

# CHALLENGES AND OPPORTUNITIES IN THE NEW WORLD OF WORK

**What these mean for employment service providers working with disadvantaged groups**

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# Key sources for this presentation:

- **OECD – Organisation for Economic Cooperation and Development**

<http://www.oecd.org/els/oecd-employment-outlook-19991266.htm>

<http://www.oecd-ilibrary.org/docserver/download/5jlr068802f7-en.pdf>

- **The Oxford Martin School at the University of Oxford and its affiliates**

[http://www.oxfordmartin.ox.ac.uk/downloads/academic/The\\_Future\\_of\\_Employment.pdf](http://www.oxfordmartin.ox.ac.uk/downloads/academic/The_Future_of_Employment.pdf)

[https://www.nesta.org.uk/sites/default/files/the future of skills employment in 2030 0.pdf](https://www.nesta.org.uk/sites/default/files/the_future_of_skills_employment_in_2030_0.pdf)

- **CEDA – Committee for Economic Development of Australia**

<http://www.ceda.com.au/Research-and-policy/All-CEDA-research/Research-catalogue/Australia-s-future-workforce>

**Big thinking about the future of work**

## **The Fourth Industrial Revolution**

**(Karl Schwab, World Economic Forum, )**

## **The Second Machine Age**

**(Erik Brynjolfsson and Andrew McAfee,)**

# **Key future of work trends**

**1. Effects of digitalisation, robotics, automation on jobs**

**2. Job polarization**

**3. New and emerging areas of employment and skills demand**

# Predictions of job loss

***40 per cent of Australia's workforce, more than five million people, could be replaced by automation within the next 10 to 20 years***

(CEDA report on future of work for Australia)

***50 per cent of jobs in the United States are susceptible to automation over the forthcoming decades***

(Frey and Osborne, Oxford)

# But a lot of uncertainty

## Latest predictions

- **10% of occupations will grow**
- **20% of occupations will shrink**
  
- **70% unknown outcomes**
  
- [https://www.nesta.org.uk/sites/default/files/the\\_future\\_of\\_skills\\_employment\\_in\\_2030\\_0.pdf](https://www.nesta.org.uk/sites/default/files/the_future_of_skills_employment_in_2030_0.pdf)

# Two aspects of predicted job loss

## 1. Ongoing automation for manual/routine jobs such as:

- driverless trucks
- self serve check outs
- robots in manufacturing.....

## **2. New forms of automation predicted in routine jobs requiring cognitive ability – examples:**

- document processing,
- administration
- computer programming
- design
- translation



# Job polarisation

- Growth in high paying/high skill jobs
- AND low paying/low skill jobs
- Loss of all important middle level jobs



- Especially “routine” middle level clerical and production type jobs can either be fully automated
- or enhanced by new technology so a single worker’s output is greater
- people wearing devices to measure their output, surveillance and monitoring
- speeding up of performance

# Offshoring – globalisation of production processes

- Manufacturing – eg Australia's car industry
- AND
- jobs like software development
- any jobs that can be done online
- can easily be outsourced to cheap labour countries

- But low skill “non-routine” jobs harder to automate or offshore hence more stable

eg cleaning, catering or personal services

Industry share of jobs (9/17)	1984	2017
Health Care and Social Assistance	8%	13.2%
Retail	10.5%	10.1%
Construction	7.1%	9.4%
Education and Training	6.8%	8.1%
Professional, Scientific, Technical Services	4%	8%
Manufacturing	17%	7.3%
Accommodation and food services	5%	7.2%
Agriculture	6%	2.6%
Information, media and telecommunications	2.4%	1.7%

Occupations share of jobs	1987	2017
Professionals	15.6%	23.6% *
Technicians and trades	17.7%	14.3%
Clerical and admin	18%	13.3%
Managers	12.5%	12.5%
Community and personal service	5.6%	10.8% *
Labourers	13.5%	9.6%
Sales	8.7%	9.1%
Machinery operators and drivers	8.2%	6.4%
	100%	100%
<b>ABS: 6291.0.55.003 - Labour Force,</b>	<b>Australia, Detailed, Quarterly, Aug</b>	<b>2017 (source both tables)</b>

# Jobs with a future – the predictions

## **Top three growth industries by 2025 Australia**

- 1. Health care and social assistance – projected to increase by up to 798,000 jobs**
- 2. Professional, scientific and technical services – projected to increase by up to 583,000 jobs**
- 3. Education and training – projected to increase by up to 503,700 jobs**

- <https://docs.education.gov.au/system/files/doc/other/futurefocus2013nwds-2013.pdf>

## **Top vocational and trade jobs 2025 - Australia**

- 1. Aged & Disabled Carers**
- 2. Child Carers**
- 3. Electricians**
- 4. Nursing Support & Personal Care Workers**
- 5. Construction Managers**
- 6. Real Estate Sales Agents**
- 7. Welfare Support Workers**
- 8. Metal Fitters & Machinists**
- 9. Plumbers**
- 10. Education Aides**

• <http://thenewdaily.com.au/money/work/2013/12/10/top-jobs-2025/>



## **Top tertiary qualified jobs in 2025 Australia**

- 1.** Registered nurses
- 2.** Advertising and sales managers
- 3.** Software and applications programmers
- 4.** Accountants
- 5.** CEO and Managing Directors
- 6.** Secondary school teachers
- 7.** Primary school teachers
- 8.** Private tutors and teachers
- 9.** Contract program and project administrators
- 10.** General managers

# FASTEST GROWING JOBS IN THE USA IN 2017

1. Solar photovoltaic installers
2. Wind turbine service technicians
3. Home health aides
4. Personal care aides
5. Physician assistants
6. Nurse practitioners
7. Statisticians
8. Physical therapist assistants
9. Software developers, applications
10. Mathematicians

• <https://www.nytimes.com/2017/10/24/business/economy/future-jobs.html>

## Other USA predictions for jobs growth:

- App developer
- Computer systems analyst
- Nurse practitioner
- Physical therapist
- Health services manager
- Physician assistant
- Dental hygienist
- Market research analyst
- Personal financial adviser
- Speech language pathologist
- <https://www.kiplinger.com/slideshow/business/T012-S001-best-jobs-for-the-future-2017/index.html>

- Growth in health care and social assistance/ education and training industries
- Growth in occupations inc.
  - Community and personal service workers
  - Accommodation and food services
  - Professionals (covers 318 specific occupations)

# Also growth in part time and casual jobs

- 32% of all employed people in part time work – close to 4 million
- 25% of employees in casual jobs
- 8.6% (1.2 million) of workforce with not enough hours of work - underemployed

# Rise of 'gig' labour force

- Uber, Airtasker, Upwork, Ozlance etc....
- Nearly a million registered with Airtasker
- Small tasks and jobs that are done by people registered as self employed,
- May also be a supplement to another job
- Still small in overall employment but growing rapidly
- Process of breaking jobs into tasks - taskification

# What does all this mean for disadvantaged groups?

- Good news and bad news!!!
- there will be jobs out there..
- dire predictions of massive unemployment due to automation not likely

# Good news

- Jobs growth in human services, health care, personal services
- Ageing populations generating jobs in these areas
- The National Disability Insurance Scheme (NDIS) will also generate new jobs



## Key messages\*:

- Emerging jobs market not necessarily reliant on hi-tech skills....although important
- social, interpersonal skills very important
- broad based knowledge, including foreign languages, will be highly valued in globalised economy
- Potential for more “niche” employment

[\\*https://www.nesta.org.uk/sites/default/files/the\\_future\\_of\\_skills\\_employment\\_in\\_2030\\_0.pdf](https://www.nesta.org.uk/sites/default/files/the_future_of_skills_employment_in_2030_0.pdf)

# Bad news

- Harder to get the stable, middle level jobs that many people need
- Harder to move up the ladder from a lower end, lower paid job....and perhaps get a job with enough hours of work
- Potential loss of traditional gateway jobs like retail sales due to online shopping and automation

# What this all means for employment service providers:

- There are and will be jobs out there!!
- Can provide guidance to people about the emerging jobs market
- And skills that they can maximise in the jobs market

# What can be done?

- Work from a position of understanding of emerging jobs market
- Encouraging people to take on as much upskilling as they can manage
- Promotion of interpersonal and social skills
- Promotion of flexibility in outlook on employment

