

# THE FUTURE OF WORK DEPENDS ON THE FUTURE OF LEARNING

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***“ASSESSMENT IS THE ENGINE  
THAT DRIVES STUDENT  
LEARNING”***

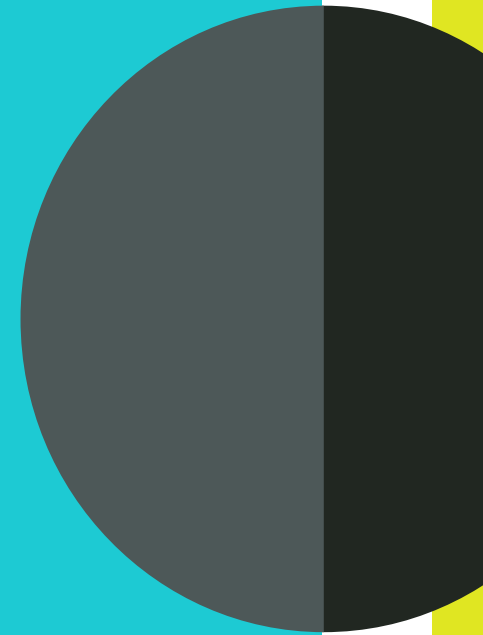
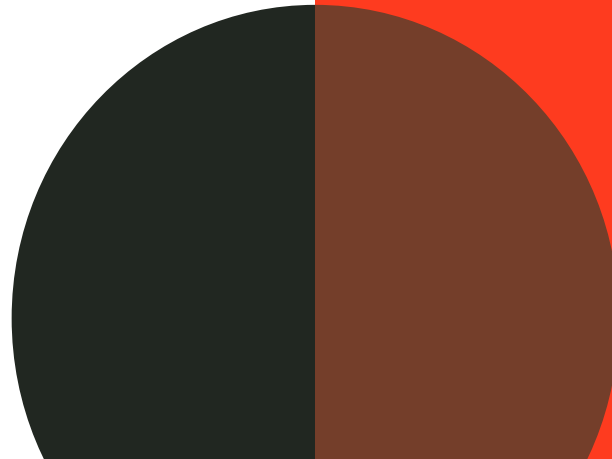
***- JOHN COWAN***



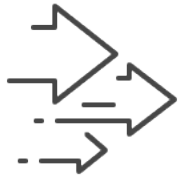
# ABOUT **JFF**

Our rapidly changing economy demands skilled and adaptable workers. But too many people lack the education and training employers require.

JFF is transforming our nation's workforce and education systems to accelerate economic advancement for all.



# JFF's Work Is **More Important Than Ever**



## **Preparing People for the Future of Work**

Automation, outsourcing,  
and new contract  
arrangements require  
everyone to begin thinking  
and acting differently.



## **Ensuring Equity in Economic Advancement**

Despite overall growth,  
economic opportunity through  
education and dignified work is  
limited for millions of  
Americans.



## **Meeting Employer Needs**

Employers continue to struggle  
to find employees with the right  
skills. For America to thrive in the  
global economy, businesses  
need a steady supply of  
highly qualified workers.

# **TODAY'S AGENDA**



**Is the Future  
of Work  
Real?**

**Future of  
Learning  
&  
Skills**

**Future of  
Assessment**

**Chart Your  
Future Work**



TODAY'S PRESENTATION APPROACH

# **FUTURE OF WORK SYNTHESIS**

*Future of Work Research Reports, Technical Papers, and Briefs*

*JFF Future of Learning Postsecondary Focus Group Research*

*Federal Reserve Bank of New York's Economic Research Unit*

*Leading National Adult Education Initiatives*

*National Panels and US Department of Education Technical Working Groups*

*Meta-Analysis of What Works for Adult Learners*

*Several Previous Years Working in the Non-profit Research and Assessment field*



# IS THE FUTURE OF **WORK** REAL?



**Dr. Michael Wooten, OCTAE  
COABE 2018 Keynote**  
Future of Work and the Role of Adult  
Education





# Marty, the Robot at Giant Food Stores

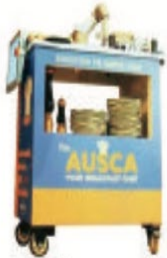


3 D Printed House  
Austin, TX  
48 hours/\$4,000

NEED TO KNOW BATTERIES NOT INCLUDED

## R2-D2 and WALL-E have competition

As more hotels use robots, here's how the hospitality industry's newest employees stack up



**Ausca**  
M Social  
Singapore



**Botlr**  
Aloft  
Cupertino, CA



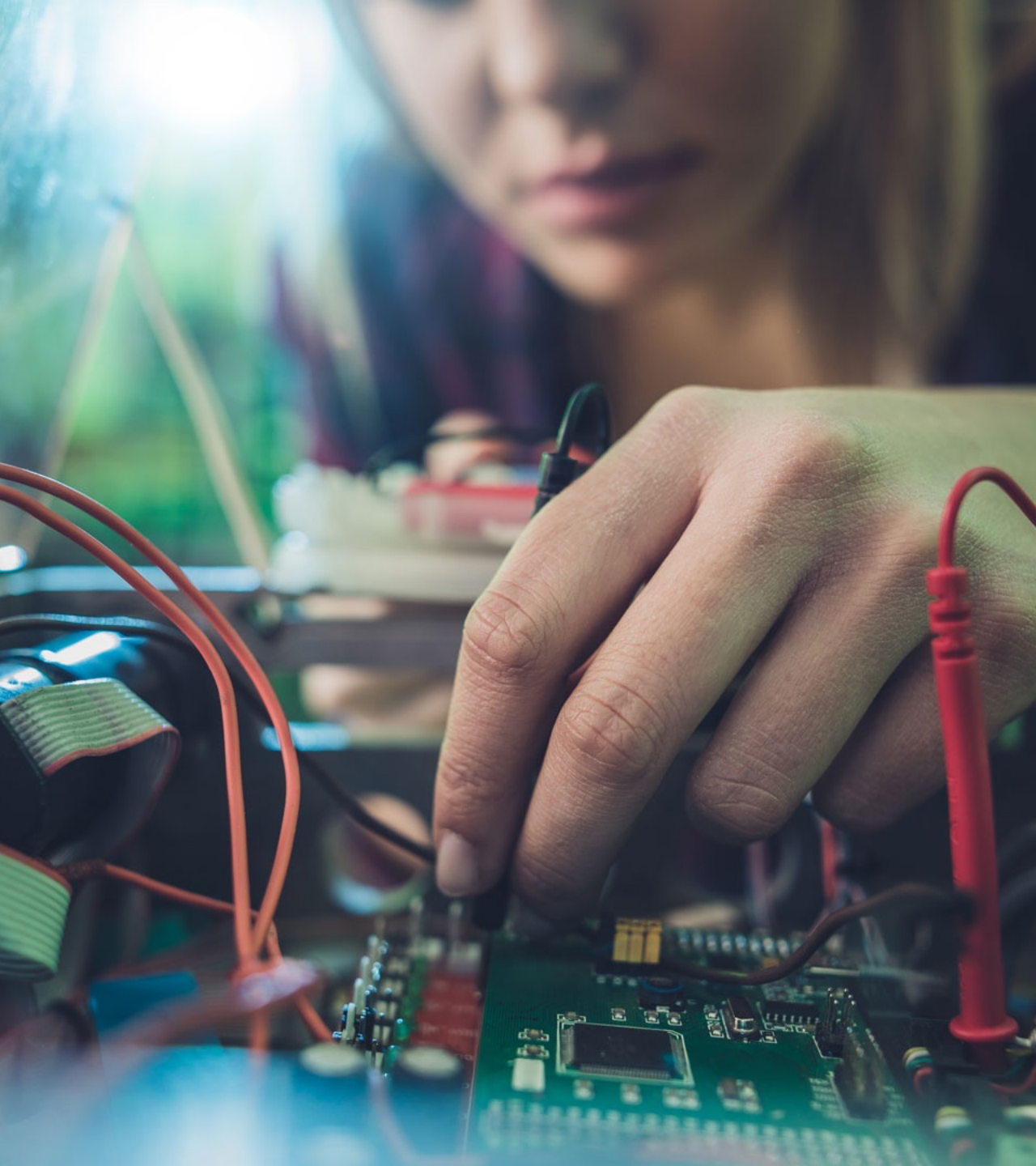
**Tug**  
Sheraton  
Los Angeles



**Pepper**  
Mandarin Oriental  
Las Vegas

Mandarin Oriental's robot can provide directions and pose for selfies





**23% OF CURRENT WORK  
ACTIVITY AUTOMATED AND  
32% OF WORKERS  
TRANSITION TO NEW  
OCCUPATIONS (2030)**

**50% OF CURRENT COLLEGE  
CURRICULUM OBSOLETE IN 5  
YEARS**

**95% NEW JOBS CREATED  
BETWEEN 2008 AND 2015  
SHIFTED AWAY FROM  
TRADITIONAL EMPLOYMENT**

**VIDEO (FUTURE OF WORK)**

# ***FUTURE OF WORK OPTIMISM***

## **WORK HAS ALWAYS CHANGED**

- Switchboard operators
- Lamplighters
- Elevator operators

## **MACHINES STILL NEED PEOPLE**

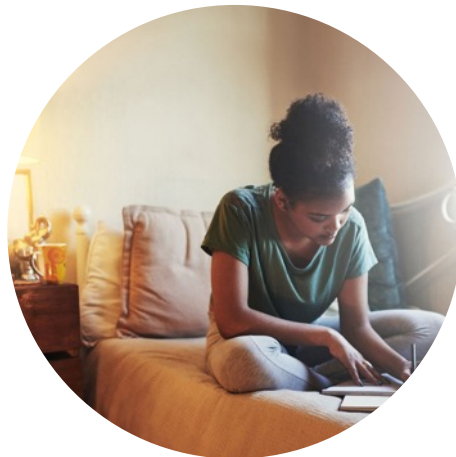
**CAN'T UNDERESTIMATE HUMAN IMAGINATION  
OR INGENUITY**



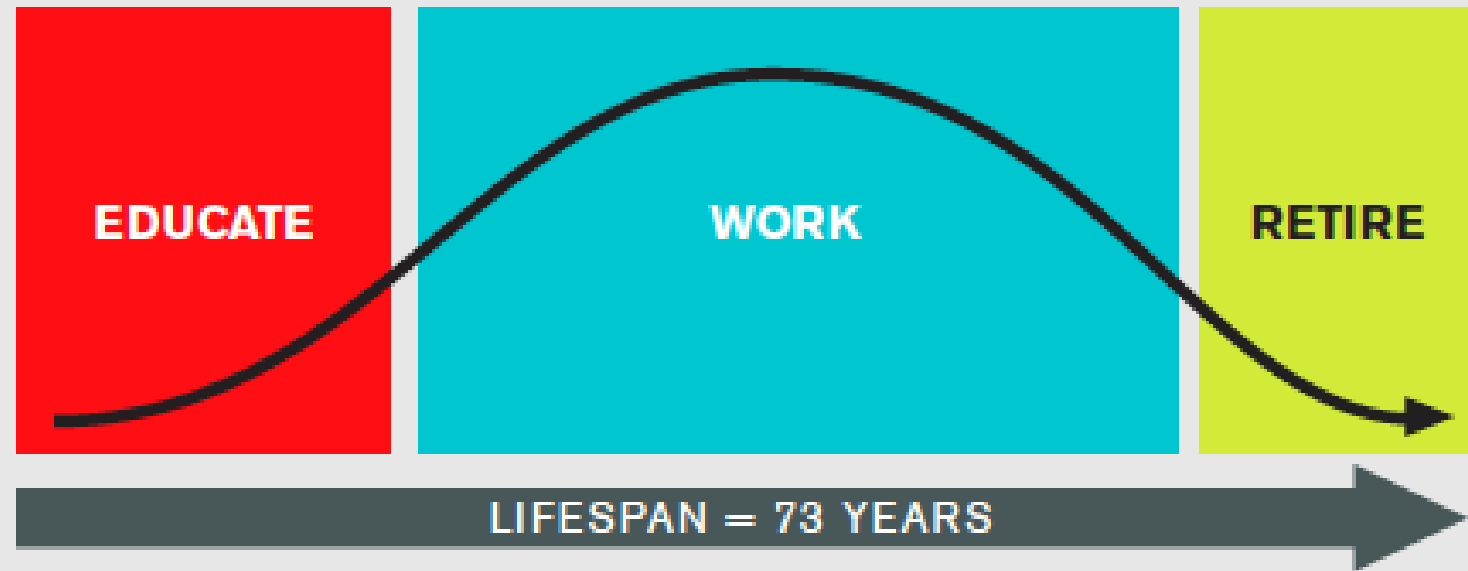




# FUTURE OF LEARNING & SKILLS

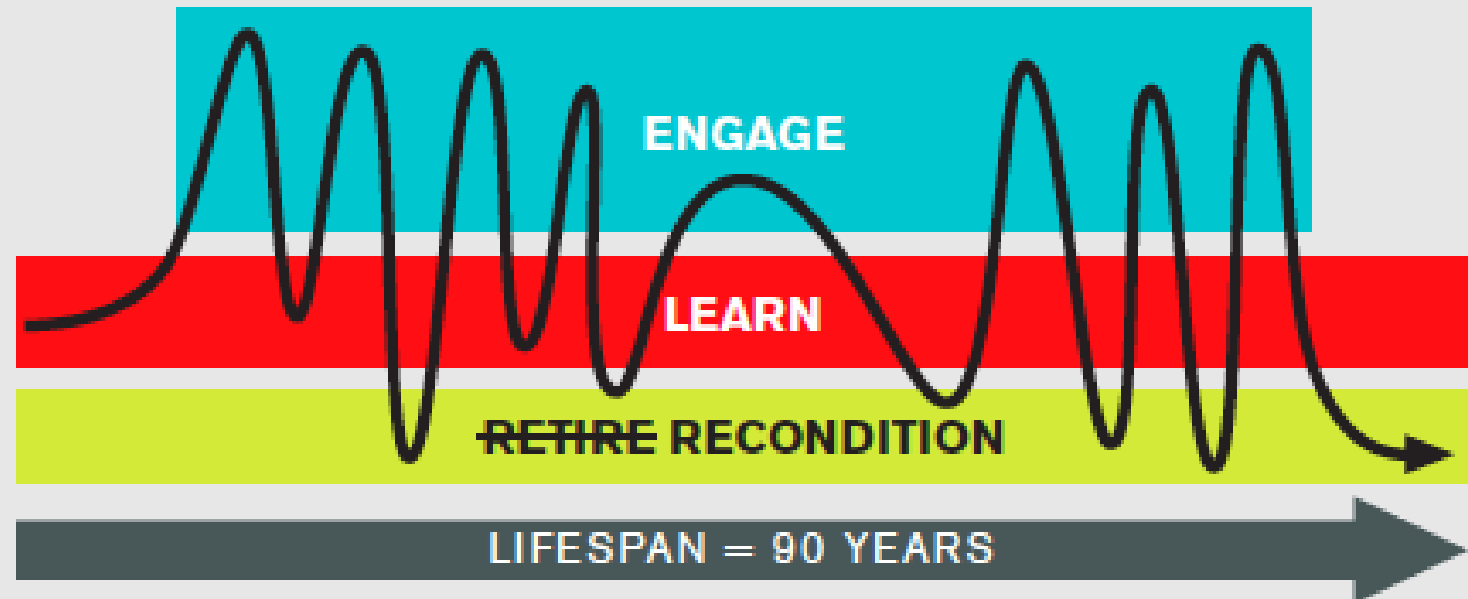


## OLD ECONOMY



17 JOB CHANGES  
5 DIFFERENT SECTORS

## NEW ECONOMY





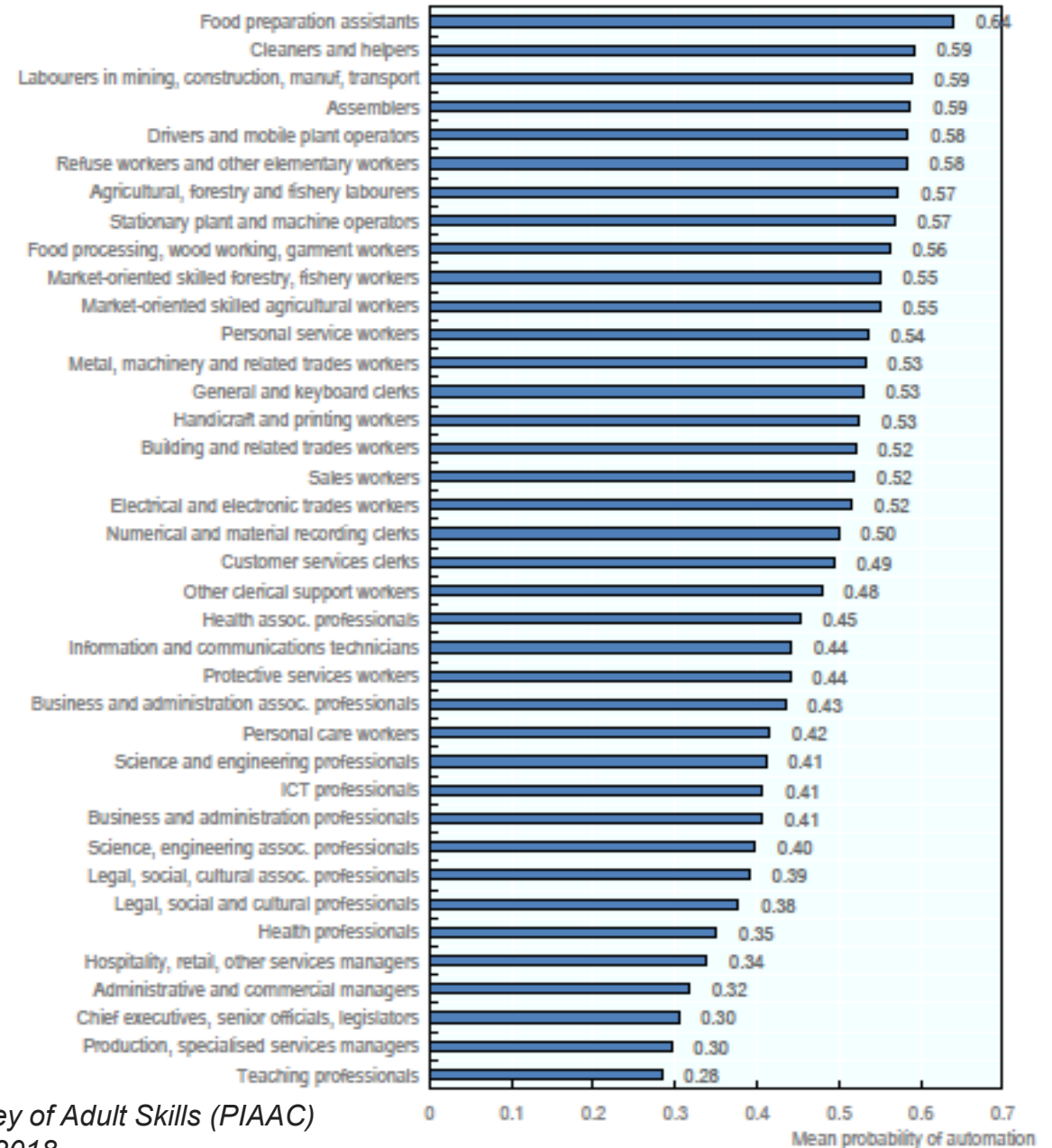
## Highest probability of automation:

- Food preparation assistants
- Cleaners and helpers
- Laborers in mining, construction, manufacturing, transport
- Assemblers

## Lowest probability:

- Teaching professionals
- Chief executives, senior officials, legislators
- Production, specialized service managers

## Mean Probability of Automation by Occupation



Source: Survey of Adult Skills (PIAAC)  
2012, 2015, 2018.

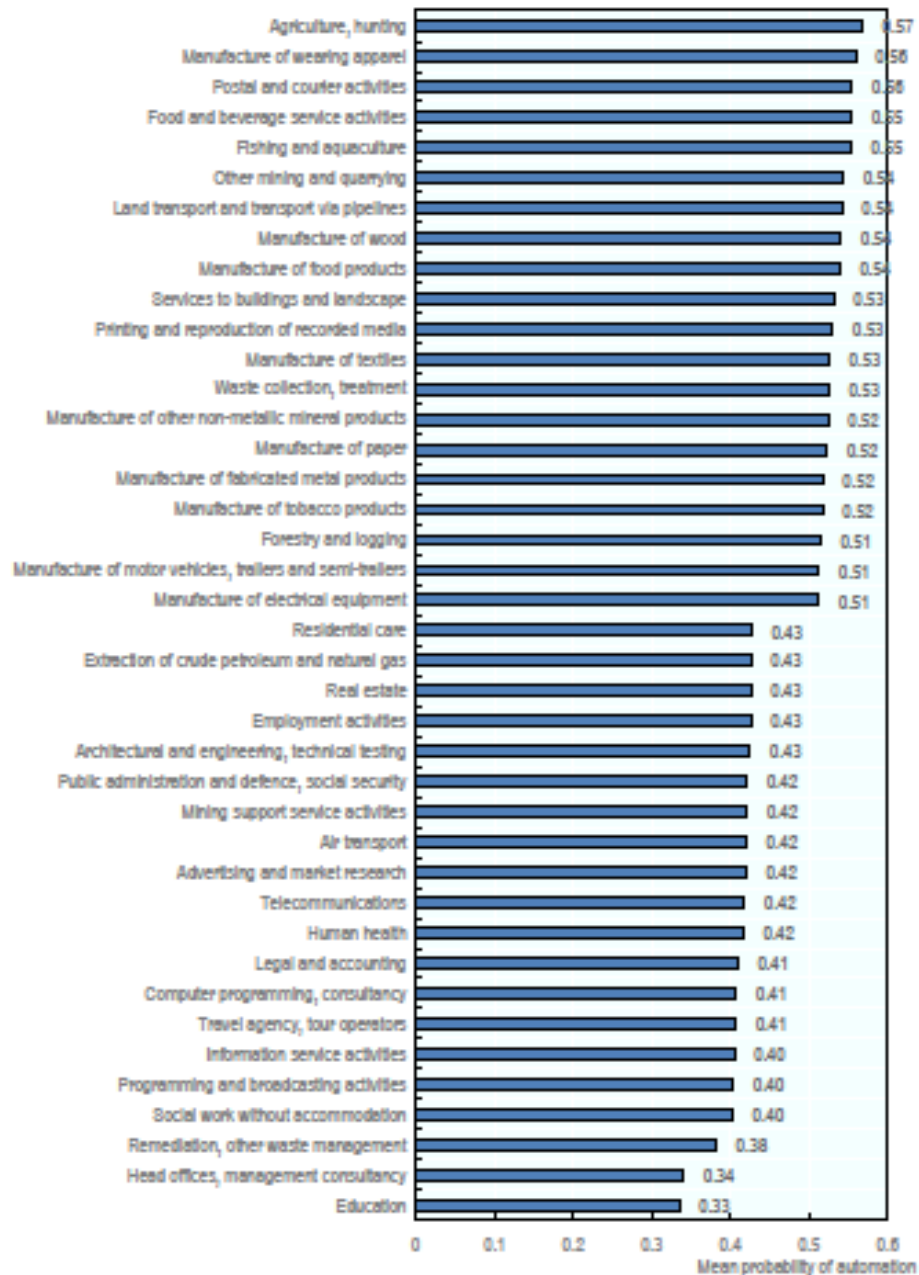
## Mean Probability of Automation by Industry

### Most at risk:

- Agriculture, hunting
- Manufacturing of wearing apparel
- Postal and courier
- Food and beverage service activities

### Least at risk:

- Education
- Remediation, waste management
- Social work w/o accommodation



Source: Survey of Adult Skills (PIAAC) 2012, 2015, 2018

**More low skill jobs at  
risk than previous  
waves of technology**



**Preparing for work  
that doesn't yet  
exist**



**Dynamic  
Instructional and  
Curricular Changes**





# FUTURE OF **WORK SKILLS**

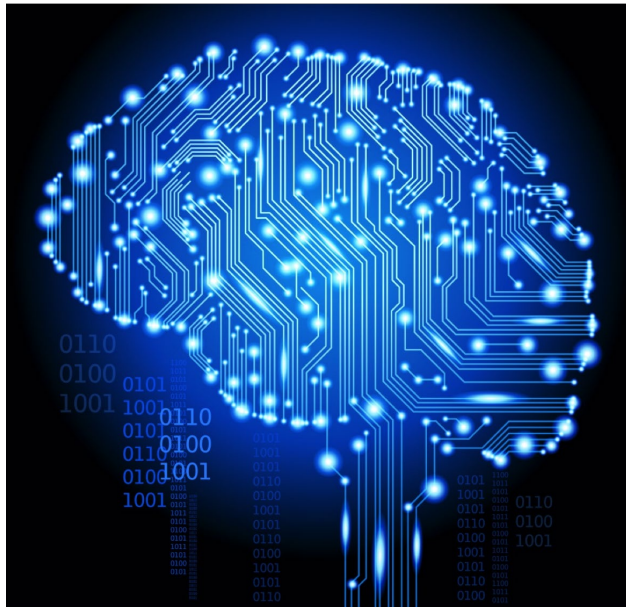
1. **Adaptability**
2. **Analysis/Solution Mindset**
3. **Collaboration**
4. **Communication**
5. **Digital Fluency**
6. **Entrepreneurial Mindset**
7. **Empathy**
8. **Resilience**
9. **Self-Awareness**
10. **Social/Diversity Awareness**
11. **Negotiating Complex Relationships**
12. **Creativity**
13. **Complex Reasoning**



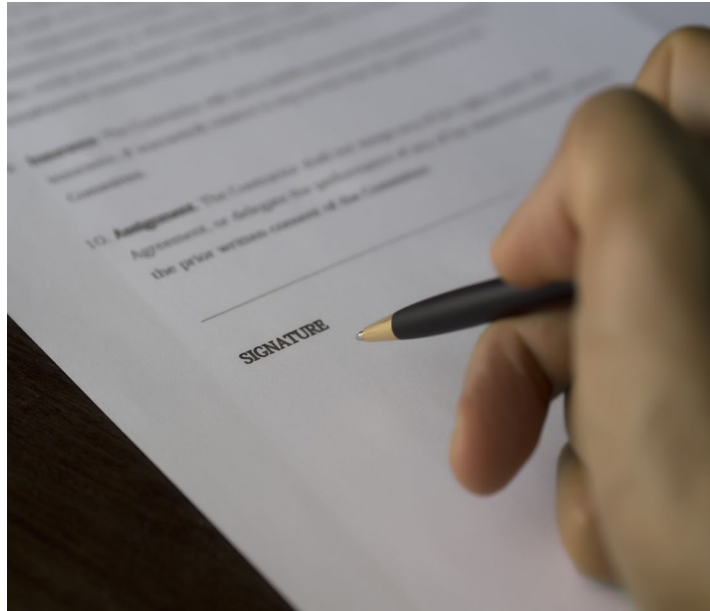


# FUTURE OF ASSESSMENT

## Holistic Assessment



## Assessments for Life-long Learning



## Student Ed Portability Movement





# **CALL TO ACTION:** **CHART YOUR FUTURE**

## **Silo-busting to a Learning and Assessment Ecosystem**

(assessments that connect holistic information to learner owned data, and to tools that build life-long career pathways)

## **Integrating Growth Mindset**

(embedding agility, flexibility, etc. while adapting assessments to be more reflective of the full set of skills needed for a dynamic FOW)

## **Driving Greater Equity**

(charting and promoting student development and growth, inclusive practices with access to FOW opportunities)



“WE ARE  
CALLED TO BE  
ARCHITECTS  
OF THE  
FUTURE, NOT  
ITS VICTIMS.”

—BUCKMINSTER FULLER



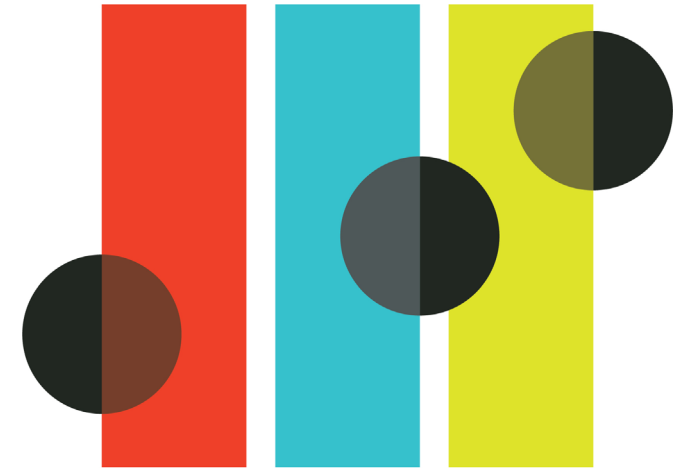
# THANK YOU



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