



THE FUTURE OF TALENT

Use Upskilling and Reskilling to Optimize Talent, Meet Business Goals, and Reduce Talent Costs



Censia
Talent Intelligence Platform™

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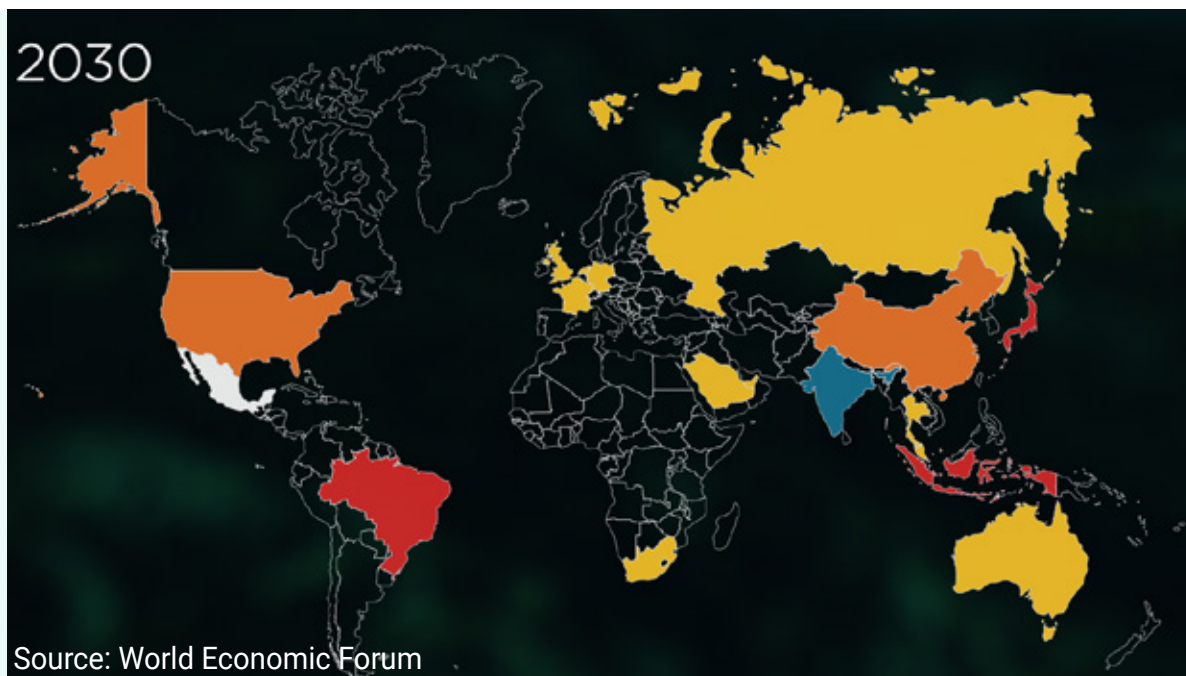
The Looming Talent Shortage

As industries become increasingly digital, knowledge gaps are surfacing in workforces around the globe. The World Economic Forum estimates that these shortages will cost companies \$8.5 trillion in unrealized annual revenues by 2030, and that 54% of the global workforce will require significant reskilling 2022 to avert this economic crisis.¹

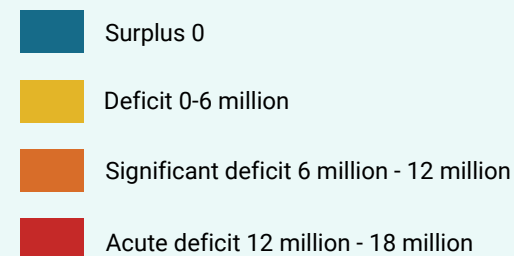
According to Deloitte's latest research² 74% of organizations recognize they have a readiness gap and 60% of them admit that they don't have enough data and information to address it. Less than 20% believe in their organization's ability to correctly anticipate the skills their employees will need by 2023, leaving them in a position of reactive workforce planning.

To move into more proactive workforce planning, companies need to understand the skills of the future, the extent to which their employees need to master them, and how best to go about training them.

This report will address those topics and share why companies are turning to artificial intelligence and machine learning to reveal which employees are best suited for upskilling, reskilling, and promotions, how they can harness a greater return on their talent investments, and how they can increase diversity along the way.



Global Talent Shortages and Surpluses by 2030



The Future of Work: People + Technology

Companies are rapidly increasing their artificial intelligence (AI) technology investments to retain a competitive edge but are missing a key element. A 2018 report from Deloitte revealed that technology implementations rarely fail because the technology did not work. They fail because people are not willing or find it too difficult to use.

Another critical factor is that technology will not eliminate the number of jobs available but will alter them. The World Economic Forum estimates that 85 million jobs will be displaced by a shift in the division of labor between humans and machines by 2025, but that 97 million new roles will emerge that are adapted to replace them.

The key then, is not only to train or hire technology specialists, but rather to ensure that all employees understand how to use the technology, its implications in their line of work, and how to communicate with technical talent.

As you'll see in this report, it is a combination of soft skills and technical skills that comprise the workforce of the future.

"I am convinced that nothing we do is more important than hiring and developing people. At the end of the day, you bet on people, not on strategies."

Lawrence Bossidy, GE



The Business Case for Upskilling

The executive's role has transformed dramatically in the past two decades, shifting from a myopic focus on market pressures and quarterly earnings targets to include the impacts their companies, strategies, and activities will have on the environment, local communities, and their employees. Automation, primarily in the form of robotics and AI, promises improved productivity and higher profits but also the potential to disrupt communities and widen the wealth gap. As such, companies have a vested interest in upskilling their workforce to maintain economic and political stability.

The reason so many companies have implemented upskilling initiatives is both to address these concerns and to reap the positive ROI associated with upskilling one's workforce.

The World Economic Forum estimates that the cost to upskill displaced employees is \$24,000 per head. While this may seem expensive at first look, internal "hires" deliver exceptional cost savings. They reach productivity four times faster, stay more productive for two years, and cost 18% less than external hires.

Additionally, employees with development opportunities are 30% more engaged and companies with highly trained employees reap 21% greater profits. Set against the alternatives of paying severance and filling positions from a competitive candidate pool, reskilling quickly becomes the more attractive option.

Upskilling By the Numbers

4x Faster Role Productivity

2 Years of Greater Productivity

18% Less Cost



The Benefits of Workforce Upskilling



Productivity Gains

54% of organizations that invest in learning technology see almost immediate improvements in both employee engagement and productivity.⁵



Reduced Turnover

A staggering 94% of employees say they would stay at a company longer if their employer was invested in their career advancement.⁶



Attracting Talent

Younger employees are particularly likely to embrace retraining and upskilling opportunities. When it comes to Generation X, 91% list on-the-job professional training potential as a top deciding factor when selecting an employer.⁷



Optimizing Employee Skills

80% of your existing workforce have no plans to leave. These employees require nurturing, and recognizing their potential for upskilling can boost their value to the company as well as their morale and loyalty.⁸



Reduced Talent Costs

Employees hired from within to fill open roles cost 18% less than outside hires, and are more productive for the first two years (after which they are on par with outside hires).⁹



Economic Success

Organizations with strong upskilling initiatives and who have embraced new technologies have higher workforce productivity and innovation.¹⁰

Understanding the Skills of the Future

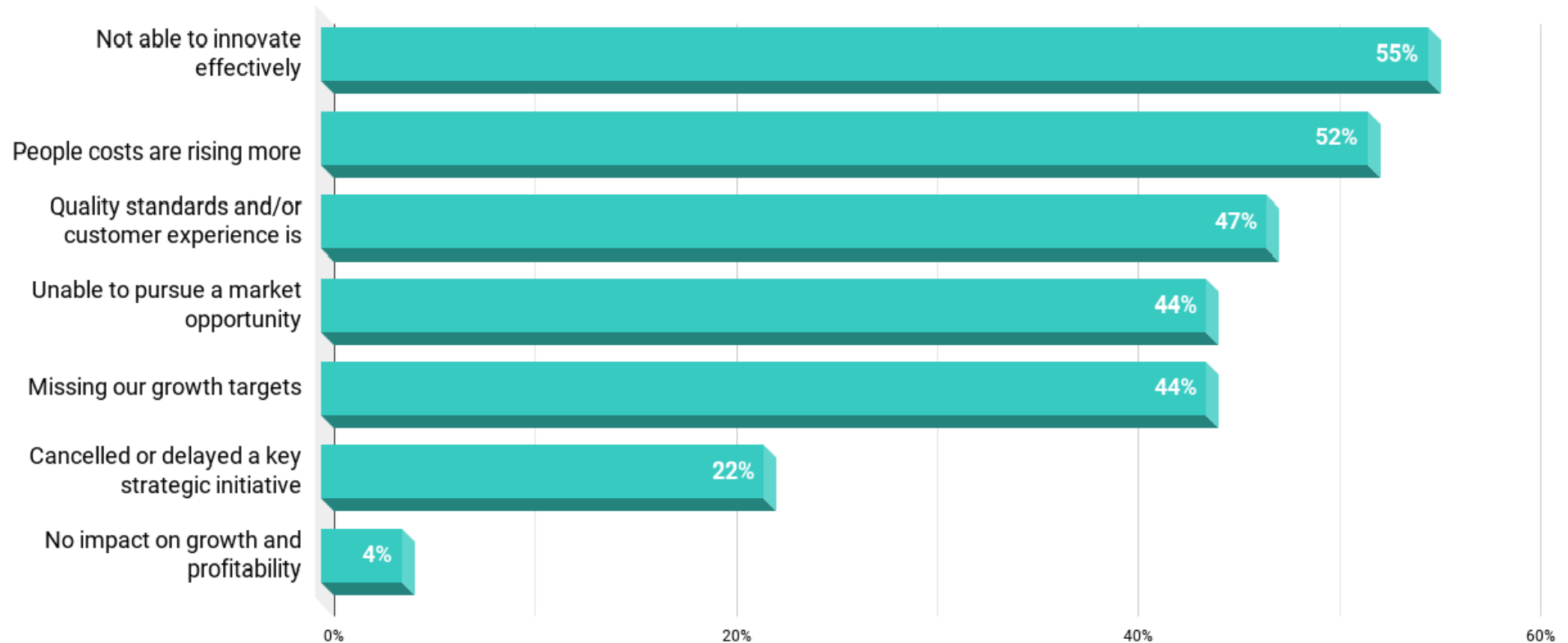
The two greatest drivers of digital transformation are job automation and the implementation of AI. While often perceived as costing jobs, the World Economic Forum's Future of Jobs Report found that the new division of labor between humans and machines will create more jobs than it will destroy.¹¹



The Impact of Skills Shortages on Growth

According to PwC's 22nd Annual Global CEO Survey,¹³ four out of five CEOs identified their employees' lack of essential skills as a threat to growth. The concern over the availability of skills had grown from 56% in 2011 to 79% in 2019. Furthermore, PwC's research showed that three in 10 CEO's did not feel their talent data was adequate to make data-driven decisions about their talent.¹⁴

CEO Concerns: Availability of Key Skills Impact on Growth¹⁵



Top Skills for 2025

But what are the skills of the future? According to the World Economic Forum, the top 15 skills of 2025 include personal skills and technological skills, and most importantly, the ability to bridge the two in order to effectively operate in the modern workplace.¹⁶

Personal & Interpersonal Skills

- Analytical Thinking and Innovation
- Active Learning and Learning Strategies
- Complex Problem Solving
- Critical Thinking and Analysis
- Creativity, Originality and Initiative
- Leadership and Social Influence
- Resilience, Stress Tolerance and Flexibility
- Reasoning, Problems Solving and Ideation
- Emotional Intelligence
- Service Orientation
- Persuasion and Negotiation

Technical Skills

- Technology Use
- Technology Monitoring
- Technology Control
- Technology Design
- Programming
- Troubleshooting
- User eExperience
- Systems Analysis
- Systems Evaluation

Fill Critical Roles with Adjacent Skills

According to a report by the Institute For The Future,¹⁷ 85 % of the jobs that will exist in 2030 haven't been invented yet. And while we may not know with any certainty which roles will define the future of work, we do know that skills are either emerging, changing or expiring. These three trends have put immense pressure on companies to fill competitive roles while simultaneously upskilling their workforce.

Companies can tackle this shortage by upskilling employees with adjacent skillsets. By focusing on what skills are required in the workplace rather than what roles are required, HR leaders can quickly identify where skills and abilities overlap and choose which employees to upskill or reskill.

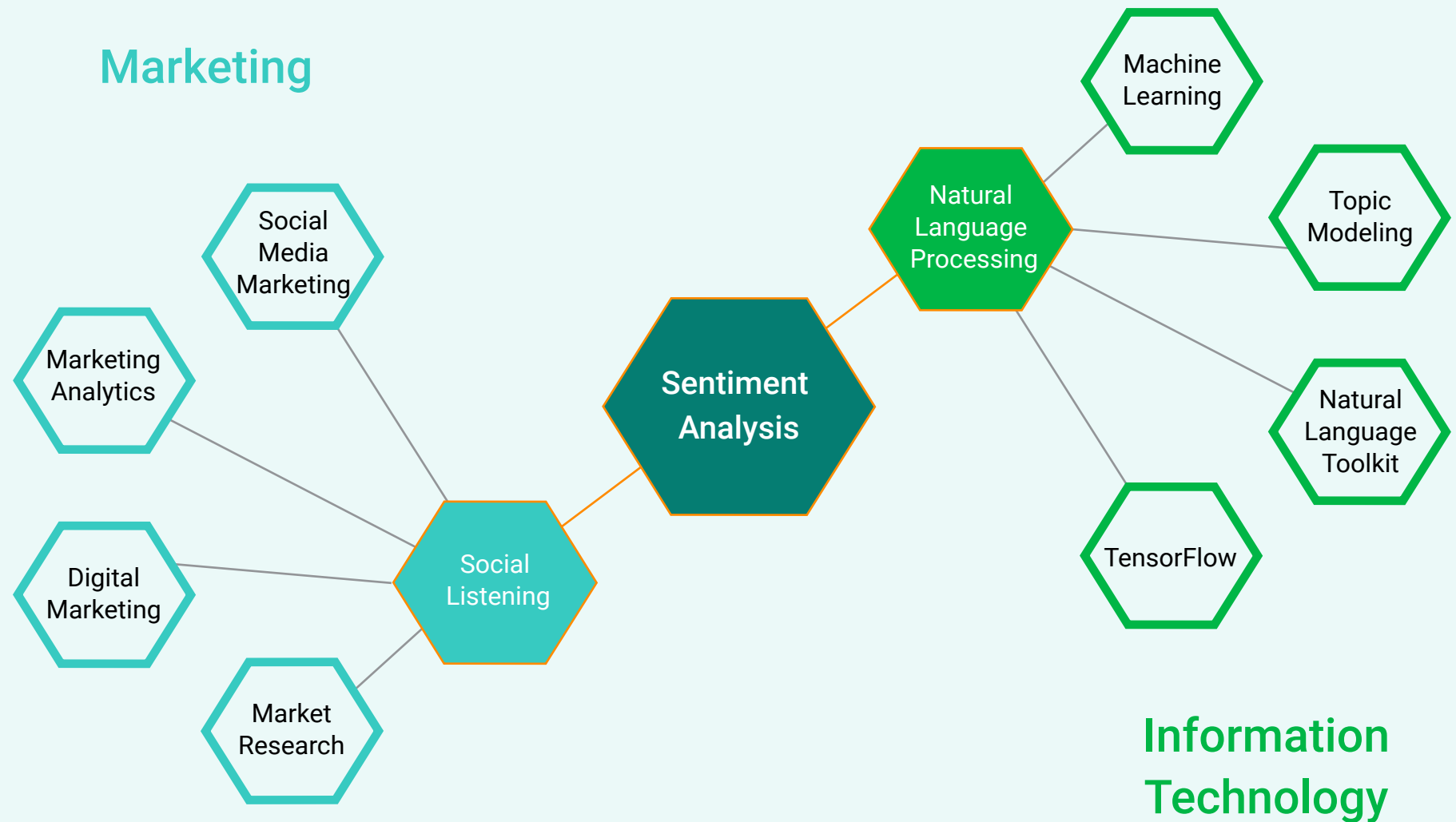
Additionally, companies can accelerate cross-function mobility by identifying stepping-stone skills, which can bridge skills in different domains. In the following example, a marketing employee with social listening skills would be more likely to be familiar with sentiment analysis, enabling them to upskill more easily.



“When you create a viable path for on-the-job training, you can unlock the passion and potential of non-traditional candidates.”

Devin Lipawsky, VP Technology at Capital One

Stepping Stone Skills: Information Technology and Marketing



Using AI and Machine Learning for Data-Driven Upskilling

One of the biggest challenges in upskilling is that few companies have a good grasp of their employees' skills and capabilities, let alone how these skills correlate. This is where talent intelligence, created by AI and machine learning (ML), can provide a boon to companies looking to modernize their workforce.

AI and ML simultaneously analyze titles, skills, trajectories and other key factors in relationship to one another, revealing patterns the human mind cannot discover. It also maps these skills over time to reveal where upskilling can have the most impact and correlates all of this to company information (such as size, key events, funding tiers, and more) to match the type of skills employees need depending on what challenges the company is facing.

Additionally, talent intelligence platforms gather publicly available information on individuals and companies from thousands of sources, providing powerful, in-depth insight into current and potential employees beyond what most companies have available to them.

"Companies are increasingly pursuing data-driven talent decisions, whether it's to anticipate and remediate skills gaps, eliminate bias in hiring or performance and rewards decisions, or leverage business scenario planning to ultimately determine the workforce mix."

Bhushan Sethi, Joint Global Leader, People and Organisation, PwC US



5 Ways to Modernize your Workforce

46% of CEOs interviewed in the 22nd Annual PWC Global CEO survey shared that their key method for closing the skills gap will be through retraining and upskilling.

As upskilling becomes more prevalent, companies need to decide which upskilling approach is most efficient and cost-effective for their business needs. Here are some examples of how companies deployed different upskilling methods to meet their business needs.

Upskilling

Upskilling primarily targets those who are thriving in stable fields and teaches them new skills to remain relevant or advance in their existing company or industry.

Companies such as Google, IBM, Cisco, BCG, and PwC use the Coursera learning platform to develop courses and certificates that teach everything from blockchain to leadership.

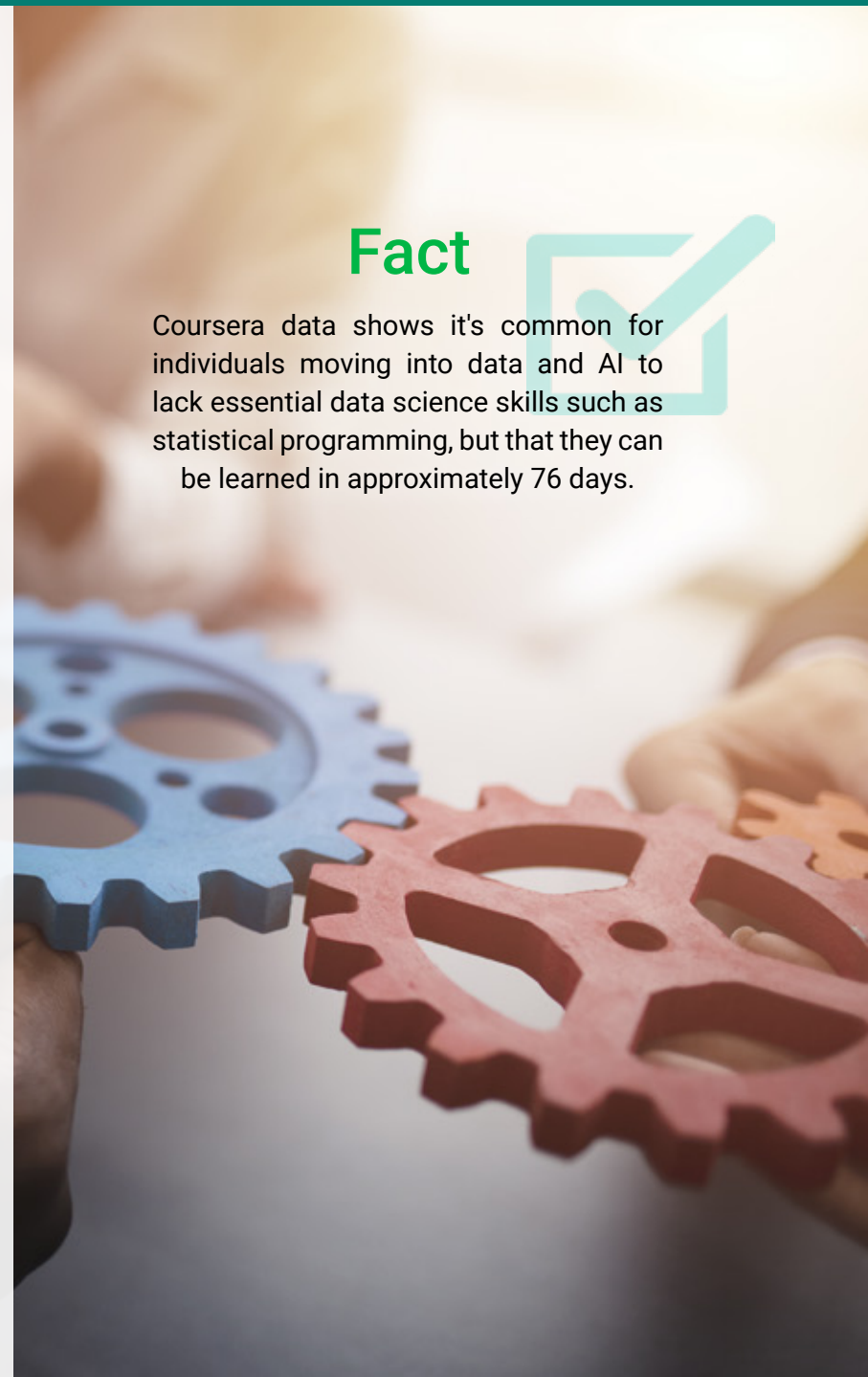
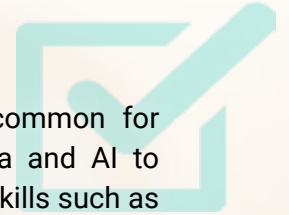
Reskilling

Reskilling programs allow workers to move into a new type of work. Historically companies used these programs in severance packages. Nowadays, they are a popular and cost-effective alternative to costly lay-offs and hiring initiatives.

After discovering that half of its 250,000 employees had the STEM skills needed to stay relevant, AT&T invested in a multi-year initiative that featured a career center and online courses hosted on learning platforms such as Coursera and Udacity.

Fact

Coursera data shows it's common for individuals moving into data and AI to lack essential data science skills such as statistical programming, but that they can be learned in approximately 76 days.



On-Ramping

The modern version of an apprenticeship, on-ramping programs provide short-term programs that create a direct pipeline for employers.

Software company Techtonic created an outsourced apprenticeship program in which candidates go through 12 weeks of training and work on client projects before deciding whether or not to hire them permanently.

Education Benefits

Generally more self-directed than upskilling or reskilling initiatives, education benefits allow workers to obtain degrees or new opportunities of their choice while also providing the employer tax incentives.

Besides providing a more skilled workforce, education benefits also offer significant tax incentives to companies like Starbucks, which has a robust partnership with Arizona State University.

Outskilling

Outskilling programs provide education as a severance benefit for laid-off employees, and it works best when workers are retrained before leaving their old job.

Outskilling provides job training as part of a severance package, allowing employees to learn new job skills before leaving their current jobs. In a 2011 initiative, 60% of Nokia employees could find new opportunities before being laid off.



Upskilling in Action

AT&T upskills 100,000 Workers with Vanishing Jobs

When AT&T discovered that nearly half of its 250,000 employees lacked the critical skills necessary to keep the company competitive, they created Future Ready. The \$1 billion initiative provides multi-year, web-based solutions that include online courses with Coursera, Udacity, and leading universities, and a career center where employees can identify and train for jobs the company needs in the future. Additionally, an online portal called Career Intelligence shows workers available jobs, plus the skills required, potential salary range, and projected job growth or shrinkage in the coming years.

JPMorgan Chase Combines Upskilling with Internal Mobility

JP Morgan Chase CEO Jamie Dimon took a bold stance on upskilling in a 2016 New York Times op-ed. In it, he declared that issues like wage stagnation, income inequality, a lack of quality education, and insufficient training and skills development led 2/3 of US workers to believe their generation will be worse off than the one before. Since then, the company raised minimum wages and invested in a \$200 million upskilling program to increase internal mobility and create a pipeline of qualified regional directors.

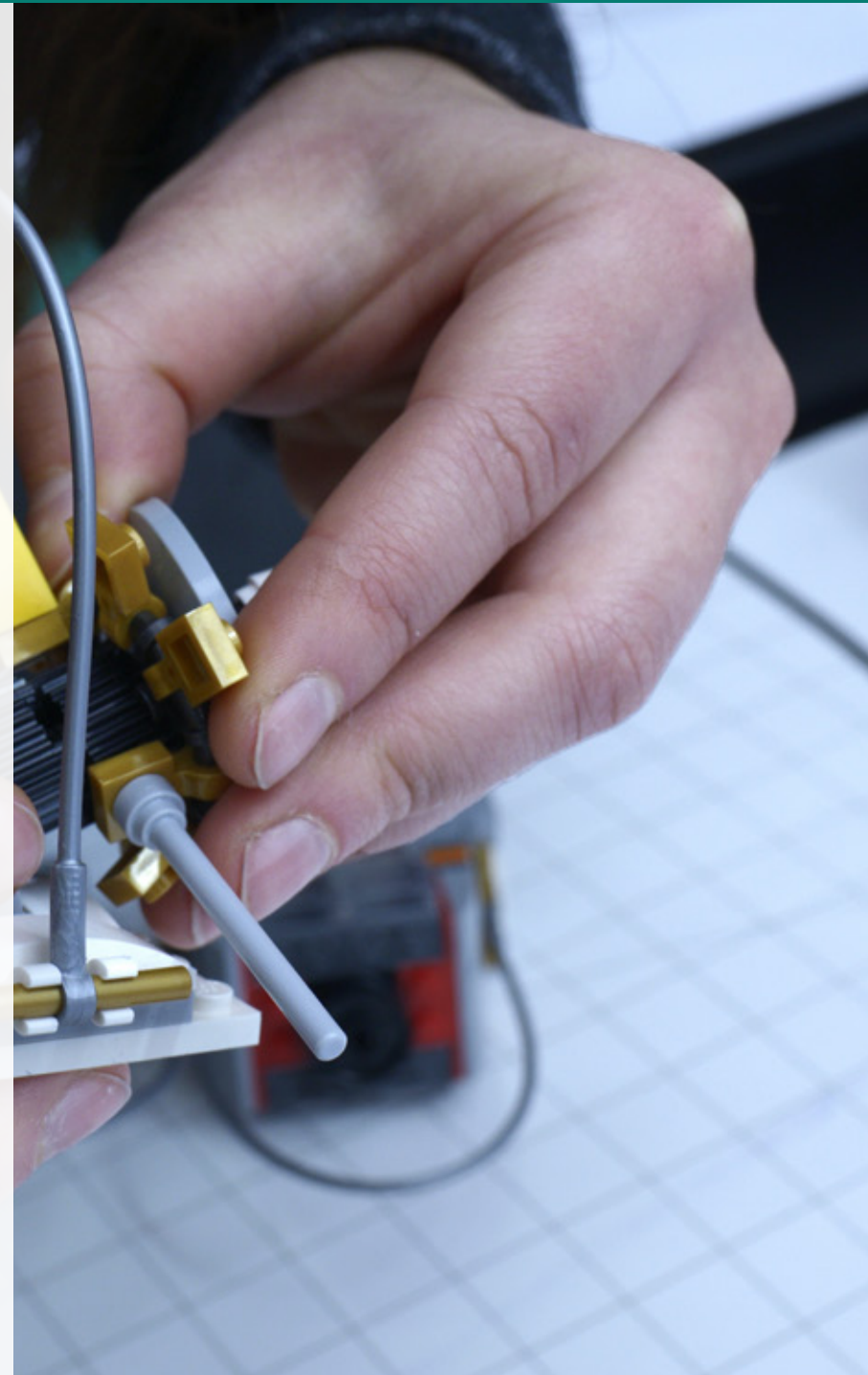


Disney Reskills Female Employees in Technology Jobs

When Disney decided to create greater diversity and a larger skills volume in tech, they started a program that gives women employees in non-technical roles an opportunity to switch careers. After three months of training—in everything from basic computer science concepts to programming languages such as Python—the employees segue into two six-month apprenticeships in different teams within the company, and then take a job within one of Disney's technical groups.

Cigna Reaps Positive ROI through Education Reimbursement

For every dollar Cigna invested in its Education Reimbursement Program (ERP), it got back \$1 and avoided an additional \$1.29 in talent management costs. The participants in the voluntary program were primarily Gen-X females. After completing the program, they were 10% more likely to be promoted, 7.5% more likely to receive a transfer, and 8% more likely to be retained, bringing Cigna additional savings through internal mobility.



Techtonic uses Apprenticeship Program to Create Candidate Pipelines

Software solutions company Techtonic developed an innovative way to close the talent gap in 2012: it created a fully accredited apprenticeship program registered with the US Department of Labor. Testing and product management teams work in agile work environments to develop product-driven software solutions, offering clients an innovative way to source, educate, and hire top-tier software designers.

Microsoft creates AI Credentials with General Assembly

In order to close skills gaps in the rapidly growing fields of artificial intelligence (AI), cloud and data engineering, machine learning, and data science, Microp teamed up with education provider General Assembly to upskill and reskill 15,000 workers (roughly 10% of its global workforce) by 2022.



Digital Skills for Future

Online e-Learning

Guardian Life Builds on Core Competencies to Modernize

When Guardian Life CEO Deanna Mulligan took office in 2011, she realized that a combination of low interest rates and technological changes were major disruptors in her industry. To anticipate the shifts in their marketplace, she started a program that taught call center employees to write code, actuaries to become data analysts and created a “train in, train out” program that provided two years tuition at a local community laid-off workers.

Capital One Develops Programmer Pipelines

The Capital One Developer Academy puts recent college graduates without computer science (CS) backgrounds through an intensive six-month experience to develop their software engineering skills. The program combines classroom training and on-the-job learning, and most importantly, delivers a pipeline of vetted and trained employees into open roles.

“Technology was now a top priority for us. It was time to move into a new era and better serve modern-day customers...We needed to move fast, but we didn’t want to leave any willing and engaged employees behind.”

Deanna Mulligan, former CEO at Guardian Life

Endnotes

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