



AI and the insurance workforce

Enabling the human-AI organization



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Artificial intelligence is redefining how the insurance industry works. Underwriting, actuarial, and claims functions are shifting from manual decision-making to collaborative, AI-assisted models. New roles are emerging, ranging from AI specialists who search for value in unstructured data to compliance positions that oversee AI governance.

Yet many organizations need to plan more thoughtfully for potential challenges that, if ignored or mishandled, could erode the foundations of risk management, trust, and customer choice that underpin insurance. For your company and customers to enjoy favorable outcomes over the long term, your workers need to be able to combine AI's promise with their human expertise and skills.



Enhancing human judgment to avoid skill atrophy

A loss of human expertise is a potential downside to AI systems increasingly handling underwriting models, claims triage, and customer interactions. We've observed during projects at life and commercial P&C carriers that AI implementations often concentrate expertise in small, experienced groups as automation assumes routine work. As a result, there are fewer opportunities for other workers to develop the critical thinking skills that foundational work enables.

Moreover, regardless of industry, we've seen many AI outputs be accepted and passed along without sufficient scrutiny. In an insurance context, this may manifest as unchallenged model recommendations, inaccurate pricing, or unobserved nuances in complex claims. Left unchecked, this kind of human skill atrophy can create a "brittle" workforce that struggles to step in when AI errs or conditions change. Becoming an intelligent AI organization means honing critical thinking, judgment, and creative problem-solving.

Reflecting these challenges, PwC's 2025 Global AI Jobs Barometer found that skill requirements for roles exposed to AI are evolving 66% faster than those in other fields. To stay ahead, it's crucial to commit to continuous human skills development, preparing your teams for a rapidly changing landscape. AI-enabled, simulation-based training can help preserve both the technical judgment and soft skills (e.g., communication and negotiation) that would otherwise be difficult to develop in a heavily automated environment.



To benefit:



Reframe AI as a collaborative tool, not an autopilot. Build workflows where employees are not only empowered but also required to validate, challenge, and refine AI-generated outputs.



Mandate continuous learning. Embed scenario-based training and real-time coaching to hone analytical and decision-making skills.



Create “AI fluency” expectations. As AI becomes ubiquitous, fluency in interpreting and auditing model outputs should be as fundamental as spreadsheet proficiency.



Real-world use case

Several insurers are creating shared environments that pair customer-facing and technical teams. A major life insurer, for example, has established a large technology campus where business and tech professionals work side by side, incorporating learning and model interpretation into daily decision-making rather than just as part of an annual training exercise.

Maintaining a career path that promotes development

AI also is affecting career development. Automation of repetitive, foundational tasks like claims intake, policy processing, and data entry is starting to eliminate the entry-level roles where employees traditionally have learned the business from the ground up.

Reflecting this development, PwC's 2025 Global Workforce Hopes and Fears Survey notes that over 40% of entry-level employees believe that technological change will impact their jobs to a major extent over the next three years. And nearly a third of those entry-level employees say they're worried about how AI will affect their careers.

Not just entry-level staff are being affected. AI is also reshaping manager roles by:

- Collapsing review layers.
- Turning managers into exception handlers.
- Changing the nature of authority from leading people to minding models.

Without opportunities for new responsibilities, managers face losing professional discretion and chances for advancement and development.



This is a challenge for more than just individual workers. If you don't plan for how talent can build and strengthen foundational skills in the age of AI, you risk creating a generation of professionals that lacks the knowledge and judgment to lead your business into the future. But if you treat career development as a strategic investment, not a cost center, you'll position your workers to confidently lead through change—AI-driven and otherwise.

To develop and retain talent, career models should evolve into a lifelong training ground, supported by rotational assignments, on-the-job learning, simulations, and other dynamic learning opportunities—many unlocked by AI. And rather than centering roles on the transactional tasks that AI can manage, you should take advantage of how AI can free up humans to do higher-value work, facilitating the immersion of your employees in the culture, relationships, and systems that underpin your business.

To benefit:



Refine the business case for AI. Shift the narrative from headcount reduction to value creation, improving productivity, accelerating growth, and enhancing employee capability.



Use AI to elevate—not eliminate—work. Leverage AI to accelerate onboarding, pair new hires with AI “coaches,” and set higher expectations for analytical and problem-solving contributions.



Harness the power of experience. With an aging workforce, insurers need to codify and institutionalize knowledge transfer, pairing seasoned professionals with next-generation talent.



Real-world use case

- At a commercial P&C carrier, new AI tools reduced manual data entry in many administrative tasks. This led the company to rethink underwriting assistants' roles. Unlike in the past, assistants now have more end-to-end responsibility and are in a pipeline to higher-level underwriting positions.
- A large life insurer's underwriting function was split between one team that handled simple, rules-based cases and another that was involved in more complex ones. As planned automation would take over much of the less complex work, company leadership re-examined its staffing model to identify ways to rethink the underwriting career path. The company is now re-creating its entry-level experience: In the future, individuals will have defined ways—including simulations, rotations, and AI-assisted learning—to progress from entry-level to specialist roles as automation increases.

Enhancing institutional knowledge to counter aging workforce risk

In a boon to carriers, AI can help alleviate the loss of institutional knowledge as longtime employees retire. It can extend seasoned workers' expertise, helping transfer critical knowledge to the enterprise while supporting phased retirement models.

We're already seeing insurers use AI to accelerate underwriting and claims decisions by tapping into numerous sources that make relevant historical data more readily accessible. The same approach also works for knowledge transfer, with AI making previously disparate knowledge readily available to the organization. The result is more powerful and user-friendly tools that aggregate decades of expertise, decision patterns, and best practices.

That said, we've observed that most companies have been slow to integrate AI into the overall workforce and employee skills. If you make this a priority, you can gain meaningful knowledge and technological advantages over lagging competitors.

To benefit:



Invest in intelligent knowledge systems. Deploy AI platforms that centralize, update, and contextualize institutional knowledge.



Enable phased retirement with AI-powered mentorship. Create flexible pathways where senior employees contribute as expert reviewers, using AI tools to capture decisions, reasoning, and lessons learned.



Modernize the learning model. Pair emerging talent with senior experts and AI assessments to accelerate skill development while providing contextual understanding.

Strengthening governance to avoid talent risk exposures

Poorly designed AI models and lapses in judgment and output monitoring can lead to unintentionally biased decisions that create serious regulatory and reputational issues. As regulators sharpen their focus on how the industry uses AI, insurers face potential fines, lawsuits, and brand damage if their models aren't transparent or well-governed. In short, the same rigor you reserve for human oversight of actuarial models must also apply to AI systems.

A major challenge for insurers is that AI can blur ownership of underwriting, claims, and pricing decisions. Because it introduces a gray area over fundamental accountability, you need to determine who's responsible if AI-recommended actions are inappropriate and how much deviation from AI guidance is acceptable.

Most companies are trying to address this challenge. PwC's 2025 Responsible AI Survey finds that 58% of executives believe Responsible AI practices boost ROI and efficiency. However, half of them say translating governance principles into scalable operating models remains their biggest hurdle.

To benefit:



Establish an enterprise-wide AI governance framework. Define personal accountability across business, data science, compliance, and risk functions.



Monitor continuously. Bias doesn't end with model deployment. Implement active feedback loops and auditing protocols so your people can recognize drift and unintended impacts.



Invest in explainability. Equip leaders and frontline employees to understand and communicate how AI decisions are made, especially in customer-facing contexts.

The leadership imperative: Making AI work for everyone

Whether AI makes insurers institutionally stronger or more fragile depends on the choices you make today. The most consequential workforce and cultural outcomes of AI are predetermined when you set strategy, well before you deploy new tools.

Strategy determines how teams will collaborate, exercise judgment, and develop in their roles. Assessing potential implications when weighing strategic decisions can help you reap the benefits of AI while preserving what differentiates you culturally. Successful carriers won't necessarily automate the fastest but will balance speed with stewardship, ensuring their people evolve alongside their technology.

To thrive with AI, you should:

- Define your AI vision and rigorously communicate it.
- Build career pathways in which AI enhances—not eliminates—human growth.
- Reskill continuously, keeping human judgment at the center.
- Govern ethically, embedding AI accountability alongside financial controls.



Real-world use case

At a large life insurer that wanted to implement new AI tools, underwriters cited past technology implementations that stalled or failed to meaningfully change their work. To offset skepticism toward the new tools, the carrier carried out two AI-enabled use cases that had clear sponsorship, dedicated resources, and visible delivery—and demonstrated practical results. This was a meaningful change from past practices, increasing staff optimism and willingness to engage with future AI initiatives.

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