



Education 4.0

Conceptualizing Higher Education for the Future of Work

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The World we are in Today

1. Substantial Economy & Workplace Transformation
2. Technological Disruption

Substantial Economy & Workplace Transformation

Standardization & Predictability is overwritten by:



Pandemic

- Global economic downturn
- Industries tighten investment
- Rapidly changing pattern of life and way of working



Globalization

- Interconnected markets
- Ever-changing market environment
- Businesses undergo offshoring – job displacement



Shifting Demographics

- Aging Population & Shrinking workforce
- Gig Economy
- Shorter tenure

Technological Disruption

01 Rapid & radical change to businesses

- Industry 4.0, AI, Automation, Internet of things (IoT) etc. disrupts businesses and creates breakthroughs in an unimagined pace

02 Job Reallocation

- Displacing some tasks initially performed by humans into realm of work performed by machines
- Using machines to perform previously impossible tasks
- i.e. AI broadens the range of tasks that can be automated

03 Accelerating rate of skills obsolescence

- Changing nature of work from manpower-intensive to technology-centric
- Increasing demand for new job roles & skill sets

Job Landscape

*Top 10 Emerging

1. Data Analysis and Scientists
2. AI and Machine Learning Specialists
3. Big Data Specialists
4. Digital Marketing and Strategy Specialists
5. Process Automation Specialists
6. Business Development Professionals
7. Digital Transformation Specialists
8. Information Security Analysts
9. Software and Applications Developers
10. Internet of Things Specialists

Top 10 Declining

1. Data Entry Clerks
2. Administrative and Executive Secretaries
3. Account. Bookkeeping and Payroll Clerks.
4. Accountants and Auditors
5. Assembly and Factory Workers
6. Business Services and Administration Managers
7. Client Information and Customer Service Workers
8. General and Operations Managers
9. Mechanics and Machinery Repairers
10. Material-Recording and Stock-Keeping Clerks

According to Future Workforce Competency Survey

Top Weaknesses of Fresh Graduates at Work

Q10: In what ways are these university / college / school leavers not competent at work?



| Most Sought Competencies

Competencies the World is looking for



Higher Cognitive Skills

- Strategic Mindset
- Global View – Seeking relevant information
- Logical Reasoning and Creativity



Social & Emotional Skills

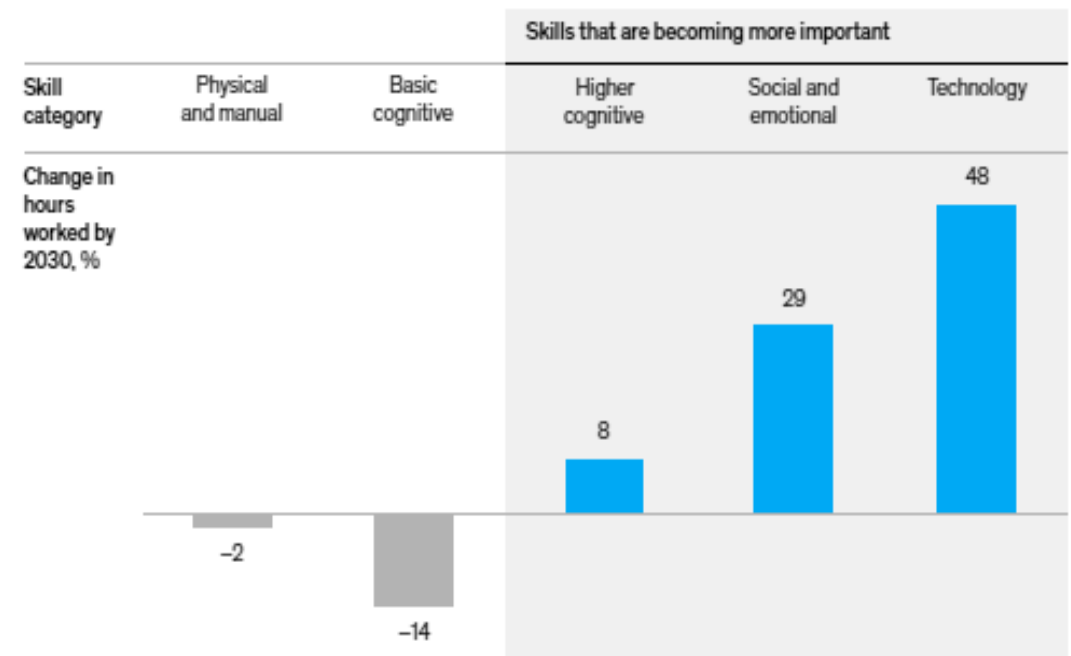
- Coping with Uncertainty
- Teamwork effectiveness
- Organizational awareness



Technological Skills

- Digital Competencies & Tech savviness
- Data analytics & Predictive modelling
- Understanding digital systems

By 2030, more jobs will require technological, social, and emotional skills.



Source: US Bureau of Labor Statistics; McKinsey Global Institute analysis

Employers' Expectation on Graduates

01



Add value beyond what can be done by automated systems and intelligent machines

02



Be able to operate in a digital environment

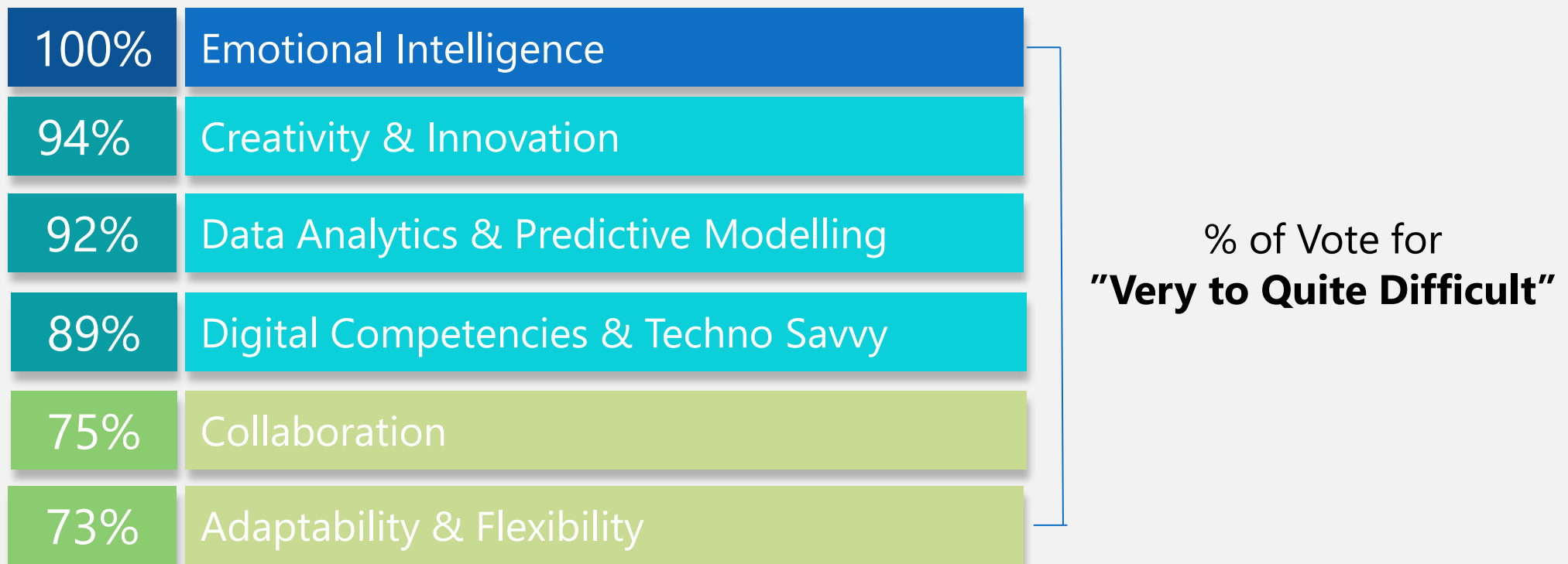
03



Continually adapt to new ways of working and new occupations

Employers consider it difficult to hire employees with highly-valued competencies

Q4: How easy or difficult is it to hire employees with the following competencies?



“

**Are education programs equipping
our students with appropriate skills
and competencies?**

”

Employers are expecting integrated vocational & academic education

To incorporate vocational elements in academic education:



Extra-curricular programs

- Offer additional training on highly-valued competencies



Dual Education

- Conduct Apprenticeship in parallel with formal academic education
- Provide on-the-job training to bridge the technical gap



Activity-based Learning

- Provide opportunities for students to gain hands-on experience on strategic team projects

How do employers evaluate students' competencies

How we evaluate In the past



Degree Subjects



Honor Classifications



Grade Point Average
(GPA)

How we evaluate Now



Micro-credentials



Career Skill-based
Certifications

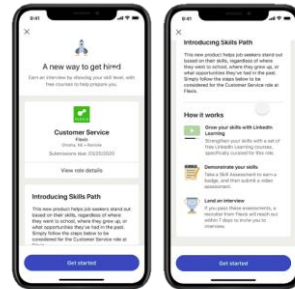


Other Job-related
Competencies

Recruitment Today: Competency-based recruitment

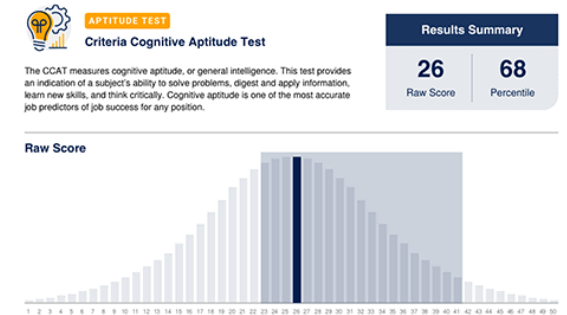
AI-powered Skill Matching

Evaluate core skills needed for job roles and skills possessed by candidates for job matching



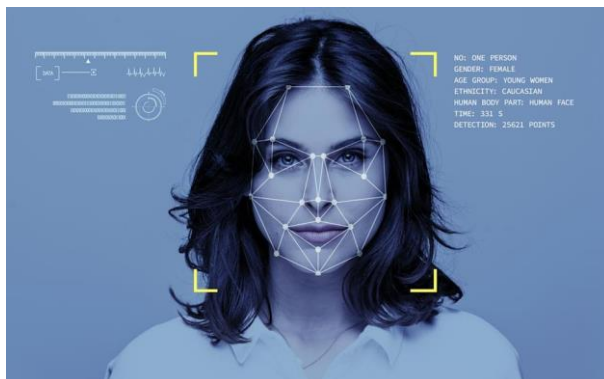
Psychometric Tests

Assess underlying capabilities of job applicants through personality tests and aptitude tests



Algorithm Analysis in Video Interviews

Analyze elements like body language, facial expression, tone of voice, word choices and language patterns to evaluate candidates



Job Auditions

Evaluate both the soft skills and hard skills of candidates through asking them to work on a work-related project



“

We now accept the fact that learning is a lifelong process of keeping abreast of change. And the most pressing task is to teach people how to learn.

”

– Peter Drucker



Thank You