The Reskilling Imperative

Mekala Krishnan, Senior Fellow, McKinsey Global Institute
Feb 22, 2019
Automation can partially replace 50% of U.S. jobs today using existing technologies.

Digitization is projected to create 20-50 million jobs globally.

25% of CEOs’ time is currently spent on activities that machines could do.

85% of baby boomers expect to work past traditional retirement age.

By 2020, the gig economy will represent over 40% of the workforce.

As the first digitally native generation, millennials bring new skills, attitudes and expectations.

The nature of work is changing... quickly.
Organizations are undergoing unprecedented shifts

- **Disruption by new business models**
  Traditional value chains being upended by “any-to-any” ecosystem players

- **Disruption by automation**
  Robotic process automation; smart work-flows; machine learning; natural language processing; and cognitive agents

- **Digital transformations**
  Customer, employee experiences and company processes moving to digital channels

- **Reorganized for agility**
  Cross-functional teams empowered with decision authority while leaders encourage and enable

- **Continuous transformation**
  Major transformation shifting from once-in-a-career to the new normal
These shifts will have a direct impact on skills required in the workforce – we have identified 5 key categories.

We mapped workforce activities to skills across…

- ~2,000 activities
- ~800 occupations
- 25 skills

We verified the quantitative results with qualitative analysis across…

- 14 sectors
- >3,000 business leaders
- 7 countries

Workforce skills categories identified (with 25 skills across them)

- Physical and manual skills
- Basic cognitive skills
- Higher cognitive skills
- Social and emotional skills
- Technological skills
By 2030 there will be a shift from physical and basic skills to higher and social and emotional skills...

<table>
<thead>
<tr>
<th>Skill category</th>
<th>Banking and insurance</th>
<th>Energy and mining</th>
<th>Healthcare</th>
<th>Manufacturing</th>
<th>Retail</th>
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<tbody>
<tr>
<td>Physical and manual skills</td>
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<tr>
<td>Basic cognitive skills</td>
<td>-14%</td>
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<tr>
<td>Higher cognitive skills</td>
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<tr>
<td>Social and emotional skills</td>
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<td>Technological skills</td>
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**Percent change in time spent using skill**

- **Basic cognitive skills**: -15%
- **Higher cognitive skills**: +8%
- **Social and emotional skills**: +24%
- **Technological skills**: +55%
...and many occupations will see growing demand while other occupations will shrink

### Net impact of automation and seven catalysts of labor demand, 2016–30

Percent change (+/-), step-up labor demand, midpoint automation

<table>
<thead>
<tr>
<th>Occupation groups</th>
<th>United States</th>
<th>Western Europe</th>
<th>China</th>
<th>India</th>
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<tbody>
<tr>
<td>Care providers</td>
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<td>Educators</td>
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<tr>
<td>Managers and executives</td>
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<tr>
<td>Professionals</td>
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<tr>
<td>Technology professionals</td>
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<tr>
<td>Builders</td>
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<tr>
<td>Creatives</td>
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<tr>
<td>Customer interaction</td>
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<tr>
<td>Office support</td>
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<tr>
<td>Manual, predictable jobs</td>
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<td>Manual, unpredictable jobs</td>
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</table>

*% change in FTEs*

-35 or less
-25 to -34
-15 to -24
-5 to -14
Within ±5
5 to 24
25 to 49
50 to 99
100 or more

Up to **56M** (40%) Americans may need to switch occupational groups by 2030, and up to **60M** Western Europeans (34%)
Companies have 5 levers to address skills gaps

- **Reskill**: Build upon existing workforce through reskilling
- **Redeploy**: Shift individual workers to new roles
- **Hire**: Acquire new talent through hiring and acquisition
- **Contract**: Engage freelancers and temporary contractors
- **Release**: Release individuals, or hire them out as temporary workers
A survey of 1,500 executives found that most feel unprepared for this skills shift, and see reskilling as a large part of the solution.

1,500 global senior executives say...

- Their companies **ARE NOT adequately prepared** to address skills gap: 87%
- Reskilling is at least **HALF of the solution** to the skills gap: 75%
Companies are already using re-skilling as a value unlock

1/3 of workforce of a major business unit to reskill

Individual learning journeys of 6-8 months + regular workforce planning

Cycles of full-time training followed by on-the-job practice

Driving performance impact of portfolio transformation – significant cost savings and 90% contribution growth

Half of workforce to retrain and redeploy (120k)

Partnerships with universities and educators to create range of online training options

Employees map their own career path and get the required credentials

Reduced its product-development cycle time by 40% and accelerated time to revenue by 32% (2016)
At scale reskilling programs share key characteristics

1. **Organizations’ leaders must believe in reskilling’s value**, and visibly support it (especially CEO), otherwise will create barriers to execution. Alignment on desired roles and responsibilities of reskilled employees is critical.

2. **Reskilling takes time** (10 months to several years for a significantly new role), so starting early will create a competitive advantage.

3. **Employee ownership of their own reskilling journeys is critical** – transparency into future demand so employees can make decisions about what skills to acquire improves ownership. Seek early feedback from learners to identify and mitigate potential roadblocks to successful reskilling.

4. Skill adjacencies are important, but success in reskilling is also about **learning attributes and behaviors**.

5. **Management of a reskilling program is complex** – and requires disciplined infrastructure and continuous measurement / performance management and evolution.

6. **Retaining and properly engaging reskilled employees** are the keys to unlocking value from investment.
Employers, as part of a broader ecosystem, can help drive change.
“It is not the strongest of the species that survives, nor the most intelligent, but the one that is most adaptable to change.”

– Charles Darwin
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Appendix
Reskilling is supporting employees to learn new skills to do a *different* job or acquiring skills to *significantly adapt* to the changing nature of their current job.

- The threshold for reskilling is needing to acquire +30% of the skills required to take on a new/changed role.
- When degree of difference is smaller then we would classify it as ‘upskilling’.
- Reskilling and upskilling interventions are often used in conjunction depending on the nature of the skills gap.
75% of global senior executives say reskilling is at least half of the solution to the skills gap

<table>
<thead>
<tr>
<th>Company example</th>
<th>Combination of levers</th>
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<tbody>
<tr>
<td></td>
<td>Reskill</td>
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<tr>
<td><strong>Core disruptor</strong></td>
<td><img src="image" alt="Core disruptor" /></td>
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<tr>
<td>New technology transforms pro-duct portfolio and business model in a strongly growing market</td>
<td><img src="image" alt="Core disruptor" /></td>
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<tr>
<td><strong>Efficiency enhancer</strong></td>
<td><img src="image" alt="Efficiency enhancer" /></td>
</tr>
<tr>
<td>Automation allows for large-scale labor substitution in a slow market</td>
<td><img src="image" alt="Efficiency enhancer" /></td>
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<tr>
<td><strong>Human-machine collaborator</strong></td>
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</tr>
<tr>
<td>Automation complements labor and raises quality in a moderately rowing market</td>
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