Future Skills Pilot Report

Thinking outside the box to reimagine talent mobility

Produced in collaboration with Unilever, Walmart, World Economic Forum, SkyHive and Accenture
Introduction: A workplace changing faster than people do

The need to continually refresh skills and stay relevant for the future of work is top of mind for everyone from Fortune 500 CEOs to store clerks. This isn’t simply because of rapid technology innovations and automation. The entire concept of work is evolving quickly. And the upheaval brought on by the COVID-19 pandemic further crystalized an urgent and complex global employment challenge: how to prepare people for the future of work in ways that serve individuals, businesses and communities.

Solving this challenge requires an in-depth look into what it takes to upskill at scale both within and between industries, in order to maintain business resilience as well as people’s livelihoods. But with the right mix of human talent and technology, it might be possible to demonstrate an entirely new way of thinking about the true meaning—and impact—of upskilling a workforce. Many industries stand to benefit if this idea can be proven out, including Consumer Goods and Retail.

Across industries globally, 38% of worker time is potentially automatable.¹ The rate increases to 40% for Retail workers and 54% for those in Consumer Goods.² A World Economic Forum report estimates that by 2025, 85 million jobs may be displaced by machines, but 97 million new roles may emerge due to a new dynamic between people and technology.³ To address this reality and its opportunities, Walmart and Unilever—two of the world’s largest companies—initiated a collaborative, cross-industry pilot program to figure out better, smarter ways of preparing people for new career paths based on their interests and skills.

“No company today is equipped to operate upskilling efforts at full scale,” explains Amy Goldfinger, SVP, Global Talent at Walmart. “That’s the problem and the opportunity.”

A Bias Toward Action

The global Consumer Industries community of the World Economic Forum recognizes the need to advance the agenda for workforce transformation. Economic changes, including rapidly evolving consumer preferences, new business models, rapid shifts towards ecommerce, and acceleration in automation place a large percentage of repetitive jobs at risk of redundancy while also creating the need for new roles and skills across the industry. As the employer of one in five workers around the world, Consumer Industries are uniquely positioned to address the unprecedented change fueled by transformative technological innovations and lead a movement to ensure responsible transformation of their workforces by effectively preparing them for jobs in the digital age.

In 2018, the Forum’s New Economy and Society (NES) platform launched the Preparing for the Future of Work initiative to promote a positive and proactive approach by companies to navigating the future employment and skills landscape. The initiative convened more than 200 senior executives and experts across nine industry-specific task forces. In collaboration with the NES platform, the Forum’s Consumer Industries Task Force on Future of Work was catalyzed with seven partner companies (Walmart, Unilever, Cargill, Ikea, PepsiCo, Nestle, and Heineken) to create a framework for workforce transformation. Under the co-chairmanship of Unilever and Walmart, the participants defined a collective vision for Consumer Industries: “Become a human-centric industry which supports a culture of lifelong learning and personal growth for its workforce to ensure they remain relevant, productive and employable amid the Fourth Industrial Revolution”.

As cochairs of the Forum’s Consumer Industries task force, Walmart and Unilever are advocates for the big-picture philosophy that keeping people employed by guiding them to new opportunities is good for business and good for communities. Both companies have long held the view that they have a responsibility to prepare people for the future of work and, separately, each had already made significant strides in this regard.

At the beginning of 2021, Unilever even went so far as to publicly commit to upskilling its entire global workforce by 2025. In partnership with its unions and employee representatives, the company is focused on piloting new ways of working to improve both security and flexibility. Outside the organization, Unilever is helping equip 10 million young people with new skills over the next several years.4

“As part of that commitment we’ve been looking at a variety of ways to do this,” says Leena Nair, Chief Human Resources Officer at Unilever. In teaming up with Walmart, “we saw an opportunity to understand what’s involved in upskilling people both within and outside the organization, and we had a feeling that there wasn’t enough being done cross-industry.”

Walmart, for its part, began upskilling efforts in the context of both its growth areas and the shift from brick-and-mortar stores to omnichannel as early as 2014, inspired in part by the Forum’s first major skilling report.5 The company was also an early supporter of People + Work Connect, a platform launched jointly by CHROs from Accenture, Lincoln Financial Group, Service Now and Verizon at the start of the pandemic to connect organizations undergoing layoffs and furloughs with those that are hiring.

Unilever’s and Walmart’s longstanding commitment to sustainable employment in the communities they serve made them natural leaders well before COVID-19 disrupted economies globally. But the pandemic’s impact led the companies to a collective decision: Let’s act now to help people and businesses thrive.

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Creating possibilities through skills instead of roles

Through a series of dialogues from 2019-2020, the Consumer Industries Task Force on Future of Work developed a detailed roadmap to shift employees from declining/no-growth jobs to emerging/high-growth jobs through reskilling and upskilling. To help ensure long-term success, the task force also agreed to conduct a pilot to incorporate learnings before scaling efforts. With the global pandemic adding further urgency, Walmart and Unilever joined forces to launch a pilot program that ran from December 2020 to February 2021. With the Forum’s continued facilitation, this unique collaboration sought to demonstrate a proof of concept for utilizing new approaches to empower employee transitions and challenge existing paradigms of talent mobility.

Could it be that opportunities are hidden from viable candidates because of ingrained thinking about experience and qualifications? If so, then maybe even the most progressive-minded organizations are overlooking outstanding candidates simply by failing to look in new places. To find out, Walmart and Unilever wanted the pilot program to test three hypotheses:

1. **Is it possible to identify and unlock hidden skills?** Could deeper insights reveal unrecognized skills that workers already possess, which would allow those people to shine in unexpected emerging roles?

2. **Are there more innovative ways to prepare people for a future of work?** Instead of looking at a role as a set of responsibilities, can technology identify proximate, transferrable skills that create a roadmap from one job to another?

3. **Do viable pathways exist for people to move between organizations?** Can people take on new jobs within and across industries on the merits of the skills they acquire along the way, not simply their job descriptions?

Walmart and Unilever saw an opportunity to test these hypotheses in collaboration with the Forum, especially since the Forum has long understood and advocated for the urgency of reskilling and upskilling. Doing so, however, would require the right balance of science, from technology, and art from HR and the business. Walmart’s Goldfinger points out that looking at roles in a dynamic way—as a collection of skills, each being a data point—could potentially open new professional pathways; but the art comes in convincing people they can be defined by the skills they have, not by the roles they perform.

After a rigorous evaluation process by the task force in the summer of 2020, Accenture and SkyHive were brought in to lead a pilot program that addressed the three hypotheses—and perhaps would establish an entirely new way for organizations to think about the social responsibility they have to equip their people for a future of work. Walmart and Unilever could then embark on that journey with broad industry participation—and create better, more sustainable opportunities for people.
Mapping people’s journeys with AI in lieu of intuition

To bring a science-driven approach to the pilot, Accenture partnered with SkyHive, an award-winning Canadian startup that uses quantum labor analysis to assess labor market supply and demand. SkyHive provides recommendations on workforce upskilling by using an AI engine to match workers to available opportunities.

Let’s say there’s a job that’s declining due to automation, market forces or a combination of the two. SkyHive looks at that job not as one role, but as a collection of individual skills. Then SkyHive can do the same thing with emerging roles and analyze how much the skillsets overlap—as well as identify which specific skills must be learned for a person to move from the declining role to an emerging role. Essentially, SkyHive facilitates skill-based proximity analysis at scale—and there are two big advantages to this approach.

First, it’s more efficient than traditional training assessments. According to SkyHive, on average a company will spend $1,400 on training per employee each year, but only 12% of those people say they apply the new skills to their everyday work. But with a skills-first approach, in which AI is used to identify gaps and provide people with targeted training, skill gaps are filled faster and with 70% greater efficiency. Second, and just as critical, technology is better at identifying skills than people are.

“The more granular the skill data on each role, the more opportunities and possibilities begin to present themselves,” says Nicholas Whittall, Accenture’s Managing Director of Talent & Organization/Human Potential. “And more importantly, the AI eliminates human bias recruiters or managers often hold in terms of who’s truly capable of doing which job.”

Proving out the hypotheses

At the start of the pilot, Unilever and Walmart identified several roles in 11 representative cities in the US, Europe and Latin America in order to test the three hypotheses. Accenture helped SkyHive break down every role into a collection of clearly defined skills—be it experience with specific technologies, attention to detail and even conflict resolution. The team then used SkyHive to determine where the skill gaps were between roles in the context of broader labor-market shifts.

When roles are viewed as collections of skills, multiple unexpected opportunities emerge. This finding allowed the team to curate learning pathways between roles and, in doing so, ultimately prove out all three hypotheses.

1. **Is it possible to identify and unlock hidden skills?**

   SkyHive has found that when people self-report on their skills, they impose limitations. They’ll identify 11 skills on average for their particular role. Using SkyHive’s technology, however, that number jumps to 34.

   The data also found that, in some cases, a person would only need to pick up a few additional skills to switch disciplines entirely—which wouldn’t be possible without the AI component identifying the skills people don’t realize they already have.
2. Are there more innovative ways to prepare people for the future of work?

Using SkyHive’s skill matching between roles, Accenture identified the key skills needed, then built reskilling pathways with learning content and experience design components to prepare people for readiness in new roles. The aim was to show more clearly, using proximate-skills data, that the pathways are viable and that it’s fast, practical and cost-efficient for companies to support them. On average, the pilot showed that people could be reskilled for new roles in completely different functions in just six months’ time.

At Walmart, for example, the data showed that an IT manager can move to the role of product manager, as there’s already a 50% match on the skill sets required for each job. The skill mapping showed that this training journey is not only feasible, it’s an atypical pathway that many workers probably wouldn’t have identified.

“This requires you to look at the paths not as a ladder or a steppingstone, but in a much more dynamic fashion,” says Walmart’s Goldfinger. “These are the skills someone has, these are what they don’t have, and this is the percentage of skills they need to get to this other place. That creates potential for more tailored interventions.”

The data also presented viable cross-functional moves for Unilever’s people. “That’s been an exceptionally powerful insight—you need the AI to show you what’s possible,” says Hull. For example, the data showed a 63% skills match between the roles of inventory replenishment manager and e-commerce manager, a transition that would be possible with some focused learning interventions and work experiences. “This opened our eyes to work with our people to help them consider different opportunities in line with their passions and strengths that they may have considered out of reach previously,” he says.
3. **Do viable pathways exist for people to move between organizations?**

The skill mapping also showed that there’s likely a smooth transition from manufacturing roles to a job in green energy, such as installing solar panels. It doesn’t seem intuitive at first, but on a basic level the analysis showed that the skills and attributes are similar. Installers don’t sit at a desk, they’re on the move, they’re paying attention to details and safety. Plus, it’s a transition that many governments would likely support since renewable energy is a growing sector.

**Unlocking hidden skills: machine operator to solar installer**

<table>
<thead>
<tr>
<th>Current role</th>
<th>Future role</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Machine Operator</strong></td>
<td><strong>Solar Installer</strong></td>
</tr>
<tr>
<td>Trend: declining role</td>
<td>Trend: emerging role</td>
</tr>
<tr>
<td>Automation potential: 71%</td>
<td>Automation potential: 12%</td>
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</tbody>
</table>

Transferrable skills
- Time management
- Verbal Communication
- Equipment Maintenance
- Documentation
- Safety
- Adaptability
- Commitment
- Responsibility
- Teamwork
- Communication
- Cleaning

**Identify the skills to train...**
- Electrical Code
- Specifications
- Solar PV & Equipment

...and put a plan in place to cost effectively train people in just a few months.
- Construction
- Safety
- Workplace Safety
- Planning

**Required skills**
- Construction safety
- Electrical code specifications
- Solar PV
- Solar equipment installation
- Workplace safety planning
- Time management
- Verbal Communication
- Equipment Maintenance
- Documentation
- Safety
- Adaptability
- Commitment
- Responsibility
- Teamwork
- Communication
- Cleaning


Pathways were also identified between roles at Walmart and Unilever in certain geographies. The team was able to lay out detailed training plans to prepare people for transitions between seemingly incompatible jobs, showing definitively that people can move between organizations, within and across industries based on their skills, not their past roles.

The future of work can be boundaryless if businesses across industries work together to fill high-demand roles and keep people in their communities employed. “Once you could see the data behind what would be involved and how to do the upskilling, peoples’ mindsets started changing,” says Hull.
Where the data meets determination

While the pilot proved the importance of data in preparing people for the future of work, there’s still the human element to consider: Employers need to understand what people actually want to do, what is their purpose and passion, and then support them to embark on unexpected pathways. That’s the art of upskilling efforts that can’t be overlooked, no matter how strong the science is in presenting new possibilities.

That’s why both Walmart and Unilever are aware that proving out the three hypotheses is only the beginning—there are much broader implications and considerations ahead, beyond the pilot program.

For starters, the skill data must be collected on the individual level, not just the role level. Two IT managers might perform the same functions, but one might have a greater interest in product management, or more relevant skills. That means multiple pathways into emerging roles will have to be mapped out—and on an ongoing basis as roles decline and evolve.

Revealing unexpected job paths across industries

In addition, employers will need to believe these types of transitions are possible. Hull notes that while there’s a strong correlation between skills required for the roles in inventory replenishment and e-commerce, there is still a job to be done to prove this is possible. Leaders across the company would need to be informed and educated about overlapping skills, as well as people’s ability to close achievable skill gaps.

“The journey of upskilling is not always intuitive for workers or for companies,” Goldfinger says. “It’s not just HR and recruiters who don’t believe the path is real. The workers looking to change jobs don’t believe the path is real.”
“Every individual conversation needs to be had,” says Leena Nair, Chief Human Resources Officer at Unilever. “That opens the aperture of possibilities for people. They have more chance of seeing something that's in line with their passions, rather than just, ‘You're in manufacturing, so here's this set of roles you can do.’ We've been working for a number of years on how we transition people into other jobs, but with pilots like this, we're learning how we can do it even better.”

**Five learnings for the path forward**

By approaching the idea of skill transferability in a new way, Accenture and SkyHive were able to provide both Unilever and Walmart with a deeper understanding of the power and capability they have to address the skillling challenges of the present and future—within and beyond their organizations.

“The Future of Work is no longer on the horizon; it has arrived,” says Sean Hinton, founder and CEO of SkyHive. “This collaboration is historic as it exemplifies the unique actions companies need to be taking to future-proof their workforces, by putting people first.”

In proving out the three initial hypotheses, the team concluded the pilot program with five key learnings that must be kept top of mind if their new approach to preparing people for the future of work is to take hold.

1. **Skilling is just smart business**
   Organizations can have an outsized impact on the communities they serve. Skilling people for new roles, even externally says Unilever’s Hull, is one of the smartest things a business can do. “No longer will we look at someone in manufacturing as only able to fulfill a manufacturing job. Now we can look at how to match their purpose, passions and skills with roles in a variety of sectors, from healthcare to R&D to clean energy,” he notes.

2. **The HR function must enable individual talent mobility**
   Data- and AI-driven insights empower people to make personal choices about their careers based on strengths, interests and other individual criteria. The HR function can support that decision-making process by providing career path options and learning opportunities.

3. **AI is essential for eliminating bias**
   AI opens possibilities that people can’t see due to inherent biases. In particular, there is widespread evidence that women and people of color underrepresent their skills. As responsible AI evolves and takes hold, it’s likely to help people shed more biases, create more equitable processes and allow for the creation of more job pathways.
4. **A culture change is required**
Management needs a mindset shift to foster a culture that recognizes the relationship between expanding career opportunities for people and creating growth opportunities for the business. “You have to structure yourself as a company and as an enterprise to think about upskilling as a competitive advantage or as a business imperative,” says Walmart’s Goldfinger, “versus upskilling as, after everything else we have to do, doing it later when you have time to get to it.”

5. **Cross-industry collaboration is an accelerator**
As more pathways are explored, more ways of thinking about mapping skills and talent mobility will emerge, each more dynamic than the previous iteration. As the discussions around the issue improve, more workers will pursue these new career paths. But only so much can be accomplished if companies go it alone, rather than collaborating with other organizations to prepare people in their communities for the future of work. “Only jobs should be made redundant,” says Hull. “Not people.”

Goldfinger and Hull believe that they’ve set an example that other organizations can emulate and, ultimately, put into action. They envision a future in which this new data- and AI-driven approach to upskilling is widely embraced, and where more organizations can begin developing learning pathways for their people—and provide a sustainable, fluid, ever-evolving network of opportunity. Collaborations and alliances within and between organizations could—and should—emerge, and quickly make talent development and mobility key drivers of strategy and growth.

The Forum will continue to champion and facilitate acceleration of innovative intra- and inter-industry efforts to prepare a future-ready workforce.

“By coming together to work collaboratively on this challenge, reskilling costs and times could be reduced by 30%, thereby accelerating a positive transition to a stronger industry workforce.”

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About the Pilot Participants

The World Economic Forum's [Platform for Shaping the Future of the New Economy and Society](https://www.weforum.org/en/initiatives/shaping-the-future-of-the-new-economy-and-society) is committed to building prosperous, inclusive and equitable economies and societies that create opportunities for all. The Platform leads the Preparing for the Future of Work initiative, which aims to create large-scale industry-level and cross-industry collaborative action to shape a positive and human-centric new world of work through a network of Industry Task Forces.

The [Consumer Industries Task Force on Future of Work](https://www.weforum.org/en/initiatives/consumer-industries-task-force) was the first to develop a framework for workforce transformation with companies, experts and other stakeholders in the consumer industries, and successfully complete a collaborative pilot to accelerate the reskilling revolution towards the digital future of work. Workforce transformation is integral to advancing responsible models of consumption and the Forum is ready to scale efforts to drive equitable workforce transformation within Consumer Industries and beyond.

Unilever is one of the world’s leading suppliers of Beauty & Personal Care, Home Care, and Foods & Refreshment products with sales in over 190 countries and reaching 2.5 billion consumers a day. It has 149,000 employees and generated sales of €50.7 billion in 2020. Over half of the company’s footprint is in developing and emerging markets. Unilever has around 400 brands found in homes all over the world, including Dove, Knorr, Dirt Is Good, Rexona, Hellmann’s, Lipton, Wall’s, Lux, Magnum, Axe, Sunsilk and Surf. For more information about Unilever and its brands, please visit [www.unilever.com](http://www.unilever.com).

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About the Pilot Participants

At SkyHive, our purpose is to democratize labor opportunities around the world so that we can all benefit from a more capable workforce and a more efficient global economy. We’ve built the world’s only Quantum Labor Analytics platform to optimize human economies in real time for companies, communities, and countries. Essential to global economic empowerment, SkyHive allows people to future-proof themselves and their workforce faster than ever before. By marrying economic theory with workforce modeling and human analytics, we illuminate the reskilling journey and provide customers with a capable and future-proof workforce that closes the skills gap with speed and efficiency unleashing human potential for individuals, organizations, and governments. Learn more: www.skyhive.io.

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