

HR Insights

Upskilling Employees on AI and Technology

As artificial intelligence (AI) and emerging technologies rapidly transform the workplace, employers face a critical question: Are their teams ready for what's next? In many industries, the answer is "not yet." While companies embrace digital transformation, many employees remain underprepared to work alongside advanced technologies like artificial intelligence (AI) that change monthly or even weekly. It presents a strategic challenge for HR leaders and a significant opportunity: By closing the AI and tech skills gap from within, organizations can improve performance, retain talent and future-proof their workforce.

[Recent data](#) underscore the urgency. Although around half of employees participated in work-related training last year, only 12.2% reported receiving AI-specific instruction. BenefitsPro highlights that today's HR professionals must stay current with AI tools, digital communication platforms and emerging technologies to remain effective. Yet many organizations are still in the early stages of embedding AI fluency into their workforce strategies. This disconnect between technological advancement and employee readiness underscores the need for more intentional, accessible training programs that equip workers with technical and ethical AI competencies.

This article explores the challenges of AI-related skill gaps and offers practical strategies for upskilling employees in today's evolving digital landscape.

AI and Technology Skill Challenges

Despite growing adoption of AI tools and automation across sectors, most organizations are still playing catch-up regarding workforce preparedness.

Organizations have skills gaps in AI and technology.

According to recent workforce surveys, most employers say their teams lack critical AI and digital competencies. This includes technical skills like data analysis or fluency in machine learning. It also encompasses softer proficiencies such as prompt engineering, digital collaboration, and understanding how to use AI tools ethically and effectively.

Leaders and employees often have differing views on training readiness.

While executives and business leaders tend to believe their workforce is embracing change and receiving adequate support, many employees report the opposite: they feel underprepared and underserved regarding AI training. This disconnect highlights the need for clearer communication, better goal alignment and more accessible learning pathways that reflect employees' actual needs.

Workers are doing training, but are not always focused on AI/tech.

While learning and development initiatives are rising, many programs remain broad or unrelated to digital transformation. Employees often participate in compliance courses or general leadership development, but opportunities to explore AI-related topics are still limited in many organizations.

Many employees still feel underprepared to use AI effectively in their roles.

Surveys suggest that only a small fraction feel "very prepared," and some express concern about limited access to training, resources or time to explore new technologies. This can lead to frustration among motivated employees eager to stay current, highlighting the importance of proactive support from employers to maintain engagement and trust.

For many employers, building AI capabilities from within is the real challenge.

Recruiting top tech talent is costly and highly competitive, especially for mid-size organizations with limited budgets. While upskilling existing employees may be the more feasible path, it requires time, planning, and sustained commitment. Yet the payoff is significant: internal talent already understands your business, and investing in their growth boosts retention, engagement and long-term resilience.

How to Upskill Employees

Closing the AI and technology skills gap doesn't require starting from scratch, but it does require intention, structure and support. Here are some ways to upskill employees.

Assess skills gaps strategically.

This assessment starts by identifying the core technologies relevant to your industry and how they intersect with current roles. Use skills assessments or digital readiness surveys to benchmark current employee capabilities and spot areas for growth.

Incorporate AI into existing training programs.

You don't need to build an AI curriculum from the ground up. Layer AI-related modules into your leadership programs, onboarding tracks and digital literacy courses.

Help employees understand how AI tools work and how to use them responsibly.

Provide foundational training that demystifies how AI tools function, including their capabilities, limitations and appropriate use cases. Make it clear that AI is meant to enhance their roles, not replace them, by showing practical ways these tools can streamline tasks, support decision-making and free up time for more strategic work. When employees see AI as a partner rather than a competitor, they're more likely to adopt it with curiosity and confidence.

Encourage experimentation with AI tools.

Learning by doing is one of the most effective approaches to tech adoption. Give teams low-stakes opportunities to try tools like generative AI, chatbots or data visualization platforms. Provide "sandbox" environments or lab-style sessions to explore functionality and creative use cases.

Create peer learning communities.

Form internal AI learning groups, host lunch-and-learns or offer "tech buddy" programs that pair digitally fluent employees with those who want to improve their skills. Peer-led learning is often more approachable and better tailored to your workplace context.

Partner with external platforms or providers.

A growing number of cost-effective online resources cover topics ranging from AI fundamentals to advanced machine learning. Subsidizing or curating content can help scale training without overloading internal teams.

Align learning goals with business outcomes.

Connect upskilling efforts to real business challenges, whether streamlining customer service, improving analytics or automating routine tasks. Employees who understand the "why" behind learning initiatives are more motivated to engage.

Takeaway

Upskilling your workforce in AI and emerging technologies isn't just a future-oriented idea; it's how many organizations improve efficiency today. The organizations that thrive in this next wave of innovation will empower their teams to grow with the change, not fear it. While AI provides exciting opportunities, it also comes with risks. As always, employers should tread carefully.

By identifying skill gaps, expanding training offerings and creating a culture of continuous learning, HR leaders can turn the AI challenge into a competitive advantage. When employees feel supported and prepared, they're more engaged, productive and likely to help drive transformation from the inside out. Reach out for more learning and development resources.