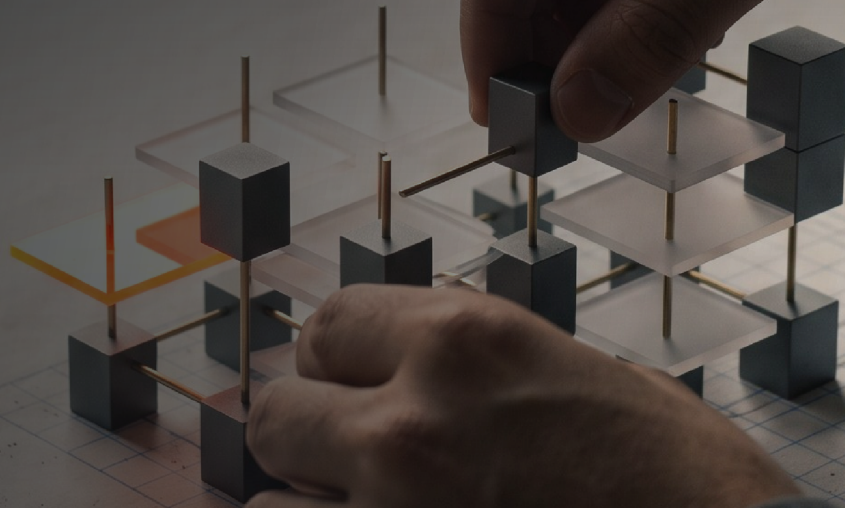


THE BUILDER ISSUE

Hello, My Name Is ... and I Am an AI Builder

We spent years watching companies build artificial intelligence. Now artificial intelligence is turning the rest of us into builders.



Hello, My Name Is ... and I Am an AI Builder

We spent years watching companies build artificial intelligence. Now artificial intelligence is turning the rest of us into builders.

BY ALAN SHIMEL

FOUNDER & CEO, TECHSTRONG GROUP

ABOUT THIS REPORT

A first-person account and evidence review of a shift that has moved to the center of the AI economy: the arrival of hundreds of millions of people who do not build artificial intelligence, but who now build *with* it. The report proposes a six-stage maturity model, tests it against independent survey data, and examines the limits, governance questions and authorship problems that follow.

EDITORIAL NOTE

The essay is the author's own. Statistics are reproduced as published by their sources; where a cited page reports a rounded or differently worded figure, the note for that source says so. Nothing in this report should be read as an audited causal claim.

HOW TO READ THE DATA

Figures are labeled by source type. **Primary and independent** statistics come from government statistical agencies, academic research and independent survey organizations. **Platform** figures describe usage of a single product. **Vendor-reported** figures are company claims and are not independent measurements. Survey methodology and caveats appear with each figure and in Notes & Sources.

AS OF

All figures as published or reported as of Aug. 15, 2026. Survey periods, sample sizes and question wording differ across sources and are stated wherever comparisons are drawn. Live links to every source appear in Notes & Sources.

EPIGRAPH

"AI has collapsed much of the distance between intention and execution."

THE PREMISE OF THIS REPORT

THE REPORT IN FIVE PARTS

- I. What a builder is now** — a definition, and a six-stage maturity model.
- II. What the evidence shows** — Census, Gallup and OECD data on how far the workforce has actually traveled.
- III. The new economics of making** — make-or-buy, software's visible edge, restored access.
- IV. Where the democratization stops** — expertise, originality, dependency.
- V. Institutions, authorship, agency** — governance proportional to consequence, and who answers for the result.

55%

of U.S. workers used AI for at least one of 11 job tasks · Census, March 2026

90%

reported a positive productivity effect when using AI for seven or more purposes · Gallup

1.1M

public repositories now import a large-language-model SDK · GitHub

30.7%

of small and midsize enterprises were using generative AI · OECD

The Builder Issue

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IN THIS REPORT

AI has not made everyone an engineer. It has collapsed much of the distance between intention and execution — and in doing so it has turned salespeople, teachers, founders, musicians and analysts into people who *make* things with software.

This report maps that shift: a six-stage maturity model from Consumer to AI Orchestrator; the independent survey evidence for how far the workforce has actually traveled; the small-business economics of building what you used to buy; and the three limits that decide whether any of it produces something worth using — expertise, originality and dependency.

It closes with the questions no tool answers: who owns the workflow, who reviews the claims, who is accountable when a prototype quietly becomes infrastructure.

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6

stages of builder maturity, from Consumer to AI Orchestrator

52%

of U.S. employees used AI in their role; 15% used it daily

178%

year-over-year growth in repositories importing an LLM SDK

19%

slower: experienced developers using early-2025 AI tools

51%

of enterprises build AI capability with a hybrid in-house and vendor model

PART ONE · WHAT A BUILDER IS NOW

The Distance Between Intention and Execution

Hello, my name is Alan, and I am an AI builder. I mean that literally — and so, increasingly, do millions of people who would never call themselves technologists.

Hello, my name is Alan, and I am an AI builder. I mean that literally.

I have used AI to design and build websites. I have coded plugins and web applications with it. I have used it to research and develop articles, test arguments, create graphics, prepare interviews, analyze business questions and turn ideas into Special Reports.

I am not primarily a software developer. I do not pretend that an AI assistant has turned me into one. An experienced engineer will see risks, architectural choices and consequences that I may miss. But I can now take an idea much farther toward a working result than I could have a few years ago. AI has collapsed much of the distance between intention and execution.

That makes me a builder.

It also makes millions of other people builders, whether or not they use that word.

Some are writing software. Others are producing videos, music, illustrations, research, marketing campaigns, lesson plans, financial models or business processes. A small-business owner may build a scheduling application instead of buying one. A salesperson may assemble an

automated research workflow. A musician who can no longer play an instrument may turn a melody into a finished demo. A teacher may build a personalized learning exercise for tomorrow morning.

For most of the history of computing, the ability to create with technology was controlled by expertise, capital and access. You needed to know the language, own the tools or hire someone who did. Artificial intelligence does not eliminate those requirements, but it lowers the first barrier dramatically. Natural language is becoming a practical interface to production.

The important story, then, is no longer only that companies are building AI. It is that AI is enabling everyone else to build.

That does not mean everyone builds equally well. AI democratizes the ability to attempt and produce. It does not democratize mastery. Expertise, judgment, taste, purpose and accountability remain the difference between an output and something worth using.

WHO IS BUILDING — FOUR ORDINARY CASES

The owner

A small-business owner builds the scheduling application she would previously have bought — or gone without.

The seller

A salesperson assembles an automated research workflow that briefs him before every call — and still runs next week.

The musician

A player who can no longer hold an instrument turns a hummed melody into a demo other musicians can perform.

The teacher

A teacher builds a personalized learning exercise for tomorrow morning, for the one student who needs it.

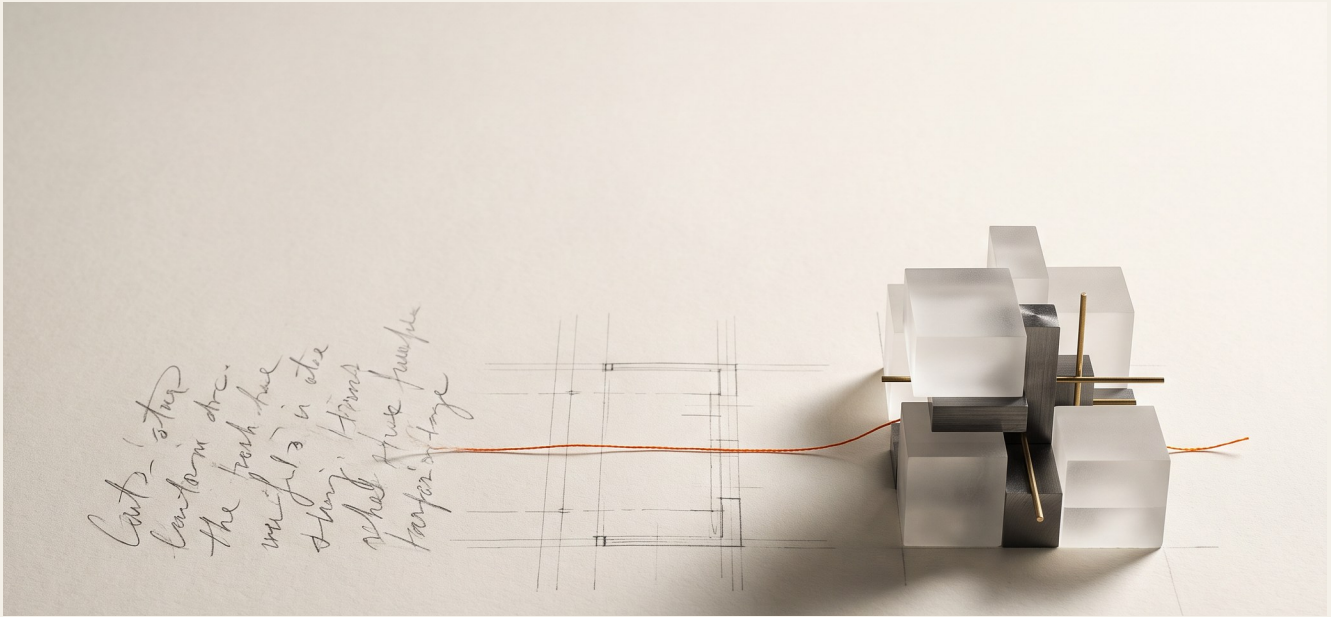


PLATE I Handwriting to notation to assembly. The builder's claim is not that language replaces engineering, but that language has become a practical entry point to structure — and that the structure still has to hold.

PART I · SECTION 02

Building Is No Longer Synonymous With Coding

The word *builder* still carries the scent of software engineering. It suggests a person at a keyboard writing code, connecting APIs, configuring infrastructure and shipping an application. That remains one important form of building, but it is no longer the boundary.

A builder is anyone who uses AI deliberately to bring something new into existence. The result can be software, but it can also be a document, a song, a visual identity, a research process, a customer-support workflow or a small business that could not previously afford the capabilities it now uses.

There is a meaningful difference between asking AI for an answer and using AI to make something. The first is consumption. The second is production. The line is not al-

ways obvious, because the same conversational interface can support both. A person can ask for a restaurant recommendation and, five minutes later, use the same system to design a reservation workflow for a neighborhood event. The technology has not changed. The intention has.

This is why conventional adoption measurements tell only part of the story. Counting how many people use AI is useful, but it treats a quick search, a revised email and a production workflow as equivalent acts. They are not. The economic and organizational consequences come from what people are able to create, how repeatably they can create it and whether the result can operate beyond the original conversation.

THE DISTINCTION THIS REPORT RESTS ON

CONSUMPTION

Asking a system for an answer.

The value can be real. But nothing durable is produced, nothing is repeatable, and nobody needs to own it tomorrow.

PRODUCTION

Using a system to make something.

An artifact, a method or a system that outlasts the conversation — so it can be reused, can fail, and needs someone accountable for it.

PART I · SECTION 03

The AI Builder Maturity Model

The builder economy needs a vocabulary that describes progress without assuming everyone must become a programmer. The AI Builder Maturity Model is an attempt to provide one.

- 0 Consumer.** The user asks and receives. AI supplies information, advice, entertainment or an answer. There may be value, but nothing durable is created.
- 1 Assisted Maker.** AI helps complete a discrete task. The result might be a draft, summary, image, song, spreadsheet formula or fragment of code. The human remains the primary operator and the work is usually one-off.
- 2 Collaborative Creator.** The interaction becomes iterative. The person supplies context, critiques the output, changes direction and works with the system toward a finished artifact. AI is no longer merely answering. It is participating in a creative process.
- 3 Workflow Builder.** The person converts successful collaboration into a repeatable method. Inputs, standards, prompts, tools and review points become defined. The value lies not only in the artifact but in the ability to produce the next artifact more reliably.
- 4 System Builder.** AI is connected to data, tools and business processes. The builder creates an application, agent or operating system for a particular job. The work can persist, serve other people and take actions in the world.
- 5 AI Orchestrator.** The builder coordinates multiple agents, systems and people. Different components research, reason, create, test, approve and execute. The human designs the objective, boundaries and accountability structure rather than personally directing every step.

These stages are not job titles. A software engineer might be an orchestrator in development and only a consumer when using AI for design. A marketer might be a system builder in campaign operations but an assisted maker when producing video. People will occupy different stages in different domains.

Nor is greater autonomy automatically greater maturity. A system that acts without supervision is not mature merely because it is autonomous. Autonomy without judgment can become dependency. The more consequential the output, the more important review, testing, provenance and clear human ownership become.

Builder maturity is therefore measured across five dimensions: intent, iteration, integration, repeatability and accountability.

THE QUESTION IS NOT HOW MUCH CODE YOU WRITE

The key question is not how much code the person writes. It is whether that person can deliberately convert intention into dependable results.

READING THE MODEL

Stages describe **domains, not people**. Movement is not a career ladder and stage 5 is not the goal for every task.

The model's practical use is diagnostic: it tells an individual or an organization which capability is missing — repeatability, integration or accountability — when good outputs fail to become dependable ones.

THE FIVE DIMENSIONS OF BUILDER MATURITY

Intent

Did the person choose the objective, define the standard and decide what the output is for?

Iteration

Is the work directed and critiqued over several passes, or accepted as it first arrives?

Integration

Does it touch real data, tools, systems and people, or stop at the edge of the chat window?

Repeatability

Could the next result be produced reliably, by someone else, without the original operator?

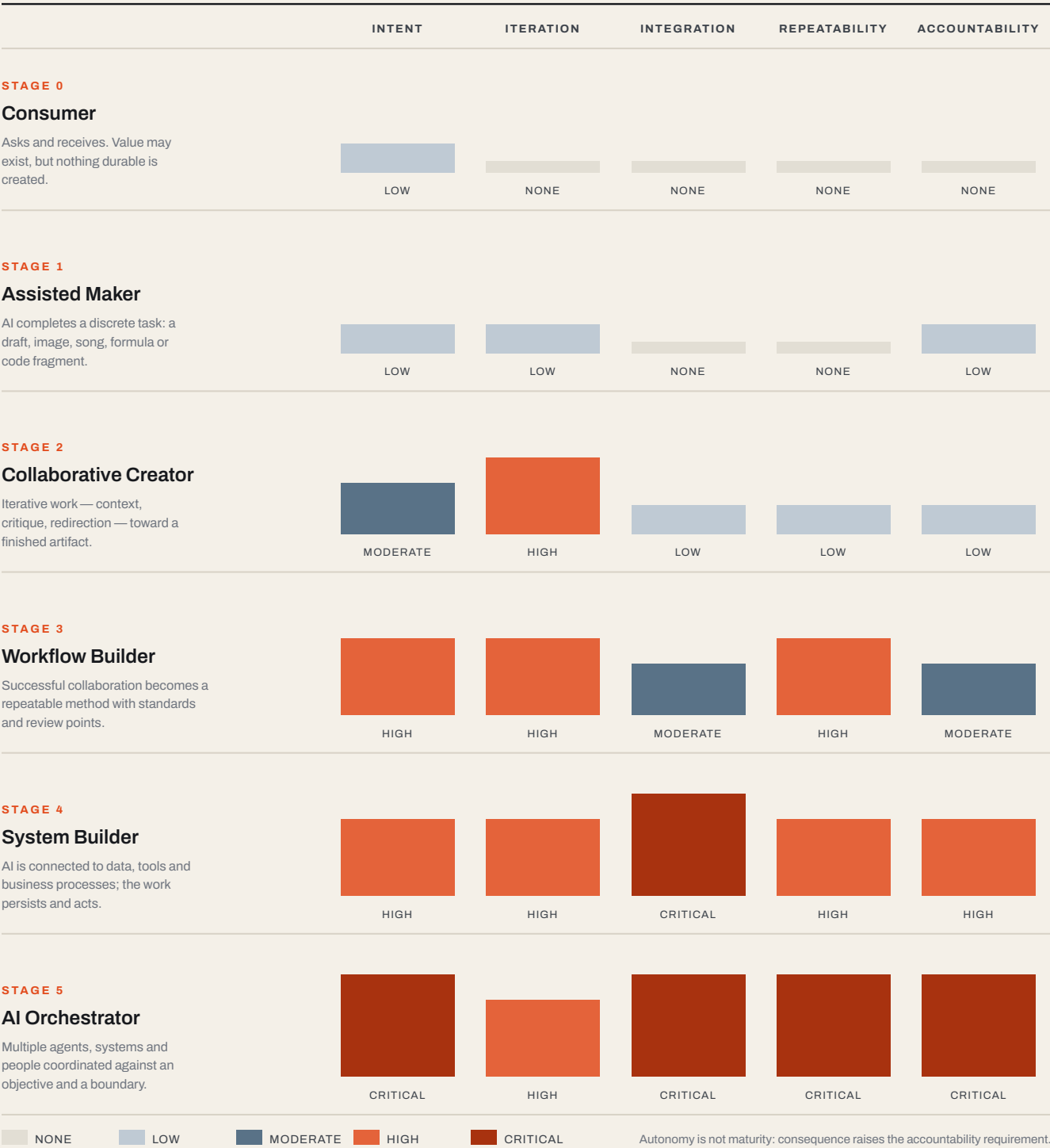
Accountability

Who reviews it, who owns it after a role change, and who answers when it is wrong?

FIGURE 1 · THE AI BUILDER MATURITY MODEL

Maturity is not a job title. It is the ability to convert intention into dependable results.

Each stage is assessed across five dimensions. Shading shows how much of each dimension the stage typically demands.



Source: Techstrong analysis. Framework developed for this report.

Read across a row to see what a stage demands, not what a person is worth. Most organizations contain all six stages simultaneously — often inside the same team, sometimes inside the same afternoon.

Accountability is the dimension that rises fastest with consequence. It is also the dimension most often left undefined when a useful prototype becomes something a department depends on.



PART TWO · WHAT THE EVIDENCE SHOWS

From Asking to Doing

Independent data shows a workforce moving beyond novelty — and entering through the doorway of tasks that are easy to verify.

In its March 2026 Household Trends and Outlook Pulse Survey, the U.S. Census Bureau found that 55% of American workers used AI for at least one of 11 job tasks.¹ The most common uses included search and technical help, writing, generating ideas and interpreting or summarizing information. Those categories still lean toward the consumer and assisted-maker stages, but they are the broad foundation of the builder economy.

Gallup's July 2026 workplace research found that 52% of U.S. employees used AI in their roles, 30% used it frequently and 15% used it daily.² Among users, 51% reported writing or editing, 49% search or research and 39% assistance or problem-solving. More consequential building activities were less common: 18% used AI for

analytics, 17% for presentations and 16% each for coding and automation.

The distribution matters. Most people enter through tasks that are easy to understand and verify. They rewrite a paragraph, summarize a document or generate ideas. Familiarity then creates the confidence to move into activities that have more structure and more consequences.

Counting how many people use AI treats a quick search and a production workflow as equivalent acts.

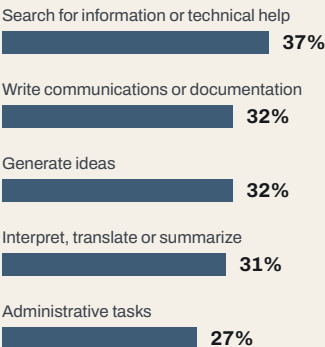
FIGURE 2 · FROM ASKING TO DOING

Most people enter through tasks that are easy to verify.

Left: U.S. workers using AI for each job task. Right: use cases among U.S. employees who use AI.

U.S. CENSUS BUREAU

March 2026 Household Pulse · 11 job tasks



55% of U.S. workers used AI for at least one of the 11 tasks.

GALLUP

July 2026 workplace research · share of AI users



52% of U.S. workers used AI; 30% frequently, 15% daily.

Sources: U.S. Census Bureau HTOPS, March 2026 (note 1); Gallup, July 2026 (note 2).

Gallup found that frequent AI users were considerably more likely than infrequent users to use it for coding, automation and task or project management. It also found a strong relationship between breadth of use and reported productivity. Among people using AI for one or two purposes, 45% reported a positive productivity effect. That increased to 66% for three or four uses, 78% for five or six and 90% among people using it for seven or more.²

That is correlation, not proof that adding use cases automatically produces productivity. More capable or enthusiastic users may both adopt more functions and obtain better results. Yet the pattern supports the maturity model: value appears to grow as AI moves from an isolated assistant into a broader way of working.

PART II · SECTION 02

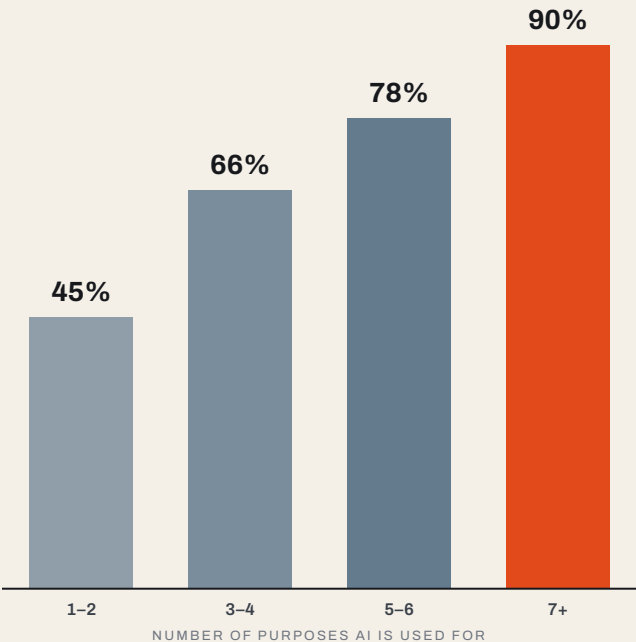
Familiarity Changes What People Build

The most revealing Gallup numbers may be the differences among use cases. Seventy-seven percent of employees using AI for coding or automation reported a positive productivity effect. The figure was 76% for presentations and 75% for analytics, compared with 68% for writing and 65% for search.²

The doorway is writing. The largest reported gains are somewhere else.

FIGURE 3 · BREADTH OF USE

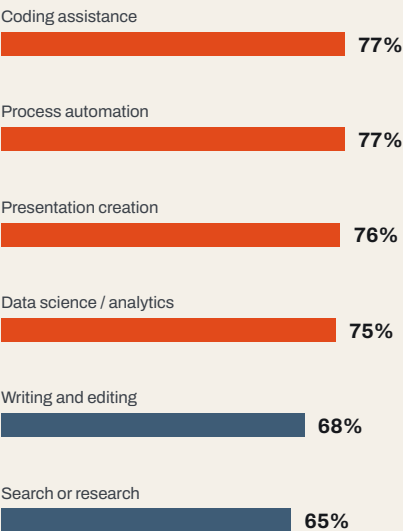
Reported productivity rises with breadth.



Gallup, July 2026 (note 2). Correlation, not causation.

FIGURE 4 · POSITIVE PRODUCTIVITY EFFECT

Structured work shows the largest gains.



Gallup, July 2026 (note 2). Share reporting a positive effect.

The lesson is not that writing and search are unimportant. They are often the doorway. But the largest perceived gains appear when people apply AI to producing structured work, analyzing information or changing a process — the activities that sit at stages two through four of the maturity model rather than stage one.

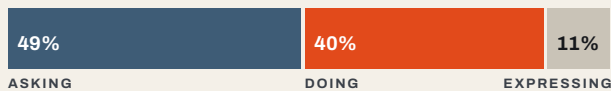
OpenAI's own research, which must be understood as platform data rather than an independent census, points in the same direction. A study of 1.5 million conversations categorized 40% of ChatGPT usage as “doing” rather than “asking,” with writing the most common work activity.⁸ Its later Signals research reported that people at work were more than twice as likely to use ChatGPT to complete or create something as they were outside work.⁹

The interface may look like conversation, but the behavior is increasingly productive. People are not merely consulting a machine. They are using language to direct one.

The interface looks like conversation.
The behavior is production.

FIGURE 4B · PLATFORM DATA

What people do in one assistant.



OpenAI's analysis of 1.5 million consumer conversations. Platform data, not a census.

40% of usage was task-oriented — drafting, planning, programming — rather than advice-seeking.

OpenAI. September 2025 (note 8).

None of this settles the question of quality. A conversation that ends in a shipped artifact is not automatically a good artifact, and platform telemetry cannot distinguish between a workflow that saved a week and one that will need to be rebuilt. But the direction of travel is not in dispute: the share of AI use that produces something has been rising, and it rises fastest among the people who use these systems most.

WHY COUNTING USERS IS NOT ENOUGH

Adoption surveys ask whether a person used AI. They rarely ask whether anything survived the session.

Three questions separate consumption from production, and none of them appear in a standard adoption metric:

- Did the work outlive the conversation?
- Could it be repeated without the original operator?
- Does someone own it when it breaks?

PART II · SECTION 03

Most of Us Are Still Early

The builder economy is real, but it would be a mistake to portray it as mature.

The OECD's 2025 report on generative AI and the small and midsize business workforce, based on a 2024 survey across seven countries, found that 30.7% of SMEs were using generative AI. Only 29% of those users applied it to core activities.³ The OECD found that usage remained

more likely to be simple, one-off and peripheral than complex, recurring and important.

In maturity-model terms, most business users remain consumers, assisted makers or collaborative creators. The path toward workflows and systems is visible, but most organizations have not completed it.

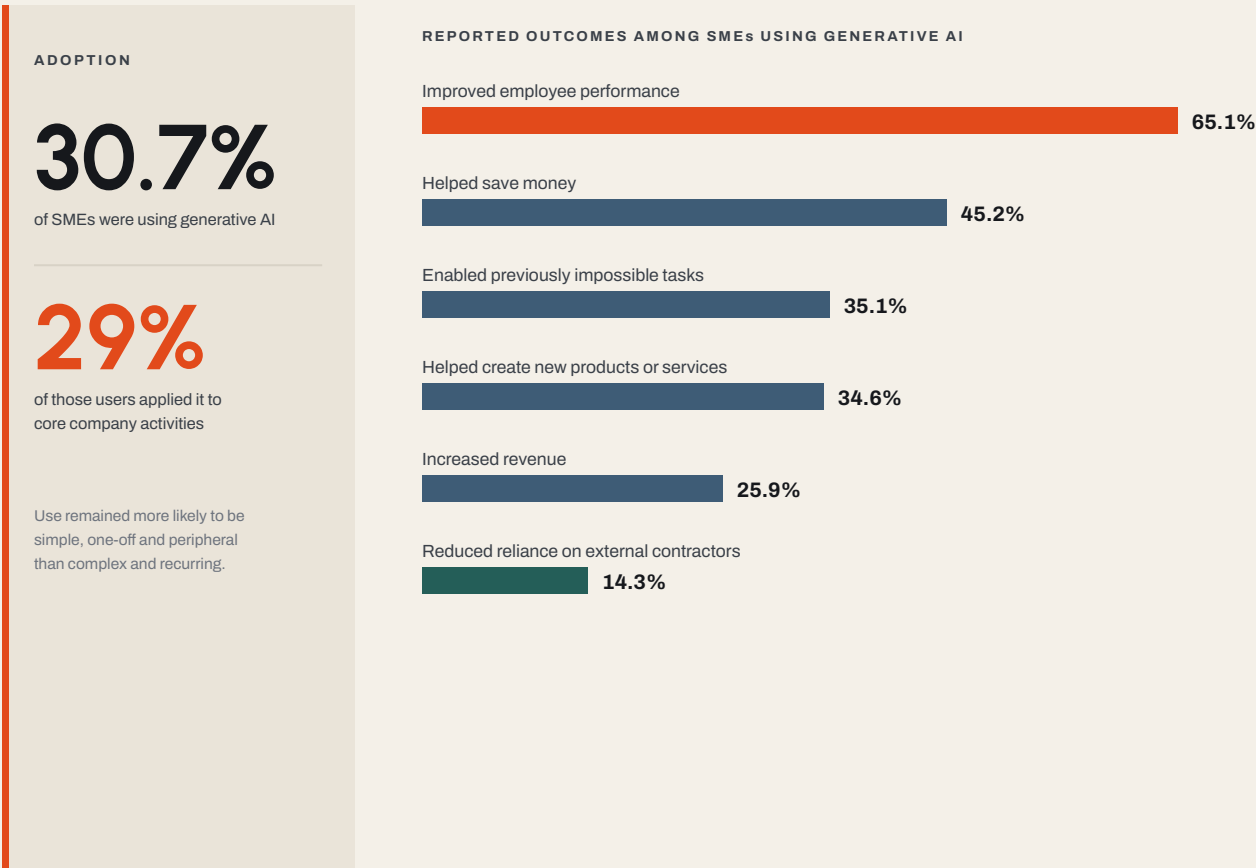
The same report shows why progression matters. Among SMEs using generative AI, 65.1% reported improved employee performance, 45.2% said it helped save money, 35.1% said it enabled tasks that had previously been impossible and 34.6% said it helped create new products or services. More than a quarter said it helped them compete with larger companies, and 25.9% reported increased revenue.³

These are reported benefits rather than audited causal results, but they describe something larger than faster email. AI is expanding the feasible set of what a small organization can attempt.

FIGURE 5 · SMALL AND MIDSIZE ENTERPRISES

Adoption is still shallow — but reported effects are not trivial.

OECD survey of more than 5,000 SMEs across seven countries, fielded 2024.



Source: OECD, Generative AI and the SME Workforce, 2025 (notes 3, 4). Self-reported benefits, not audited causal results.

The cost of trying is falling faster than the cost of mastering.

A DISTINCTION THAT RUNS THROUGH THE REST OF THIS REPORT

Note the shape of the OECD findings: the strongest effects are reported on *capability* — performance, feasibility, new offerings — not on headcount. Small organizations are not describing replacement. They are describing reach.



PART THREE · THE NEW ECONOMICS OF MAKING

When a Small Business Can Build What It Used to Buy

Small organizations have always paid a capability tax. The builder economy changes the make-or-buy decision — and reserves specialists for the work that truly requires them.

The builder economy changes the make-or-buy decision. Small organizations have always faced a capability tax. They could identify the software, analysis, design or automation they needed but could not justify a specialist, an agency engagement or a custom-development project.

Generative AI does not eliminate the need for specialists. It allows organizations to reserve specialist help for the work that truly requires it.

The OECD found that 14.3% of SME users reduced their reliance on external contractors. Companies using AI to perform new tasks were 50% more likely to report lower contractor dependence than other AI-using businesses.⁴ That does not necessarily signal wholesale displacement. It may mean a company produces the first draft itself, prototypes before hiring an engineer or handles routine design internally while turning to an expert for the difficult work.

This is the one-person-business dimension of the builder economy. A founder can research a market, name a product, design a brand, prototype a site, develop a basic application and assemble a sales workflow before raising money or hiring a team. Some of those creations will be poor. Some will never be secure or scalable. But many ideas that once died between conception and the first invoice can now be tested.

The cost of trying is falling faster than the cost of mastering. That is an important distinction. AI expands participation, while the market still rewards quality.

THE CAPABILITY TAX, RESTATED

The old constraint was not usually imagination. It was the minimum viable engagement: the smallest amount of specialist time a small organization could buy was often larger than the problem it had.

What changes is not the need for expertise but the **granularity** at which expertise can be purchased — and the point in the process at which it becomes worth buying.

WHERE THE SPECIALIST STILL EARNS THE INVOICE

- Anything holding customer data, payments or credentials.
- Anything that must keep running after the person who built it moves on.
- Anything whose failure is expensive, regulated or public.
- Anything that has to scale beyond the demonstration that sold it.

14.3%

of SME AI users reduced reliance on external contractors · OECD

50%

more likely to report lower contractor dependence when AI performs new tasks

35.1%

said AI enabled tasks that had previously been impossible

34.6%

said it helped create new products or services



PLATE II · SCAFFOLDING

A workbench that now extends past the bench. What expands is not the workshop's skill but the size of the structure it can attempt.

Many ideas that once died between conception and the first invoice can now be tested. Some of what gets built will be poor, and some will never be secure or scalable — but the threshold of attempt has moved, and it has moved most for the organizations that previously could not afford to try at all.

The counterweight arrives in the next section. An application that works in a demonstration is not necessarily a production system, and the distance between the two is exactly where a builder's judgment — or its absence — shows up.

PART III · SECTION 02

Software Is the Most Visible Edge

Software development is where the shift is easiest to see because the output is executable. GitHub reported in its 2025 Octoverse analysis that more than 1.1 million public repositories used a large-language-model software development kit and that nearly 694,000 of them had been created during the preceding 12 months, an increase of 178%.¹⁰ It also reported that 80% of new developers used GitHub Copilot during their first week.

GitHub's interviews with advanced users described a changing professional identity: from writing each line personally toward becoming a “creative director of code” who specifies, orchestrates and verifies.¹⁰ That is an apt description of the system-builder transition. The developer's value moves upward into architecture, decomposition, judgment, security and review.

Vendors serving nontechnical builders claim an even broader shift. Lovable says 80% of its builders identify as nontechnical and roughly two-thirds work outside technology.²¹ Bolt reports that 63% of small-business builders on its platform had never written code and that

92% shipped a working version within 24 hours.²² Those figures are company-reported and should not be confused with independent market measurements, but they show whom these products are attracting and what they promise.

They also require a counterweight. Associated Press reporting on “vibe coding” found experts warning that a nontechnical person cannot yet assume an AI-generated application is secure, reliable, maintainable or ready for a business.¹¹ An application that works in a demonstration is not necessarily a production system.

I have experienced both sides. AI has allowed me to build websites, plugins and web apps. It has also taught me that getting something to run is not the same as understanding everything it may do. The human builder still owns the objective, the test and the decision to deploy.

FIGURE 6 · THE SOFTWARE BUILDER EDGE

Independent platform counts, and what vendors claim.

Left: GitHub Octoverse 2025 (Sept. 2024–Aug. 2025). Right: company-reported figures — not independent measurements.

PUBLIC REPOSITORIES USING AN LLM SDK



80% of new developers used GitHub Copilot during their first week on the platform

VENDOR-REPORTED

80% of Lovable builders identify as non-technical

2 in 3 Lovable builders work outside the technology industry

63% of small-business builders on Bolt had never written code

92% shipped a working version within 24 hours, Bolt says

Sources: GitHub Octoverse 2025 (note 10); Lovable Build Economy 2026 (note 21); Bolt.new (note 22). Vendor figures are self-reported.

PART III · SECTION 03

The Builder Was Always There

Some of the most powerful examples have little to do with software.

The Associated Press profiled musician Samuel Smith, whose Parkinson's disease had made it difficult to play instruments and record music. Smith used AI music tools to convert melodies he could hum into detailed demos that session musicians could perform.¹² The AI did not write his lyrics or replace the musicians. It restored a pathway from the music in his head to a form other people could hear and develop.

The builder was always there. AI removed the barrier between his intention and its execution.

That is the humane promise beneath the hype. People who lack a particular physical ability, technical skill, budget or institutional access can participate more fully in creation. The tools do not supply a reason to create, a

point of view or lived experience. They give those things leverage.

Creative-industry research offers a wider view. Adobe's 2026 Creators' Toolkit study, conducted with Harris Poll among more than 16,000 creators, found that 75% considered generative AI integrated into or essential to their creative work. Fifty-eight percent said it helped them compete with larger teams, and 93% said it made them faster. Yet 57% reported moderately or extensively editing AI output, and 85% said the final decision remained human.¹³

That combination matters. Speed did not eliminate authorship. It moved authorship toward selection, direction, refinement and responsibility.

FIGURE 6B · CREATORS

Speed did not remove authorship.

- 75%** call creative AI integrated into or essential to their work
- 93%** say it helps them produce work faster
- 58%** say they compete better with larger teams or studios
- 57%** moderately or extensively edit AI output before sharing
- 85%** say the final creative decision should remain human

Adobe / Harris Poll 16,000+ creators 2026 (note 13)



PLATE III Authorship moves toward selection and direction. The tools do not supply a reason to create; they give one leverage.

The builder was always there. AI removed the barrier between his intention and its execution.

ON THE MUSICIAN WHO COULD NO LONGER PLAY

IV

PART FOUR · WHERE THE DEMOCRATIZATION STOPS

A Tool Is Not a Talent Transplant

The democratization of production can be mistaken for the democratization of expertise. The two are not the same.

Research from Harvard Business School makes the distinction visible. In an experiment involving 791 Procter & Gamble professionals, individuals working with AI performed as well as traditional two-person teams without it, while teams using AI produced the strongest results.¹⁴ AI gave individuals access to some of the functional breadth ordinarily supplied by a teammate, but human collaboration still added value.

A separate HBS study of 78 professionals tested whether generative AI could help people cross occupational boundaries. Marketers using AI could approach the performance of web analysts on nearby tasks, but people attempting work farther from their expertise still performed 13% below specialists.¹⁵ AI sharply reduced the time required for conceptualization and writing, yet it did not turn novices into experts.

This is the central discipline of the builder economy. AI democratizes attempt. It can accelerate learning, expose a person to adjacent skills and produce a useful first version. It cannot supply all the tacit knowledge that tells an expert what is missing, what could fail and what should never be shipped.

The mature builder knows both what AI makes possible and where personal competence ends.

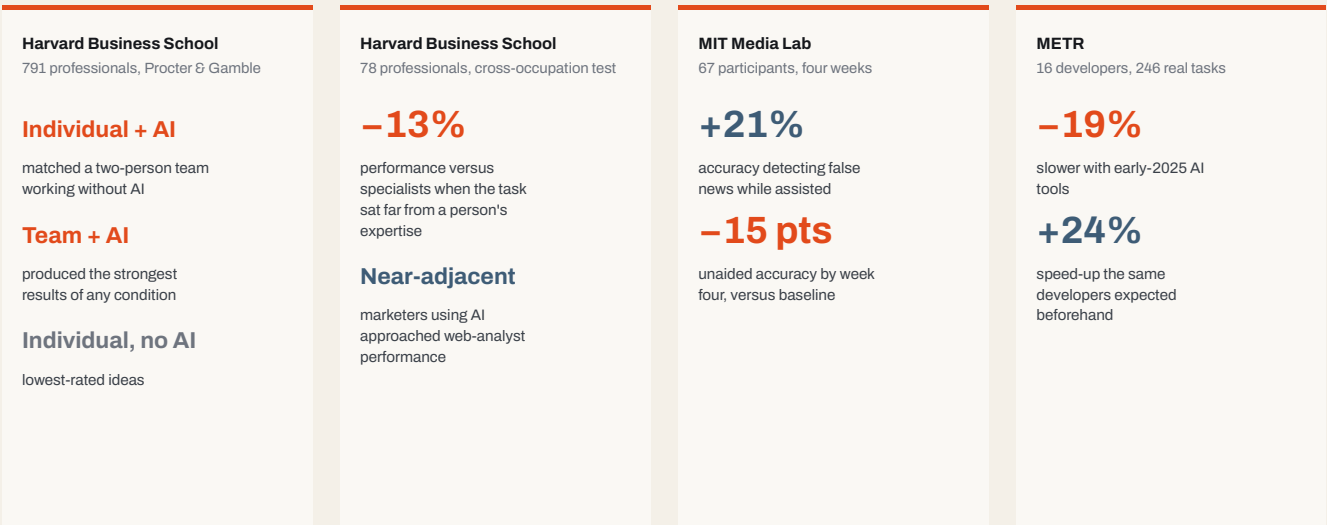
AI gave individuals access to some of the functional breadth ordinarily supplied by a teammate.

HARVARD BUSINESS SCHOOL · 791 PROFESSIONALS

FIGURE 7 · CAPABILITY, EXPERTISE AND DEPENDENCY

Four studies that complicate the democratization story.

Each panel reports a different experiment; the measures are not comparable with one another.



Sources: HBS working knowledge (notes 14, 15); MIT News, June 2026 (note 17); METR, July 2025 (note 18).

PART IV · SECTION 02

The Abundance Problem

Lowering the cost of production creates an abundance of output. It does not guarantee an abundance of originality.

A study published in *Science Advances* found that AI-assisted stories were rated as more creative and better written, with the largest gains going to participants who initially scored lower on creativity. At the same time, the stories became more similar to one another, reducing diversity across the collective output.¹⁶

That is a preview of a larger cultural problem. AI can help more people clear the threshold of competence while pulling everyone toward patterns the model recognizes.

The individual work improves, but the field can become more homogeneous.

This is where taste becomes more valuable, not less. When acceptable prose, images, music and software become plentiful, the scarce resources are point of view, selection, context and the courage to reject the obvious answer. The mature builder does not merely generate more. The mature builder knows what deserves to exist.

WHAT BECOMES PLENTIFUL

Competent prose. Serviceable images. Working boilerplate. Presentable decks. Passable music beds. First drafts of almost everything.

WHAT BECOMES SCARCE

A point of view. Selection. Context. Restraint. The willingness to reject the obvious answer that the model produced first — and to be answerable for what is published instead.



PLATE IV Individual quality rises while collective variety narrows. The scarce resource is not competence but the decision to make something that does not already exist.

The mature builder does not merely generate more. The mature builder knows what deserves to exist.

PART IV · SECTION 03

When Assistance Becomes Dependency

The other risk is that a tool that extends capability can quietly replace it.

MIT researchers studying AI-assisted misinformation detection found that participants initially improved their ability to identify false news by 21%. When the assistance was later removed, however, unaided performance declined by 15 percentage points.¹⁷ Some participants believed they were improving even while their independent performance deteriorated.

In software development, the nonprofit research organization METR studied 16 experienced open-source developers completing 246 real tasks in early 2025. The developers expected AI to make them faster. In that environment, it made them 19% slower.¹⁸ The tools have improved since then and the result should not be general-

ized to every developer or task, but the perception gap is instructive.

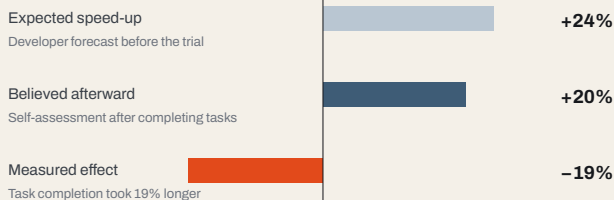
AI can make work feel easier without making it better. It can create speed in one portion of a process while adding review and correction elsewhere. It can also produce confidence unsupported by understanding.

The solution is not abstinence. It is deliberate practice. Builders should retain the ability to inspect, challenge and, when necessary, work without the system. The objective is amplified agency, not surrender.

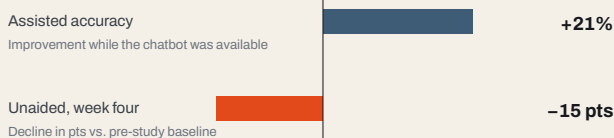
FIGURE 7B · THE PERCEPTION GAP

What people believed, and what was measured

METR · 16 EXPERIENCED DEVELOPERS



MIT MEDIA LAB · 67 PARTICIPANTS



METR. 2025 (note 18); MIT News. 2026 (note 17). Measures are not comparable.

PRACTICES THAT KEEP CAPABILITY

- **Work unaided on purpose.** Periodically complete a representative task without assistance to see what has decayed.
- **Review before accepting.** Read generated work as an editor would, against a standard defined before generation.
- **Keep the failure model.** Be able to describe how the thing you built could break, and what would reveal it.
- **Measure the whole process.** Speed in one step can be paid for in review and correction elsewhere.

Some participants believed they were improving even while their independent performance deteriorated.

The MIT and METR results are not indictments of the tools. They are warnings about a particular kind of self-assessment — the confidence that accumulates when a process feels smooth. Both studies measured people who believed they were doing better than they were.



PART FIVE · INSTITUTIONS, AUTHORSHIP, AGENCY

Employees Are Moving Faster Than Their Employers

Individual experimentation is spreading faster than formal enterprise integration. The dominant enterprise model is neither centralization nor free-for-all.

The builder economy is developing unevenly inside organizations. Census research for late 2025 through early 2026 found that roughly 18% of U.S. firms used AI in a business function, or 32% when weighted by employment.⁶ A separate Census analysis placed overall business adoption between 17% and 20%, rising to 37% among firms with at least 250 employees.⁵

Those measures are not directly comparable with surveys showing that more than half of employees use AI. They ask different questions, use different definitions and examine different populations. But together they suggest a

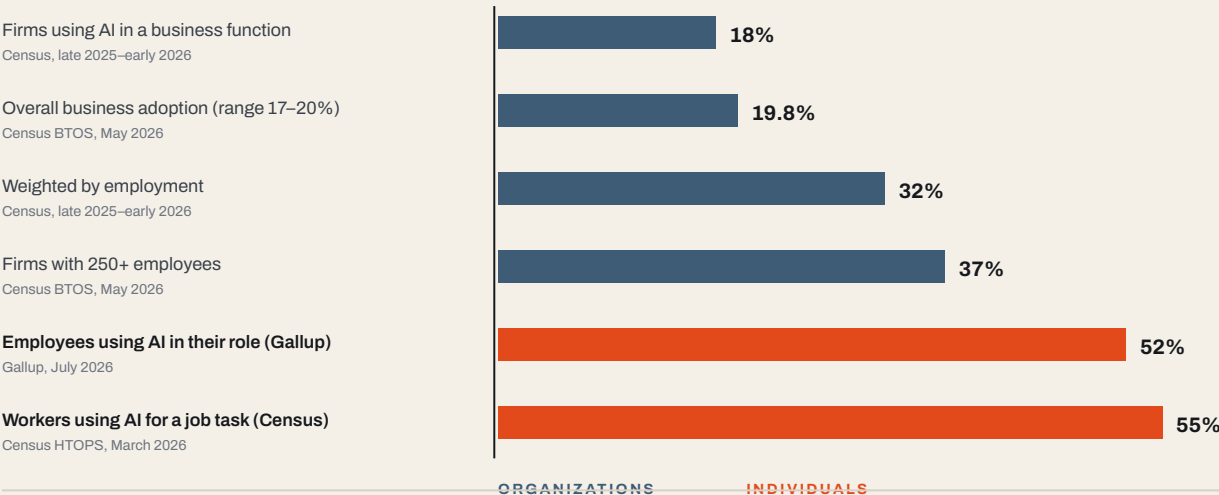
real organizational tension: individual experimentation is spreading faster than formal enterprise integration.⁷

Futurum's enterprise research shows the institutional response beginning to take shape. In its first-half 2026 AI Platforms Decision Maker Survey of 820 respondents, 50.98% said their organizations used a hybrid approach combining in-house and vendor AI development. Another 24.88% relied on vendors or off-the-shelf systems, while 20.12% described their approach as primarily in-house.²³

FIGURE 8 · THE ADOPTION GAP

Individual practice is running ahead of formal enterprise integration.

These measures are not directly comparable: different questions, definitions and populations.



Sources: U.S. Census Bureau (notes 1, 5, 6); Gallup (note 2).

WHY THE NUMBERS DIFFER

A firm-level survey asks an establishment whether it uses AI in a business function. A worker-level survey asks a person whether they used AI for a task. One counts adoption; the other counts practice.

WHAT THE GAP IMPLIES

Capability is arriving through people rather than through procurement. That is a source of speed and a source of exposure: work that nobody formally commissioned is also work that nobody has formally reviewed, secured or agreed to maintain.

The dominant model is therefore neither complete centralization nor uncontrolled individual experimentation. It is a mixed environment in which employees, internal teams and vendors all build parts of the capability.

Futurum's CIO Insights data provides a useful historical trajectory through the second half of 2025. The percentage of CIO respondents naming AI process automation and application generation as an emerging-technology priority increased from 25.12% in the second quarter to 42.21% in the fourth. Over the same period, the share reporting a thorough, well-formed AI implementation or regulatory plan remained near three-quarters, while the share

beginning with discrete pilots fell from 68.47% to 37.30%.²³

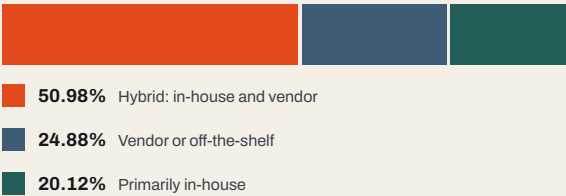
These are CIO perceptions from a large-enterprise-heavy sample, not a direct count of individual builders. They nevertheless suggest enterprises were moving from isolated experiments toward structured deployment at the same time employees were discovering what they could make.

FIGURE 9 · THE INSTITUTIONAL RESPONSE

Hybrid building dominates, and pilots are giving way to structured deployment.

Futurum AI Platforms Decision Maker Survey, 1H 2026 (n=820); CIO Insights, 2025 Q2–Q4 (n=203, 248, 244).

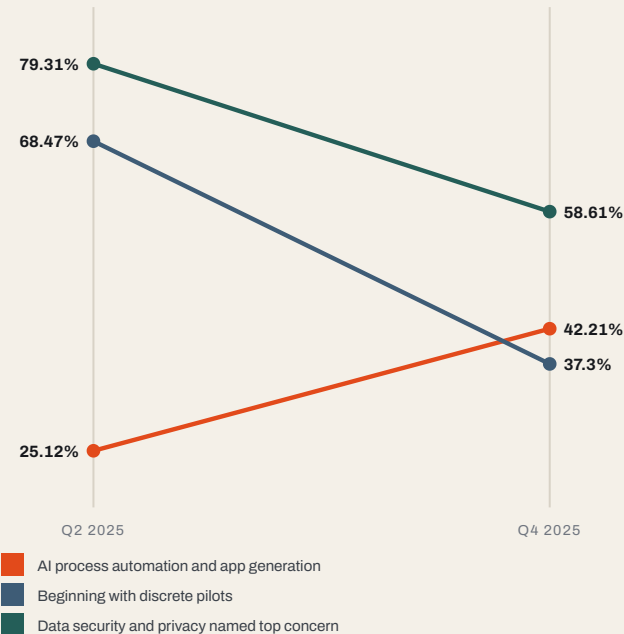
HOW ORGANIZATIONS BUILD AI CAPABILITY



Remaining respondents reported other or undecided approaches.

~75% of CIO respondents reported a thorough, well-formed AI implementation or regulatory plan across all three quarters measured.

CIO PRIORITIES AND CONCERNS, 2025 Q2 → Q4



Source: Futurum Group proprietary surveys (note 23). CIO Insights respondents were CIOs and the sample skewed toward large enterprises — leadership perceptions, not builder behavior.

METHODOLOGY RETAINED IN FULL

Futurum figures cited in this report are drawn from the AI Platforms Decision Maker Survey, 1H 2026 (n=820), and CIO Insights quarterly surveys for 2025 Q2–Q4 (n=203, 248 and 244). CIO Insights respondents were CIOs and the sample skewed toward large enterprises; the figures should be interpreted as leadership perceptions and organizational proxies, not individual builder behavior.

PART V · SECTION 02

The Governance Question Is a Builder Question

Organizations often discuss AI governance as though it were a model-management problem. Increasingly, it is a builder-management problem.

Who owns an application assembled by an employee? Who maintains a workflow after that employee changes roles? Which data may an agent access? Who tests generated code for vulnerabilities? Who approves an automated action? What happens when a useful prototype becomes essential to a department without ever passing through conventional procurement or architecture review?

These questions are not arguments against distributed building. They are reasons to support it properly.

The enterprise should provide approved tools, accessible data boundaries, reusable components, training, review paths and a clear route from prototype to production. Governance must be proportional to consequence. A draft for internal discussion does not require the same controls as an agent allowed to change customer records or deploy code.

Futurum's CIO research found data security and privacy remained the most frequently cited AI concern during the three quarters measured, even though the share declined from 79.31% to 58.61%.²³ The persistence of that concern is understandable. Every new builder creates a potential point of value and a potential point of exposure.

The wrong response is to prohibit building and drive it into the shadows. The better response is a paved road: make the safe way the easiest way, preserve space for experimentation and establish explicit gates as work becomes repeatable, connected and consequential.

Governance must be proportional to consequence.



PLATE V Five gates on one path. Each frame is denser than the last, and the path runs through all of them — the architecture of a governance model that adds control as consequence rises rather than blocking the road.

FIGURE 10 · THE PAVED ROAD

Governance proportional to consequence.

A model for supporting distributed building: controls increase only as work becomes repeatable, connected and consequential.



THE FAILURE MODE

Prohibiting building drives it into the shadows. The paved road makes the safe way the easiest way — preserving room to experiment while establishing explicit gates as the work gains consequence.

Source: Techstrong analysis, developed for this report; governance concerns per Futurum CIO Insights (note 23).

PART V · SECTION 03

Authorship Requires More Than Pressing the Button

The builder economy also disrupts familiar ideas about authorship and ownership.

The U.S. Copyright Office has said that AI-assisted work can qualify for copyright when a human contributes sufficient expressive elements, arrangement or modification. Prompts alone generally do not provide that basis.¹⁹ The principle aligns with the maturity model: authorship lies in meaningful human control, not merely in initiating generation.

Provenance technologies can help disclose how content was produced. The C2PA standard can record the origin and modifications associated with a digital asset.²⁰ It does not certify that the asset is truthful, ethical or good. Provenance is a record, not a judgment.

The same applies to disclosure. Saying that AI participated may be useful, but it does not answer the central

questions. Who chose the objective? Who supplied the source material? Who reviewed the claims? Who changed the output? Who decided it was ready? Who accepts responsibility if it causes harm?

Those are builder questions.

SIX QUESTIONS DISCLOSURE DOES NOT ANSWER

- Who chose the objective?
- Who supplied the source material?
- Who reviewed the claims?
- Who changed the output?
- Who decided it was ready?
- Who accepts responsibility if it causes harm?

WHAT THE COPYRIGHT OFFICE ACTUALLY SAID

Existing copyright principles are flexible enough to apply to generative AI. Outputs can be protected where a human determined sufficient expressive elements — including a perceptible human-authored work, or creative arrangement or modification of AI output. Copyright does not arise from the mere provision of prompts, and using AI in the process of creation does not bar protection.¹⁹

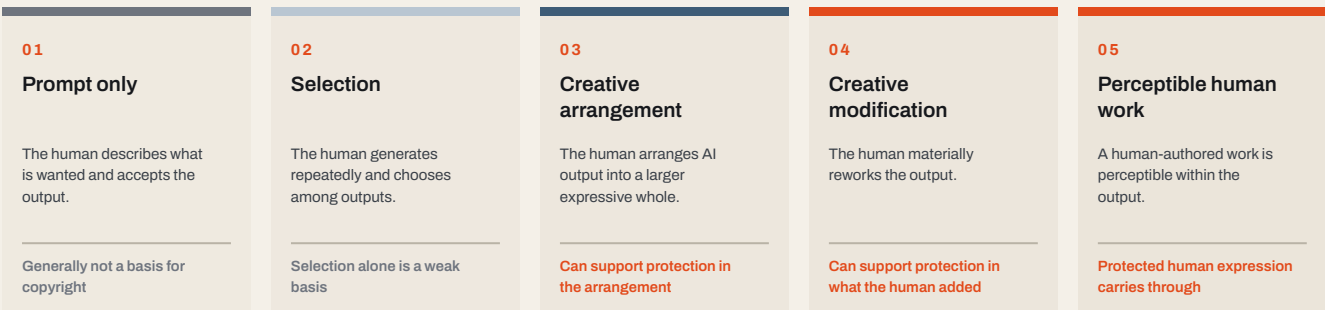
WHAT PROVENANCE CAN AND CANNOT DO

C2PA content credentials can bind assertions about origin, tools and modifications to an asset and make tampering detectable. That is a chain-of-custody record. It is not a claim about accuracy, licensing, ethics or quality — and it does not identify who was accountable for the decision to publish.²⁰

FIGURE 10B · THE AUTHORSHIP THRESHOLD

Authorship lies in meaningful human control, not in initiating generation.

Interpretation of the U.S. Copyright Office's Part 2 conclusions on the copyrightability of generative-AI outputs.



LESS HUMAN EXPRESSIVE CONTRIBUTION

MORE HUMAN EXPRESSIVE CONTRIBUTION

Source: U.S. Copyright Office, Copyright and AI, Part 2 (note 19). Editorial interpretation; not legal advice.

PART V · SECTION 04 · CLOSING

Agency and Responsibility

The emergence of millions of AI builders is not a side effect of the AI revolution. It may become its most economically and culturally important outcome.

Foundation models will continue to improve. Agents will become more capable. Interfaces will become easier. The mechanics of creating software, media and business processes will keep moving closer to natural language. More people will be able to turn an idea into something that works.

But the future will not be divided neatly between people who build AI and people who use it. It will be shaped by people who build with it.

Some will remain consumers, and that is fine. Some will make a single artifact. Others will create repeatable workflows, connect them to enterprise systems or orchestrate networks of human and machine labor. The meaningful

progression is not from nontechnical to technical. It is from passive use to intentional creation, and from creation to dependable capability.

My own experience has made that progression tangible. I can build things today that previously required skills I did not possess or resources I could not justify. That does not absolve me of learning. It increases my responsibility to understand what I am asking the system to do, test what it produces and seek expertise when the stakes exceed my competence.

We are all becoming builders. That is an invitation, not a credential.

The title of builder is becoming available to everyone. Earning it still requires intention, judgment and responsibility.

The most important question of the AI era may no longer be who is building the models. It may be what the rest of us choose to build with them — and whether we are prepared to take responsibility for what we create.



NOTES & SOURCES

Every figure, with its source type

All figures as published or reported as of Aug. 15, 2026. Entries are numbered as they appear in the text, and every figure has been checked against the source cited for it; where a source presents a value rounded or under a different headline, the note records it. Source types: **primary** (government or multilateral statistics), **independent** (academic and non-commercial research), **platform** (single-product usage), **vendor-reported** (company claims) and **proprietary primary research** (licensed survey research whose datasets are not publicly accessible).

01 PRIMARY · GOVERNMENT

U.S. Census Bureau, “About a Third of Workers Who Used AI in the Last Week Said They Completed Tasks One to Two Hours Faster,” August 2026. March 2026 Household Trends and Outlook Pulse Survey; 55% of U.S. workers used AI for at least one of 11 job tasks.

Cited in the manuscript as “How Americans Use Artificial Intelligence at Work”; the published headline differs. Task-level shares: search 37%, writing 32%, ideas 32%, summarizing 31%, administrative 27%.

<https://www.census.gov/library/stories/2026/08/ai-use-at-work.html>

02 INDEPENDENT SURVEY

Gallup, “Organizational AI Adoption Jumps Six Points,” July 2026. Quarterly Gallup Panel workforce study; Q2 2026 wave fielded May 6–20, 2026 among 22,573 employed U.S. adults, ±0.9 percentage points.

Gallup reports coding assistance and process automation each at 77% positive productivity effect.

<https://www.gallup.com/workplace/712736/organizational-adoption-jumps-six-points.aspx>

03 PRIMARY · MULTILATERAL

OECD, *Generative AI and the SME Workforce*, 2025 — Component 4, “How are SMEs using generative AI?” Representative 2024 survey of more than 5,000 SMEs in Austria, Canada, Germany, Ireland, Japan, Korea and the United Kingdom. Supports 30.7% of SMEs using generative AI, 29% applying it to core activities, 65.1% improved employee performance, 45.2% saved money, 35.1% performed tasks that could not previously be performed, 34.6% offered new products or services and 25.9% increased revenue.

The decimal values appear in the component's figures and underlying data; the article text of the chapter presents several of them rounded.

https://www.oecd.org/en/publications/generative-ai-and-the-sme-workforce_2d08b99d-en/full-report/component-4.html

04 PRIMARY · MULTILATERAL

OECD, *Generative AI and the SME Workforce*, 2025 — Component 5, on labour and skill needs. Supports 14.3% of SME users reducing reliance on external contractors, and 18.2% versus 12.4% among firms using AI to perform new tasks — about 50% more likely to report lower contractor dependence.

https://www.oecd.org/en/publications/generative-ai-and-the-sme-workforce_2d08b99d-en/full-report/component-5.html

05 PRIMARY · GOVERNMENT

U.S. Census Bureau, “Large Firms With at Least 20 Employees Biggest AI Users,” May 2026. Business Trends and Outlook Survey, Dec. 14, 2025–May 3, 2026. Supports overall business adoption of 17–20% (19.8% as of May 3, 2026) and 37% among firms with at least 250 employees.

<https://www.census.gov/library/stories/2026/05/ai-use-businesses.html>

06 PRIMARY · GOVERNMENT

U.S. Census Bureau, Center for Economic Studies working paper CES-WP-26-25, 2026. The abstract states that during the supplement reference period, November 2025 to January 2026, “18% of firms used AI in a business function, rising to 32% on an employment-weighted basis.”

<https://www.census.gov/library/working-papers/2026/adrm/CES-WP-26-25.html>

07 INDEPENDENT RESEARCH

Stanford HAI, *2026 AI Index Report* — Economy chapter. Background reference for economy-wide adoption and measurement differences; not cited for a specific figure above.

<https://hai.stanford.edu/ai-index/2026-ai-index-report/economy>

08 PLATFORM DATA

OpenAI, “How People Are Using ChatGPT,” September 2025. NBER working paper with Harvard economist David Deming; privacy-preserving analysis of 1.5 million consumer conversations. Supports the 40% “doing” share and writing as the most common work activity.

Full published breakdown: 49% “asking,” 40% “doing,” 11% “expressing.”

<https://openai.com/index/how-people-are-using-chatgpt/>

09 PLATFORM DATA

OpenAI, “From asking to doing: How the world is putting ChatGPT to work,” Aug. 6, 2026: “At work, people are more than twice as likely to use ChatGPT to complete a task or create something, from writing and coding to analysis, than they are outside work.”

Referred to in the text as OpenAI's later Signals research. This is a separate publication from note 8 and is not conflated with the asking / doing / expressing breakdown.

<https://openai.com/index/how-the-world-is-putting-chatgpt-to-work/>

10 PLATFORM DATA

GitHub, *Octoverse 2025*, covering Sept. 1, 2024–Aug. 31, 2025. More than 1.1 million public repositories import an LLM SDK; 693,867 were created in the prior 12 months, up 178% year over year; nearly 80% of new developers used Copilot in their first week.

<https://github.blog/news-insights/octoverse/octoverse-a-new-developer-joins-git-hub-every-second-as-ai-leads-typescript-to-1/>

11 JOURNALISM

Associated Press, reporting on “vibe coding” and the limits of AI-built software.

<https://apnews.com/article/ai-vibe-coding-anthropic-assistants-09f35ccc7545ac92447a19565322f13d>

12 JOURNALISM

Associated Press, profile of musician Samuel Smith and AI-assisted music creation.

<https://apnews.com/article/ac2a6ed263256c12f68eb827f7e8238a>

13 VENDOR-COMMISSIONED SURVEY

Adobe, *2026 Creators' Toolkit Report*, June 16, 2026. Conducted with The Harris Poll in May 2026 among more than 16,000 creators across eight countries.

Adobe reports 75% integrated or essential, 93% faster, 58% competing better with larger teams, 57% moderate-to-extensive editing, and 85% saying the final creative decision should always remain with the creator.

<https://news.adobe.com/news/2026/06/creators-toolkit-report-2026>

14 ACADEMIC

Harvard Business School Working Knowledge, "When AI Joins the Team, Better Ideas Surface." Field experiment with 791 Procter & Gamble product-development professionals, May–July 2024 (Dell'Acqua et al., "The Cybernetic Teammate," HBS Working Paper 25-043).

Individuals using AI matched two-person teams working without it; top-10% ideas were three times more likely to come from AI-enabled teams than from individuals without AI.

<https://www.library.hbs.edu/working-knowledge/when-ai-joins-the-team-better-ideas-surface>

15 ACADEMIC

Harvard Business School Working Knowledge, "Gen AI Boosts Productivity, But Can't Turn Novices Into Experts." Field experiment with 78 professionals at IG Group (Vendraminelli et al., "The GenAI Wall Effect," HBS Working Paper 26-011).

12 web analysts, 26 marketing specialists and 40 technology specialists; the most distant group scored 3.42 of 5 against 3.96 for the occupational insiders — about 13% lower.

<https://www.library.hbs.edu/working-knowledge/gen-ai-boosts-productivity-but-cant-turn-novices-into-experts>

16 ACADEMIC · PEER-REVIEWED

A. Doshi and O. Hauser, "Generative AI enhances individual creativity but reduces the collective diversity of novel content," *Science Advances*.

<https://www.science.org/doi/10.1126/sciadv.adn5290>

17 ACADEMIC

MIT News, "The consequences of relying on AI for accurate news," June 9, 2026. MIT Media Lab study of 67 participants over four weeks, presented at CHI 2026.

Participants were 21% more accurate while assisted; unaided accuracy on new items fell 15 percentage points by week four. About a quarter believed they were improving.

<https://news.mit.edu/2026/consequences-of-relying-on-ai-for-accurate-news-0609>

18 INDEPENDENT RESEARCH

METR, "Measuring the Impact of Early-2025 AI on Experienced Open-Source Developer Productivity," July 10, 2025. 16 developers, 246 real tasks in mature repositories.

Developers were 19% slower with AI allowed, having expected a 24% speed-up; they still believed afterward that AI had sped them up by 20%. METR published data on late-2025 tools in February 2026.

<https://metr.org/blog/2025-07-10-early-2025-ai-experienced-os-dev-study/>

19 PRIMARY · GOVERNMENT

U.S. Copyright Office, *Copyright and Artificial Intelligence, Part 2: Copyrightability*, NewsNet issue 1060, Jan. 29, 2025.

Protection attaches where a human determined sufficient expressive elements; it does not arise from the mere provision of prompts.

<https://www.copyright.gov/newsnet/2025/1060.html>

20 STANDARDS BODY

C2PA, *Explainer and Specification 2.4 — content credentials binding origin and modification assertions to a digital asset*.

<https://spec.c2pa.org/specifications/specifications/2.4/explainer/Explainer.html>

21 VENDOR-REPORTED

Lovable, *The Build Economy* data study, 2026. Company-reported user survey data: four in five builders identify with non-technical roles; nearly two-thirds come from outside the technology industry.

<https://thebildeconomy.lovable.app/>

22 VENDOR-REPORTED

Bolt.new, "Build your own custom software with AI," July 2026.

Company-reported platform figures: 63% of small-business owners building on Bolt.new have never written a line of code; 92% ship a working version within 24 hours.

<https://bolt.new/blog/build-custom-software-small-business-ai>

23 PROPRIETARY PRIMARY RESEARCH

The Futurum Group, *AI Platforms Decision Maker Survey*, 1H 2026 (n=820), and CIO Insights quarterly surveys, 2025 Q2–Q4 (n=203, 248 and 244). CIO Insights respondents were CIOs and the sample skewed toward large enterprises; the figures should be interpreted as leadership perceptions and organizational proxies, not individual builder behavior. Proprietary primary research, licensed for use in this report; the underlying datasets are not publicly accessible. Publisher: The Futurum Group.

<https://futurumgroup.com/>

RESEARCH ACCESS

Every statistic in this report was checked against the source cited for it. One body of evidence is not publicly accessible: the Futurum Group figures are proprietary primary research, licensed for use here (note 23). Sample sizes, survey names and the CIO-sample caveat are reproduced in full alongside Figure 09 so the reader can weigh them; the underlying datasets remain the publisher's.

ON COMPARABILITY

Worker-level and firm-level statistics are not interchangeable: HTOPS asks individuals about 11 job tasks, BTOS asks businesses about any business function, Gallup asks employees about their own use, and the OECD asks SME respondents about their firms. The spread from 18% to 55% is partly question design — though its direction is consistent.

COLOPHON

Set in Urbanist and Archivo. Charts, diagrams and infographics were generated programmatically from the figures cited above. Photographic plates are original conceptual images made for this report: constructed models and non-identifiable hands, not documentary photographs of any named person, company or product.

Techstrong Special Report, Vol. 01, No. 05 · August 2026.

IN CLOSING

We are all becoming builders.

That is an invitation, not a credential.

The title of builder is becoming available to everyone. Earning it still requires intention, judgment and responsibility — and a willingness to understand what you are asking the system to do, to test what it produces, and to seek expertise when the stakes exceed your competence.

THE PROGRESSION, ONCE MORE

0

Consumer
asks and receives

1

Assisted Maker
one discrete task

2

Collaborative Creator
iterative work

3

Workflow Builder
a repeatable method

4

System Builder
connected, persistent

5

AI Orchestrator
agents and
boundaries

The meaningful progression is not from nontechnical to technical. It is from passive use to intentional creation, and from creation to dependable capability — measured, at every stage, by the five questions below.

THE FIVE QUESTIONS

Intent

Did you choose the
objective, or accept one?

Iteration

Did you direct the work, or
take the first output?

Integration

Does it touch real data,
tools and people?

Repeatability

Could someone else run it
without you?

Accountability

Who answers for it when it
is wrong?