edX® **For Business**

The 2023 edX AI Survey

NAVIGATING THE WORKPLACE IN THE AGE OF AI

How a strong focus on AI skills will help the C-Suite future-proof their business, their workforce, and their own careers
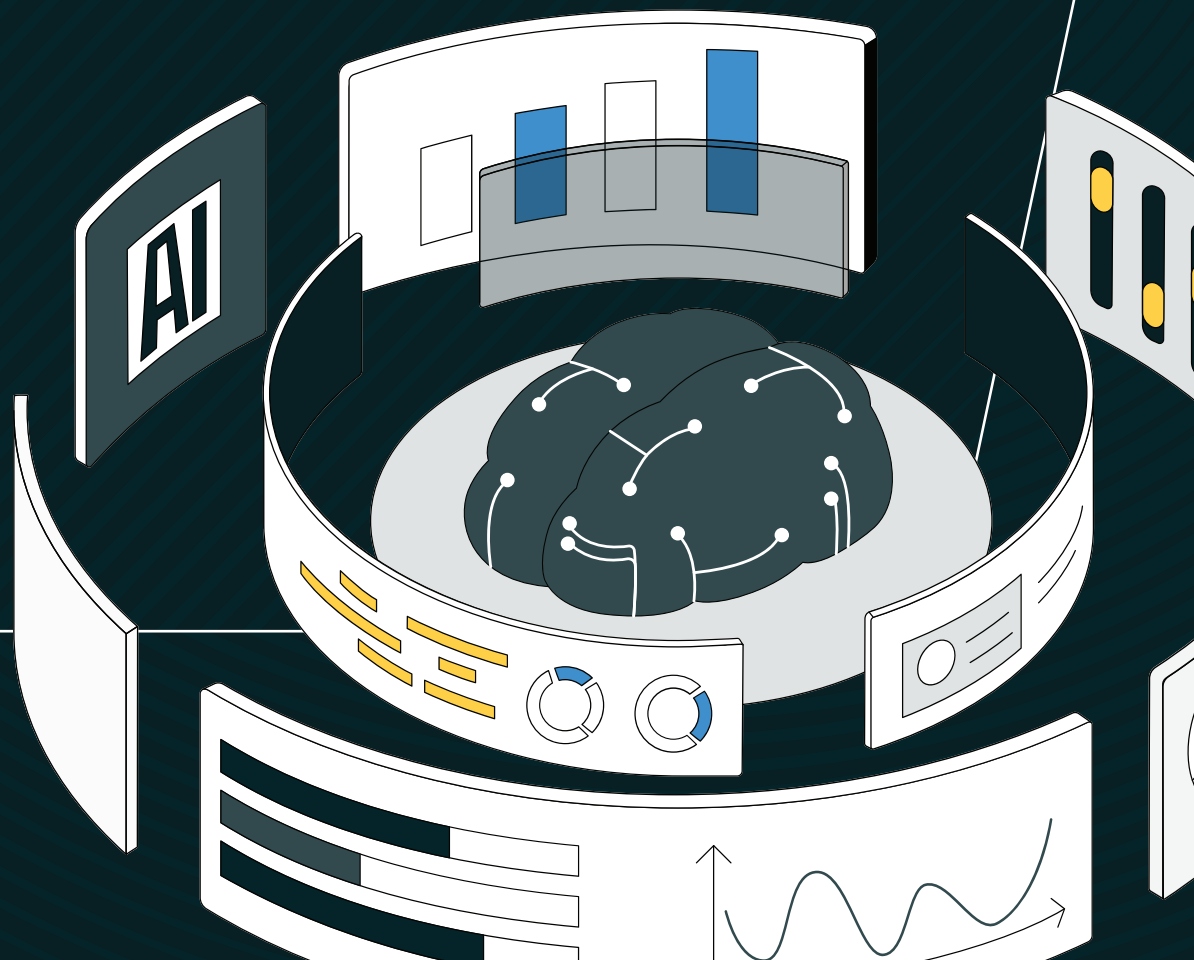
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BEYOND *THE HYPE*

Across all industries, the development of new technologies is rapidly transforming the world of work and driving the need for employees to learn new skills. One skillset that's quickly becoming essential is the ability to use Artificial Intelligence, or AI.

In the workplace, AI skills can include technical skills (e.g., skills required to program/engineer AI products) as well as non-technical skills (e.g., skills required to use generative AI tools). By one estimate, the number of job postings related to generative AI alone has increased more than 450% from a year ago.[1]

To better understand how AI will impact the world of work, edX partnered with Workplace Intelligence to survey 800 non-executive knowledge workers — comprising individual contributors and managers — and 800 C-Suite executives, including over 500 CEOs. This report describes the survey's key findings, including how quickly AI is being adopted, why learning AI skills will be critical for employees at every level of the organization, and how executives and workers are adapting to the rapid rise of AI.

The C-Suite executives surveyed estimate that nearly half (49%) of the skills that exist in their workforce today won't be relevant in 2025, and they feel 47% of their workforce is unprepared for the future of work. Not surprisingly, most executives report that they're struggling to find talent with AI skills.

As AI continues to reshape tomorrow's workplace, it's up to leaders to ensure their business has the right skills to stay competitive. But with so much competition for talent, executives will need to look internally and focus on upskilling their current workforce.

Fortunately, the survey revealed that employees are enthusiastic about learning AI skills — but many aren't getting the support they need from their employers. As the C-Suite navigates the age of AI, they must prioritize supporting every level of the organization with an outcomes-based learning & development program. Those that don't will struggle to succeed in tomorrow's AI-driven workplace.

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[1] Computerworld. (July 19, 2023). *AI-skills job postings jump 450%; here's what companies want.* Retrieved from https://www.computerworld.com/article/3702711/ai-skills-job-postings-jump-450-heres-what-companies-want.html

EXECUTIVES BELIEVE NEARLY HALF OF THE SKILLS THAT EXIST IN TODAY'S WORKFORCE WON'T BE RELEVANT IN 2025

KEY *FINDINGS*

According to survey respondents:

There's widespread agreement about the importance of AI, but companies are finding it difficult to adapt.

87% of the C-Suite say they're struggling to find talent with AI skills, and 77% say AI is disrupting their business strategy.

While executives are embracing learning AI skills, many are concerned about falling behind.

79% of C-Suite executives fear that if they don't learn how to use AI, they'll be unprepared for the future of work.

Executives believe most functions at their organization will be replaced by AI — including the CEO role.

47% of C-Suite executives believe "most" or "all" of the CEO role should be completely automated or replaced by AI — and 49% of CEOs agree.

Executives believe AI proficiency will provide a significant career advantage.

82% of the C-Suite believe workers who are skilled at using AI should be paid more, and 74% feel they should be promoted more often.

However, employees don't realize how much they'll be affected.

20% of knowledge workers think "most" or "all" of their role could be replaced by AI.

Contrary to what you'd expect, the C-Suite doesn't care if employees use AI to work for another company.

82% of executives say employees should be allowed to use AI to work multiple jobs.

Entry-level knowledge workers are particularly at risk of being replaced by AI.

56% of entry-level roles will be eliminated, as estimated by C-Suite executives.

Employees are eager to learn AI skills, but workplace learning programs aren't keeping up.

24% of employees are using their company's programs to learn AI skills, and 39% say it's likely they'll quit for a job that offers better learning & development opportunities.

AI IS RAPIDLY RESHAPING
THE WORLD OF WORK

It's perhaps not surprising that 77% of the C-Suite believe AI skills will increase in importance over the next 1–2 years, and nearly 8 out of 10 say their company is already using AI. While 41% of executives are only permitting AI use with close oversight and some precautions, 38% say they're moving as quickly as possible to integrate AI into their business strategy.

In fact, executives estimate that within the next year, 60% of their workforce will require some level of proficiency with developing AI or using AI-powered tools. However, most are finding it difficult to get ahead of this trend — 87% say they're struggling to find talent with AI skills and 77% say AI is disrupting their business strategy.

Fortunately, employees may already be one step ahead: 59% are currently using AI at work, and 77% and 85% believe they'll be using AI within the next 1 and 5 years, respectively. It follows that 72% of employees agree it will be important for them to improve their AI skills within the next 1–2 years, and 58% say their job will be redefined by AI in at least one way.

For example, workers anticipate that they'll spend more time on meaningful tasks, reviewing AI outputs, and collaborating with colleagues, and less time helping customers/clients. Employees also believe the scope of their job will expand, they'll be held to a higher performance standard, and they'll be tasked with more work.

Companies — specifically managers — are clearly already attuned to some of the benefits of AI. Nearly 3 out of 10 workers report that their manager either encourages or expects them to use AI. And surprisingly, employees are far less anxious about these changes than one might think, with only around a third saying they feel overwhelmed (33%) or threatened (31%) by AI.

However, there's still some uncertainty about the broader impacts of AI, including the effect it could have on employees' job security. Only around half of workers (52%) agree that AI will have an overall positive impact on the workplace, and 1 out of 4 say they would *not* want AI to support or augment their role, even if their pay remained the same.

EMPLOYEES BELIEVE THEIR USE OF AI WILL GROW SIGNIFICANTLY OVER THE NEXT 5 YEARS

85%

77%

59%

CURRENTLY   NEXT YEAR   NEXT 5 YEARS
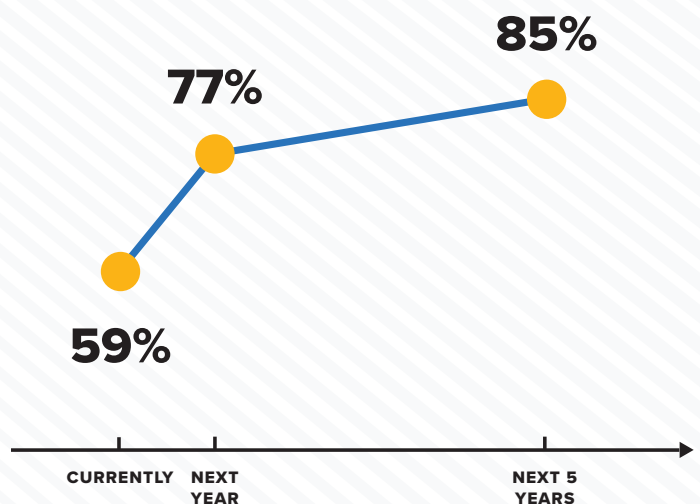
EVERY LEVEL OF THE ORGANIZATION *WILL BE AFFECTED BY AI*

Executives say AI is set to replace or augment many functions at their organization within the next 5 years. While executives believe the C-Suite is least likely to be affected, it's still remarkable that 56% anticipate their company's executive-level roles will be completely or partially replaced by AI.

Employees, on the other hand, are much less likely to feel that AI will replace these functions — including their own roles. And although 76% of workers agree that at least a little of their role could be *supported* by AI, just 20% think "most" or "all" of their role could be completely automated or replaced by AI.

This indicates that employees may not recognize how drastically AI will affect the workplace in the years to come, while the C-Suite believes AI's impact will be significant and far-reaching. For workers, it will be important to come to terms with the new reality reshaping the workplace and their own career trajectories.

THERE'S A DISCONNECT BETWEEN PERCEPTIONS OF THE C-SUITE AND EMPLOYEES:

56%

OF THE C-SUITE BELIEVE EXECUTIVE LEADERSHIP OR C-SUITE ROLES AT THEIR ORGANIZATION WILL BE "COMPLETELY" OR "PARTIALLY" REPLACED BY AI

VS.

20%

OF EMPLOYEES THINK "MOST" OR "ALL" OF THEIR ROLE COULD BE COMPLETELY AUTOMATED OR REPLACED BY AI

49%

OF CEOS THINK "MOST" OR "ALL" OF THEIR ROLE SHOULD BE COMPLETELY AUTOMATED BY AI

HOW AI WILL
REDEFINE THE ROLE OF THE EXECUTIVE

Nearly 9 out of 10 C-Suite executives say at least "a little" of their job could be automated by AI, and 83% believe their job will be redefined by AI over the next year. Surprisingly, 49% of executives believe "most" or "all" of their job could be completely replaced by AI.

Even the top ranks of leadership will be affected: 47% of the C-Suite say that "most" or "all" of the CEO role *should* be replaced by AI. Specifically for CEOs, among the over 500 surveyed, nearly half (49%) believe "most" or "all" of their role *should* be completely automated or replaced by AI.

9/10

EXECUTIVES SAY AT LEAST "A LITTLE" OF THEIR JOB COULD BE AUTOMATED BY AI

What executives undoubtedly recognize is that AI can boost their effectiveness and free up their time for more important business activities. Beyond handling simple tasks like preparing executive communications, AI could also come up with ideas for new markets, products, or business models. These technologies could also assist with planning and forecasting, and they could support data-driven decision-making. In fact, 92% of the C-Suite feel it's important to improve their AI skills within the next 1–2 years, and the same percentage are already using AI for their role. But while most executives feel optimistic about how AI will impact them, some feel overwhelmed by the pace of change.

EXECUTIVES ARE EMBRACING AI, BUT MANY FEEL PRESSURED TO MOVE QUICKLY

91%
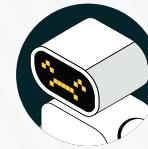WOULD LIKE AI TO SUPPORT THEM

81%
FEEL THEY HAVE NO CHOICE BUT TO LEARN HOW TO USE AI

81%
ARE EXCITED TO LEARN AI SKILLS AND APPLY THEM TO THEIR JOB

79%
FEAR THAT IF THEY DON'T LEARN AI SKILLS, THEY'LL BE UNPREPARED FOR THE FUTURE OF WORK

75%
HOPE MANY ASPECTS OF THEIR JOB COULD BE AUGMENTED BY AI

57%
ARE OVERWHELMED ABOUT HAVING TO INTEGRATE AI WITHIN THEIR ROLE

65%
WOULD LIKE AI TO TAKE OVER SOME OF THEIR JOB TASKS, EVEN IF IT MEANT LOWER PAY

51%
FEEL THREATENED BY AI

COULD AI SPELL THE END OF
ENTRY-LEVEL KNOWLEDGE WORK?

In addition to exploring the C-Suite's perceptions around AI, the survey also examined how AI will impact entry-level knowledge workers. These roles have the potential to be affected considerably more than other job types, since many entry-level tasks can easily be handled by AI tools.

Over 8 out of 10 executives believe the nature of these jobs will completely shift. Within their own organizations, 86% say AI will affect entry-level knowledge worker roles in at least one way. Not only will the C-Suite expect these workers to use AI (48%), but executives say there will be higher performance expectations (52%) and the pay and competition for these roles will increase (41%).

Perhaps most notably, executives estimate that within the next 5 years, their organization will eliminate over half (56%) of entry-level knowledge worker roles because of AI. What's more, 79% of the C-Suite predict that entry-level knowledge worker jobs will no longer exist as AI creates an entirely new suite of roles for employees entering the workforce.

Executives also expressed concerns that because of their over-reliance on AI, these workers won't develop key skills for their profession (85%) or they may struggle to advance their careers (77%). Their advice for employees is to be proactive about learning AI skills as well as other key skills for their role.

For example, 60% of the C-Suite believe entry-level knowledge workers will need to master the use of AI, especially prompt engineering. However, 66% feel managers should ensure these team members know what skills to develop *beyond* AI to advance their careers. Executives also feel these workers should focus on getting the hands-on experience they need to become experts in their profession.

HOW ENTRY-LEVEL KNOWLEDGE WORKERS SHOULD ADAPT:

☑ Learn how to use AI, especially prompt engineering

☑ Develop other skills that will help advance your career, including communication and interpersonal skills, leadership skills, and technology skills

☑ Get hands-on experience in your profession

AI SKILLS CAN OFFER A
SIGNIFICANT CAREER ADVANTAGE

EXECUTIVES SAY EMPLOYEES WITH AI SKILLS SHOULD BE GIVEN PREFERENTIAL TREATMENT

82% of the C-Suite say if employees get their work done, it shouldn't matter if they use AI to do their job. Executives also acknowledge that doing so could give workers a significant boost in their careers, with 92% agreeing that employees who know how to use AI have an advantage at work. What's more, 83% of the C-Suite believe workers who are skilled at using AI should be paid more, and 74% feel they should be promoted more often.

83%
OF EXECUTIVES SAY EMPLOYEES WHO KNOW HOW TO USE AI SHOULD BE PAID MORE

74%
FEEL THAT EMPLOYEES WHO KNOW HOW TO USE AI SHOULD BE PROMOTED MORE OFTEN

Part of the reason for these perceptions could be because most executives (87%) believe employees who know how to use AI should be held to a higher performance standard (e.g., they should be expected to create better quality work or a greater number of outputs). In fact, 88% of the C-Suite say they're adjusting their company's performance expectations due to the potential productivity gains AI can offer. Executives also admit that knowing how to use AI will help them achieve their own career goals. For example, 73% think executives who know how to use AI are more likely to be promoted to CEO, and 85% believe the next CEO at their company will have AI experience/knowledge.

In addition, the survey revealed that some employees — particularly Gen Z — are secretly using AI to get ahead or generate additional income, or they'd *consider* using AI in these ways:

SECRETLY LEARNING AI SKILLS TO GET AN ADVANTAGE OVER THEIR COLLEAGUES

62%	GEN Z
50%	ALL EMPLOYEES

SECRETLY USING AI TO COMPLETE SOME OF THEIR JOB TASKS AND CLAIMING THIS WORK AS THEIR OWN

55%	GEN Z
29%	ALL EMPLOYEES

USING AI TO DO PART-TIME WORK FOR ANOTHER COMPANY

57%	GEN Z
45%	ALL EMPLOYEES

USING AI TO WORK MULTIPLE FULL-TIME JOBS

61%	GEN Z
46%	ALL EMPLOYEES

Surprisingly, most C-Suite respondents say they don't mind if their team members use AI to do work for another company. A remarkable 80% of executives feel if employees get their work done, it shouldn't matter if they use AI to work multiple jobs.

8 OUT OF 10

EXECUTIVES THINK EMPLOYEES SHOULD BE ALLOWED TO USE AI TO WORK MULTIPLE JOBS

EXECUTIVES AND EMPLOYEES ARE MOVING QUICKLY TO ADAPT, BUT *WORKPLACE LEARNING PROGRAMS AREN'T KEEPING UP*

Of all executives surveyed, 76% say they're adapting their business strategy as a result of AI. Among employees, 58% report that they're taking steps to adapt to AI, including using AI on their own time or at work. However, only 24% are using their company's learning & development programs to learn AI skills, and 21% say they're learning AI skills on their own because their company doesn't offer the right training.

HOW EXECUTIVES AND EMPLOYEES ARE PREPARING FOR AI

76%

OF THE C-SUITE SURVEYED ARE ADAPTING THEIR BUSINESS STRATEGY:

41% have increased their training budgets for AI

39% are requiring their workforce to learn AI skills

39% are integrating AI within existing job roles

37% are hiring new talent with AI skills

31% have created a Chief AI Officer role (or are planning to do so)

27% are discussing eventually eliminating entry-level roles that can be automated

58%

OF EMPLOYEES SURVEYED ARE TAKING STEPS TO ADAPT TO AI:

26% are using AI on their own time for personal tasks

24% are using their company's learning & development programs to learn AI skills

21% are openly using AI at work to improve their performance

21% are learning AI skills on their own because their company doesn't offer the right training

Strikingly, both workers and executives lack confidence in their company's learning & development programs.

Within the last 12 months, 57% of employees and 89% of the C-Suite say they sought out learning content (e.g., courses, training, conferences, webinars) outside of their company's offerings — and many paid out-of-pocket for these programs.

Workers are so dissatisfied that an alarming 39% say it's likely they'll leave their company within the next year for a job that offers better learning & development opportunities. Among Gen Z and Millennials, that number rises to 51%.

Fortunately, the C-Suite agrees their organizations could be doing more to support employee learning — including helping their team members improve their

AI skills. Nearly three-quarters of executives (72%) believe their company should increase its investment in learning & development programs focused on AI over the next 1–2 years.

This is promising, especially since 84% of employees say they expect their employer to provide the training and education they need to stay up-to-date with their skillset. In fact, 81% of workers and 93% of the C-Suite agree that "companies are the new post-secondary colleges" — meaning, employers have become responsible for continuing employees' education.

For executives, the business benefits of improving their educational offerings are clear. Not only will this help future-proof their workforce, but it can also boost retention, since 77% of employees say they'd be more likely to stay with their company in the long run if it offered a better learning & development program.
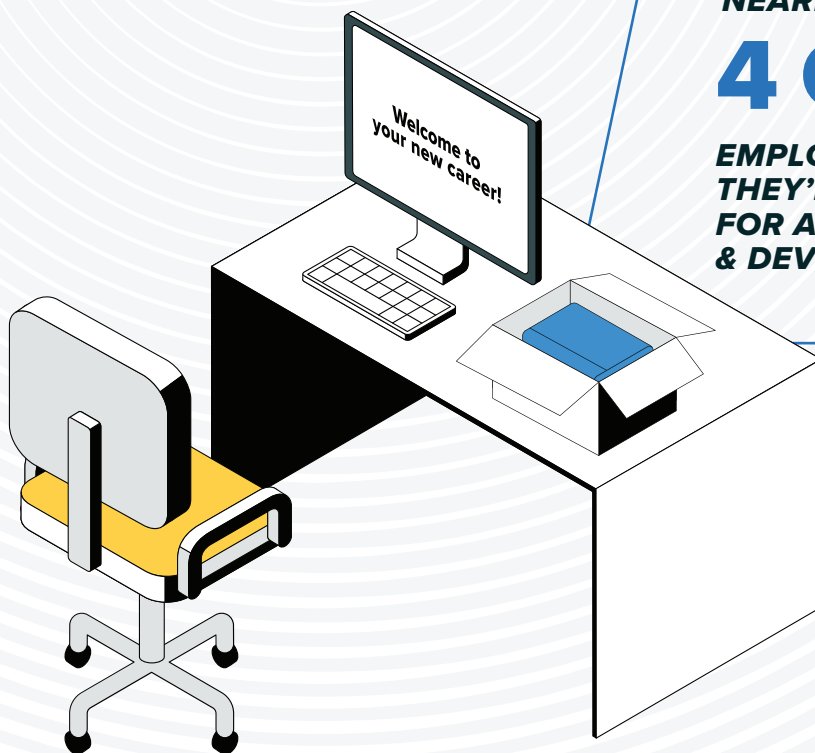
NEARLY

4 OUT OF 10

EMPLOYEES SAY IT'S LIKELY THEY'LL LEAVE THEIR COMPANY FOR A JOB WITH BETTER LEARNING & DEVELOPMENT OPPORTUNITIES

Welcome to your new career!

IS YOUR WORKFORCE READY FOR *THE AGE OF AI?*

There's a pressing need for the C-Suite to integrate AI within all levels of the organization — including in their own roles. In fact, employees and executives alike agree they need to become more proficient with AI, they recognize that knowing how to use AI will give them a significant career boost, and they're eager to develop these skills as soon as possible.

For executives, the choice is clear: Either equip employees with the right skillsets, or they will leave or no longer be useful to your business. And while there are many steps leaders should take to prepare their workforce for AI, offering an outcomes-based learning & development program should be a central part of the long-term strategy.

Methodology

Research findings are based on a survey conducted by edX and Workplace Intelligence between July 10 and July 24, 2023. In total, 1,600 full-time, U.S.-based employees completed the survey, including 800 C-Suite executives and 800 knowledge workers. Respondents were invited to take part in the survey via email and were provided with a small monetary incentive for doing so.

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