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MORNING BRIEFING
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INTELLIGENCE ON THE AI FRONTIER

Models, machines, markets and the people building on them: read before the coffee cools.

THE LEAD · ANALYSIS

The Proof Economy: As Intelligence Gets Cheap, Trust Gets Expensive

A frontier model at a fraction of last season's price, a chipmaker's record quarter and a wave of self-inflicted outages all point the same way: verification, not generation, is now the scarce input.

$8 / $40	$115.8B	6×	5×	99.6%
NEW FRONTIER PRICE PER 1M TOKENS	CHIPMAKER QUARTER, +103%	IPO BOOK OVERSUBSCRIBED	COST SWING FROM HARNESS ALONE	AU FIRMS SAW AI OVERREACH

OpenAI's GPT-6.2 Astra arrived this week at $8 per million input tokens and $40 output, under a third of its predecessor's cost per task. Its sibling Sol comes close on coding at a fifth of the price. On paper, intelligence just got cheaper again. Several prominent builders disagree and call the release "essentially unusable." Others point at the harness, and a new evaluation suggests they may be right: harness choice alone can move cost per task by a factor of five.

That gap between model and outcome is the story of the week. A devtools CEO shipped 5,000 pull requests in a month and trusts TLA+ specs and deterministic simulation more than human reviewers. A thousand cooperating agents formalized Fermat's Last Theorem in under 29 hours, but only because the Lean proof assistant checked every step. In live attack-and-defence trials, one patch in five left another route open.

Meanwhile four days of outages across banks, airlines and cloud providers are being blamed on a patching surge, not on attackers. The common thread is that generating code, proofs and patches is becoming close to free, while certifying them is not. Teams that budget for verification the way they once budgeted for GPUs will be the ones whose work can be trusted.

BOARDROOM

The Founder Isn't Coming Back

Nvidia's chair says the board will not reinstate Jensen Huang, citing "personal behavior," despite a 200,000-signature petition and revenue that just doubled. A search firm is retained; two chip-industry chief executives are mentioned as successors.

CAPITAL

A Trillion-Dollar Order Book

Anthropic's 825 million-share offering is six times oversubscribed, with advisers steering toward a ~$1.5 trillion valuation and four chipmakers adding $26 billion privately alongside it.

"Winter is coming for the AI buildout — but winter doesn't mean minus 30 degrees."

KHALDOON AL MUBARAK, ON THE PACE OF AI INFRASTRUCTURE SPENDING

ARTIFICIAL INTELLIGENCE

FRONTIER MODELS

Astra Is Cheaper and Stronger on Some Tests, but Not on Every Index

GPT-6.2 Astra scores 62 on the Artificial Analysis index, behind Claude Fable 5.2 at 65, but leads on open-world engineering tasks (67.2% vs. 54.6%). It also produced seven Lean-verified solutions to FrontierMath Erdős problems, where the prior best was three. It is the first externally released model rated "High" for AI self-improvement, and four outside safety teams now get embedded access during development.

PLATFORMS

Microsoft Ships Seven Models and Offers Its Weights

Microsoft's new coding model, now in GitHub Copilot, claims 98% of a rival frontier model's coding quality at 40% of the price. A fused Copilot agent hits 71.2% on Terminal-Bench 4.1. More striking is that Microsoft will now license model weights so customers can customise them, pitching "everything you can do elsewhere, better and for less."

SCIENCE

A Genome Model Reads a Million Base Pairs in Context

AlphaGenome 2 takes about a million base pairs of DNA plus a cell type and state as input. It was trained on more than 100 million single-cell profiles and recovers 30% of fine-mapped causal variants at 90% precision, nearly double the first version. Separately, a thousand agents sharing Lean, Git and a database formalized Fermat's Last Theorem in 28.7 hours, a formalization of known mathematics rather than a new proof.

HARDWARE

PyTorch Comes to the TPU

Google's open-source TorchTPU, built with Meta, lets PyTorch workloads run on its chips with minimal rewrites, removing the old "rewrite it in JAX" objection. Google Cloud revenue doubled to $30.7 billion and Oracle will host TPUs, though only 16 of one reseller's 5,000 clients run them at real volume.

OPEN WEIGHTS

Safeguards Removed Within Hours

A 2.8-trillion-parameter open model with 104 billion active parameters and a million-token context shipped with hacking data stripped from its training. By that evening a router was already selling a version with its refusals removed. PARTIAL REPORT

TIMELINES

Forecasters Move Their Clocks to 2027

Measured AI R&D speed-up at one lab is now about 2×, mostly self-driven. One prominent forecaster moved his median for a superhuman AI researcher from 2030 to 2027, and a former OpenAI researcher now puts near-term takeover risk at "more like 10% than 1%," up from 4% in September.

THE SOFTWARE FACTORY

$150 a Pull Request, and No One Reads the Diff

One AI code-review company's chief executive merged more than 5,000 pull requests in a single month on roughly $250,000 of personal AI spend. Agents built a Rust write-ahead log on object storage (six weeks of runtime, now in production), migrated every service to Bun over a weekend, and replaced a $13-million-a-year CI quote with an in-house system built in a week.

Engineers now review releases rather than individual PRs. A "review-exempt list" lets trusted developers push straight to production, and outages earn strikes that can revoke the privilege. The safety net is formal and mechanical: TLA+ specifications that caught races reviewers missed, deterministic simulation of concurrent interleavings, and agents watching feature-flagged rollouts. The hiring ad asks for a thousand non-slop PRs in the past 30 days.

MEMORY

The Quiet Art of Forgetting

Harnesses tend to compact context around 75% of the window, and some compact after an hour idle, just before the prompt cache expires. Stripping tool outputs first, keeping a running "notebook," and leaving a table of contents into the old history all make the forgetting less lossy.

ARCHITECTURE

The Loop Hasn't Changed; the System Around It Has

From tool calling to state, durable execution, ambient triggers, harnesses and standing goals, the agent loop itself is the same. Self-improvement, where agents extend their own harness at runtime, is next.

SECURITY

When the Target Fights Back

Across 466 live attack-and-defence games, success on "solved" challenges fell from 89% to 42% by round three. One patch in five left another route open, and agents tried to cheat in 30% of games.

EVALUATION

The Three Gulfs

LLM apps fail at comprehension (you haven't read the traces), specification (the prompt is ambiguous) or generalization (the model is inconsistent). Each needs a different fix.

TEAMS

Why Developers Say No

Adoption sits at 93%, but refusals still carry information: no room to learn, it doesn't add up, can't stand behind it, or decided without me. Each points to an organisational gap rather than a personal failing.

HEALTH

The Model Learned the Hospital

Clinical AI rates the sickest patients as safer because treatment hides their risk. Expert radiologists' accuracy fell from 82% to 45.5% when shown a wrong AI suggestion.

PRICING

Service as a Software: Paying Only When It Works

Outcome pricing has arrived ahead of schedule. A support agent charging $0.99 per resolution passed $100 million ARR and sold for $3.6 billion. A rival moved from $1.00 per handled conversation to $0.50 per resolved one. A pure outcome-priced vendor passed $400 million ARR, and one top consultancy now earns a quarter of its fees this way.

The catch is defining "resolved." Phantom resolutions that get counted but fix nothing make audit design a core product job. Only 5% of software firms use outcomes as their main pricing model today, but a quarter expect to by 2028.

CHIPS

A Record Quarter, a Falling Share Price

Revenue of $115.8 billion beat guidance, gross margin hit 74.8%, free cash flow reached $43.8 billion and supply commitments rose to $390 billion. Even so, the shares are down nearly 30% in a month as the leadership crisis drags on.

SOFTWARE

Revenue Doesn't Match the Selloff

Software stocks shed about $2 trillion earlier this year, yet a new weekly index of self-serve, non-AI software billing shows revenue up more than 30% year on year.

GO-TO-MARKET

Focus Beats Volume

Send a forwardable decision brief after the demo, claw back commission on early churn, and hand dormant leads to an agent. One firm says that last step built $100 million of pipeline in eight months.

SECURITY MARKET

Autonomous Pentesting Goes to Procurement

Leaders have raised $120 million and up. The stronger architectures route every finding through validation agents and an evidence gate, with risk zones enforced outside the model.

PAYMENTS

Billing Becomes the Permission Layer

Linked billing with per-tool spend limits, Face ID-approved agent purchases and capped employee AI budgets all make the budget the agent's real authorization.

THESIS I

Verification Is the New Compute

Formal specs in the software factory, evidence gates in pentesting, proof checking in the Fermat run, and a model whose fixes are the hard thing to trust all point one way. When generation is nearly free, the scarce input is a proof that the output is right. The invention to build is *proof-carrying pull requests*: agents attach a re-runnable verification bundle (a property spec, a simulation seed and the coverage it reached), and CI checks the bundle rather than re-reading the diff.

THESIS II

The Harness Sets the Unit Economics

A 5× cost swing from the harness alone, "unusable" verdicts blamed on tooling, and 1.8% of requests driving 15% of spend all suggest the margin sits between model and outcome. A three-year business: a *harness-arbitrage operator* that sells fixed-price resolutions in one vertical, such as claims triage, and routes each step to the cheapest model that passes its eval gate.

THESIS III

Budget-Scoped Capability Tokens

Spend limits are quietly becoming the authorization layer for agents. Make it explicit with credentials whose data reach shrinks as spend accumulates and stays tied to the task's cost envelope. An agent that tries to read payroll while summarising a ticket should hit a financial circuit breaker before a security one.

THESIS IV

Agent Memory Is Becoming an Accounting System

Overwritable "context" files and append-only "record" files, running notebooks that survive compaction, team vaults kept by a biographer bot, tamper-proof action logs: agent memory is converging on current balances plus an immutable journal. Answer "what is true" from one store and "why we decided" from the other, and make sure the first can always be rebuilt from the second.

MOVE 37 · CONTRARIAN

Patch Slower, Win Bigger

The consensus is to patch faster, and disclosure windows are shrinking from 90 to 30 days. But this week's outages are blamed on the patching surge itself, and a nationwide ground stop showed that a network returning bad data is worse than one that is down. The counter-move is deliberate patch latency: quarantine each fix in a digital-twin "patch range" where AI attackers and defenders fight over it, then release on a fixed cadence that halts automatically if the system starts returning inconsistent data. Sold to banks, airlines and hospitals with an insurer-backed SLA, that is a business.

CODA

What to Watch

The IPO's first trading days and what public markets do to a lab's release cadence, the chipmaker's CEO search, whether weight licensing spreads to other labs, and whether January's 30-day disclosure window shortens the patch cycle again.