

A Leader's Guide to Generative AI Skills in the Workplace

For leaders such as Chief Technology Officers, Chief Data Officers, and Chief Information Officers, embracing generative AI in the workplace brings a wealth of opportunity to drive productivity and transformation. It also means leaders need to consider how to design meaningful career pathways for team members.

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Introduction

A word from Kian Katanforoosh

I'm fortunate to work with visionary Chief Data Officers at Fortune 500 companies through Workera. Over the last six months, their number-one mandate has been to transform their organization towards embracing Generative AI. My role has been to help them execute their vision specifically through the talent lens – put simply, how leaders can expedite the transformation of a Generative AI Workforce.

As businesses ride the wave of LLM-assisted working and co-piloting, like ChatGPT, the term “AI” has quickly become incorporated into products and data strategies. Every day, generative AI initiatives are being launched across enterprises. The World Economic Forum (WEF) predicts AI technologies will disrupt 85 million jobs globally between 2020 and 2025, disrupting 44% of worker's skills – and recent generative AI advancements will only make this percentage go higher.

In the last six months, many of our customers have launched a specific initiative to measure and develop their Generative AI capabilities. Aggregating our data across these organizations, we can see that only 28% of their teams had the necessary competencies in various Generative AI skill sets upon initial assessment. This skill gap directly impacted their enterprise's ability to innovate using generative AI. Over the last three years at Workera, we've helped the AI community continually measure and update their skills to develop their careers. We see that the risk of disruption for a business increases with the pace of technological advancements – and so the best defense for businesses is their ability to rapidly leverage the latest innovations.

“Only 28% of our enterprise clients' teams had the necessary competencies in various Generative AI skill sets upon initial assessment – a skill gap that has directly impacted their ability to innovate.”

Through Generative AI, businesses can fast-track their product development, roll out groundbreaking features, and either cut costs or boost revenue by securing new clientele. Generative AI is swiftly enhancing – and in some cases, automating – various job tasks. For enterprises aiming to stay nimble, workforce planning and productivity improvements are key – none more so than making sure a workforce is trained in how to harness, leverage and manage generative AI.

In this guide, we'll explain why and how business leaders can do it. If you've any further questions or want to [learn more](#) about how Workera is enabling upskilling in Gen AI for some of the world's biggest clients, reach out to us [today](#).

Kian Katanforoosh

CEO and Founder of Workera

Key Insights

- **Generative AI is impacting the workplace**

Generative AI and other technologies have the potential to automate work activities that absorb over 50% of employees' time currently. The banking sector, high-tech industries, and life sciences are just three of the sectors that could see the biggest impact in their revenues from generative AI use in the business.

- **Leaders must pioneer new ways of learning for teams**

Embracing generative AI in the workplace brings a wealth of opportunity to drive productivity and transformation. It also means leaders need to consider how to design meaningful career pathways for team members.

- **Three quarters of those we surveyed see Gen AI in their professional future**

Our survey found that 76% of respondents report already using generative AI to optimize their working practices, while 24% are not currently using it. Of these 24% of users not currently using generative AI, 76% reported that they foresee themselves or their organization using Gen AI in the workplace in the near future.

- **The use of generative AI is increasing productivity threefold**

The respondents to our survey who are already using generative AI such as LLMs to help enhance or co-pilot their work reported experiencing an average 168% increase in productivity.

- **Skill gaps are sabotaging business transformation**

According to [Forbes](#), between 70% and 95% of enterprises are failing in their business transformation – and the presence of skills gaps is a major cause of these failures. People use outdated tech stacks, avoid adopting new ways of working, and teams take too long to improve products and processes or to respond to business questions.

- **Executives must identify and develop the key skills for business success**

A clear communication goal between employer and employees is crucial in a skills transformation. To enable this, the enterprise skills management must at least answer three questions: What skills are essential in a job role? How much ability a role should have in each of the required skills? In what order people should learn?

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Part One

**How generative AI is
redefining the
workplace**

How generative AI is redefining the workplace

For leaders such as Chief Technology Officers, Chief Data Officers, and Chief Information Officers, embracing generative AI in the workplace brings a wealth of opportunity to drive productivity and transformation. It also means leaders need to consider how to design meaningful career pathways for team members.

The impact of Gen AI on how teams execute their roles depends on a number of factors: Which tasks are being automated or enhanced using generative AI like large language models ('LLMs') as co-pilots? Who in the workplace is most affected by these changes and what are the short and long term implications for their careers? Who makes the decisions about how and where Gen AI is being used in the workplace, and what best practices should be established to ensure the responsible use of generative AI usage?

At a glance: How generative AI is impacting roles

According to [McKinsey](#), current generative AI and other technologies have the potential to automate work activities that absorb 60 to 70 percent of employees' time today. This is a sharp uptick from McKinsey's own predictions in 2017 that generative AI technology has the potential to automate half of the time employees spend working.

McKinsey also predicts that banking, high-tech, and life sciences are just three of the industries that could see the biggest impact in their revenues from generative AI use in the business. For example, across the banking industry Gen AI could deliver value equal to an additional \$200 billion to \$340 billion annually at full implementation levels. In retail and consumer packaged goods, the potential impact is also significant – an estimated \$400 billion to \$660 billion a year.

Below are some specific ways generative AI is already impacting roles across sectors:

Accelerated Development and Prototyping

Generative AI tools enable tech teams to rapidly prototype and develop solutions. This speeds up the development lifecycle and allows for quicker iteration and testing of new products or features.

Automation of Repetitive Tasks

Generative AI can automate routine and repetitive tasks, freeing up tech team members from mundane work. This allows them to focus on more strategic and creative aspects of their roles.

Enhanced Creativity and Innovation

Tech team leaders can harness generative AI to stimulate creativity and innovation. AI-generated content, designs, or ideas can serve as a starting point for brainstorming and ideation sessions.

Increased Efficiency in Data Processing

CDOs and their teams can leverage generative AI for data processing tasks. AI models can summarize and analyze large datasets, enabling data teams to derive insights more efficiently.

Customized Solutions and Personalization

CTOs and CIOs can help their teams use generative AI to create highly customized solutions and personalized user experiences. AI can generate tailored content, recommendations, and interfaces.

AI-Driven Decision Support

Generative AI models can assist tech team leaders in decision-making processes by providing data-driven insights and predictions. This aids in strategic planning and resource allocation.

Resource Optimization

CTOs can support teams in using generative AI to optimize resource allocation by predicting infrastructure demands and automating resource provisioning based on real-time data.

Code Generation and Debugging

Generative AI can assist tech teams in code generation, making programming more efficient. It can also help in identifying and debugging code issues.

Natural Language Interfaces

CTOs and CIOs can implement natural language interfaces powered by generative AI, making it easier for non-technical team members to interact with software systems and access information.

"Embracing generative AI in the workplace brings a wealth of opportunity to drive productivity and transformation. It also means leaders need to consider how to design meaningful career pathways for team members."

Ethical AI Implementation

Tech team leaders play a critical role in ensuring the ethical use of AI within their organizations. They must oversee the implementation of AI ethics guidelines, including fairness, bias mitigation, and data privacy.

Team Training and Upskilling

As generative AI becomes a core part of tech workflows, leaders must facilitate the training and upskilling of their teams. This includes educating team members on AI ethics and responsible AI practices.

Risk Management

CTOs and CIOs need to manage the risks associated with AI, including data security, compliance, and algorithmic biases. They should implement robust risk assessment and mitigation strategies.

Cross-Functional Collaboration

Generative AI often requires collaboration across different departments. Tech team leaders need to foster cross-functional teamwork to ensure successful AI projects.

Monitoring and Governance

Establishing monitoring and governance mechanisms for AI systems is crucial. Tech team leaders are responsible for ensuring that AI models are regularly audited and comply with regulations.

Innovation Leadership

Embracing generative AI innovation sets an example for the tech team. Leaders who actively explore and adopt AI technologies inspire their teams to stay at the forefront of tech advancements.

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Part Two

**Study: How generative
AI is transforming
productivity**

Study: How generative AI is transforming productivity

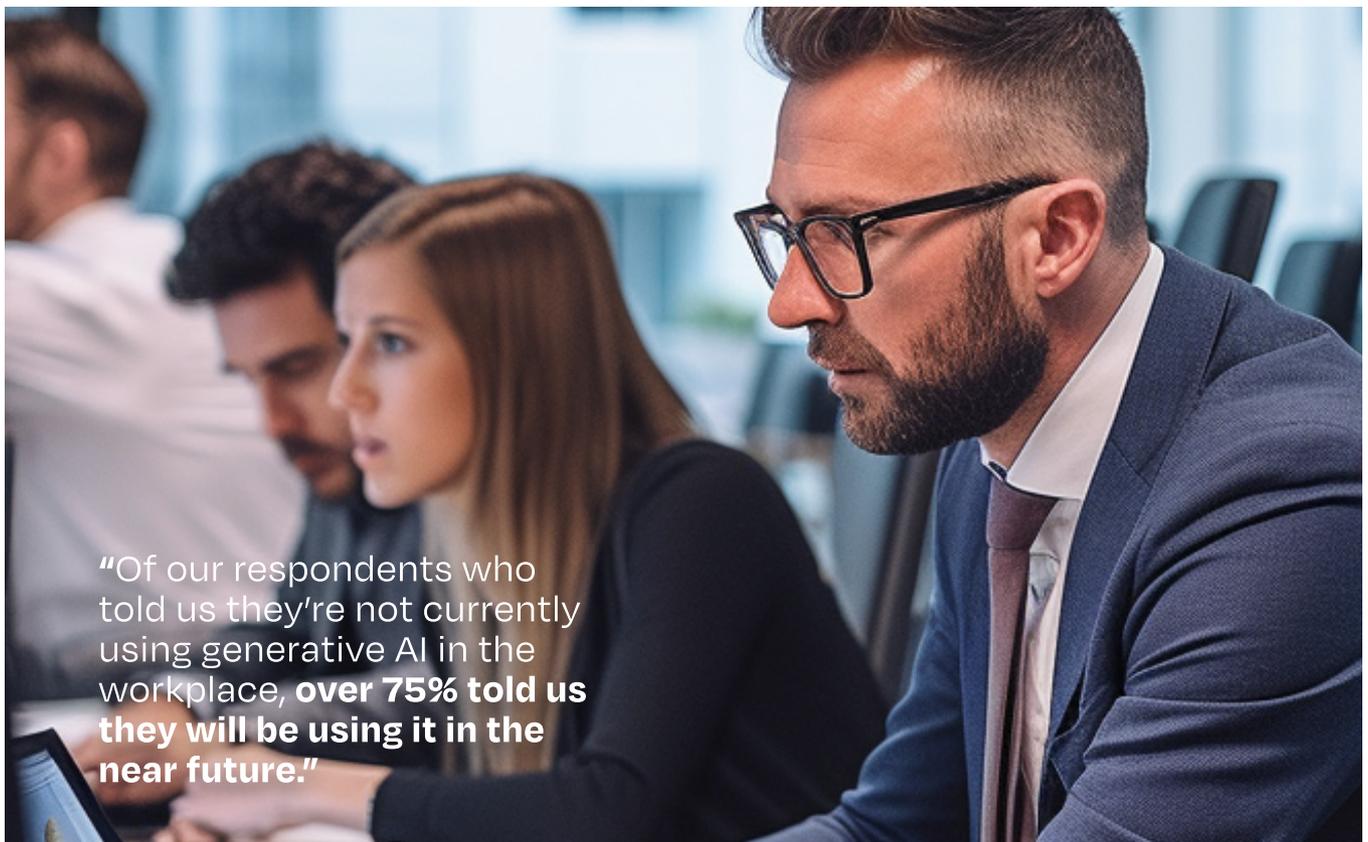
We surveyed data practitioners working in a variety of roles such as Machine Learning Engineer, Data Scientist, AI Scientist, Software Engineer, Chief Information Officer, and CEO.

We asked them to estimate how their productivity has improved or will improve when using generative AI as an input source or co-pilot. Respondents were asked to assume a task currently took them 10 hours to complete without any input from generative AI, and then to estimate how long a task does take or would take to complete from zero hours (where generative AI enables the task to be fully automated) to more than ten hours (where generative AI actually increases the amount of time a task would take to complete).

How many organizations are already using Gen AI?

Our survey found that 76% of respondents report already using generative AI to augment their working practices, while 24% are not currently using it. Of these 24% of users not currently using generative AI, 76% reported that they foresee themselves or their organization using Gen AI in the workplace in the near future – while 24% of these respondents reported that they do not currently use Gen AI in the workplace, and that they don't foresee it being used in the near future either.

This sentiment seems reflected across the sectors. [TechRepublic](#) reports that 53% of companies they surveyed are “exploring or experimenting” with generative AI technology and 13% of those organizations are working with or optimizing AI models they already have in place. 34% of those TechRepublic surveyed are “formalizing” a generative AI solution, currently moving “from pilot programs to production”.



“Of our respondents who told us they’re not currently using generative AI in the workplace, **over 75% told us they will be using it in the near future.**”

Which tasks are more productive when using generative AI?

We found that text-heavy tasks like language translation, text analysis, documentation generation, and email drafting were the four tasks with the biggest increase in productivity. Assuming these tasks would have originally taken 10 hours to complete without generative AI, the respondents who are already using generative AI such as LLMs to help augment or co-pilot their work reported experiencing an average 168% increase in productivity.

“Respondents who are already using generative AI such as LLMs to help augment or co-pilot their work reported an average 168% increase in their productivity.”

Respondents already using Gen AI in their work reported data tasks as the fifth to eighth most productivity-increased tasks. These tasks are, in order of increase in productivity: algorithm exploration, code generation and autocompletion, simple data analysis, and data preprocessing. All of these tasks were reported as taking 150-160% less time when using generative AI as a resource.

Sample tasks we asked respondents to rate by productivity

Language translation

- 10 hours without generative AI
- Average of 3.1 hours using generative AI
- 3.2x faster when using generative AI

Documentation generation

- 10 hours without generative AI
- Average of 3.7 hours using generative AI
- 2.7x faster when using generative AI

Text analysis

- 10 hours without generative AI
- Average of 3.7 hours using generative AI
- 2.7x faster when using generative AI

Drafting emails and correspondence

- 10 hours without generative AI
- Average of 3.7 hours using generative AI
- 2.7x faster when using generative AI

Algorithm exploration

- 10 hours without generative AI
- Average of 3.9 hours using generative AI
- 2.5x faster when using generative AI

Code generation and autocompletion

- 10 hours without generative AI
- Average of 3.9 hours using generative AI
- 2.5x faster when using generative AI

Simple data analysis

- 10 hours without generative AI
- Average of 3.9 hours using generative AI
- 2.5x faster when using generative AI

Data preprocessing

- 10 hours without generative AI
- Average of 4 hours using generative AI
- 2.5x faster when using generative AI

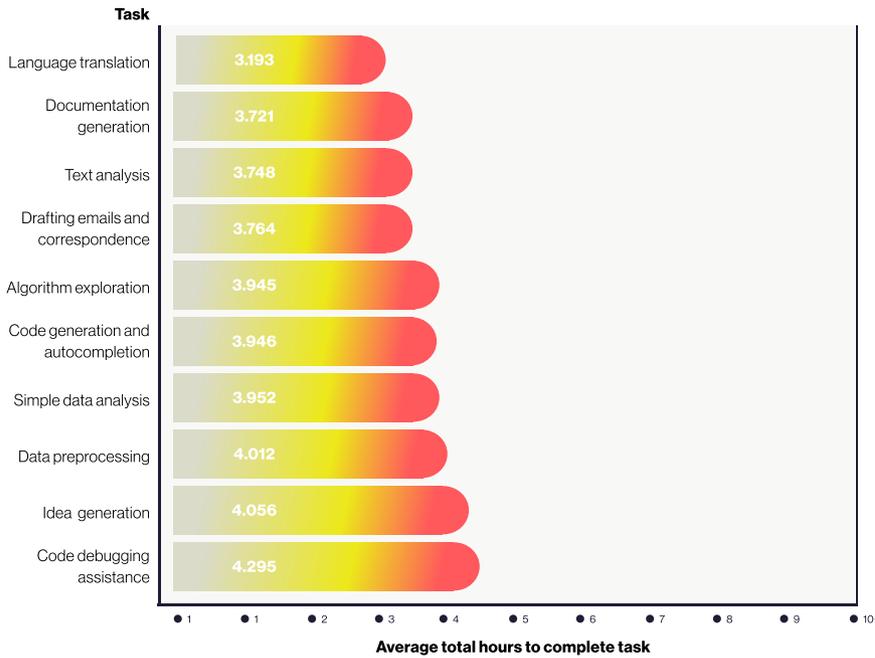
Idea generation

- 10 hours without generative AI
- Average of 4 hours using generative AI
- 2.5x faster when using generative AI

Code debugging assistance

- 10 hours without generative AI
- Average of 4 hours using generative AI
- 2.3x faster when using generative AI

The two tasks with the smallest productivity increase when using generative AI were idea generation and code debugging assistance – although these tasks still showed an increase in productivity of over half the time it would take to complete without the use of generative AI.

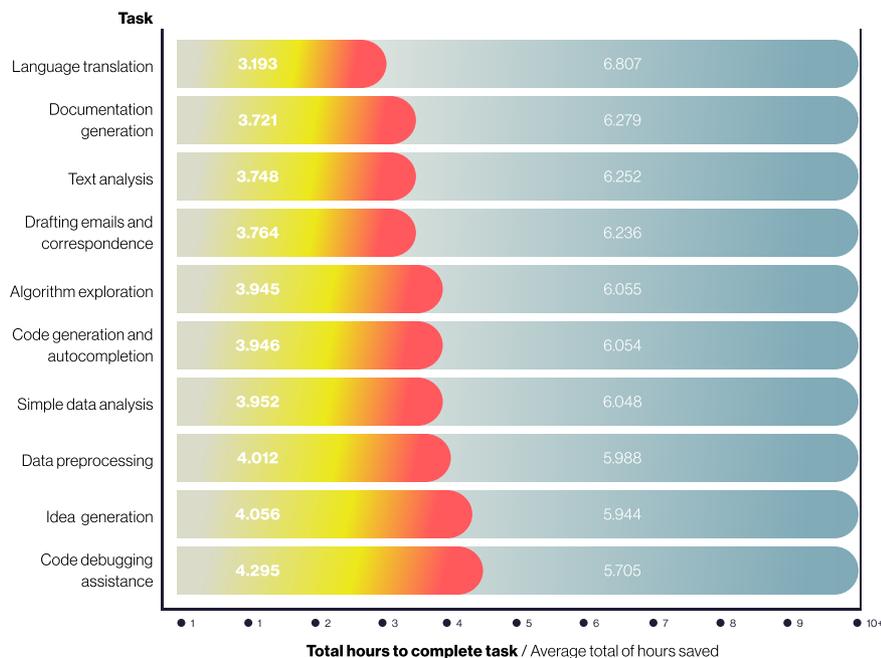


Left: Respondents to our survey reported that generative AI tools like LLMs either had the potential to, or were already, reducing the time it takes to complete tasks by over 150%.

Upskilling in generative AI increases productivity by over 150%

For leaders, the case for integrating generative AI into working practices is compelling – and it seems it's equally vital to invest in upskilling solutions to help teams reach the cutting edge of skills knowledge as quickly and effectively as possible. Our survey respondents reported that, on average, tasks that would take them 10 hours manually now take them (or could take them) between five and six hours less.

For the more complex tasks in our survey, this was still an average of over half as fast as manual practices. This adds up to a 150-160% increase in productivity for all the example tasks we included in our survey, indicating that teams could achieve results twice as efficiently as they currently do when using generative AI to augment their workflows.



Right: Our survey found that generative AI increases productivity by at least twice as much for even the tasks rated least effective when using AI compared to no AI.

What this means for leaders

According to McKinsey's updated adoption scenarios, half of the work activities currently happening in organizations "could be automated between 2030 and 2060, with a midpoint in 2045" – a decade earlier than McKinsey's previous estimates.

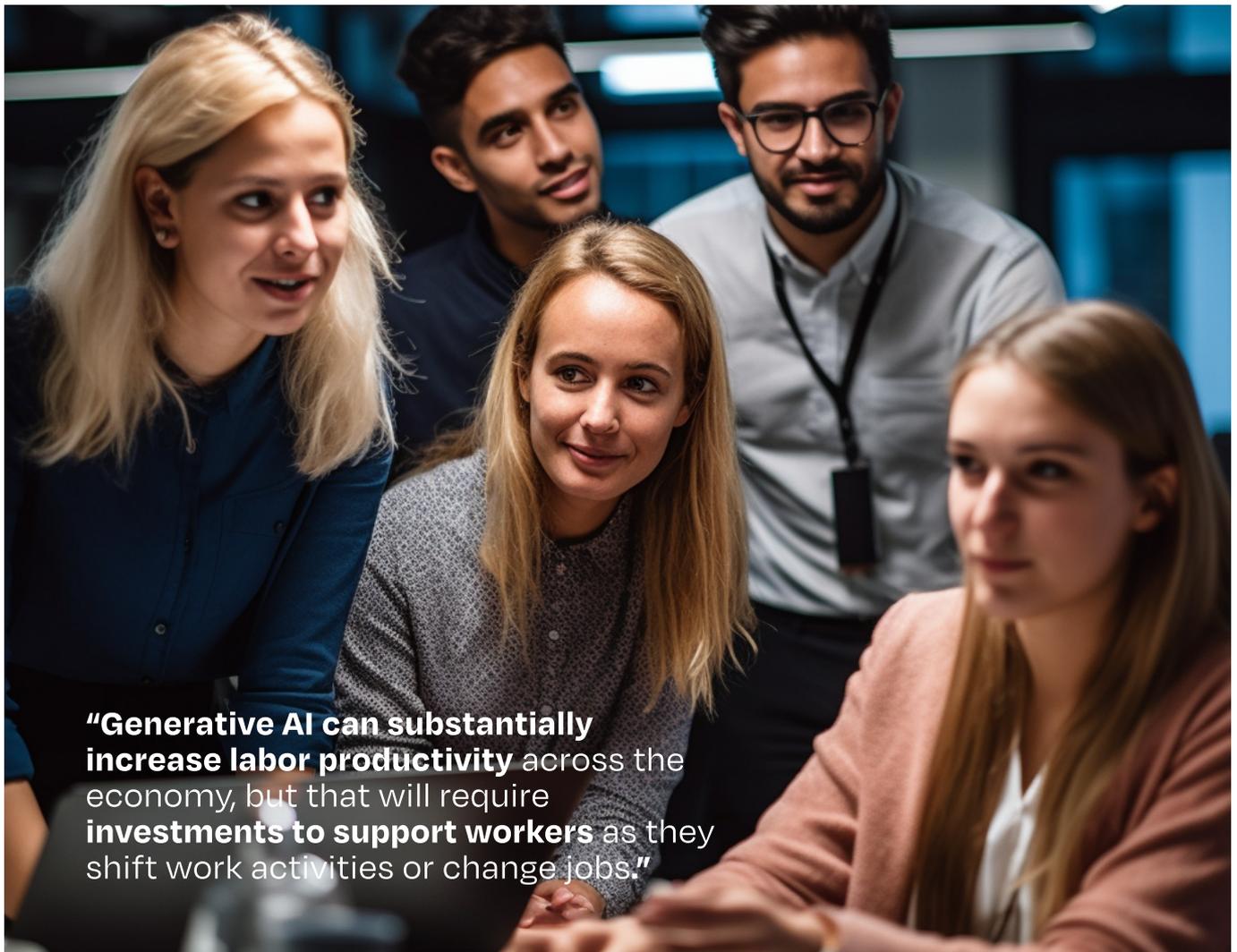
This is likely accelerating thanks to a potent combination of "technology development, economic feasibility, and diffusion timelines". McKinsey surmises that "generative AI can substantially increase labor productivity across the economy, but that will require investments to support workers as they shift work activities or change jobs."

For leaders, this means supporting their teams to upskill rapidly, sustainably, and comprehensively:

Upskill rapidly to ensure the pace of skills keeps up with the pace of technological innovation and team members have a strong foundation on which to build increasingly cutting-edge skills.

Upskill sustainably to ensure an organization is focused on staying in the highest category of learning velocity and team members feel consistently supported.

Upskill comprehensively with solutions designed to generate end-to-end ontologies that constantly assess knowledge levels and address skill gaps, preventing a 'slowdown' in learning velocity.



Part Three

Creating and using a generative AI skills matrix

Creating and using a generative AI skills matrix

A skills matrix, also known as a competency matrix or skills inventory, is a visual tool or document that provides an overview of the skills, competencies, and capabilities of individuals or teams within an organization.

A skills matrix is typically used for workforce planning, talent management, and human resources purposes. Leaders can use a skills matrix to assess, track, and manage the skills and knowledge present within an organization. When it comes to nascent skills like generative AI, a skills matrix empowers leaders with a comprehensive overview of the skills available in a team – enabling them to design and apply the right learning and development strategies for maximum business impact.

Why a skills matrix matters

According to [Forbes](#), between 70% and 95% of enterprises are failing in their business transformation – and the presence of skills gaps is a major cause of these failures. People use outdated tech stacks and avoid adopting new ways of working, and teams take too long to improve products and processes or to respond to business questions.

The gaps persist even when companies provide employees with learning and developing opportunities. The reason is that companies do not set a skills strategy nor a proper skills framework to build on.

“Between 70% and 95% of enterprises are failing in their business transformation – and the presence of skills gaps is a major cause of these failures.”

Most learning initiatives cost time and effort, and result in the acquisition of irrelevant skills which are never leveraged to the business' advantage. This happens because most companies do not have a skills framework – only orphaned job descriptions used for hiring. Or, perhaps, they have only a high-level strategic vision on what is necessary to build in the coming years.

A clear communication goal between employer and employees is crucial in a skills transformation. To enable this, the enterprise skills management must at least answer three questions: What skills are essential in a job role? How much ability should a role have in each of the required skills? In what order people should learn?

The key elements and uses of a skills matrix

Skills Gap Analysis

Leaders can identify skill gaps by comparing the skills listed in the matrix with the current proficiency levels of team members, helping to determine where additional training or recruitment is needed.

Workforce Planning

With a skills matrix, organizations can make informed decisions about workforce planning – things like succession planning, promotions and reassignments. A skills matrix also helps to align employees with roles that match their skill sets.

Training and Development

A skills matrix assists in designing targeted training and development programs where leaders can focus on improving specific skills that are essential for business goals or project success

Resource Allocation

Managers can refer to the skills matrix to verify that team members with the required skills are assigned to the most appropriate roles on projects or tasks.

Performance Appraisals

A skills matrix can be used as a reference during performance appraisals to evaluate an employee's growth in terms of skills and competencies over time.

Project Staffing

Team leaders and project managers can use a skills matrix to assemble project teams with the necessary skills to complete project objectives most effectively and efficiently.

Planning Promotions

A skills matrix helps identify potential successors for key positions within the organization by assessing the readiness for promotion and relevant qualifications of specific employees.

Strategic Decision-Making

In strategic planning, organizations can use the skills matrix to assess whether they have the in-house expertise needed to execute strategic initiatives.

Creating a skills matrix

A simple skills matrix is the first exercise you can run to address questions of what skills are essential to which roles, how much ability each role should have in a number of defined skills, and the order in which people should learn.

Start by placing typical roles side by side. Use existing job descriptions, and interview internal leaders in those areas to check what skills are required. For example: should data analysts have proficiency in machine learning – or should they just be able to understand or evaluate it? What roles are responsible for MLOps culture? In the line of business, which decision makers need literacy or fluency level in data and AI?

Assessment	Data Analyst	Data Scientist	Data Engineer	MLE	DLE
Databases	✓	✓	✓		
Data Mining	✓	✓	✓	✓	✓
Data Science	✓	✓	✓	✓	✓
Machine Learning		✓		✓	✓
Deep Learning					✓
Mathematics		✓		✓	✓

Right: A simple skills matrix lists job titles on one axis and skills related to the discipline on the other axis. Use the chart to map the relevance of the skills against each job title.

For leaders without a skill framework, skill mapping solutions like Workera's granular Skills Ontology identify required domains, and the proficiency levels indicate how different roles should contribute to the execution of tasks and projects.

For leaders who already have a skills framework, the matrix can be cross-checked against Workera's own skills ontology to get a sense of how the organization's skills measure against Workera competency models.

Designing pathways for precision upskilling

So how should leaders steer team members on the learning path that's suited best to them?

Team leads can create adaptive learning pathways, distributing learning content to fill in the unique gaps in an individual's skills development journey with precision. The order should reflect the personal and organizational urgency to upskill, and make sense to the learner by tiering skill domains inside of each other.

For example: the skill domain **Managing an AI Team** sits at the starting point of an ontology, representing the primary domain inside which the other skills exist. This might look different depending on the needs of the organization or the individual's specific upskilling journey. Inside **Managing an AI team** would sit a number of topics including **AI Team Formation** and **AI Team Leadership**, and inside each of those would sit a number of further skills such as **Define AI Responsibilities** or **Recruit AI Talent** or **Coordinate AI Tasks**. Each domain captures skills within it that show the progression and granularity of both competency and the upskilling journey.

Solutions like Workera integrate generative AI to assist with upskilling – for example, by building ontologies automatically and employing AI mentors. These solutions pinpoint employees' skills gaps at regular intervals, showing how and where to fill knowledge that's missing.

The following is an example ontology using the skills domain 'Managing an AI team'. The skill domain is **Managing an AI Team** and within that sit the topics of **AI Team Formation** and **AI Team Leadership**. One of the skills within **AI Team Leadership** is **Supervise AI Progress**. Also known as a competency model, which resembles a family tree, this ontology illustrates the hierarchy and granularity of skills, showing which skills supersede others – and which granular skills are essential to enable superseding.



Left: A simple skills ontology begins with a specific skill domain and lists the topics and skills within it, on an increasingly granular basis. This technique of skill mapping shows which skills are essential or recommended to know within a wider discipline, enabling leading to discern what skills employees currently have, where their skill gaps are, and enable decisions such as promotions.

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Part Four

**What leaders should
do next**

What leaders should do next

In times of skills transformation, leaders should develop a change story. This story helps all stakeholders understand where the company is going and why changing is important at that moment.

The presentation of the "why" needs to be simple – to execute the key projects and initiatives present in a vision and strategy, leaders need to identify the contributors, isolate their existing skills, and develop the skills needed to successfully action the vision and strategy.

“Leaders need to identify the contributors, isolate existing skills, and develop the skills needed to successfully action business vision and strategy.”

This is called creating a skills framework, which clearly sets out the goals of the organization and the expectations of the workforce to make it happen. In designing a framework, leaders are likely to come across a series of challenges:

- **How do organizations design training when the workforce is so diverse in its skills and experience levels?**
- **What level of commitment do leaders and their teams need to agree to?**
- **How can employees measure their development and know they're succeeding?**
- **In which way should leaders identify skill gaps for both new hires and existing employees?**

Developing a skills framework

The first step in designing a competent skills framework is setting out the business reason for the transformation, the strategy behind it, and the rationale to justify leader and employee participation. Some example reasons, strategies, and rationales are below.

Reason: “Launching a new business strategy”

Strategy: Team leaders can collaborate with senior directors to isolate the specific skills needed to meet the organization's new strategic objectives surrounding generative AI adoption. They can prioritize only the skills – in this case, emerging Gen AI skills – that are being introduced to the organization and promise the highest return on investment.

Rationale: By designing a framework around only the essential skills needed to roll out generative AI working practices across a team or business – and tying them to specific business objectives rather than treating them as commonplace skills – employees will understand why and how the upskilling process will be different from how they may be used to learning. It also helps if leaders can support employees in comprehending how the adoption of these emerging skills will help achieve organizational outcomes.

Reason: “Creating better professional development for employees”

Strategy: To gain a better understanding of the skill gaps within discipline-specific teams, leaders can group similar job roles into one area of skills and knowledge. For example, a Head of Engineering, Machine Learning Engineer, and a Junior Machine Learning Engineer should ultimately share a ‘family’ of similar generative AI skills depending on their experience level and seniority.

Rationale: Organizing skills into collections by discipline is both easier, more efficient, and less resource heavy for leaders. It also allows each job role to require a different variety of skills within the same ‘family’ that denotes where it sits in terms of seniority and value to the business. By identifying these skills and organizing them in this way, leaders get a clear idea of what skills each employee needs for their specific role, what knowledge gaps could hinder career progression, and how to action employee-specific skills development. This could be the difference between knowing essential generative AI skills that improve productivity versus the ability to discern and manage these Gen AI skills from a more senior perspective.

Reason: “Assessing the supply of skills across an organization”

Strategy: In order to hire new talent, promote existing talent, or simply organize a workforce most effectively for optimal business outcomes, leaders need to know what generative AI skills currently exist across the organization. Start at the bottom of the organization, analyzing learning and development data, and spot emerging skills by asking your workforce to select the skills they already have. You may find that more junior employees already possess more sophisticated generative AI skills than senior executives – what would this mean for the structure and growth of an organization?

Rationale: Creating a framework that reflects both your current business goals and the existing state of your organization's skills pool empowers leaders to provide employees with the most valuable and supportive learning experience. In identifying the most relevant emerging skills within your organization, you can more easily fill skill gaps to help achieve business objectives, increase employee retention and talent sourcing, and identify opportunities for a fair and accurate succession model within teams.

Leader's checklist for a skills framework

To support the story of organizational skills development, leaders should create a personal development guide. This helps to mitigate avoidance from employees in developing their skills and encourages them to participate in the skills transformation strategy. Ideally, a personal development guide addresses the following three topics as a minimum:

- **What domains does each role need to master?**
Include information on each role and its purpose within the business goals.
- **To what degree should an employee master their skills?**
Include guidance on metrics like scores and proficiency levels.
- **What does the timeline for the development plan look like?**
Outline the learning pathway broadly so all teams are on the same page.

Workera

The world's leading skills development platform for business leaders

The world's most important enterprises and organizations invest in comprehensive skills development strategies – and they trust Workera to help bring their vision to life.

Workera was founded on the knowledge that building effective, personalized upskilling is the way to drive fundamental business objectives. But transforming organizational growth needs expert guidance.

Workera empowers leaders to accelerate their enterprise transformation by assessing their team's skills, rapidly upskilling, and measuring progress in cutting-edge technologies like GenAI. Our solution is powered by the latest AI technologies, using verified skill signals and benchmarking alongside industry-leading skills assessments and unique learning plans built specifically for your team.

We're trusted by global enterprises to build a future-proof organization, including:

accenture

SIEMENS
ENERGY

MERCK

SAMSUNG

maxis

"Workera has created a consistent and unbiased way to measure our workforce."

Fernando Lucini, Global Data Science Lead, Accenture Applied Science

On average, enterprise employees that use Workera see:

24%

skill score increase after second assessment

91%

engagement in post-launch learning

8x

faster skill growth

Ready to unlock the full potential of your workforce?

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