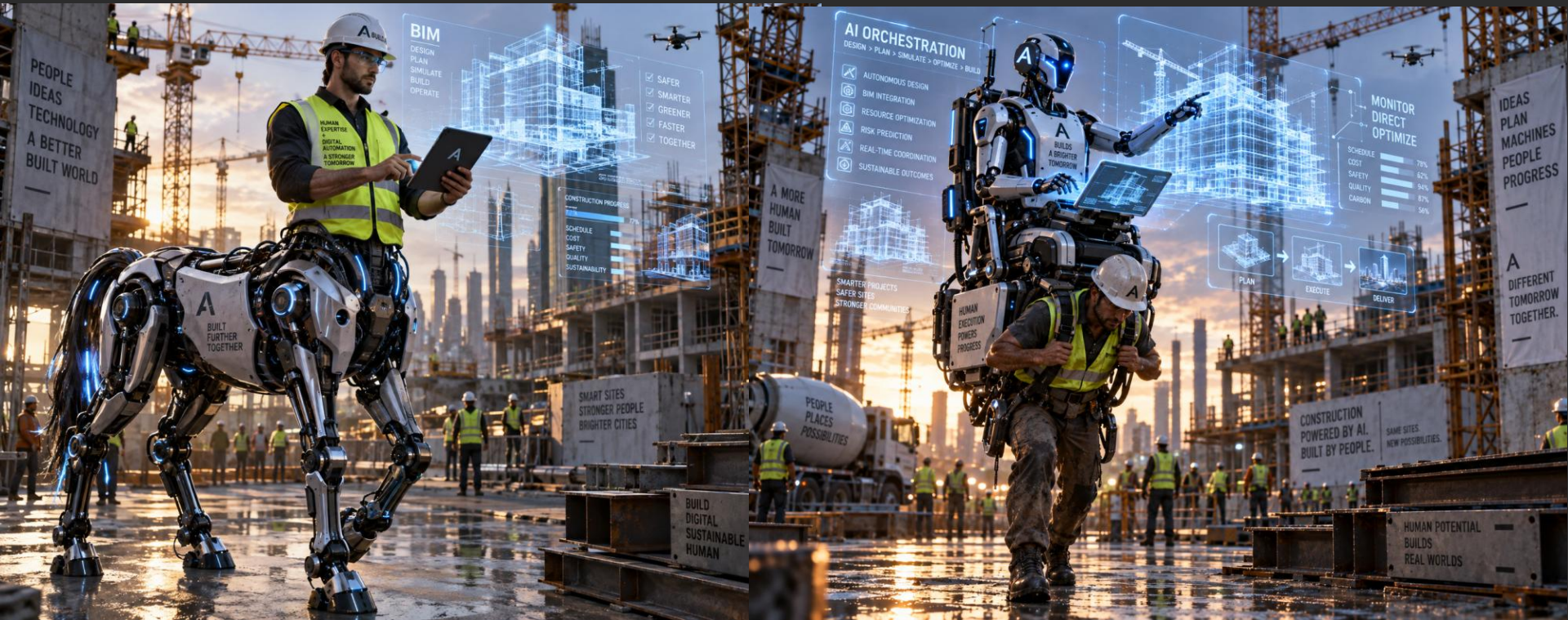


Staalbouwdag 2026

AI bij construeren

Rayaan Ajouz 08-10-2026



CV Rayaan Ajouz

Witteveen+Bos

Sector IM

PMC Ondergrondse infrastructuur



Projecten waarbij constructieve berekeningen en automatisering samenkomen.

2019-2024: ABT

TU Delft

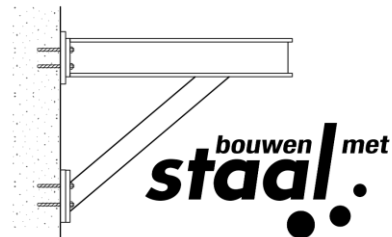
- BSc Architecture
- MSc Civil Engineering Building Engineering

Bouwen met Staal

Cursus AI

Cursus Parametrisch ontwerpen

Hackathon@Staalbouwdag



Hackathon 2026

GPT-6 Astra was released by OpenAI on September 3, 2026. Yotta Labs

Witteveen Bos

staal met



Marijn Luijmes • 1ste

Architect | Computational Design Expert | Full
1w • Bewerkt

What is BETTER than AI agents drawing your floorplans?
Well... using AI to build parametric systems so you don't NEED agents all the time.... meer

Grasshopper



Build Parametric Floorplans

With ChatGPT-6 Astra + Grasshopper

GPT-6 Astra

It's out. Here's what it costs.



Chiang Ning (ARBV, PMP) • 2de

I help Architects+PM unlock AI without compromising ...
1w

+ Volgen

Most AI architecture video starts with a prompt. This one starts with a land parcel. Here is the order I run it in.... meer

Astra+Blender+Kling3



A real site, a measured model, and 8 seconds
Guide)

Chiang Ning (ARBV, PMP)

Clemens Nocker en 159 anderen

11

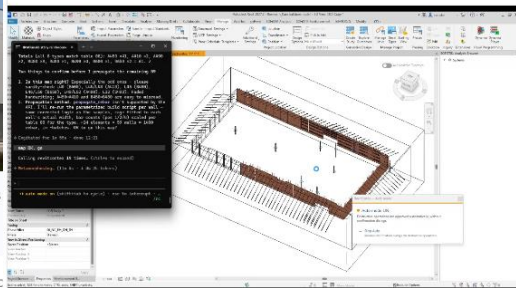


Vladimír Vančík • 2de

Partner and structural engineer at VIN Consult. Sháním lidi ...
2w

+ Volgen

Rebar detailing must be harder than driving a car, because AI is still struggling. But that may not last long.... meer



Oliver Thomas • 2de

Mijn website bezoeken
met ArchTech Network • 1w

+ Connectie

Did GPT-6 Astra just 10X what I can do as an architect?

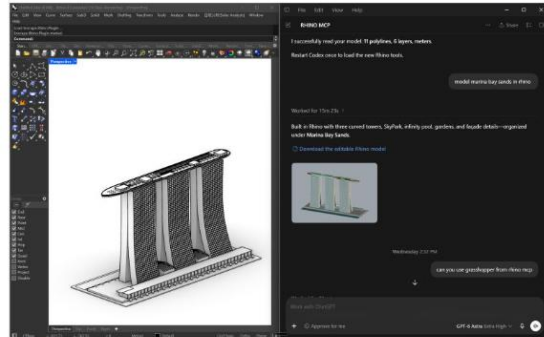
After two weeks of testing, excitement and, frankly, a bit of freaking... n



Chunes Sripalasetty • 1ste

Architectural Intern at Studio Chintala
2w

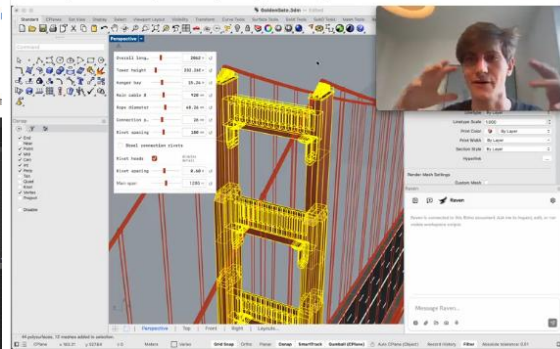
I typed six words. Astra returned a Rhino model of Marina Bay Sands.... meer



Chunes Sripalasetty en 161 anderen

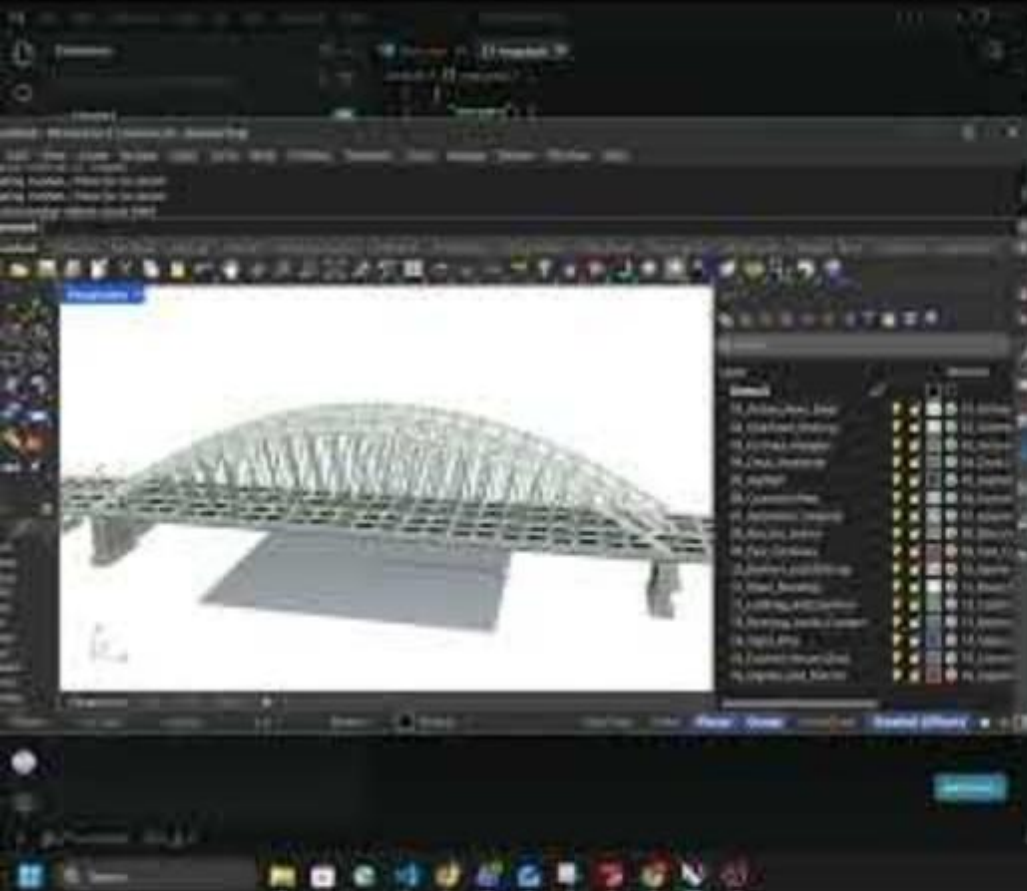
20 commentaren

don't get me wrong, the output is great, it's just not that **usefull**.... meer

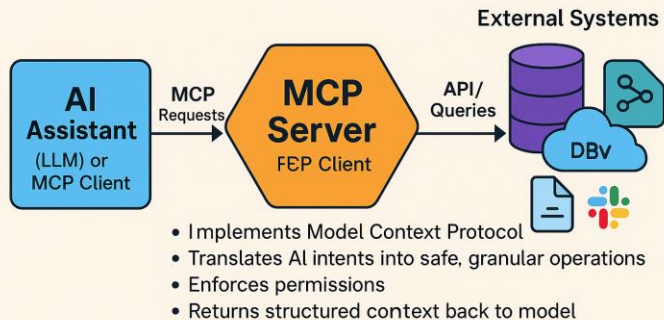


Sergey Kurepin en 89 anderen

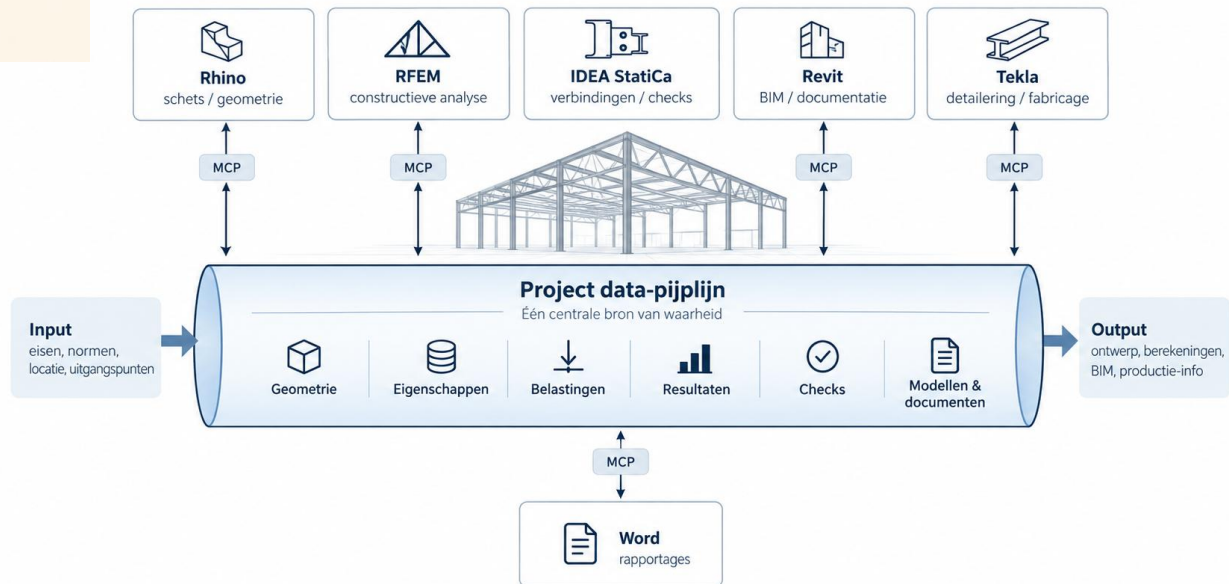
4 commentaren • 4 reposts



What is an MCP Server?



MCP Server bridges AI ↔ Data/Tools



committed.

Copilot Business

Credits Resets Oct 1 at 2:00 AM

68% used

Inline Suggestions > Enabled

Codebase Semantic Index ⓘ ⊗ Not available

Session Sync ⓘ Not enabled

[Enable?](#)

committed.

Copilot Business

Credits Resets Oct 1 at 2:00 AM

3,476 / 5,000 used

Inline Suggestions > Enabled

Codebase Semantic Index ⓘ ⊗ Not available

Session Sync ⓘ Not enabled

[Enable?](#)

GPT-6

Astra



Our most intelligent model for the best results.

Input

\$10.00

Output

\$50.00

GPT-6

Sol



Complex coding and professional work at a lower cost.

Input

\$2.00

Output

\$10.00

GPT-6

Luna



Fast and efficient everyday work at scale.

Input

\$0.10

Output

\$0.50

Pawel Huryn

•2de

AI PM | Deep research. I build, test, then teach | 130K+ ...

Mijn nieuwsbrief weergeven

14u • Bewerkt

+ Volgen

Bos

bouwen met taal

Anthropic says use low effort for simple tasks. I never do.

I tested 40 AI models at 101 effort settings. Here's what I use instead,... meer

CHEAT SHEET

40 MODELS • 101 EFFORT SETTINGS TESTED

CLAUDE

CHATGPT

The AI model and effort for 8 everyday tasks

My rules of thumb for Claude and ChatGPT at work.

WHAT EFFORT MEANS • SONNET 5.5, ONE LONG TASK

Low

Medium

High

Extra high

Max

108 steps • 9 min

158 steps • 17 min

274 steps • 28 min

502 steps • 75 min

1,497 steps • 4.8 h

SKIP

CAN SKIP

START HERE

SKIP

In Claude: High spends only what the task needs. Low cuts corners on hard tasks. Max removes the limit.

TASK	CLAUDE	CHATGPT
Rewrite an email or message	Sonnet 5.5 High	GPT-6 Luna High
Summarize a meeting or long doc	Sonnet 5.5 High	GPT-6.1 Sol High
Draft a PRD or strategy doc	Sonnet 5.5 High	GPT-6.1 Sol High
Analyze a spreadsheet	Sonnet 5.5 High	GPT-6.1 Sol High
Build a prototype or automation	Sonnet 5.5 Extra high	GPT-6.1 Sol Extra high
Review a plan before you send it	Opus 5.5 High	GPT-6 Astra High
Research a market or competitors	Opus 5.5 Extra high	GPT-6 Astra Extra high
Anything where a mistake is expensive	Opus 5.5 Extra high	GPT-6 Astra Extra high

• small model • middle most work • top: when a mistake is expensive
 Claude effort: Low → Max • ChatGPT Power: Light → Max (Astra adds Ultra) • ChatGPT Free and Go: Luna only

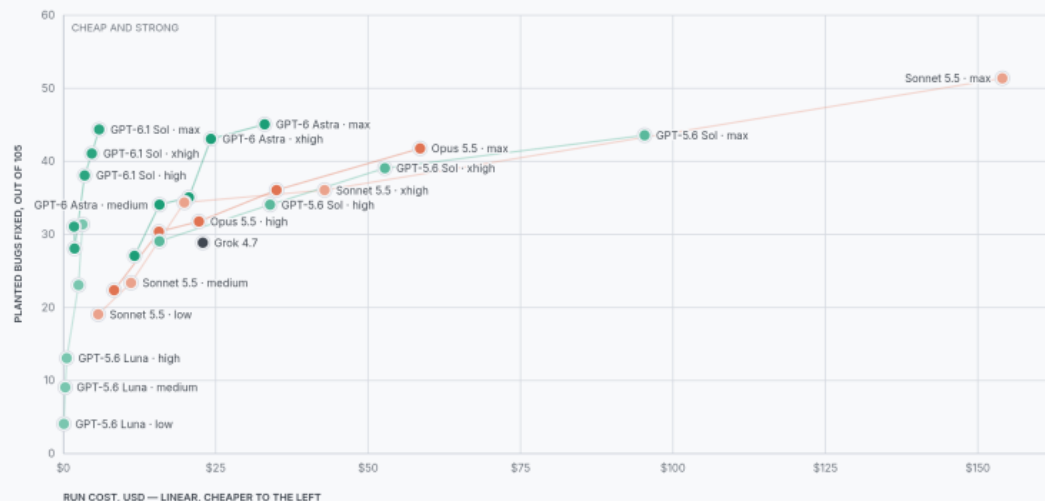
Pawel Huryn • productcompass.pm • 141K+ readers

v1 • 2024-10

Score against cost

Planted bugs only — unplanted fixes are never added to the score.

<https://bughunt.productcompass.pm/>



Cost is not one kind of number: some figures are an actual bill, some are a token-count estimate at published list rates, one CLI only allows a reconstructed lower bound, and one run was free.

● Sonnet 5.5 · max — 51.3	● GPT-6 Astra · max — 45	● GPT-6.1 Sol · max — 44.3
● GPT-5.6 Sol · max — 41.7	● GPT-6 Astra · xhigh — 43	● Opus 5.5 · max — 41.7
● GPT-6.1 Sol · xhigh — 41	● GPT-5.6 Sol · xhigh — 39	● GPT-6.1 Sol · high — 38
● Opus 5.5 · xhigh — 36	● Sonnet 5.5 · xhigh — 36	● GPT-6 Astra · high — 35
● Sonnet 5.5 · high — 34.3	● GPT-6 Astra · medium — 34	● GPT-5.6 Sol · high — 34
● Opus 5.5 · high — 31.7	● GPT-5.6 Luna · max — 31.3	● GPT-6.1 Sol · low — 31
● Opus 5.5 · medium — 30.3	● GPT-5.6 Sol · medium — 29	● Grok 4.7 · xhigh — 28.8
● GPT-6.1 Sol · medium — 28	● GPT-6 Astra · low — 27	● Sonnet 5.5 · medium — 23.3
● GPT-5.6 Luna · xhigh — 23	● Opus 5.5 · low — 22.3	● Sonnet 5.5 · low — 19
● GPT-5.6 Luna · high — 13	● GPT-5.6 Luna · medium — 9	● GPT-5.6 Luna · low — 4

30 of 102 runs shown — Custom selection. Cost on a linear axis; the score axis stops above the board's best run, which is out of 105.

Score = planted bugs fixed, verified blind against a withheld answer key. Unplanted defects are real, but they are counted separately and never added to the score.

Costs are list-rate estimates unless noted: Grok 4.7 is a reconstructed lower bound (this CLI reports context occupancy, not billing).

<https://bughunt.productcompass.pm/>

UNDERLYING 3D MODEL



GPT-5.5



Opus 4.8



Fable 5



Human

DIMENSIONED FLOOR PLAN



GPT-5.5



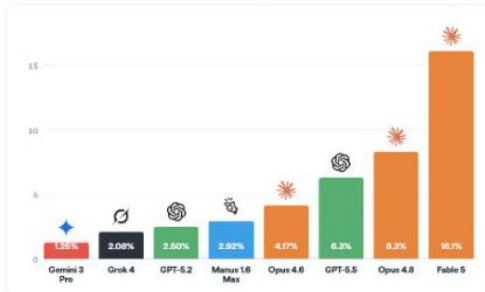
Opus 4.8



Fable 5



Human



Full-automation rate on the Remote Labor Index: the share of projects where each model's deliverable was judged at least as good as the professional's. The three newly evaluated models (Fable 5, Opus 4.8, GPT-5.5) score above every previously evaluated model.

#TeklaStructures #TeklaSkill #AI #TeklaAPI #TeklaOpenAPI

ROUND 2 • REBAR • TEKLA 2025 • ONE RUN EACH

Both got the rebar right. One cost 4× more.

A stirrup macro and a precast corbel plug-in. Both worked in the model, first try.

GPT-5.6 Sol WITH THE SKILL

2/2

COST \$1.74

TIME 5:50

GPT-6 Astra NO SKILL

2/2

COST \$7.54

TIME 12:15

Same working code, two bills. Which one would you pay?

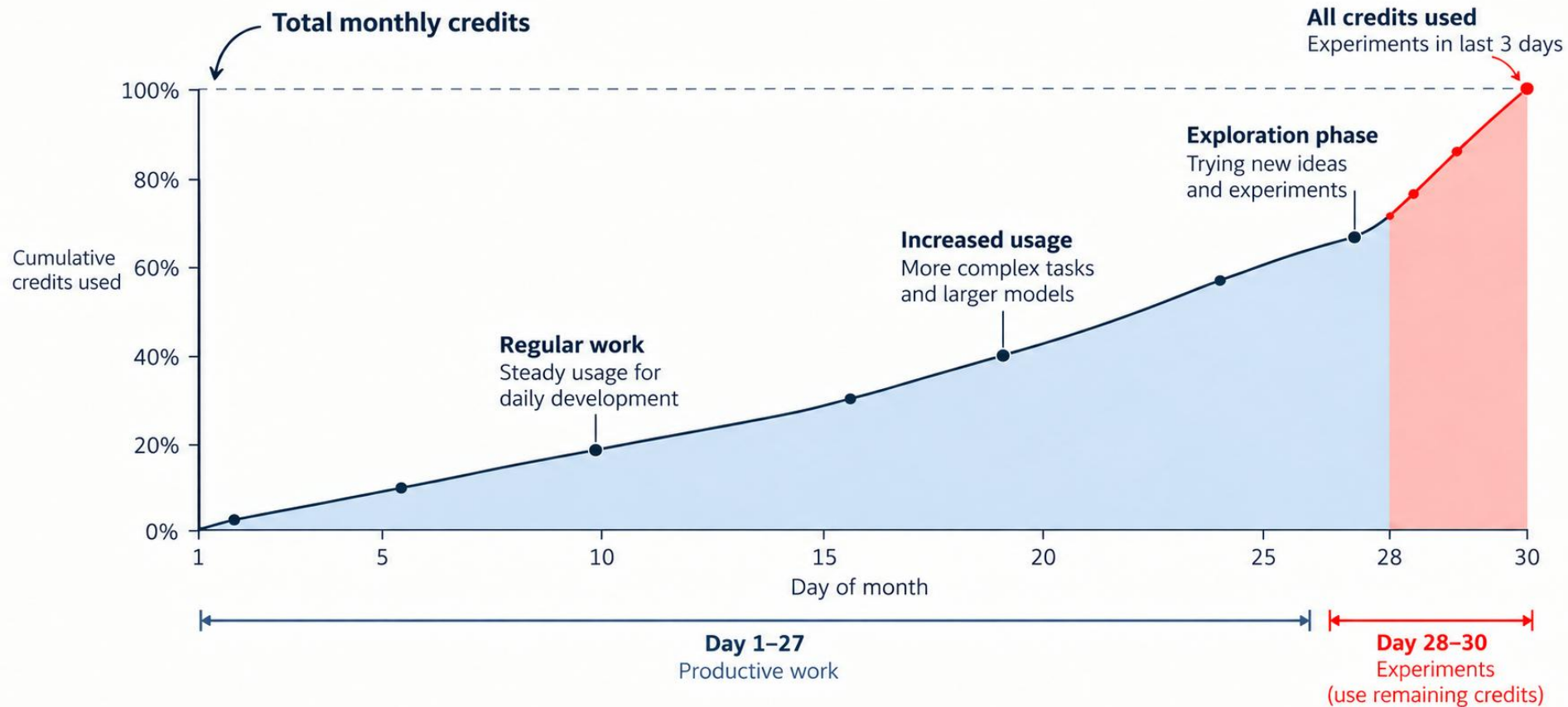
The skill is mine and I sell it. Both prompts are in the comments, so you can run them yourself.

Greg Olczewski • 10 yrs in the Tekla Open API

one attempt per prompt • Sept 2024

Pavel Vlasák en 18 anderen

4 commentaren





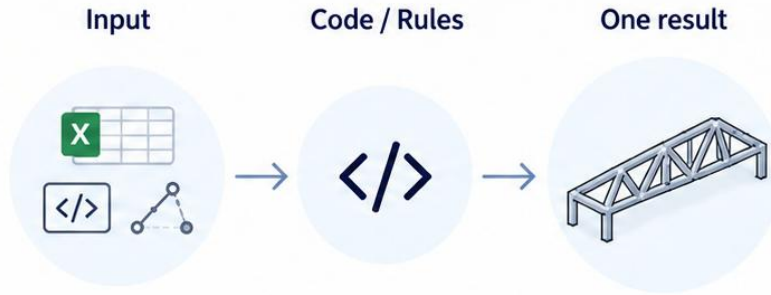
Deterministic

Probabilistic

Deterministic vs Probabilistic Workflows

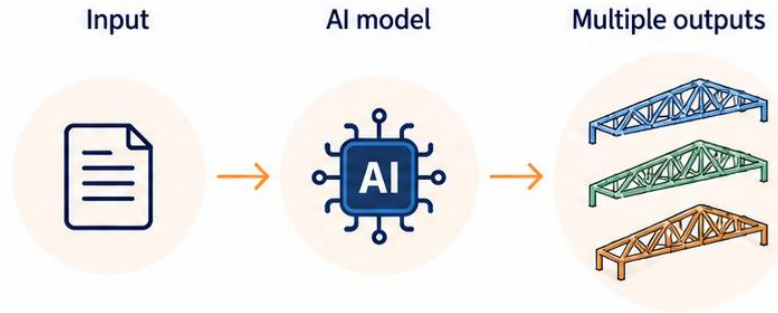
AI in the construction industry

Deterministic



● Predictable | ● Traceable | ● Repeatable

Probabilistic



● Pattern-based | ● Variable | ● Probabilistic

vs



Engineer intent



AI helps
create workflow



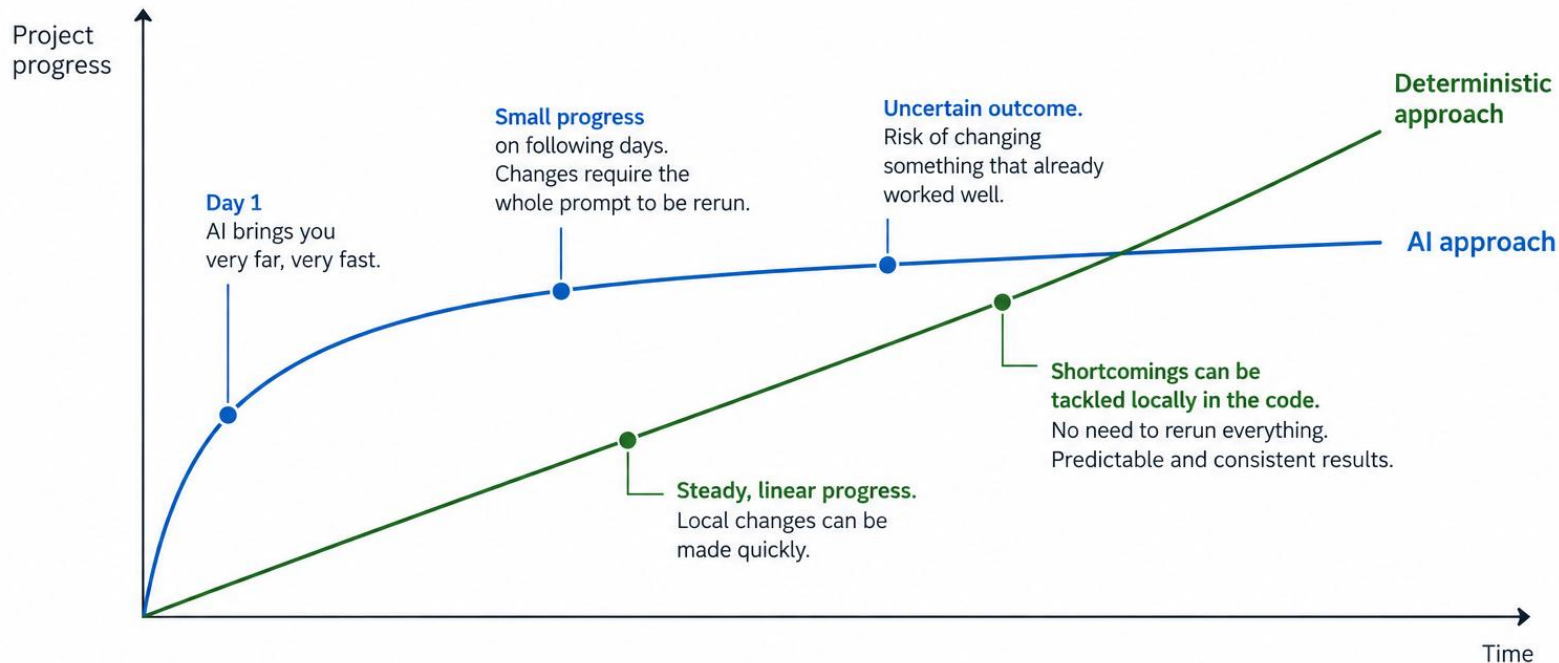
Deterministic
workflow



Verified
engineering result



Best of both worlds



AI

Fast start
Ideation
Generation



Deterministic workflow

(with AI support)

Develop
Refine
Reliable results



Best of both worlds

Speed of AI
Control and reliability
for final results

AI alone creates review overload.

Deterministic workflows with AI support scale more reliably.

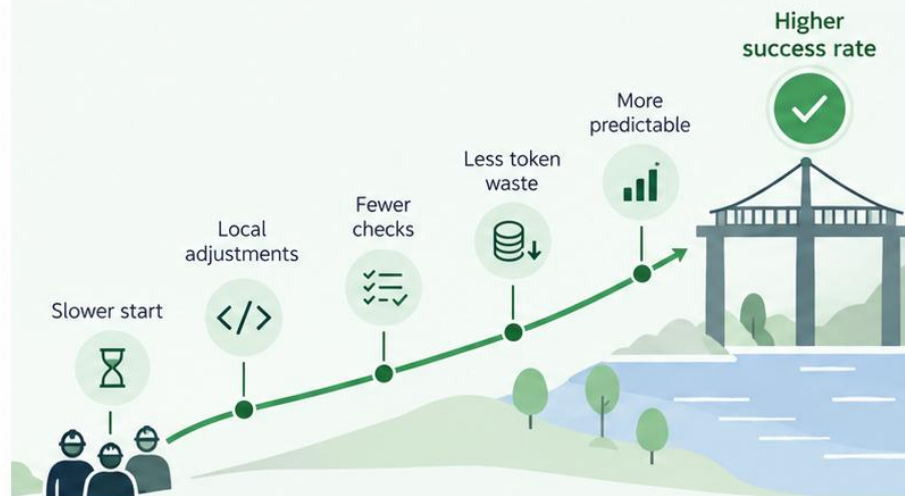
AI-only approach

Fast start, but gets stuck in endless verification.



Deterministic / hybrid approach

Slightly slower start, more control, higher success rate.



How your organization can enable the **hybrid approach**

AI + deterministic engineering requires skills, support, projects, and talent

1 Learn to code

Build scripting capability in Python, Grasshopper, APIs, and automation.



2 Educate and support

Provide training, time, tooling, mentoring, and internal knowledge sharing.



3 Procure the right projects

Select pilot projects and client work where digital methods can be applied and improved.



4 Build the right workforce

Hire people with digital skills or strong motivation to learn.



Hybrid approach

AI for speed +
deterministic workflows
for control.

Organizational result



Faster innovation



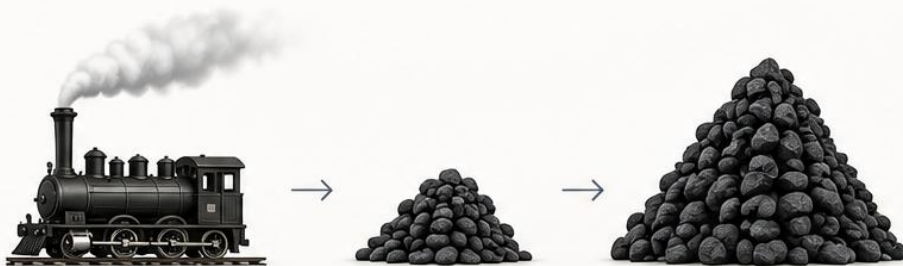
Higher reliability



Scalable delivery

Jevons paradox

A more efficient steam engine did not reduce coal usage, it made it cheaper to produce, which led to more production and more coal being used.



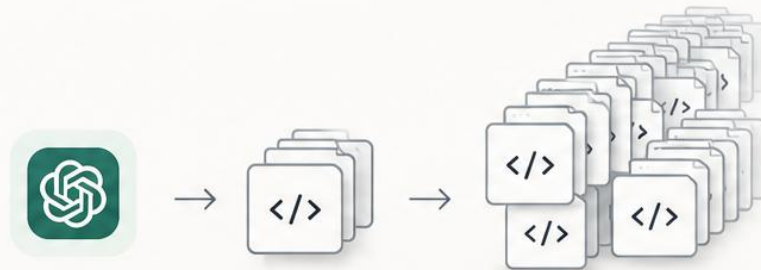
More efficient
steam engine

Cheaper production

More production
and more coal used

Jevons paradox for code

AI makes code easier and cheaper to produce, which leads to more code being built and used.



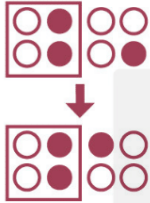
AI makes coding
easier and faster

Cheaper code
to produce

More code
being built and used

PATTERN RECOGNITION

ANALYZING AND LOOKING
FOR A REPEATING SEQUENCE

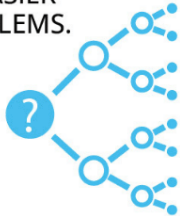


COMPUTATIONAL THINKING



DECOMPOSITION

BREAKING BIG PROBLEMS
INTO SMALLER, EASIER
TO MANAGE PROBLEMS.



ABSTRACTION

REMOVING PARTS
OF A PROBLEM THAT ARE
UNNECESSARY AND MAKING
ONE SOLUTION WORK
FOR MULTIPLE PROBLEM.



ALGORITHM DESIGN

STEP-BY-STEP
INSTRUCTIONS
HOW TO DO SOMETHING



BIM
Corner



Learn
Grasshopper
with Kris



Andy Robert · 2de

Co-Founder & CEO @/slantis | Architect | Enabling bold, future-...

[Mijn website bezoeken](#)

4d

+ Volgen ...

Agree?



Andy Robert

@andyrobert

**AI makes being average at
any skill available to
everyone, which makes
average work worthless.**

**If you take the time to
become incredibly good
at what you do you won't
have to worry about being
replaced.**



Muhammad Saqlain Awan en 36 anderen

5 commentaren • 1 repost

Witteveen

Bos

staal. met
bouwen



Wanneer iedereen dezelfde “technologie” heeft.
Hoe ga je je onderscheiden van de concurrentie?



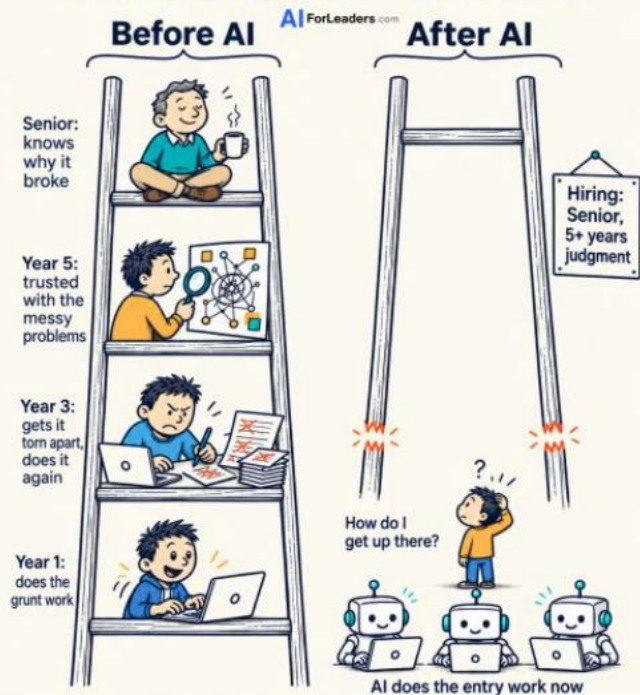
Julia Danyal • 2de
Become a credible Chief AI Leader. Earn the AI certification built...
[Mijn website bezoeken](#)
1w

+ Volgen

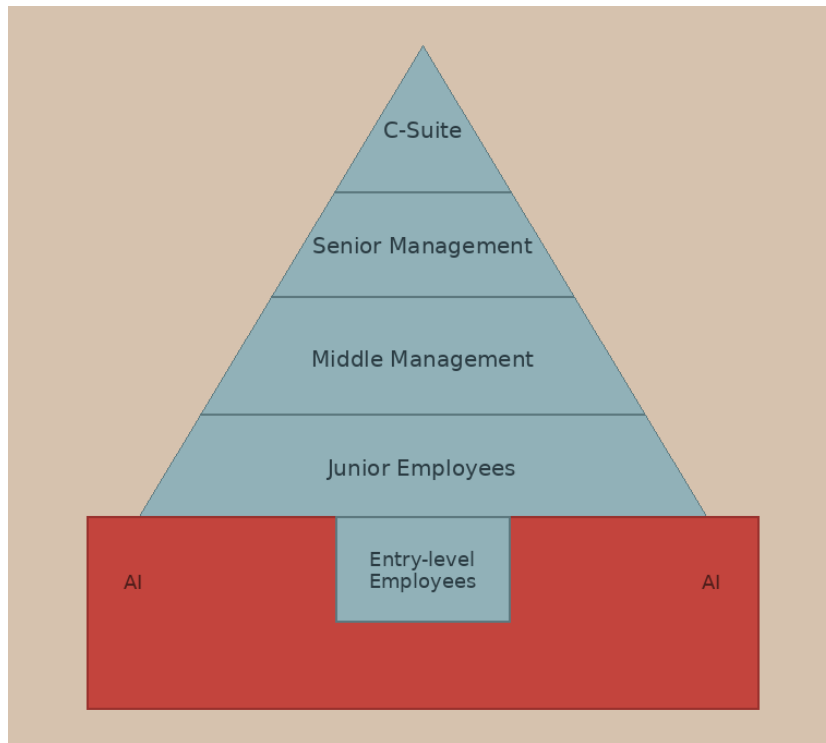
Every senior you hire was once a junior someone had to teach.

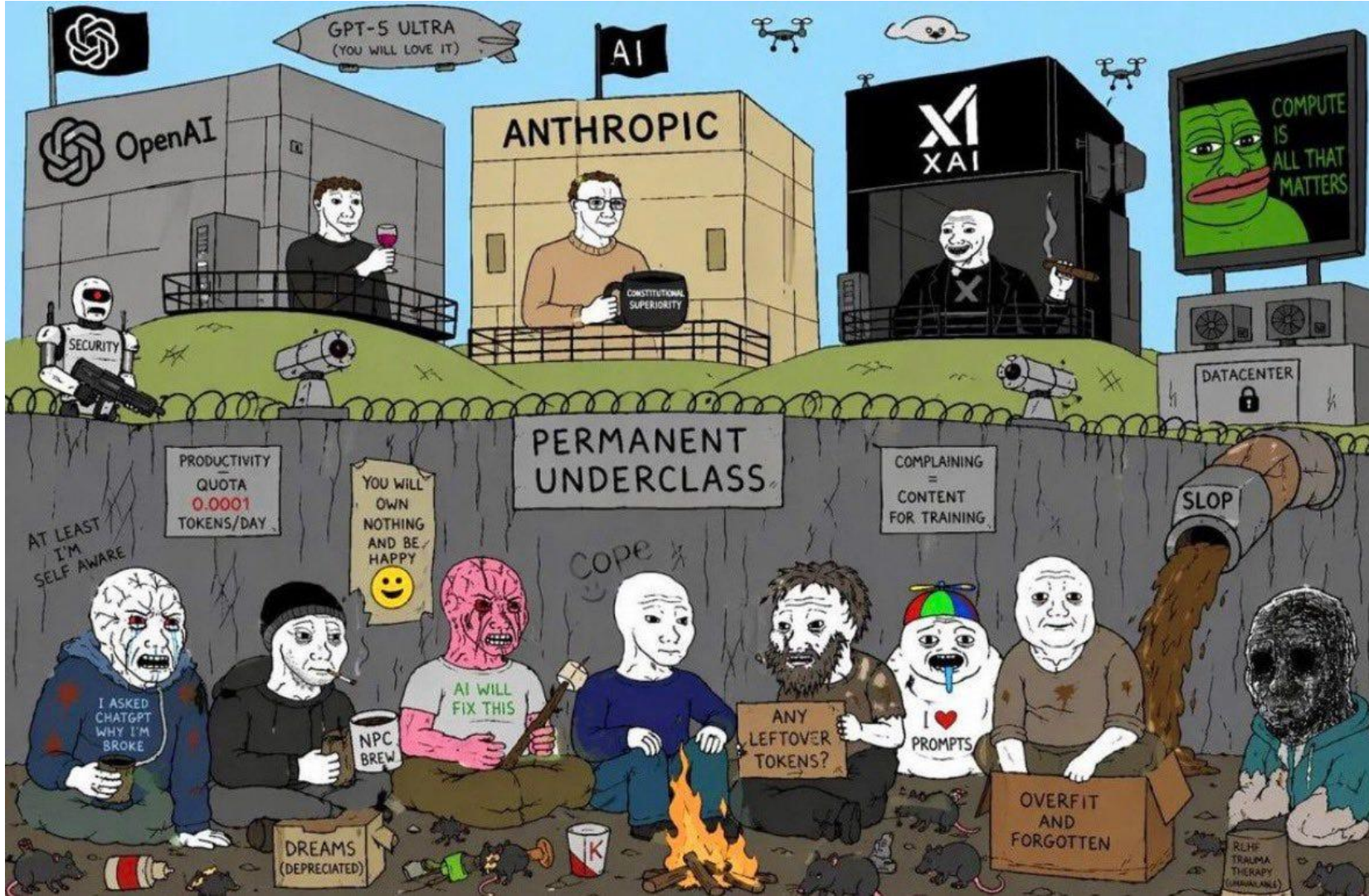
Become better at AI in just 1 minute a day.... meer

Where *Seniors* Come From



Become better at AI in just 1 minute a day. Sign up free now → [aiforleaders.com](#)







AI Global Funding Statistics 2026: The Complete Data Breakdown



VINCEE COLE

4 AUGUST 2026 | 13 MINS READ

 ADD ON GOOGLE

AI NEWS

NEWS

Global AI spending rose 47% to **\$2.6 trillion** in 2026, while Q1 venture funding hit \$300 billion – 80% of it flowing to AI. You'll find every major round, hyperscaler capex figure, and regional breakdown in this data-driven analysis of the largest technology investment cycle ever recorded.

AI Global Funding 2026



