



STARTUPS AFTER AI

AI CHANGES THE NATURE OF THE FIRM

IT ALSO CHANGES THE NATURE OF THE STARTUP

About Me

CEO, Game Data Pros – boutique consultancy focused on using data to optimize game performance (usually revenue related)

Former CEO, Scientific Revenue. Pioneered dynamic pricing and signal engineering in mobile games

Currently an advisor to Chamaeleon VC, an advisor to Berkeley Skydeck, and an active startup advisor

Currently using AI for 4 to 5 hours every day

.... (lots more)



Why Me?

For the past two years, I've been thinking about founding another startup

- “What, from the work I've done over the past 20 years, has legs and is worth investing 7 to 10 years of my life?”
- “And will it keep me interested?”
- “How do I do this without the crazy level of personal sacrifice that startups often seem to entail?”
-

As part of this, I've pivoted GDP from a 40+-person consulting company to a 7-person consulting company focused on projects I personally find interesting

Why Now?

Rank	Theme	Summary
1	AI-native firms are leaner, flatter, and more technical	The strongest cross-source theme is that AI changes organizational design, not just productivity. The most cited pattern is a smaller company with fewer management layers, a higher share of technical and senior talent, greater revenue per employee, and more work mediated through software or agents rather than traditional coordination structures.
2	Startups shift from selling software tools to selling automated labor and services	Several pieces argue that AI-native startups increasingly compete with labor budgets and service firms rather than just SaaS budgets. This reframes the startup as a software-labor hybrid: it may deliver legal, finance, marketing, operations, consulting, back-office, or vertical service outcomes directly instead of merely giving humans tools to do that work.
3	AI changes the boundary of the firm and the economics of build-vs-buy	The Coasean thread appears repeatedly: if AI reduces coordination, monitoring, search, drafting, and execution costs, then the economic rationale for hierarchy, outsourcing, and vendor networks changes. This suggests startups can be thinner, more networked, more automated, and more willing to enter categories previously dominated by internal teams or outsourced labor arbitrage.
4	AI agents create leverage, but agent supervision becomes a core operating function	The agent narrative is not simply that agents replace employees. The common pattern is that agents can execute across coding, outreach, support, analysis, and operations, but they create new costs around monitoring, QA, permissions, auditability, sandboxing, context management, security, and human escalation.
5	Human work shifts toward judgment, trust, escalation, and accountability	The articles converge on task recomposition rather than total worker replacement. In AI-native firms, people become more valuable where work requires domain judgment, customer trust, sales, compliance, strategic choices, exception handling, model supervision, and institutional accountability.
6	The AI startup economy is bifurcated between lean companies and capital-intensive giants	A major tension is that AI lowers the cost of company formation at the application edge while concentrating capital at the foundation-model, infrastructure, and compute-heavy layers. The market data sources repeatedly show record AI funding, mega-round concentration, U.S. concentration, and a small number of companies absorbing a disproportionate share of capital.
7	The startup formation stack is being rented: models, tools, cloud, credits, and automation	The minimum viable startup is changing because founders can rent more of the initial company stack: model access, coding agents, browser automation, cloud infrastructure, data tools, media-generation tools, and even API tokens that function like a form of strategic capital. This reduces initial team size but can increase platform dependence.
8	Enterprise traction is moving from pilots to production, but trust and procurement still dominate GTM	The sources separate AI hype from paying enterprise adoption. The durable startup opportunities appear where AI-native companies can satisfy procurement, reliability, security, workflow integration, and domain-specific trust requirements, especially in regulated or operationally complex environments.
9	Talent markets shift toward fewer but more expensive and specialized AI hires	Lean AI-native structures do not remove the talent problem; they concentrate it. The sources point to slower headcount growth, more technical and senior teams, higher compensation and equity for scarce AI talent, and a premium on people who can build, commercialize, govern, or sell AI systems.
10	The “one-person” or “two-person unicorn” narrative is a useful provocation but a poor operating model by itself	The solo-founder and tiny-team stories are repeatedly paired with warnings: AI can scale content, acquisition, code, and operations quickly, but it can also scale compliance failures, trust failures, security vulnerabilities, quality issues, and brittle workflows. The theme is not that all startups become headcount-free; it is that headcount alone is no longer a reliable proxy for capacity.
11	Software engineering becomes faster, but review, architecture, and QA become new bottlenecks	Many startup operating claims depend on a changed software-development process. AI coding tools and agentic development can increase product velocity and reduce the need for large engineering teams, but sources also stress the growing importance of review, architecture, testing, security, and maintaining coherent systems as machine-generated output expands.
12	The opportunity map broadens beyond chatbots into vertical agents, infrastructure, security, physical AI, and AI-native services	The market-map articles and investor essays show AI startup formation clustering across multiple layers: infrastructure, agents, vertical workflow automation, enterprise apps, security, physical AI, robotics, and specialized AI-native services. For the talk, this theme helps move the audience beyond generic AI-app rhetoric toward a more concrete taxonomy of where new firms are forming.



Those Are All True, But They Miss The Big Change

They're *evidence* of an important shift, but not the actual shift

Startups exist in an ecosystem ("It takes a village")

- Why do they exist? What is their essential function?

Many startups with (good ideas, good people, good funding, and good timing), fail because they don't really understand what most startups are, or what role a startup plays in the ecosystem

- Most of the service providers to startups don't really talk about this either
- In the case of VC's, their goal is not necessarily aligned with your goals, the startup's goals, or with the likely role your startup will play in the ecosystem.

If you want to have a successful startup, you need to understand the role they usually play in the ecosystem

AI is best viewed as a “Normal Technology”

The impact of AI on startups is best viewed as an acceleration of already existing trends

- Acceleration, not transformation. We are moving faster along an already existing and defined curve

To understand the eventual shape of startups (and the startup ecosystem), you have to

- Understand what companies do and why they exist
- Understand what’s been going on for past 25 years

ESSAYS AND SCHOLARSHIP

AI as Normal Technology

An alternative to the vision of AI as a potential superintelligence

BY ARVIND NARAYANAN & SAYASH KAPOOR
APRIL 15, 2025

ARTIFICIAL INTELLIGENCE AND DEMOCRATIC FREEDOMS

A project studying how advanced AI systems may harm, or help strengthen, democratic freedoms



Sébastien A. Krier using Midjourney 6.1

We articulate a vision of artificial intelligence (AI) as *normal technology*. To view AI as normal is not to understate its impact—even transformative, general-purpose technologies such as electricity and the internet are “normal” in our conception. But it is in contrast to both utopian and dystopian visions of the future of AI which have a common tendency to treat it akin to a separate species, a highly autonomous, potentially superintelligent entity.¹

The statement “AI is normal technology” is three things: a *description* of current AI, a *prediction* about the foreseeable future of AI, and a *prescription* about how we should treat it. We view AI as a tool that we can and should remain in control of, and we argue that this goal does not require drastic policy interventions or technical breakthroughs. We do not think that viewing AI as a humanlike intelligence is currently accurate or useful for understanding its societal impacts, nor is it likely to be in our vision of the future.²

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⊗ SIDENOTES

○ FOOTNOTES

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Good discussion of normal technology

<https://knightcolumbia.org/content/ai-as-normal-technology>

An Entirely Different TL;DR

Startups are the way that larger firms, which are mainly social organizations, outsource potentially destabilizing and risky short-term R&D activities.

- IPOs are the rare exception, not the rule
- IPOs are the incentive mechanism to convince otherwise sane people to take on a ludicrous level of personal risk

 AI is a set of tools and technologies that enable the production of vast amounts of not-very-good code

- It also completely destroys most forms of electronic communication, but that's a side effect

A More Practical TL;DR

50% of what startups do can now be done more effectively in-house (for some value of “50%”)

- The communication and coordination costs of dealing with a vendor are very high for most companies
- If a task now requires a team of 1 person and some agents, it’s almost certainly easier to do with an employee

Startups are going to get smaller and ship (much) faster

- 4 to 6 people is often enough people to prove the point (see also concurrent historical timelines)
- This will also lead to more small startups and faster acquisitions

Funding cycles will shorten

- In the world of super-fast prototypes and “Claude, clone this app” (e.g., your product can be effectively copied in one month), 6 to 9 months to raise is unsupportable

Follow-on rounds for potential IPOs will get rarer and be larger. Once the idea is in the ether, you need to claim the turf quickly and that (usually) takes money

- Bootstrapping and non-VC investment models will increase in prevalence
- VC’s will bifurcate more strongly into “boutique” and “whale hunting”



(Prediction) About Those 4 To 6 People

We're still evolving this one. But ...

3 senior-level people (Marketing, Domain, Engineering) and one coordinator

- Two “others” depending on context
- The rest is outsourced to specialists (and, increasingly, outsourced to “agents”)

The hard question is “How do you establish a moat?”

- Was always one of the hard questions, might now be impossible
- In the absence of a moat, you are building to sell



This Is An Empirically Grounded Prediction

My company is shipping multiple applications to (one) customer with a team of 4.5 people

- One P/T architect / overall leader
- One P/T product manager / project manager
- One P/T devops person
- One P/T accountant to manage the invoices
- One backend engineer
- One front-end engineer
- One UX designer

The bottleneck is not where it used to be

AI-Native Firms*

Hyunjin Kim
INSEAD

Rembrand Koning
Harvard Business School

June 9, 2026

We study how firms built around AI capabilities—“AI-native” firms—are organized. Drawing on Y Combinator batches W20–F24 and U.S. venture-backed startups whose first financing closed between 2020 and 2024, we classify each firm’s AI-native status and link it to workforce microdata on team size, function, seniority, and hierarchy. Relative to non-AI startups in the same industry-cohort, AI-native firms are 25% smaller. Their share of engineers is 13% greater, and the shares of entry-level workers and managers are each roughly 15% lower. Their hierarchies are half a seniority level flatter—yet valuations are comparable, suggesting higher value created per employee. We argue these patterns reflect two channels: a *process* channel, in which AI changes how people work inside the firm, and a *product* channel, in which AI capabilities are built into what the firm sells. Using text from product descriptions and job postings, we find that embedding AI into the product, beyond layering on AI tools into existing workflows, is a primary way startups are scaling “knowledge work” without large teams of knowledge workers.

YCombinator sees the same thing

Currently Working On Stage 6

From A Customer Presentation



- In the past two weeks, Bill's python code
- 4,000 lines of non-test code per week is a sustainable pace (assuming product management can keep up)

Category	Changed lines	Added	Deleted	Files
Test	33,834	28,363	5,471	204
Non-test	8,177	7,397	780	118
Total code	42,011	35,760	6,251	322
Non-test breakdown:				
Non-test category	Changed lines	Added	Deleted	Share of non-test
Non-UI	6,079	5,427	652	74.3%
UI	2,098	1,970	128	25.7%

The granular spec decomposition seems to also result in more AC's and BC's, which means a lot more unit tests

Good scaffolding for future developments

Important Caveats About The Previous Slide

At that speed, human-review of the codebase is impossible

Much of the software engineering body of knowledge (about effective development processes) still applies

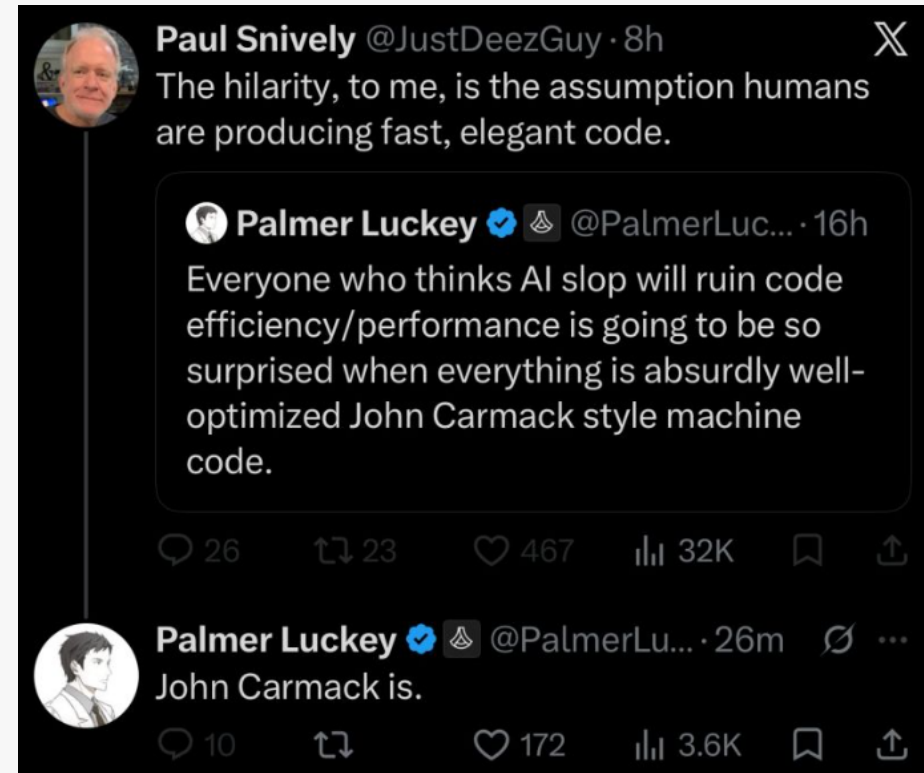
- You can't just "prompt and pray"

There are a large number of harness-engineering and model-switching techniques that make it possible to reliably generate good code

- GDP actively invests in building harness technology in order to make automated coding possible

Please don't vibe-code pacemakers. Please don't

- And if you do, don't blame me when things fail



Keep in mind: Most human code is actually pretty bad

Annoying Yet Interesting Supporting Details



The Nature of the Firm

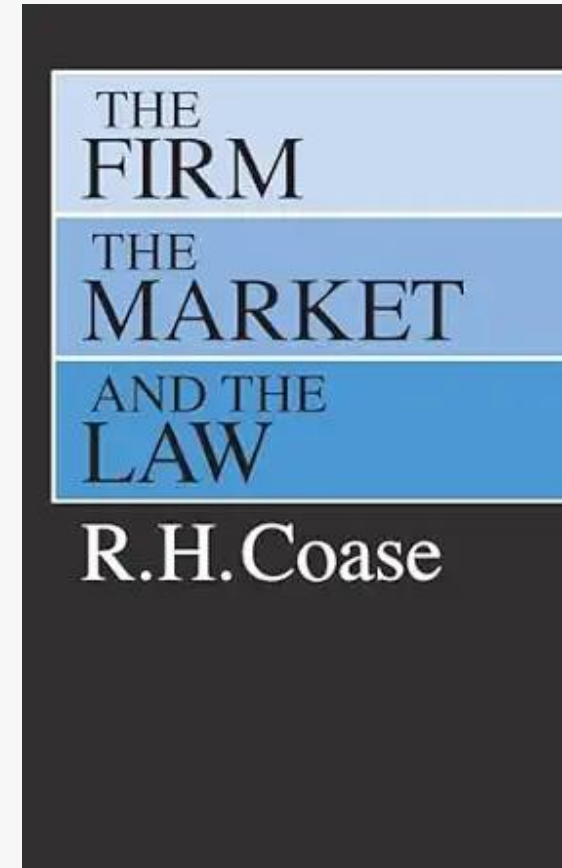
Third Best Economics Paper Of All Time

“The Nature of the Firm” – Coase, 1937

Why do firms even exist in a marketplace economy?

Analysis mainly focuses on transaction costs – firms exist because there are certain classes of transactions for which markets are inefficient

Implicit is the idea that companies tend to grow as long as they can be more efficient than a pure marketplace mechanism



Example Transaction Costs for Software Companies

Transaction Cost	Concrete Software Example	How The Firm Reduces It
Search and price discovery	For every engineering task, find available developers, determine who is competent, compare rates, and judge whether a \$100/hour contractor is actually cheaper than a \$200/hour contractor	Hire and vet an engineer once; reuse that person's capabilities across many tasks.
Bargaining and negotiation	Negotiate scope, price, deadlines, dependencies, change requests, and availability separately for every feature	A manager can assign and reprioritize work within an existing employment relationship; no new bargain is required for every Jira ticket
Contract specification	Write a statement of work covering deliverables, acceptance criteria, confidentiality, IP ownership, security, warranties, and what happens when requirements change	One deliberately broad employment contract covers a large and uncertain stream of future work
Inspection and quality verification	Determine whether delivered code is secure, maintainable, adequately tested, documented, and actually performs as promised	Common engineering standards, code review, supervision, shared tooling, and repeated interaction make quality easier to observe
Enforcement and dispute resolution	Resolve arguments over missed deadlines, defective work, unexpected invoices, ownership of code, or whether the specification was satisfied.	Internal escalation and managerial authority resolve many disputes without litigation, arbitration, replacement searches, or renegotiation

The Limits of Growth



Great companies are usually the product of great individuals. And great companies typically become large companies. But large companies often become ungovernable by the individual.

Too often, and particularly in venture capital, scale treated as a proxy for success. This encourages organisational entropy that erodes leadership and agility.

The counterintuitive conclusion is that deliberate restraint on scale may be necessary to preserve what makes companies great in the first place.

"The transfer of a transaction out of the market into the firm is regularly attended by an impairment of incentives. It is especially severe in circumstances where innovation (and rewards for innovation) are important."

Oliver Williamson, *The Economic Institutions of Capitalism* (1985)

From a newsletter Odin sent out this week

- (my oversimplification) It's an argument that most VC firms shouldn't try to scale up
- The argument applies, mutatis mutandis, to startups as well

Excellent newsletter. You should subscribe

- <https://blog.joinodin.com/p/di-seconomies-of-growth>

Restating That

As firms grow larger, three things are true:

- Individual incentives become watered down (and the risk/reward ratios for individual actors within the firm favor risk-avoidance)
- The social aspects of the organization become dominant
- Risks (to existing revenue streams and social structure) begin to dominate decision-making

Larger firms have greater domain knowledge (distributed across multiple people), robust sales pipelines and significantly greater resources

- But the management and stability costs often prevent innovation

AI Moves The Efficient Boundary

“Build versus Buy” – where do firms drawn the line?

- Didn't change
 - The non-cash-overhead of contracting with vendors is probably constant
 - The strategic cost of outsourcing what would, in an ideal world, be core competence, is probably constant
- Did change
 - The cost of “doing small startups” inside the firm probably dropped precipitously
 - The effectiveness of startups probably increased significantly (cash-price-performance)
 - The effectiveness of startups probably asymptotes (because the firm has its own workflows and startups products often require adaptation and integration)



The efficient boundary almost certainly moves in the direction of larger firms doing more themselves (earlier version: “50% of what startups do can now be done more effectively in-house ”)

A Big And Somewhat Overstated Claim

The primary role of startups in the business ecosystem is that they are the structural way that larger firms, which are mainly social organizations, outsource potentially destabilizing and risky short-term R&D activities

The change in the efficient boundary means that

- (easy conclusion) The Odin article (previous slide) is inherently applicable. Startups should remain small and innovative
- (harder thinking) The ecosystem is evolving towards a stable equilibrium where startups are easy to build and get acquired quickly

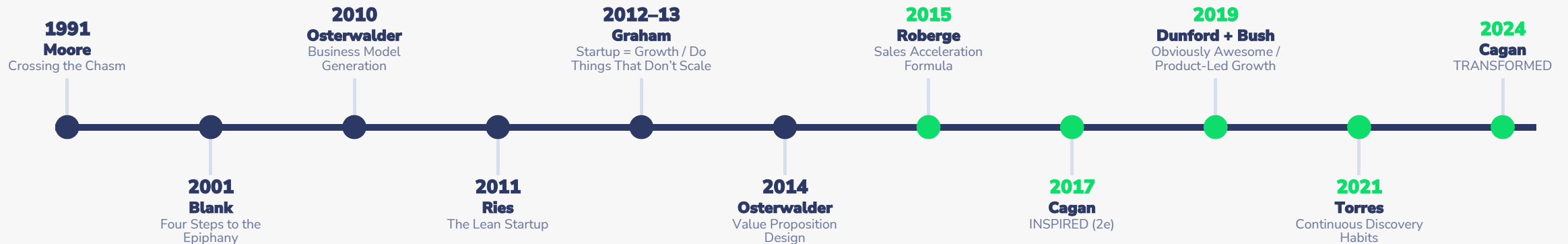
Startup Theorists

(a timeline that supports the trendline)



Startup Theory: The Canon and Its Extensions

Foundational theory largely crystallized by 2014; later work became more function-specific. Chronological sequence; spacing is not accurate.



2001–2014: a general startup operating canon emerges. | 2015–2024: the field fragments into product, sales, positioning, PLG, and discovery

The Key Point

“Startup Theory”, at least in the texts meant to be read by practitioners, now strongly biases towards hypothesis testing and early-engagement with key customers

We have a large body of knowledge on how to build a small startup that efficiently experiments with new ideas and technologies to bring products to market quickly

AI pours gasoline on that fire

The Evolution of VC

(a timeline that supports the trendline)



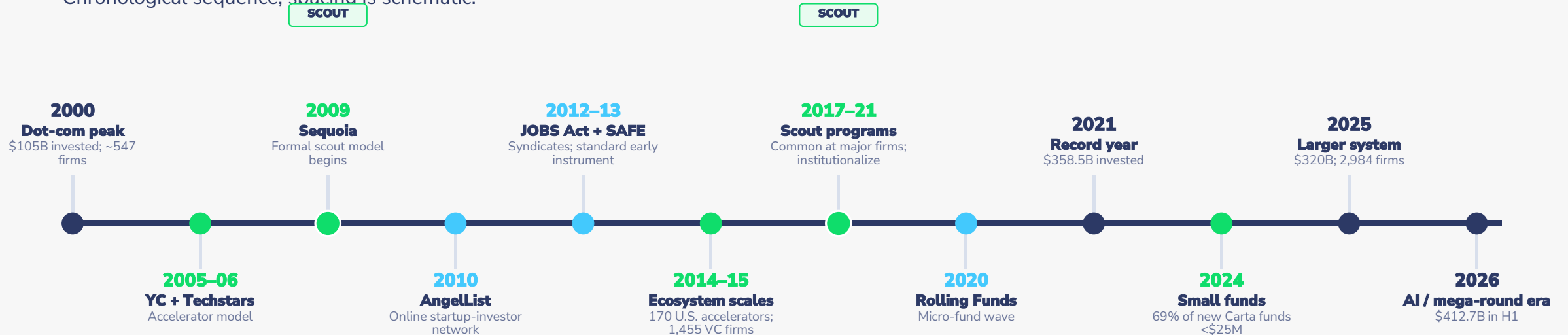
The Evolution of VC, 2000–2026

From a concentrated, relationship-driven partnership market to a layered and modular capital stack.
Chronological sequence; spacing is schematic.

● Capital scale

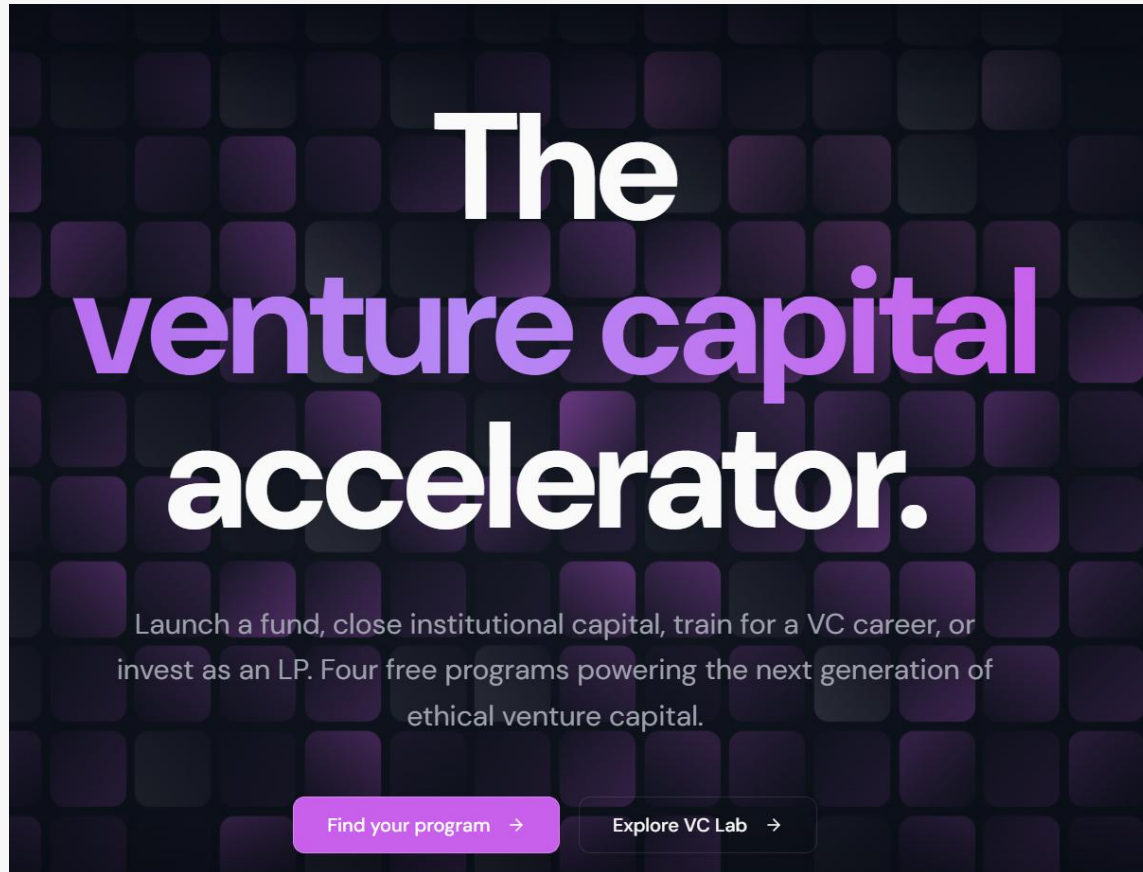
● Access / investor forms

● Infrastructure



- SCOUT FUNDS**
- 2009 — Sequoia is generally credited with launching the first widely recognized formal VC scout program.
 - 2017–2021 — Scout programs become common at leading firms, then institutionalize across the broader early-stage ecosystem.

“Boutique VC” Is Becoming The Dominant Entry Point



The venture capital accelerator.

Launch a fund, close institutional capital, train for a VC career, or invest as an LP. Four free programs powering the next generation of ethical venture capital.

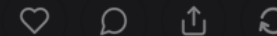
[Find your program →](#) [Explore VC Lab →](#)

The Individual Versus the Firm

Venture capitalists tend to understand success through the lens of scale, but the pursuit of scale is the undoing of many ventures.

DAN GRAY

JUL 12



[READ IN APP](#) ↗

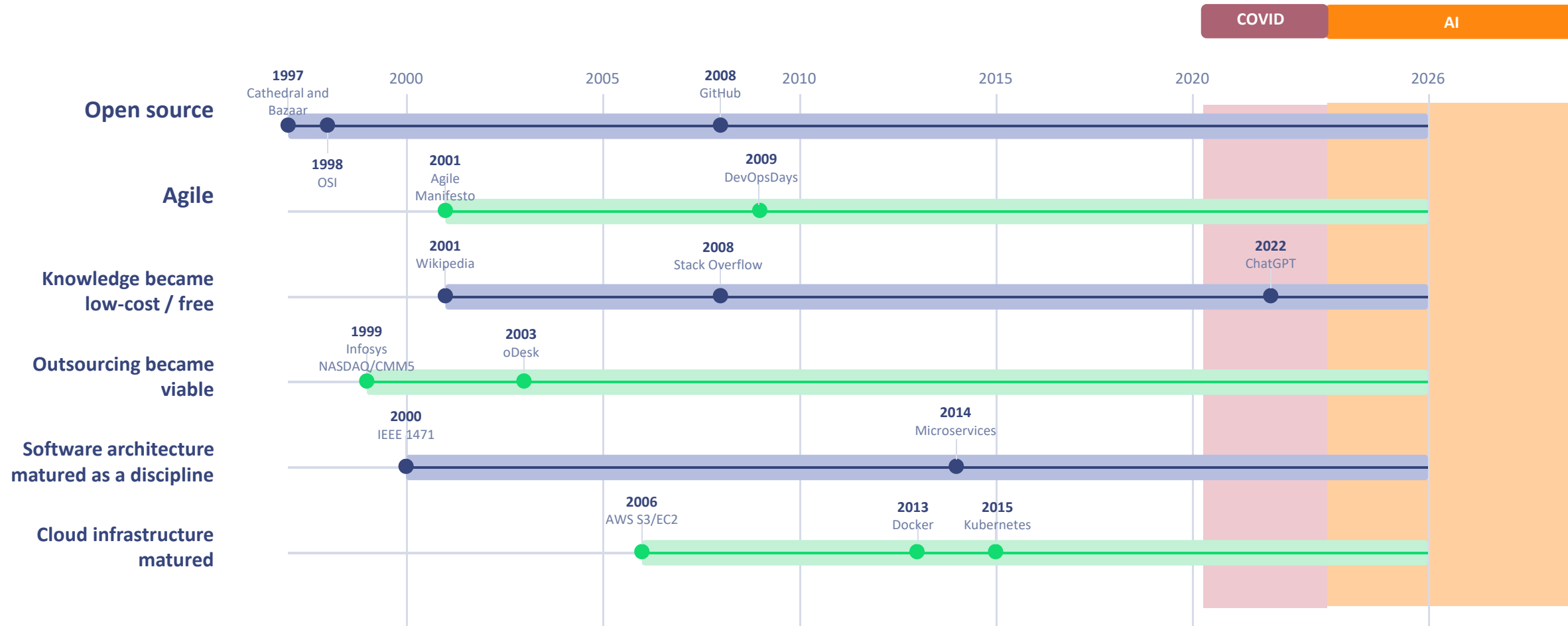
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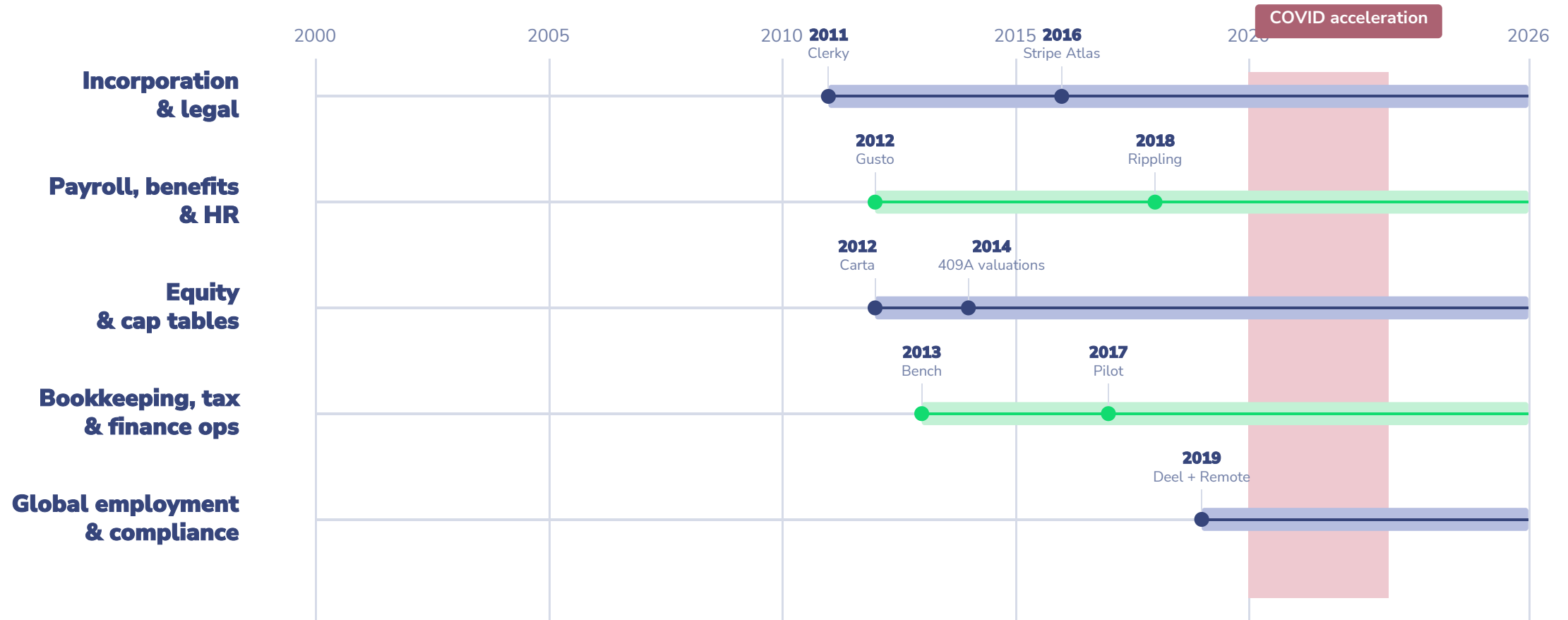
Other Concurrent Historical Trends **(that either accelerated, or were accelerated by the trendlines)**

Parallel Enablers Of The Modern Software Startup



2000–2026: Startups are shaped not just by venture and theory, but by enabling currents that make software easier to build, distribute, coordinate, and learn. Or maybe the evolution of startups shaped these trends and these are evidence of the underlying trends. Causality is hard.

The Outsourced Back Office



See also: Coworking spaces etcetera....

Revisiting One Of The TL;DRs

The previous timelines and capabilities charts explain why AI is best viewed as the latest exemplar of a long term trend

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Revisiting the Beginning



Revisiting Why Now

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Thank you

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