



ARTIFICIAL INTELLIGENCE

# The AI Adoption Puzzle: Why Usage Is Up But Impact Is Not

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CEOs of companies in every industry around the world are grappling with a common question: If so many of their employees are using AI, why hasn't there been an explosion in value creation? A recent BCG survey quantified this failed promise, finding that 60% of companies globally were not generating any material value from AI despite substantial investment. The answer lies in organizations' focus on AI as a technology deployment, rather than how (or if) employees truly integrate AI into their ways of working.

We've observed that even leading organizations are often prioritizing the low-hanging fruit—focusing on achieving efficiencies in peripheral or administrative activities, rather than reimagining work by embedding the technology in core, high-value activities. For most companies, getting to the latter point will be a journey, one that centers on the experiences of their employees. Through our research of adoption patterns, we've identified five discrete stages that workers go through. Understanding this big picture view enables leaders to chart their company's overall progress, but they can't stop there. They'll also need to deeply understand employees' personal adoption journey, including the psychological and organizational factors that can hold them back—or propel them forward.

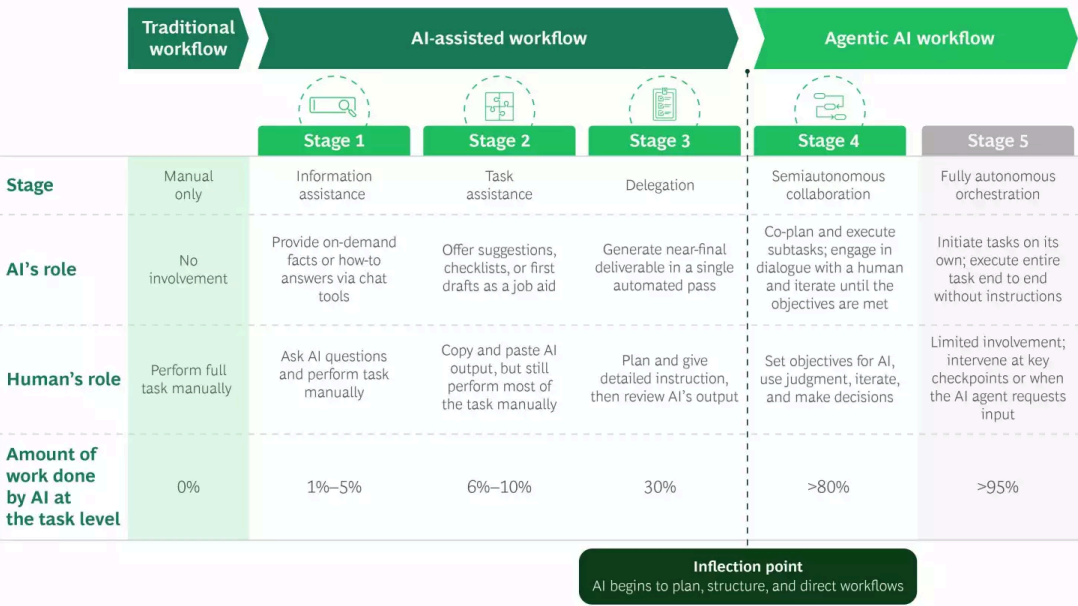
# Adoption Quality Is the Goal, Not Adoption Rate

Most organizations are preoccupied with inputs, such as the number of logins to AI tools or the amount of time spent using them, as measures of adoption. That approach misses the shift in mindset that occurs when AI becomes central to an employee's core work. This shift activates a virtuous circle—one that creates momentum that drives deeper and more sustained adoption not just for that employee but also across an organization. What really matters, then, is the quality of AI use and how meaningfully work is being reinvented.

To deepen AI adoption and improve its impact, organizations must first understand how employees are using the technology. Through our work with dozens of companies, we've identified a discernible AI-adoption pattern that spans five stages, starting with employees using AI much like a search engine and, in most cases, ending with semiautonomous collaboration—or in some rare instances today, fully autonomous orchestration by AI agents. (See Exhibit 1.)

EXHIBIT 1

Employees Typically Adopt AI in Five Stages



Source: BCG Henderson Institute analysis.

Many organizations misconstrue the initial step of information assistance (stage one) as proof of adoption—a common misconception that we also identified in our surveys of software developers. Deeper engagement takes the form of task assistance (stage two), where AI is used for targeted needs, such as generating code snippets, creating simple visuals, or performing calculations. Task assistance leads to delegation (stage three), where well-defined tasks, such as drafting emails or compiling reports, are assigned to AI.

We find that when adoption shifts from delegation to semiautonomous collaboration (stage four), that is the inflection point and the start of real value creation. AI emerges as a true collaborator when AI agents plan and execute work with human oversight, shaping workflows rather than simply responding to requests. For most tasks, this level of adoption is the target, as it involves human judgment, oversight, and ongoing interaction. In rare cases, fully autonomous orchestration (stage five) deploys AI to manage complex processes from start to finish without human intervention. Semiautonomous collaboration and fully autonomous orchestration require true workflow reinvention as well as changes to the roles, team structures, and ways of working.
















# The Personal Adoption Journey

While the five stages may help clarify employees’ path to adopting AI, this is not necessarily a linear journey nor one that everyone marches through in lockstep. People’s mindset toward AI, their level of trust in it, their exposure to it and whether they are enabled to use it, their manager’s and peers’ support, their time and capacity for learning and development, and their early AI experiences all affect both where they start and how (or if) they progress.

To better understand individuals’ journey and mindset, we surveyed three groups of software developers at different organizations about how they use AI and how they feel about the technology. (We surveyed this population because software developers are a leading indicator for how advanced technologies, including autonomous AI agents, will shape white-collar work more broadly.)

A broad look across companies shows that adoption hurdles are not all uniform. The most frequent issues cluster around a lack of trust in AI and limited time to upskill, followed by cybersecurity and copyright concerns, skill atrophy and job security fears, and a lack of training resources in some organizations. (See Exhibit 2.)

**EXHIBIT 2**  
Employees’ AI-Adoption Challenges Vary, but a Lack of Trust and Limited Time to Learn Top the List

Company A	Company B	Company C
 Lack of trust in AI outputs	 Lack of trust in AI outputs	 Lack of trust in AI outputs
 Limited time to learn or upskill	 Limited time to learn or upskill	 Cybersecurity and copyright concerns
 Fear about skill atrophy	 Lack of training	 Lack of training
 Cybersecurity and copyright concerns	 Fear about job security	 Limited time to learn or upskill
 Maintainability and technical-debt concerns	 Perceived burden of reviewing AI output	 Regulatory and compliance concerns

Source: BCG’s GenAI surveys of employees in engineering departments, 2025.  
Note: n = 526 respondents across three companies.

To act on these issues, leaders need to take a segmentation approach to get clarity on who is blocked by what, rather than pursue a one-size-fits-all rollout. In our work, we consistently see five recurring personas that tend to cluster at different points along the adoption path: the AI champion, independent explorer, organizational adopter, passive observer, and cautious skeptic. These personas reflect differences in motivation, confidence, empowerment, and support—

distinctions that explain why a single rollout strategy rarely works and that guide targeted interventions.

**The AI Champion.** Champions are the visible trailblazers of AI adoption. They are the first to test new tools, integrate them into live workflows, and share successes across forums and team channels. Their experimentation not only raises their own productivity but also accelerates peer adoption. Champions' visible advocacy matters: 69% of employees ranked peer-to-peer learning among their top three ways to build AI skills, noting that working alongside colleagues who have integrated AI meaningfully into their workflows normalizes adoption and encourages best practices. Those more advanced AI users also said the technology makes their work more enjoyable, and 88% said it helps them generate greater value.

**The Independent Explorer.** Explorers are self-starters. They engage with AI beyond official programs, often experimenting during personal time or using unapproved tools to test new ideas. This behavior aligns with broader patterns of shadow AI usage: BCG's earlier research shows that 54% of employees said that they use AI tools even when not formally authorized. Such independent learning drives confidence and skill. Explorers' deep familiarity with AI's strengths and limits means that they can often identify practical use cases before formal strategies catch up.

**The Organizational Adopter.** Organizational adopters follow structure. They engage when tools, training, and direction are clearly established, often through formal workflows or corporate initiatives. While open to AI's potential, they advance cautiously, balancing curiosity with concerns about relevance and reliability. This group's pace reflects the broader state of empowerment: BCG's previous research revealed that only 36% of employees feel they have received adequate AI training, and while three in four employees believe AI agents will be vital to future success, just 13% of organizations have integrated these agents broadly into work processes.

**The Passive Observer.** Observers represent latent potential—they are aware of AI but hesitant to experiment. They often perceive the technology as unreliable or cumbersome, defaulting to familiar routines instead. Of the developers who responded to our surveys, 38% reported that reviewing AI-generated output feels tedious or time consuming, reinforcing this inertia. Motivation among observers is also tightly linked to management's support. According to BCG's research, only 25% of frontline employees said that they receive sufficient guidance from leadership on how to use AI effectively, indicating that oversight and encouragement are key to supporting adoption.

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**The Cautious Skeptic.** Skeptics are the most resistant persona. While they are experienced and capable, they are wary of AI's reliability and its implications for their expertise and job identity. Their hesitation often stems from limited exposure and a perceived lack of trustworthy outcomes. BCG's research shows 50% of companies are stagnating or just emerging with AI and are failing to show value and adequately scale the technology, which means that skeptics frequently encounter immature practices rather than stable workflows. Without clarity and proof, skeptics remain unconvinced.

# A Targeted Approach to Transformative AI Adoption

The results from our software developer surveys show that the vast majority of employees (more than 85%) remain at stages two and three of AI adoption, while less than 10% of individuals have reached stage four, semiautonomous collaboration, and beyond to fully autonomous AI orchestration. This leaves significant room for improvement.

The path to transformative adoption requires understanding the people making that journey and then tailoring interventions accordingly. Our research shows that adoption personas vary widely—enthusiastic champions, self-driven explorers, structured adopters, hesitant observers, and cautious skeptics. Each requires a different mix of incentives, empowerment, and leadership attention to move forward.

Here are four strategic steps that CEOs can take right now.

**Harness early adopters.** AI champions and independent explorers are the catalysts for AI maturity. Champions bring visibility and influence, while explorers push boundaries through experimentation—often outside formal channels. Leaders should engage both groups in pilots, highlight their tangible wins, and establish peer-coaching models that scale their impact.

**Create space for learning.** Across our surveys, we've seen a significant number of organizational adopters and passive observers—and these groups represent the biggest untapped potential. Executives need to identify and lower adoption barriers, while providing visible support to overcome hesitation and improve confidence. This effort should include creating time and space for learning: respondents said that less than 25% of their learning time occurs during work hours, bumping AI skill-building to their personal time. Without protected time to learn, employees struggle to develop the skills needed for deeper AI adoption. In fact, in BCG's global survey of 1,400 C-suite executives, 62% cited a shortage of talent and AI skills as their biggest challenge to achieving AI value (ahead of issues such as unclear priorities or lack of strategy). Yet only 6% said they have begun upskilling their workforce in a meaningful way.



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In our experience, companies that encourage and enable employees to ask day-to-day questions about integrating AI into their work—and create incentives for champions to help unlock the middle by sharing their AI techniques—have achieved a boost in adoption. We’ve also seen a notable shift in employees’ mindset when collective team performance was rewarded, rather than the individual performance of a handful of AI superstars.

**Activate managers as multipliers.** Frontline managers shape whether adoption sticks day to day. Managers play a particularly critical role for adopters and observers, who often mirror their leaders’ behaviors. New research from the BCG Henderson Institute and Columbia Business School shows that employee-centric organizations are about seven times more likely to be AI mature than their peers, and employee centricity explains the largest share of variance (approximately 36%) in AI maturity. That maturity is built bottom up—through visible manager use of AI, local empowerment, and feedback loops that translate intent into daily practice.

In one vivid example, a manager in a company training program gave a team permission to risk missing a deadline if it used AI in its work, causing AI use to rise significantly. At another company, managers integrated AI learning into the team’s existing touch points to make it part of employees’ existing daily rhythms rather than as an add-on.

**Manage skeptics carefully.** It’s crucial for leaders to engage cautious skeptics directly, addressing their concerns in small, fact-based forums and using data to demonstrate AI’s reliability. These experienced professionals often question AI’s reliability and relevance to their craft. Addressing their belief gap through peer demonstrations and role-specific pilots helps build confidence. In team-based forums, skeptics respond best when trusted peers share examples of improved output quality rather than abstract promises of productivity.

Conversely, ignoring or trivializing their concerns, rather than addressing them head-on, can allow skeptics’ doubts to spread, undermining adoption. We saw such a situation have this impact when a senior engineer spoke out against using AI in their work. The result was an immediate decrease in employee engagement with AI.

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AI adoption is not a switch that can just be flipped on. To generate real value and avoid the mistakes of many organizations, leaders must look clearly at the quality of their AI adoption and

not just the number of logins. At its heart, adoption is not about doing what we do today somewhat better—it’s about meaningfully changing people’s behavior and the fundamentals of how we work.



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