AI Is Taking Over Much of the Work That Built Expertise. How Will Your People Grow Now?

AI is absorbing the early-career work that once built expertise and judgment. How can organizations identify the learning that's being lost, and rebuild it by design?



Rethinking Career Paths for AI-Enabled Work

For generations, the path to advancement followed a familiar logic: learn the fundamentals, master the work, take on more responsibility, and move up.

An analyst spent years stress-testing models built by others before building one themselves. A developer wrote and debugged thousands of lines of code before being trusted to design systems. A sales coordinator took notes in client meetings well before leading one.

That time was never just about the output. It was a training ground where people learned to produce the work and built the judgment to know whether it was right. AI is now absorbing much of that early-career work, and with it, the years of repetition that once turned practice into skill.

> *AI can accelerate how quickly people become productive while eroding the hands-on*

> *experience that builds expertise and judgment.*

That leaves leaders with a bigger question than which tasks to automate: when a task is automated, how will people acquire the knowledge and judgment it once taught? Which capabilities do people still need to master for themselves? And which progression requirements have outlived their purpose?

These questions build on the first two articles in our series on how AI is reshaping the systems organizations use to define, develop, and reward work. In our article on AI and compensation, we explored how AI is changing what organizations reward. In our article on job architecture, we examined what happens when that work outgrows existing roles and levels.

In this article, we explore how organizations can identify the learning AI is taking away, decide which of it still matters, and rebuild it by design. This requires being more intentional about which skills to build and more rigorous about how readiness is assessed when AI-assisted output can mask gaps in understanding.

AI lowers the barrier to doing the work, not the need to understand it

Most career paths still assume that mastery of execution is the price of admission to greater responsibility. AI is challenging that assumption. In How Gen AI Could Change the Value of Expertise, Joseph Fuller, Matt Sigelman, and Michael Fenlon argue that generative AI could redraw learning curves and change which forms of expertise retain their value.

Recent research makes this concrete. In a June 2026 study of roughly 400,000 AI-assisted coding sessions, Anthropic found that people outside software roles completed coding tasks with AI nearly as often as software professionals did. What set people apart wasn't technical background. It was how well they understood the problem they were trying to solve. The message is clear:

> *AI is lowering the barrier to doing the work, but it takes an understanding of the work to harness its full power.*

When people understand the work, AI can accelerate their impact in ways that weren't possible before. A sales professional who deeply understands a pricing problem may now be able to build the tool that solves it, work that once required technical training or a place in the finance function's queue. AI supplies the technical skill. But the understanding of pricing, built over years of selling, is needed to direct AI to build the right tool.

When AI removes the task, it can remove the learning

Here is the complication. If understanding the work matters as much as ever, how will the next generation learn the work when AI is doing the tasks that once taught them the work?

Stress-testing someone else's model teaches an analyst which assumptions drive the answer. Debugging code reveals how a system actually behaves. Sitting in on client meetings teaches a sales coordinator to read the room and recognize when a buyer's hesitation points to a different problem than the one on the table. Little of this came from formal training. It was a byproduct of doing the work.

That doesn't mean every task still needs to be mastered the traditional way. The challenge for employers is telling the difference. Some tasks build the understanding people need to take on greater responsibility. Others can be handed to AI at little cost to learning.

In The Perils of Using AI to Replace Entry-Level Jobs, Amy C. Edmondson and Tomas Chamorro-Premuzic argue that junior roles serve two purposes: they deliver today's work and develop tomorrow's professionals. To preserve that development, they recommend redesigning entry-level work so employees are exposed to the reasoning behind it and learn to interpret what AI produces.

Research shows why this distinction matters. In a small randomized study of AI assistance and coding skill formation, Anthropic found that developers learning an unfamiliar programming library with AI assistance averaged 50% on a follow-up assessment, compared with 67% for those who worked without AI. The widest gap was in debugging, the very skill needed to recognize when AI-generated work is wrong.

How people used AI also mattered: those who used it to seek explanations and explore concepts learned considerably more than those who simply handed off the task. Used one way, AI can weaken the very skills people need to catch its mistakes. Used another, it can build them faster.

Performance with AI on its own is not sufficient proof of readiness. An impressive output may reflect a capable employee, a capable tool, or both. Before extending greater accountability, organizations need to tell the difference: not only what someone can deliver, but what they understand well enough to explain, challenge, and own.

Redefining what readiness looks like

Career paths translate job levels into a developmental journey: what someone must learn, demonstrate, and experience to move from one level to the next. That makes the evidence of readiness the central design question.

Tenure, credentials, and task proficiency still carry useful information. But each should be held to a simple standard: Does it tell us whether this person is ready for the work they would own next? What that evidence looks like will vary by role.

- **Analyst:** explaining why a model's assumptions are sound, identifying where its conclusions could break down, and recommending a course of action with conviction.
- **Developer:** evaluating design trade-offs, anticipating risks, and taking ownership of how an AI-assisted solution performs once it is in use.
- **Sales coordinator:** leading a client conversation, diagnosing the real problem behind a buyer's hesitation, and adapting the solution in the moment.

And specificity matters. "Demonstrates good judgment" gives employees little to work toward. "Identifies unsupported assumptions and explains their implications before recommending a decision" describes a capability that can be observed, coached, and assessed.

Clear criteria also help managers see past the output. AI may allow some employees to demonstrate readiness sooner than a traditional timeline would permit. Others may produce strong results while still needing the experiences that build deeper understanding. Career paths should equip managers to recognize the difference and develop each accordingly.

Five shifts for career growth that keeps pace with AI

Organizations can begin with five shifts.

1. Revisit the requirements for progression

AI may open new routes to the capabilities a role requires, and progression requirements shouldn't penalize people for using AI to get there. For each requirement to move between roles and levels, ask:

- Does it show readiness for the next role, or only that someone has done the current one?
- Does it still build essential expertise now that AI handles part of the work?
- Does it measure the capability itself, or one particular way of acquiring it?

Use the answers to decide which requirements still matter: retain those that build real understanding of the work, and revise or retire those that reflect a way of working the organization is leaving behind. Minimum time-in-role and task-specific prerequisites, for example, may matter less when AI handles much of the routine work that once filled those years.

In some cases, it may also be time to reassess the progression as a whole. If AI compresses the steps between entry and mastery, a career ladder built on five levels may need only three or four.

2. Rebuild lost learning by design

When AI takes over a task, start by identifying what people used to learn by doing it. For each task, ask:

- Does it teach someone *why* the answer is right, or only how to produce it?
- Does it require making a judgment call, or just following a set process?

- Does it show people the consequences of their choices, so they learn what good looks like?

Tasks that pass these tests carry learning worth preserving. Those that don't, such as formatting, transcribing, or pulling routine data, can go to AI without much lost. Experienced employees are often the best guides: ask them which early assignments taught them the most, and why.

Recreate the learning worth preserving through supervised assignments, simulations, decision reviews, or direct exposure to customers and the consequences of the work. A junior analyst might spend less time assembling a report and more time defending its conclusions to a manager, then reviewing what happened once the recommendation was implemented. Organizations should also teach people to use AI to better understand and test the work, not just to finish the task. Learning that once happened by default now has to happen by design.

That places new responsibility on managers. Developing and assessing judgment in others now means breaking down the work, identifying what each task teaches, and designing and testing ways to build that learning deliberately. This is new work for most managers, and few organizations have yet built the time, skills, and recognition for it into the role.

3. Reinvest the time AI frees up

If AI takes on 20% of an analyst's routine work, that time could go to more complex analysis, client-facing deliverables, or stretch assignments that build readiness for the next role.

But without a deliberate plan, the time tends to disappear: work just expands to fill it without anyone deciding how it should be used. As we noted in our job architecture article, many organizations are adding AI to jobs designed before it existed. Redesigning those jobs means deciding how the reclaimed time is spent. Some of it may go to moving faster on existing priorities, and over time it may even change how many people a function needs. But at least some of it should be invested in developing people for what comes next, starting with the learning AI has taken away.

4. Open credible routes across functions

When AI handles more of the technical execution, the barrier to many roles shifts from specialized skills to understanding the problem. That opens routes that didn't exist before. The sales professional who builds a pricing tool brings customer and pricing knowledge that a pricing or analytics role needs, and AI fills much of the technical gap. Career paths should show employees where their existing expertise, combined with new capabilities, could take them.

As AI lets people take on work that once belonged to other functions, partnership across those functions grows stronger. The sales professional building a pricing tool still needs finance to validate the logic and the data, but now arrives with a working prototype and firsthand customer insight. That collaboration is often where people build the skills, relationships, and exposure that make a cross-functional move possible.

Openness alone is not enough. For each route, employees need to know:

- Which capabilities transfer
- What additional development is required
- How readiness will be assessed

Without that clarity, cross-functional mobility remains an aspiration rather than a route.

5. Connect development to career and pay growth

Employees need to see how building capability expands their opportunities and influences their pay. But learning an AI tool is not, in itself, a reason for reward; its value lies in the work it enables. As we argued in our compensation article, sustained growth in scope, accountability, and contribution may warrant a change in level or base pay, while exceptional results may be better recognized through incentives. Career paths should make clear how development, whether or not it involves AI, connects to opportunity and reward.

Building expertise by design

AI gives organizations an opportunity to open new routes into more expansive work and retire outdated progression requirements that hold capable people back. But it also ends the assumption that expertise for the next role will develop on its own. The learning that once came from years of doing the work now has to be identified, protected, and designed back into how people grow.

The question for leaders is now pressing: As AI reshapes the work, are you intentionally rebuilding the learning AI is taking away? Or are you advancing people on output alone, before they truly know the work?