Reskilling, Retention, and Resilience

How to harness human potential with agile learning
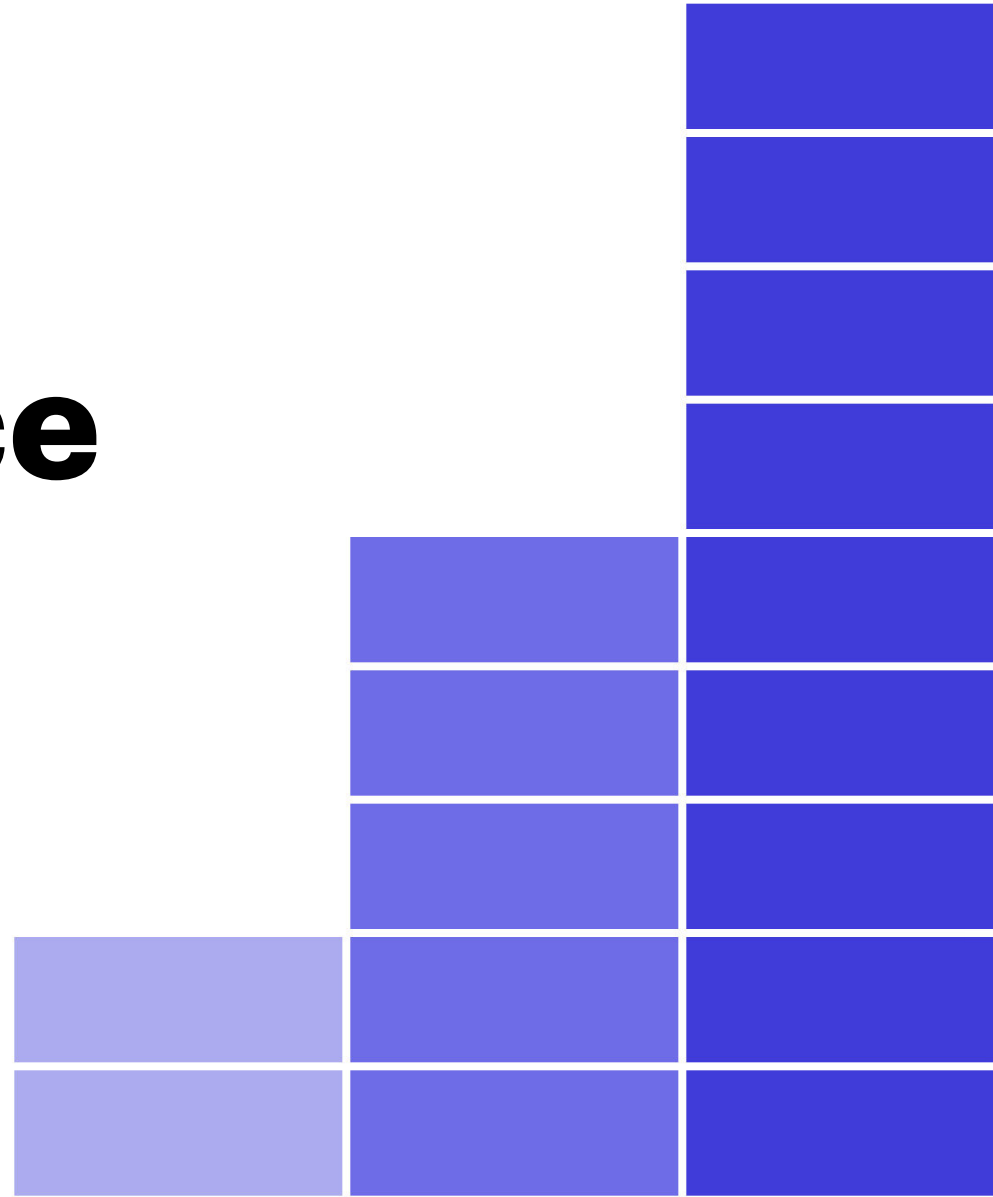
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Executive Summary

Pundits have hyped the life-changing potential of smart technology and automation for decades. That technology has finally converged into a high-velocity Fourth Industrial Revolution.

Like the three industrial revolutions before, this era, also called 4IR or Industry 4.0, is poised to render the future workforce unrecognizable. In 2016, economist Klaus Schwab made a stunning prediction—that 65% of children entering primary school that year would ultimately work in jobs that do not exist yet. To put that statistic in context, those children will graduate high school in five years.

Today's workers are concerned about automation and job security and feel pressured to upskill and adapt to evolving needs. They aren't wrong. Fifty percent of current jobs—85 million—may be gone by 2025. On the other hand, Schwab predicted 97 million new jobs on the horizon. Yet 29% of workers don't feel their company offers adequate support to gain the skills they need for the future of work.

Leading companies recognize the risks and opportunities ingrained in this workforce regeneration. They know that an agile and responsive upskilling framework helps ensure they can maximize both automation's benefits and humans' potential. They prioritize learning for the entire workforce to prepare themselves for ongoing change.

This e-book examines that learning imperative and how pioneering companies embrace upskilling both deskbound and deskless workers to increase retention and productivity. They take a "yes/and" approach to automation rather than an "either/or," thus freeing the workforce to perform tasks for which humans are better suited. These companies support workplace performance by investing in learning and productivity technologies and fostering cultural shifts to make change possible.
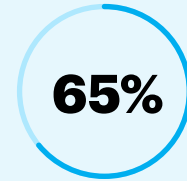
65%
65% of children who started primary school in 2016 could work in jobs that don't exist yet

50%
50% of existing jobs may be gone by 2025

29%
29% of workers feel unprepared for the future of work

↑97M
97 million new jobs on the horizon

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Chapter 1

What Makes a
Revolution

When Boundaries Blur and Technologies Converge

We often consider technology as computers and smartphones, but early humans thought the bow and arrow was a technological breakthrough. So, when does a technological surge qualify as a "revolution"?

An industrial revolution isn't just the emergence of new technology. It is when conditions align to advance multiple technologies simultaneously. These changes intersect and build on each other to leapfrog industries forward in "a blurring of boundaries … and fusion of advances."

These advances lead to mass socioeconomic and cultural changes for impacted communities.

Revolution

Condition 1   **Condition 2**   **Condition 3**   **Condition 4**

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The First Three
Revolutions at a Glance

First Industrial Revolution
Late 18th - Early 19th Century

Second Industrial Revolution
Late 19th - Early 20th Century

Third Industrial Revolution
Late 20th Century

Moving from **wood to coal** energy increased work speed and efficiency at rates unprecedented in human history. **Steam and water-powered** machines led to the advent of manufacturing and a mass exodus f**rom agrarian societies to urban life** and factory work.

Oil, gas, and electricity pave the way for mass production. The telephone appears, and cars and airplanes follow the invention of the **combustion engine**—removing barriers between communities to connect the world faster than ever before.

The **transistor** regulates electrical current, efficiently making **modern computers** possible. It was the era of **digitization, the internet, smartphones,** and the start of **automation.**

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What Is the 4IR?

Experts define the 4th Industrial Revolution as rapid advances and the convergence of digital, physical, and biological worlds. It includes progress in artificial intelligence (AI), machine learning (ML), automation, the Internet of Things (IoT), blockchain, and cloud computing.

While many worry that this era could foster inequity, others imagine a brighter outlook. Companies that evaluate their labor force today may discover unique opportunities. The key is assessing tasks and skills and asking, "Where does it make sense to capitalize on automation's productivity gains?" Conversely, "What will automation free my workforce to do instead?"

The future work equation isn't humans or machines. It's humans + machines = exponential potential. Organizations must redesign their training programs to prepare with that future in mind. That means upskilling and reskilling become strategic, long-term initiatives that increase the return on investment (ROI), productivity, and resilience in a continually evolving world of work.

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Executive and Employee 4IR Skills Outlook

80%

80% of leaders believe 4IR tech gives them a competitive advantage[1]

81%

81% believe their company's product and service value will increase

45%

45% of their employees are concerned about job security

77%

77% of workers self-identified as having skills gaps[2]

Retention and upskilling **are the top priority*** for global executives to ensure 4IR success[1]

Sources:

PWC[1]

Adecco[2]

(Most selected option at 36%)*

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Chapter 2

The Future Is
Already Here

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The New Business Imperative
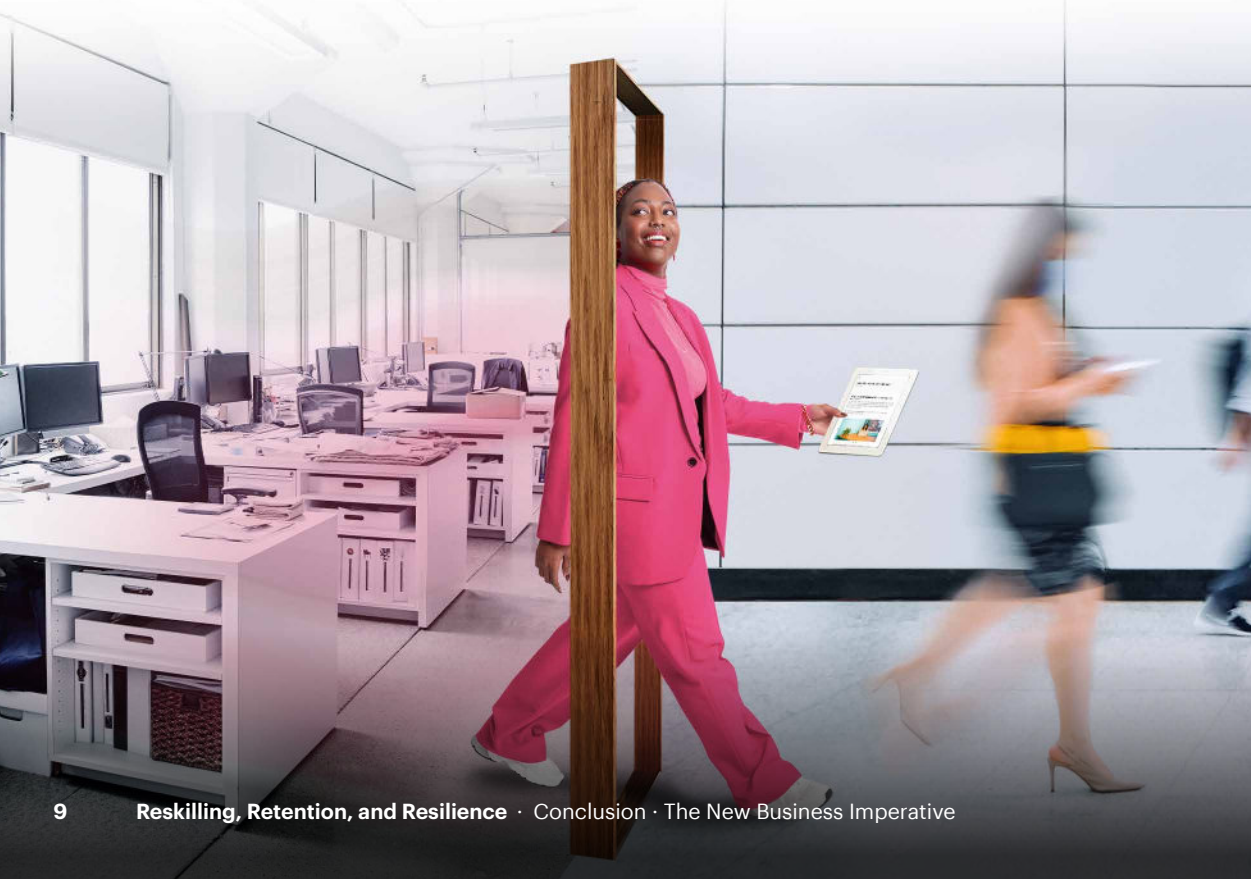
Each industrial revolution brings fear and hopes with it. This revolution is no different. The business imperative becomes navigating those changes and mobilizing the workforce into the future.

In 2022, the White House released an exhaustive report examining AI's impact on the future of work. They compiled up-to-date research on evolving trends, opportunities, and threats to the workforce. One cited project reviewed U.S. Census Bureau job descriptions and found that "more than 60 percent of U.S. employment in 2018 was found in job titles that did not exist in 1940."

The researchers then cross-referenced new patent filings against the titles and saw that new jobs followed new patent filings. They concluded that new technology created a host of jobs no one had imagined before the technology existed. For example, the job title "solar photovoltaic electrician" emerged in 2018 but would not exist without solar photovoltaic technology's invention in the late 20th century.

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Understandably, workers fear technology might displace them, but history shows opportunities come just as fast. Leaders must proactively build and scale agile learning programs to grow in lockstep. Organizations should focus on three key areas:

- [ ] **Upskilling and reskilling** become perpetual as we shift from a task- or job-oriented approach to skills-based talent management.

- [ ] **Retention** threats aren't in the rearview mirror yet. As uncertainty grows, costly turnover may rise, too. Investing in employees' futures builds loyalty and continuity.

- [ ] **Resilience** improves by curating skills in step with technology while simultaneously re-creating roles and reallocating human resources.

While C-suite leaders rate these as chief concerns, few organizations have built programs to address them fast enough. But experts suggest the future is here, and it's time to increase momentum on these initiatives.

> **"The focus of researchers—as well as managers, entrepreneurs, and policymakers—should therefore be not only on AI's automation or augmentation potential but also on job redesign."**

— **Source: White House Report**

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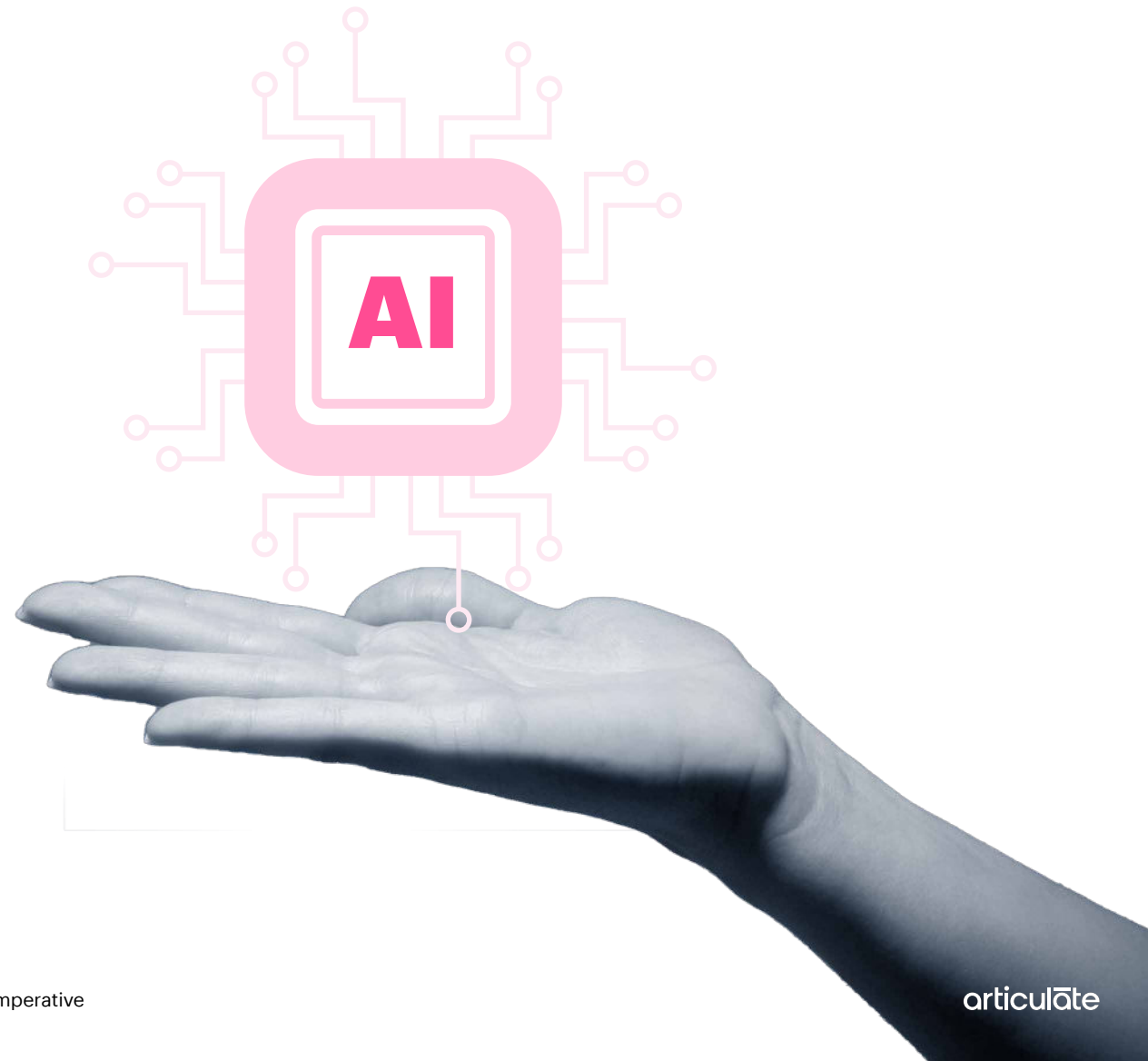
Upskilling and Reskilling Are Top of Mind

A learning and talent management culture centered on skills gives organizations the runway to adapt and keep pace with rapid changes in Industry 4.0. Upskilling—defined as adding new skills in a current role—and reskilling—defined as training to move to a new position—are integral in this high-velocity era. A comprehensive, proactive, and agile framework should:

1. Assess current workforce skills
2. Compare against business goals
3. Identify the gaps between the two
4. Plan to measure, assess, and scale

Moving from task- or job-based talent management to skills-based talent management can help companies answer the question, "Should this be an automated or a human task?" without relying on job titles. This approach gives a "more expansive view of the work people are able to do." Early adopters have seen productivity and cost savings increase, and performance and retention metrics improve.

Yet, data from a recent survey of learning and development (L&D) and human resources (HR) professionals outline a worrying trend:

- No more than 5% of respondents reported that their organization has fully functional upskilling and reskilling programs.
- Fewer than 40% said they are in the early ideating stages.
- A total of 4% had not begun.[3]

Leaders face a steep learning and adoption curve—but that must not discourage them from moving forward.

Source:

LinkedIn[3]

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AI becomes a tool to create a mobility culture "where skills emerge as the currency of the labor market." Indeed, leading companies have discovered AI and automation are not threats but part of the solution. For example, AI technology can assist in benchmarking today's workforce skills. Deloitte proposes collecting skills data and using AI to identify "demonstrated" and "potential" skills to surface promising adjacent growth areas.

An easily automated task paves the way for human creative and innovative capacity to build something new. Skills-centered talent goes hand-in-hand with job satisfaction and retention, as we'll examine in the next section.

" **A skills-based approach boosts productivity, efficiency, and effectiveness by better aligning workers with work that fits their skills and capabilities, including technical skills, soft or human skills, and potential future skills in adjacent areas. Organizations that do this effectively can unleash worker potential to drive greater value and are 52% more likely to be innovative."**

— Source: Deloitte

Sources:

SHRM[4]

Deloitte[5]

Skills-Based Work Readiness
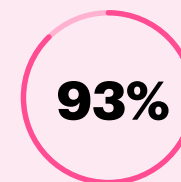
Employees

52%
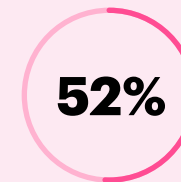
52% say they need new skills

29%
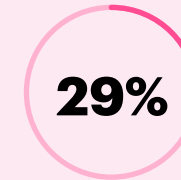
29% felt optimistic about gaining them at work[4]

Executives

93%

93% know a skills-based approach is important

20%

20% feel ready for skills-based jobs[5]

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Success Story

Winning With Skills-Based Talent Models

Global organization Unilever is a skills-based talent management innovator. They have implemented multiple programs to test emerging technology and methods and explore the explosive potential between humans and machines.

In one program, employees defined their values, skills, and growth areas. The company used this information to create personalized, self-serve online learning aligned with employees' current abilities and future goals. Hands-on work opportunities rounded out the scheme and allowed team members to flex their new skills with cross-functional work. In 2021, employees averaged 26 hours of training and development time, and the company reskilled 7% of the workforce.

In a second pilot, Unilever partnered with Accenture and Walmart to test AI-assisted, comprehensive skills assessment and placement. The experiment focused on aligning skills with interests, goals, and opportunities inside and outside the organization. They discovered that most people self-identified only 11 skills, while AI identified an average of 34 skills per individual. Workers consistently undersold their value, but AI diminished biases and created mobility and innovation opportunities.

skill 1
skill 2
skill 3

skill 1
skill 2
skill 3

skill 1
skill 2
skill 3
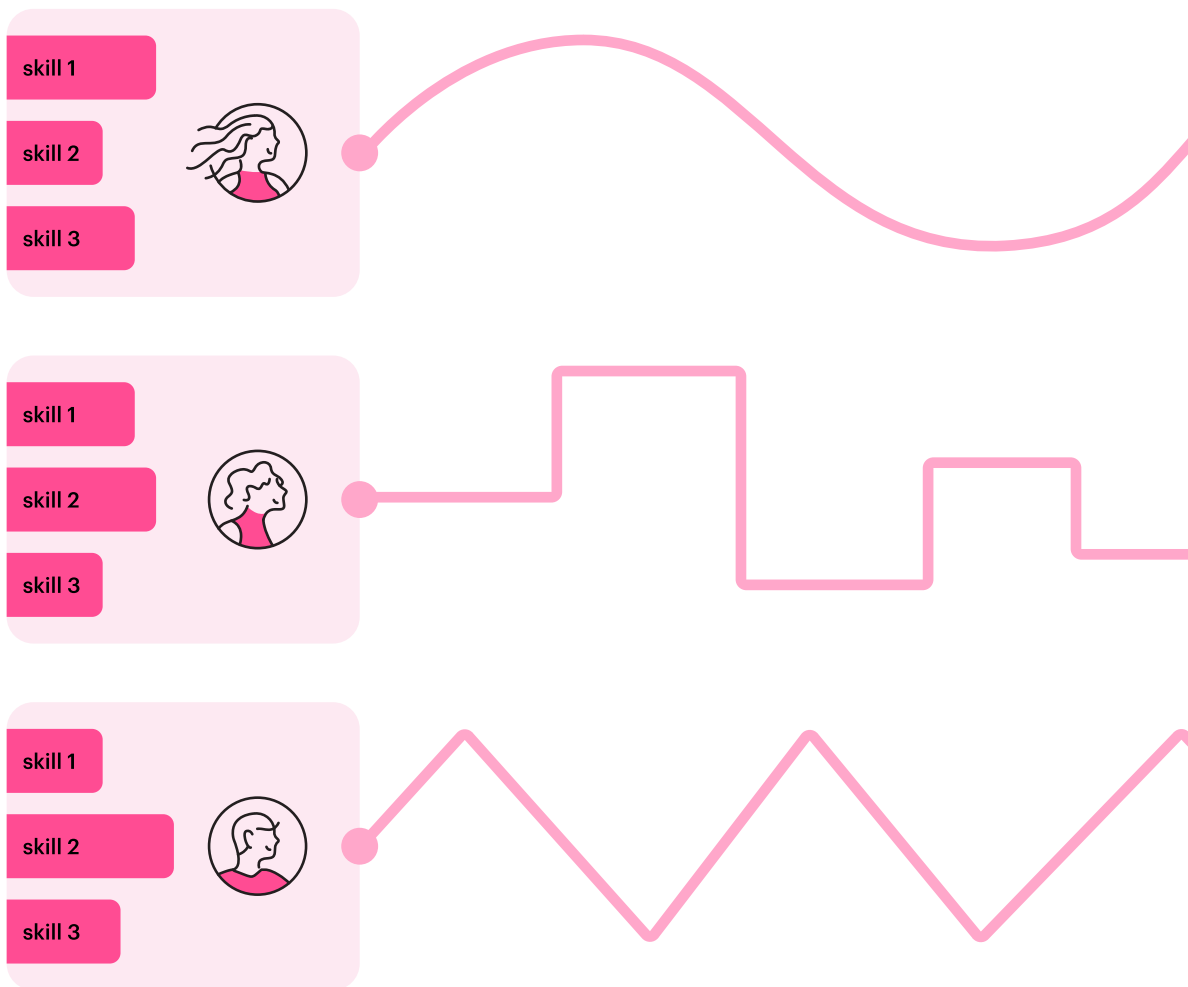
"We're essentially replacing job titles with skills—that means a complete reinvention of the way we do HR to develop a future-fit workforce."

— Paddy Hull, Unilever Vice President, Future of Work

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Retention:
Creating Stability
in Uncertain Times

The "Great Resignation" grabbed headlines in 2021 and 2022, and U.S. labor market data suggests the phenomenon hasn't quite played out yet. Industrial Revolution trends like automation and AI can promote uncertainty among workers. And in the wake of the recent pandemic, values have shifted to prioritize meaning, growth-oriented learning, and work-life balance. When fear and discontent grow, costly turnover of talented employees grows, too. One can understand why retention remains a top concern for business leaders in Industry 4.0.

In this unpredictable time, employees want to know, "How will you develop my career?" and "Can you help me build skills?" Learning and growth opportunities link directly to retention metrics. Not only will employees stay when they're skilled at work, but they can more effectively adapt to business challenges and actively solve skills-gap problems.

Essentially, skilling programs help organizations partner with and retain top talent to meet needs as the world around them continually rebuilds itself. Employers who invest time and effort to upskill and reskill employees boost retention while building workforce skills, reducing turnover, and increasing productivity.

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Top Three Reasons Employees Want to Quit:

Seek better wages
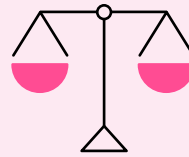
Want work-life balance
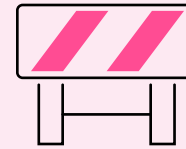
No opportunity to upskill or low job progression[6]

The Cost of Turnover

↑43% The turnover rate for disengaged employees can be up to 43% higher than for their highly engaged peers[7]

Employee's Annual Salary

| ½ | 2x |
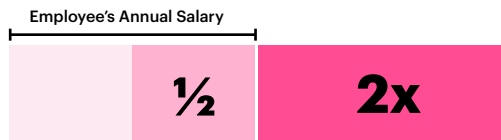
Turnover costs organizations ½ to 2x the employee's annual salary[8]

Keep Top Performers

Learning opportunities are the top way leaders seek to improve retention[9]

98% Companies using a skills-based approach are 98% more likely to retain high performers[10]

Why Workers Stay

68% 68% would stay with their current employer if offered **upskilling** opportunities

65% 65% would stay for **reskilling** opportunities[11]

Sources:

Adecco[6] Gallup[8] Deloitte[10]

Gallup[7] LinkedIn[9] SHRM[11]

Building Resilience to Remain Relevant

Resilience is a third critical focus for employers. To future-proof businesses in the Fourth Industrial Revolution, companies must curate the right skills mix to keep up with technology while simultaneously re-creating roles and reallocating resources. The workforce "will more than likely need to update their skills, not just once but many times throughout their careers." Skill-building will include technological skills and soft skills training, as humans increasingly gravitate to perform skills AI can't replicate.

Scaling an upskilling and reskilling program isn't just an exercise in employee happiness and retention. Remember, experts predict an unrecognizable job landscape coming. Without an agile and responsive framework, employers will face tough decisions. Layoffs, unfilled roles, and a low- or unskilled talent pipeline will create massive productivity issues, not to mention increased recruitment expenses and financial loss as businesses struggle to keep up.

> " At the current rate of change, skills are expiring faster than many teams can respond to ... and while employees might recognize their skills are outdated, it's important businesses begin to find ways to support employees, both financially and with enough time to devote to gaining new skills. We've been talking about the future of work for a few years now; that future is here."

— **Yvonne Bell, Senior Vice President of People and Culture, D2L**

Quoted in SHRM

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Instead, it's time to think realistically about the jobs likely to become automated or AI-assisted. Then, look at the humans in those roles and ask, "If their job is eliminated in the next few years, where can we use their skills to fill roles technology can't do?"

Today, sophisticated chatbots free customer service representatives from rote responses to use their unique problem-solving skills to tackle complicated customer requests. In the 1970s, many believed ATMs signaled the end of bank tellers, but the contrary proved true. Modern bank teller roles are more popular than ever, but their skills have shifted to relationship banking—a human function ATMs can't replicate.

As leadership starts to assess skills across the organization and look for ways to close gaps, the U.S. Chamber of Commerce recommends involving employees early. Checking in on team goals and looking for business goal alignment is a win-win, both in preparing for future change and increasing productivity and engagement. It's also critical to invest in training technologies that will make skill-building accessible for all employees.

When staff members have up-to-date skills, companies don't have to worry about how they'll meet market demands. Without sufficient learning opportunities, workers and the businesses employing them run the risk of becoming obsolete."

— Source: Forbes

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Chapter 3

Building a 4IR
Safety Net

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A Culture of Learning, a Network of Skills

The future is now, and a learning culture is the best way to increase retention and productivity while preparing for an unknown future. Two mission-critical focuses will underscore your reskilling, retention, and resilience strategy:

- ☐ **Deskless** workers make up 80% of the workforce, and their roles are most at-risk for automation. **Prioritize skilling this essential cohort.**

- ☐ Human potential is highly weighted in soft skills. **Build a soft-skills learning warehouse** to develop what humans do best.

80% of the workforce is deskless

Prioritize Deskless Workers

Deskless workers, as the name implies, perform most of their roles away from desks. Also called frontline workers, they make up as much as 80% of the global workforce and work in industries such as food service, manufacturing, retail, agriculture, and customer service.

When more than half of global jobs disappear, these workers are most at risk. One global study identified roles most vulnerable to automation, and nine of the top 10 were deskless.

These frontliners hold incredible institutional value, so preparing them with new skills is an urgent necessity. Yet today, training often requires:

☐ Cost-prohibitive off-site meetings

☐ Hours-long screen commitment

☐ Inconvenient books or desktop computer delivery

These barriers for deskless learners make it difficult to improve at their current job or grow beyond it. The disconnect is profound. According to an industry report, 20% of deskless workers never get training, and nearly 36% only access training during significant company changes. It's vital to use methods and tools best suited to reach and prepare this cohort for changes occurring now and in the future.

Deskless Workers and Technology

80%
80% of global workers are deskless
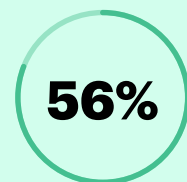
56%
56% use personal devices to fill tech gaps[12]

83%
83% prefer digital learning[13]

Sources:

Emergence VC[12]

Training Industry[13]

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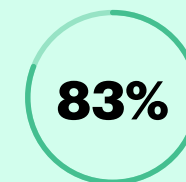Digital learning tools effectively reach deskless workers who prefer to learn using devices like tablets, phones, or kiosks. Yet, 60% of this group are unsatisfied with the technology they can access, and many resort to personal devices.

A true skilling culture includes all learners. Reaching out to them where they are future-proofs the workforce, increases frontline worker satisfaction, and reduces unnecessary turnover.

Finally, organizations that empower frontline workers will reap financial benefits. One study outlined dramatic financial gains:

What Happens When Deskless Workers Stay Engaged?

91% 91% increased productivity

88% 88% operational cost savings

64% 64% lower turnover[14]
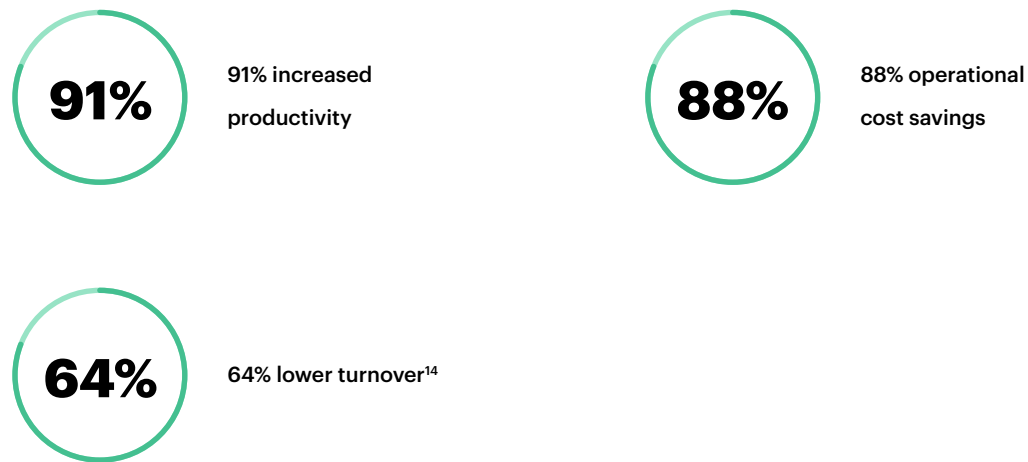
Source:

Forbes/Microsoft report[14]

Digitally connecting frontline workers impacts growth, too. The same survey found that companies that provided tech access for more than 75% of deskless workers experienced annual growth exceeding 30%. At less than 25% engagement, growth hovered near 11%.

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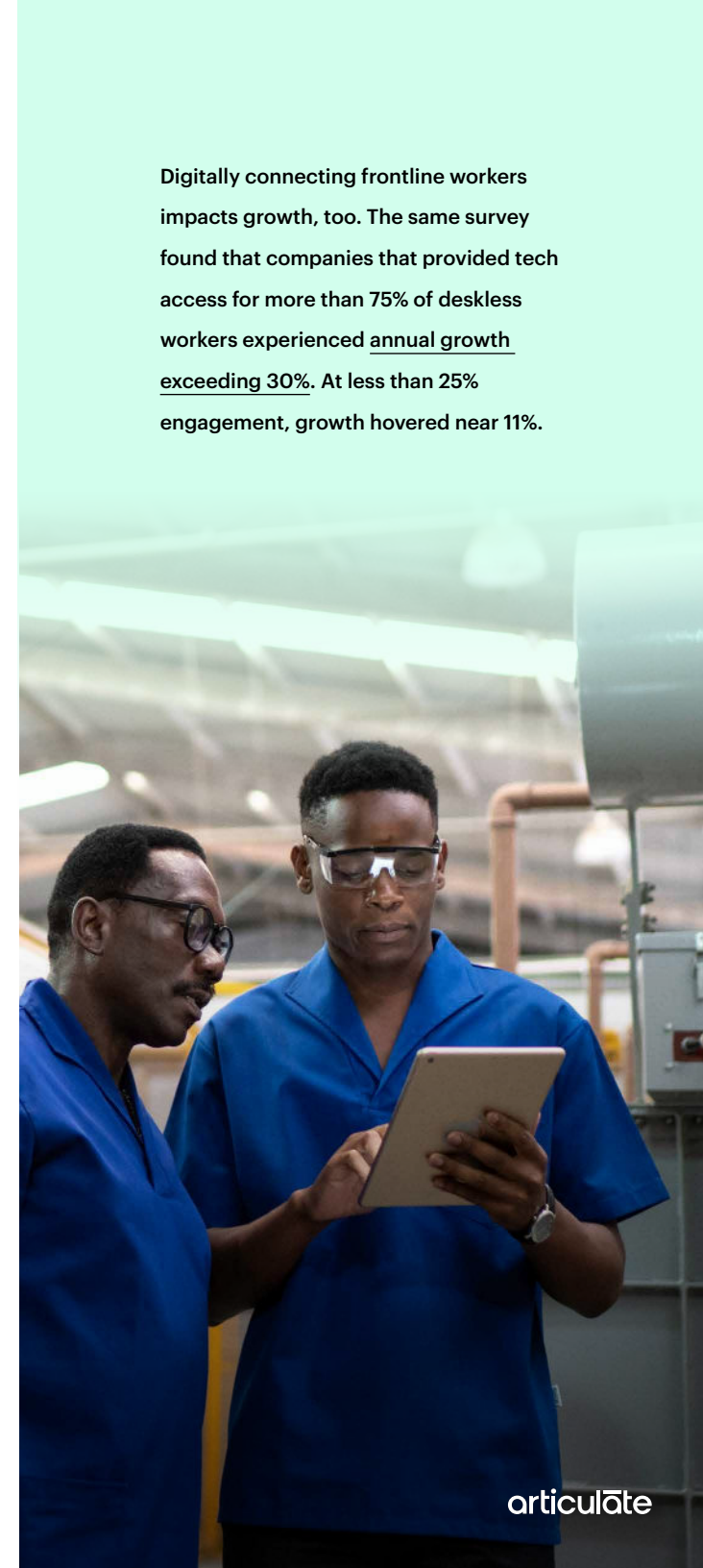
Emphasize Soft Skills

A future-proof workforce knows where to distribute resources best. Industry 4.0 delegates to AI functions the technology will do more productively, efficiently, and cost-effectively than a human.

It's a win-win because asking humans to "behave like robots" is inefficient and disengaging. This technology era affords us the freedom to do work humans prefer— work that connects to purpose and engages our minds. Humans are best at soft skills like creativity, managing unpredictable complexity, and critical thinking. But that doesn't mean we're ready.

Education nonprofit America Succeeds reviewed over 80 million job postings across 22 industry sectors and found that soft skills were the most desired qualifications for 91% of management jobs, 86% of business operations jobs, and 81% of engineering jobs.

I just want to be creative...

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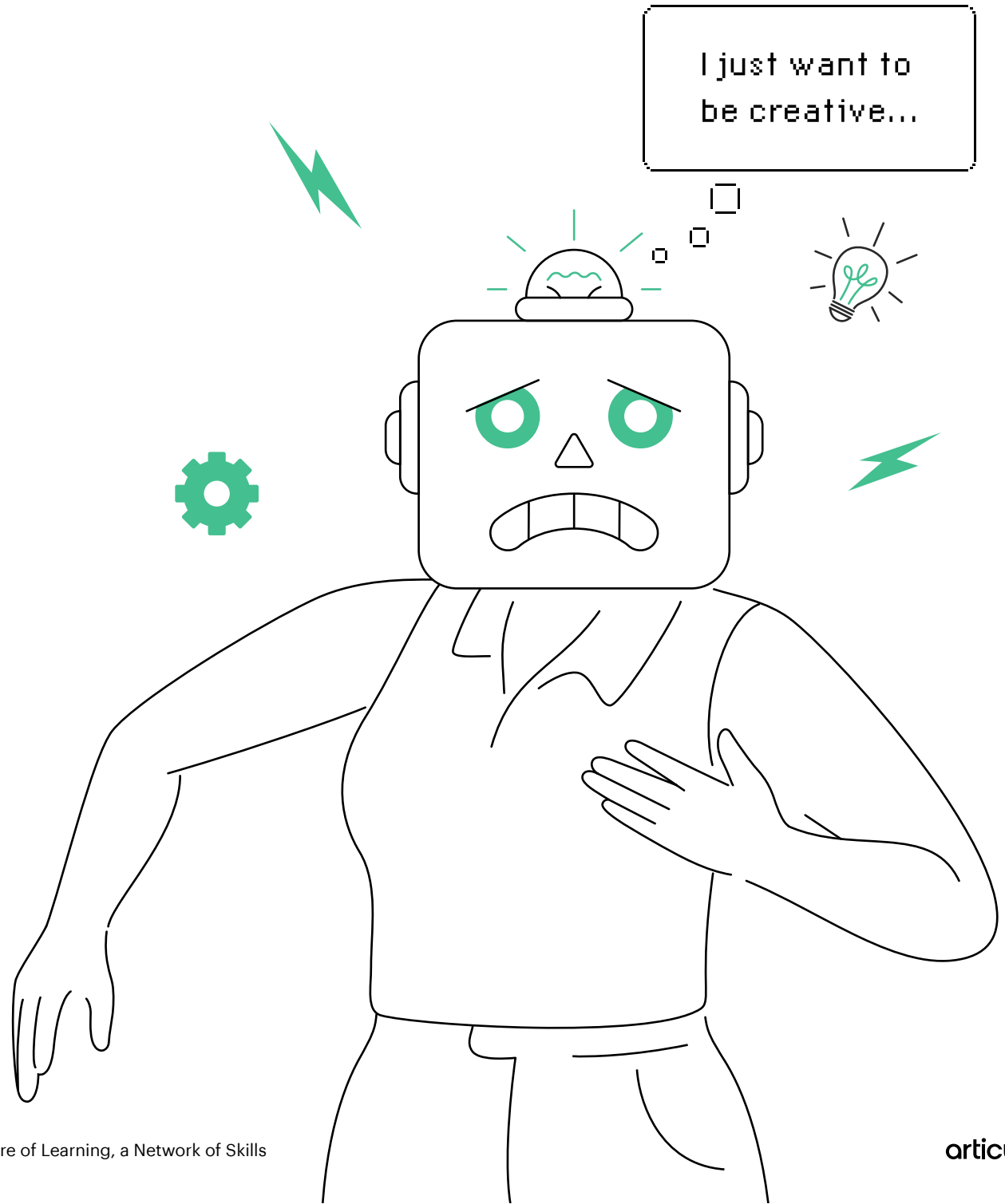
As the need for soft skills grows, all workers will benefit from honing human skills to maximize their impact. One case study examined leadership—one of today's most desired soft skills. After identifying frontline managers with the best leadership practices, the company empowered those leaders to share their techniques with others. In a dramatic result, case incident rates—a critical measurement in their Occupational Safety and Health Administration (OSHA)-regulated industry—decreased by 50%, and workers reported better job satisfaction.

The upshot: Developing soft skills while automating rote tasks can positively impact business growth, productivity, and retention.

" **Business and HR leaders have always known that human skills are critical, but now we're seeing a heightened demand for them. They rely on human connections, the ability to lead others, and they cannot be automated."**

— **Jeanne Meister, Executive Vice President, Executive Networks**
Quoted in SHRM

Learn more about developing soft skills

No matter the industry, soft skills aren't only valuable; they're essential across the organizational hierarchy. Learn how to unlock business growth and develop soft skills in the new e-book, The Top 3 Soft Skills Your Employees Need in the World of Work.

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The Top 3 Soft Skills Your Employees Need In The New World Of Work

EBOOK

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A New Learning Habit

If we accept that skills will evolve faster than ever in Industry 4.0 and that upskilling and reskilling all workers is critical to success, it becomes incumbent on businesses to train differently. After all, workers still need to perform their day-to-day work as they build skills. A flexible digital learning strategy becomes crucial to prepare teams for vast and revolving skills shifts.

Luckily, employees enjoy learning and are loyal to employers who provide it. This chapter highlights a few tips to empower learners in the new world of work.

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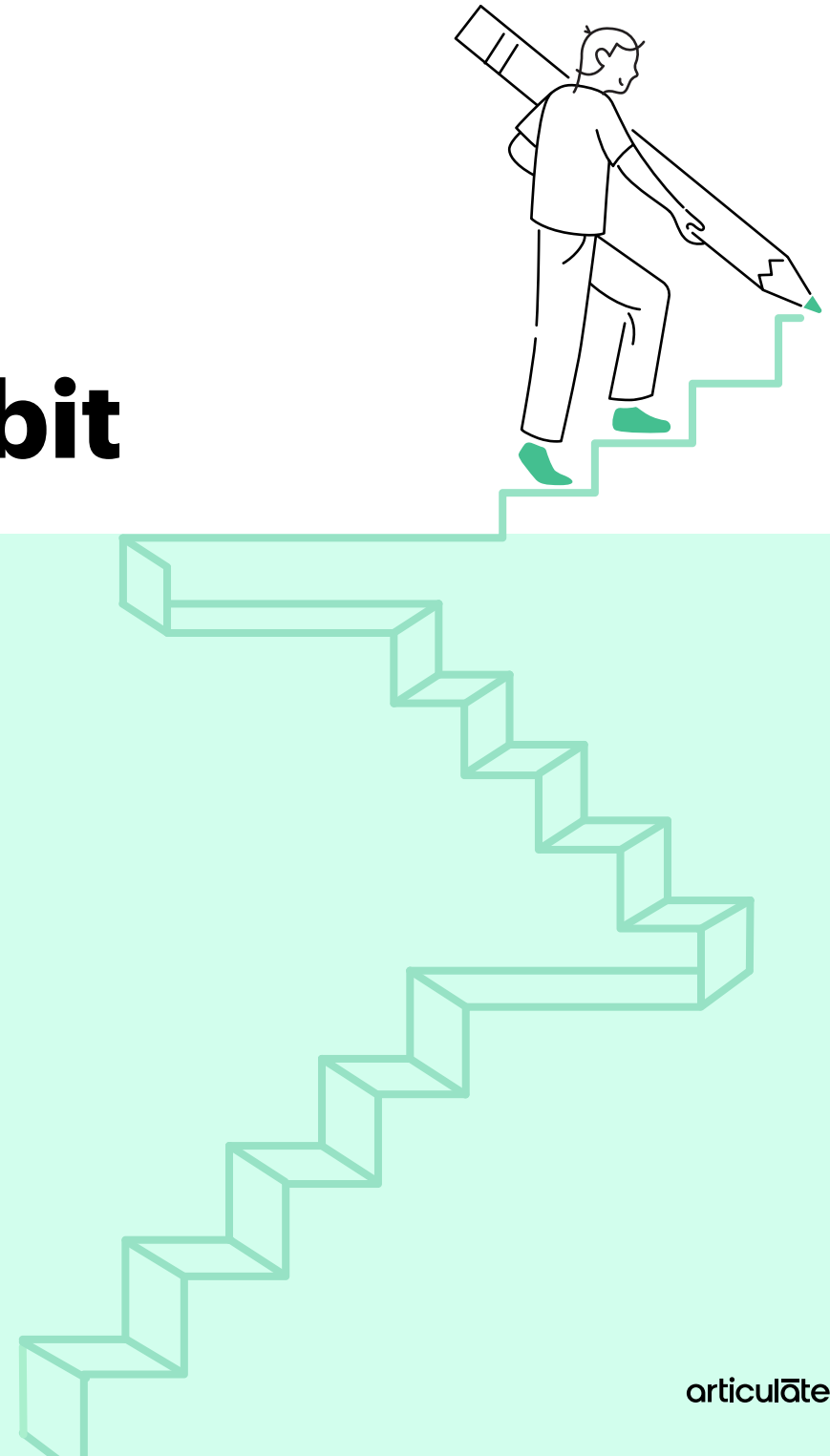
How We Like to Learn

68%

68% prefer to learn at work[15]

49%

49% prefer point-of-need instruction

58%

58% prefer learning at their own pace

97%

97% of employees would learn a new skill at work if they had the chance[16]

Sources:

LinkedIn[15]

Harvard Business Review[16]

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Short Burst

Learning impact grows when embedding easy-to-consume learning in a company's culture. Tackling new topics in focused bursts keeps training sustainable. For example, a manufacturing employee could level up on their phone with a coffee-break microlesson and immediately apply the new skill. A retail employee might review a short product launch lesson on a tablet between customer interactions. A food service manager could push a series of reflection quizzes to reinforce new problem-solving skills and encourage team members to practice them.

These short, interleaving techniques are effective, and learners tend to prefer them. Plus, several 10-minute lessons a week can fit into anyone's schedule—whether frontline or office-bound.

The right tools make short microlessons quicker for developers to create and gather stakeholder approval, increasing L&D teams' responsiveness to "keep up with changing demands and address talent needs."

Short Burst Learning in a Workday

Work ○ ○ **Work** ○ ○ **Work** ○ ○ ○ ○

Microlesson   **Product Launch Lesson**   **Reflection Quiz**

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Point of Need

It can be challenging for learners to apply classroom instruction in the real world. In an era of frequent upskilling and reskilling, learning in the flow of work or at the point of need is one effective way to apply new skills in context, reinforce learning, and remove barriers to success.

To make learning in the flow of work more effective, consider crafting employee personas to predict each persona's moments of need thoughtfully.

A deskless worker has different priorities, barriers, and sticking points than their deskbound colleagues. Consulting personas helps avoid one-size-fits-all learning for people whose days look very different.

For example, if we know a sales associate has moments between arrival and handling their first customer, a quick new product lesson could prepare the associate to compare and contrast their product with a competitor's.

A handheld tablet could deliver reminders about potential danger spots for a team called to respond and perform risky equipment repairs. This "moment of need" method counteracts confusing, potentially dangerous missteps that trainers and compliance officers want to avoid.

Point of Need

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Self-Serve

> "With guided, self-paced learning tools that teach new skills, employees can leverage the power of technology to position themselves to thrive in the coming years."
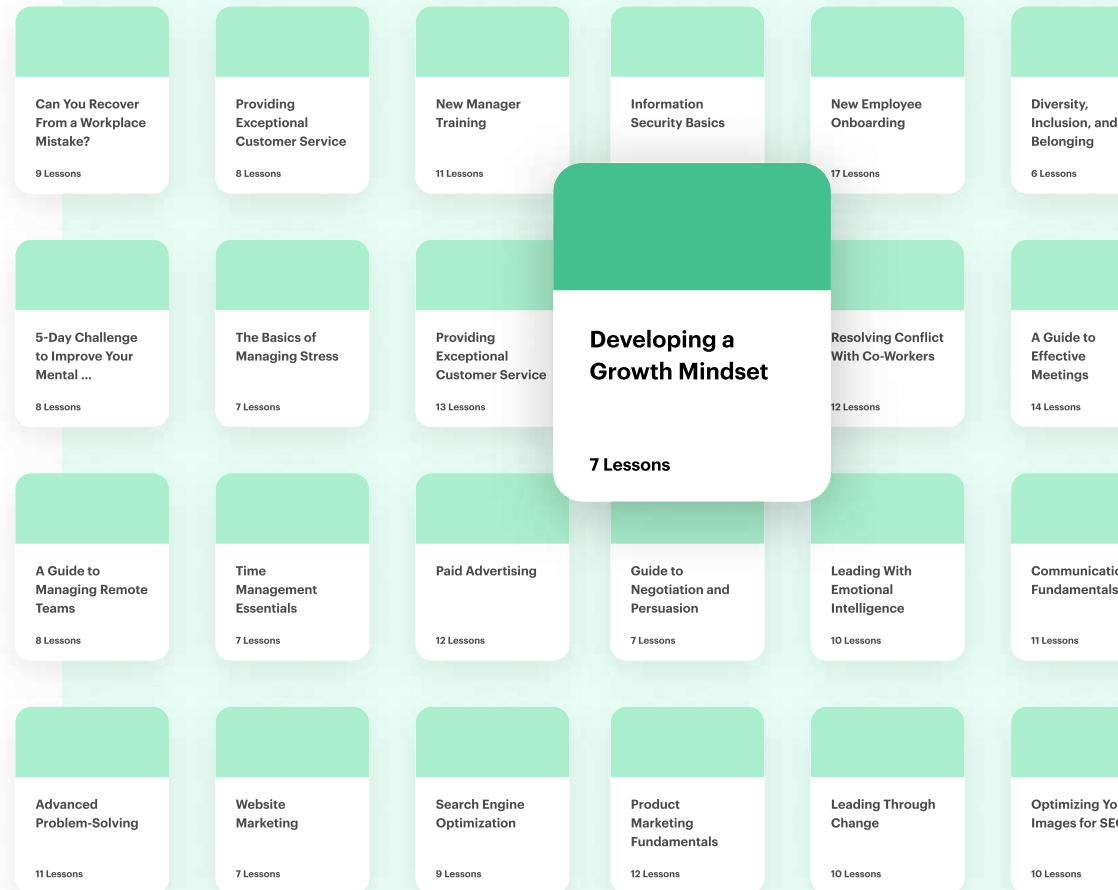
— Source: Salesforce

Self-serve online learning is a third vital tool in upskilling and reskilling programs. Self-serve learning gives employees resources "to get involved in shaping their own futures" in "a citizen-led" approach. Autonomous learning allows employees to manage their upskilling and reskilling journey "so they're equipped to drive their own success and help others around them."

Think back to Unilever, which offered a sizable self-serve e-learning library. Team members matched development opportunities with available online courses.

> "Empowering employees with career development tools and internal mobility options engages learners and expands workforce skills. The ultimate benefit is an organization that can act quickly on valuable opportunities."

— Source: LinkedIn

Can You Recover From a Workplace Mistake?
9 Lessons

Providing Exceptional Customer Service
8 Lessons

New Manager Training
11 Lessons

Information Security Basics

New Employee Onboarding
17 Lessons

Diversity, Inclusion, and Belonging
6 Lessons

5-Day Challenge to Improve Your Mental ...
8 Lessons

The Basics of Managing Stress
7 Lessons

Providing Exceptional Customer Service
13 Lessons

Developing a Growth Mindset
7 Lessons

Resolving Conflict With Co-Workers
12 Lessons

A Guide to Effective Meetings
14 Lessons

A Guide to Managing Remote Teams
8 Lessons

Time Management Essentials
7 Lessons

Paid Advertising
12 Lessons

Guide to Negotiation and Persuasion
7 Lessons

Leading With Emotional Intelligence
10 Lessons

Communication Fundamentals
11 Lessons

Advanced Problem-Solving
11 Lessons

Website Marketing
7 Lessons

Search Engine Optimization
9 Lessons

Product Marketing Fundamentals
12 Lessons

Leading Through Change
10 Lessons

Optimizing Your Images for SEO
10 Lessons

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Conclusion

4IR Is Here

The 4th Industrial Revolution moves fast and blends digital, physical, and biological worlds in ways we've never seen before. It promises incredible, life-changing potential. While many jobs will become obsolete, thousands more will emerge—changing how we think about and do work. Businesses, to capitalize on this evolution, must embrace a "yes/and" rather than an "either/or" approach to artificial and human intelligence.

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Plan to Thrive

Industry 4.0 is here, yet most businesses have only begun to prepare their workforces. It's time to thrive with a skills-based approach that enables humans to do what they can do best. Look to build soft skills such as leadership, critical thinking, creativity, and innovation in the human workforce while delegating rote tasks to technology solutions. Creating that framework now will increase retention and productivity.

Don't forget that deskless workers make up most of the workforce—and they are most at risk of job insecurity. Consider training that removes access barriers and creates a learning culture to help these workers reach their full potential while performing their current roles.

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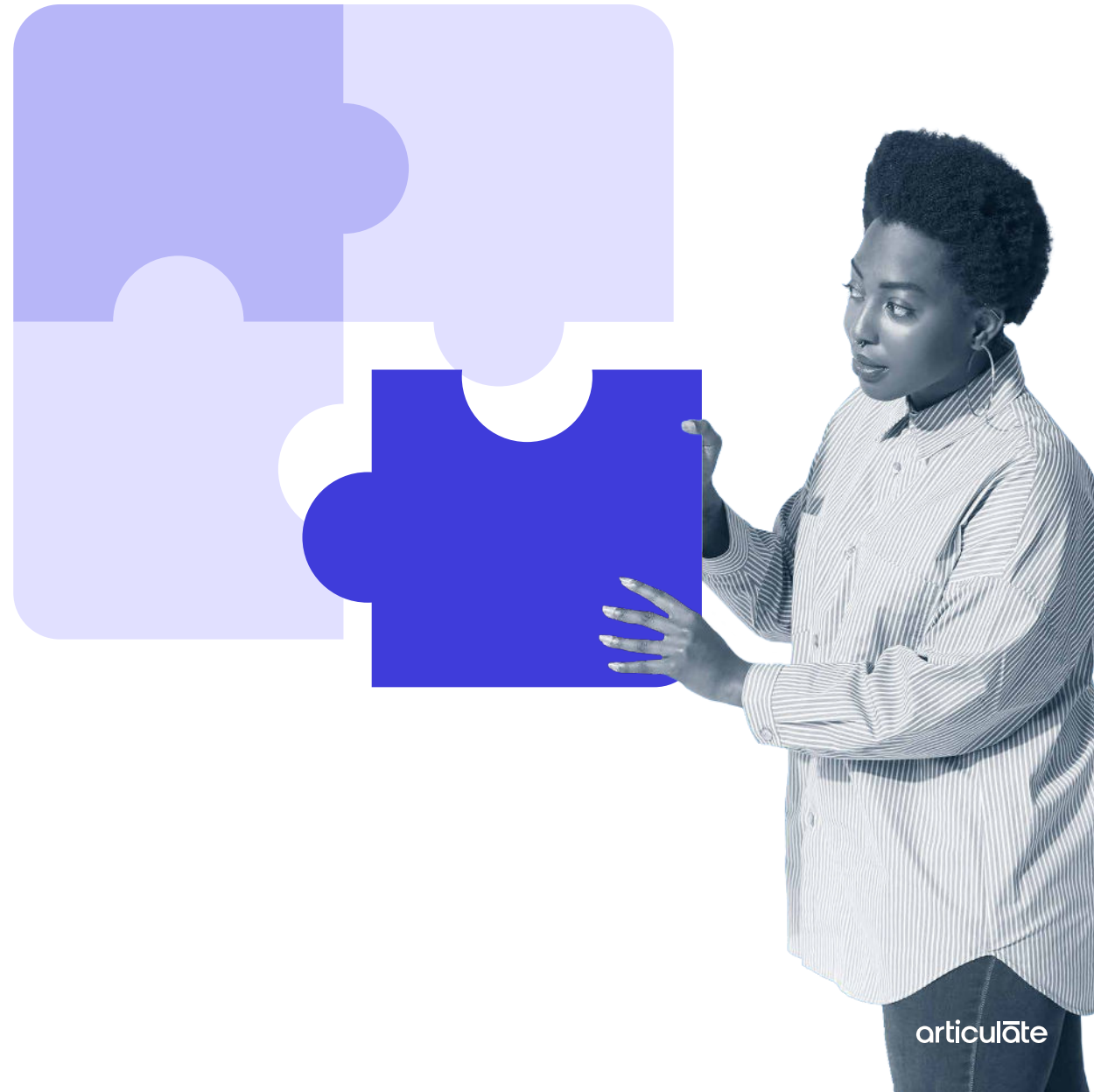
The Skilling Business Imperative

An upskilling and reskilling framework is imperative to building an agile and resilient workforce for the future. A comprehensive program prepares workers for a skills-based economy and is responsive as new technologies and skill needs arise. It is tied to business goals and helps organizations avoid problems like productivity decline, an unskilled talent pipeline, and turnover and recruitment expenses associated with trying to keep up. It is efficient and measurable, with the flexibility to be proactive and reactive.

Online Training Tools Enable Success

Online learning is a critical tool for achieving success. Offer self-serve learning modules in a variety of "snackable" formats. Short-burst microlearning is easy to consume and makes training accessible to all employees, especially those deskless roles where classroom learning is out of the question. Learning at the moment of need helps team members immediately apply and retain what they learn, increasing the ROI on training dollars.

Empower your team to drive better business outcomes with Articulate's learning creation tools. Contact **sales@articulate.com** or **visit our website** to explore solutions and get help maximizing upskilling and reskilling potential. Discover why our flexible, scalable training solution is the number one creator platform for all workplace learners.

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