



Future employability, will it be different?

Understand the impacts to employment when faced with the prospect of an uncertain jobs future

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15 minute exploration:

- What is changing the world of work?
- What jobs will remain/emerge/transform?
- What are the opportunities for employment?



What is changing the world of work?

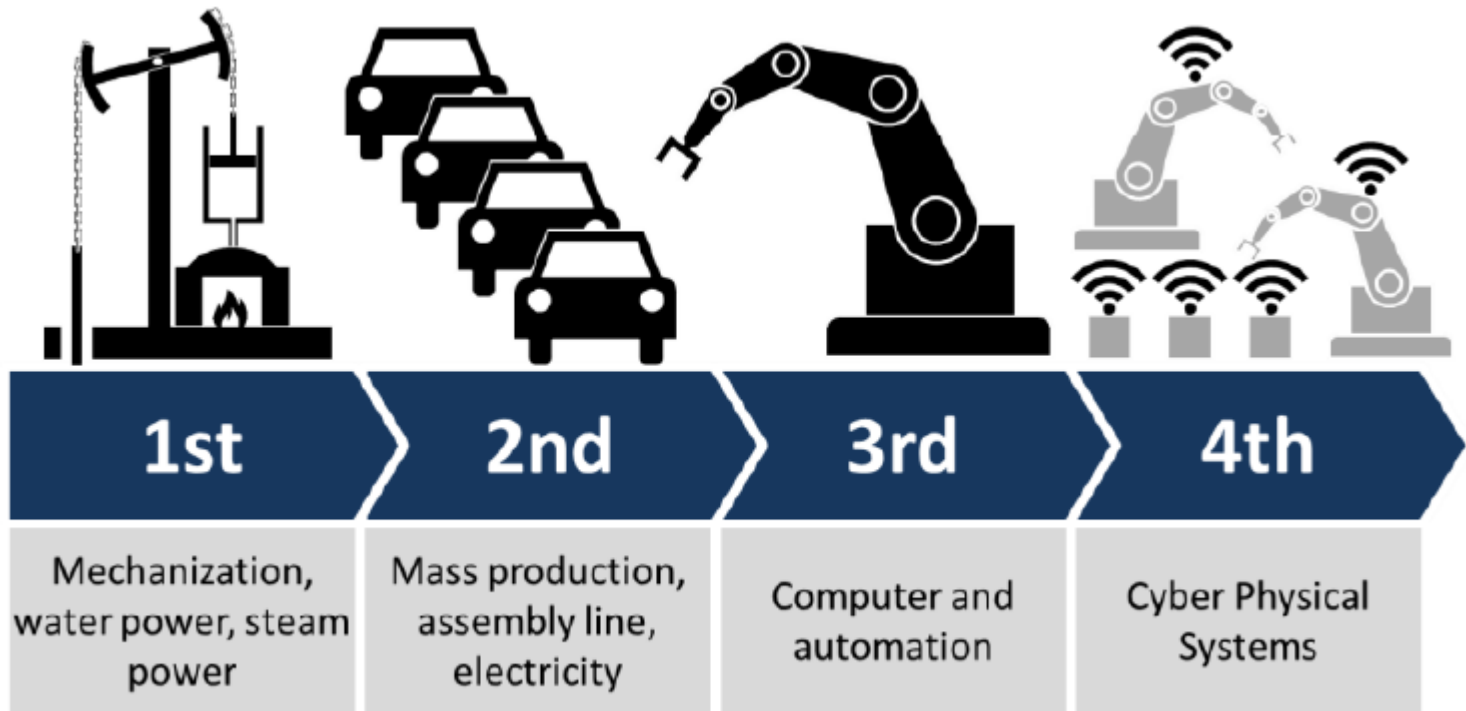


CSIRO Megatrends

- More from less
- Going, going, gone
- The silk highway
- Forever young
- Virtually here
- Great expectations

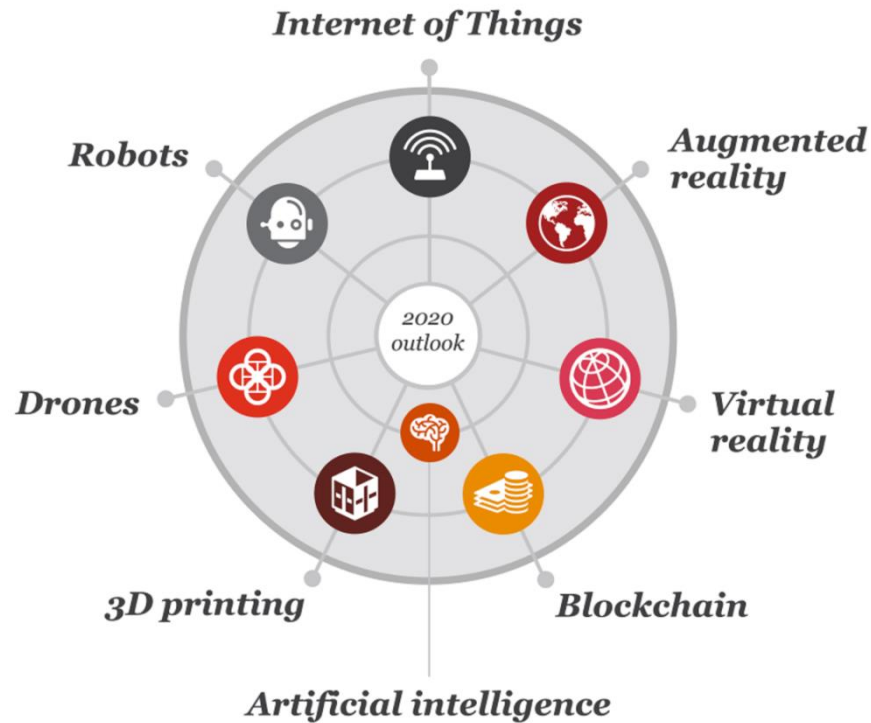


Industry 4.0





PWC Essential 8 Tech Influencers





The Future of Work



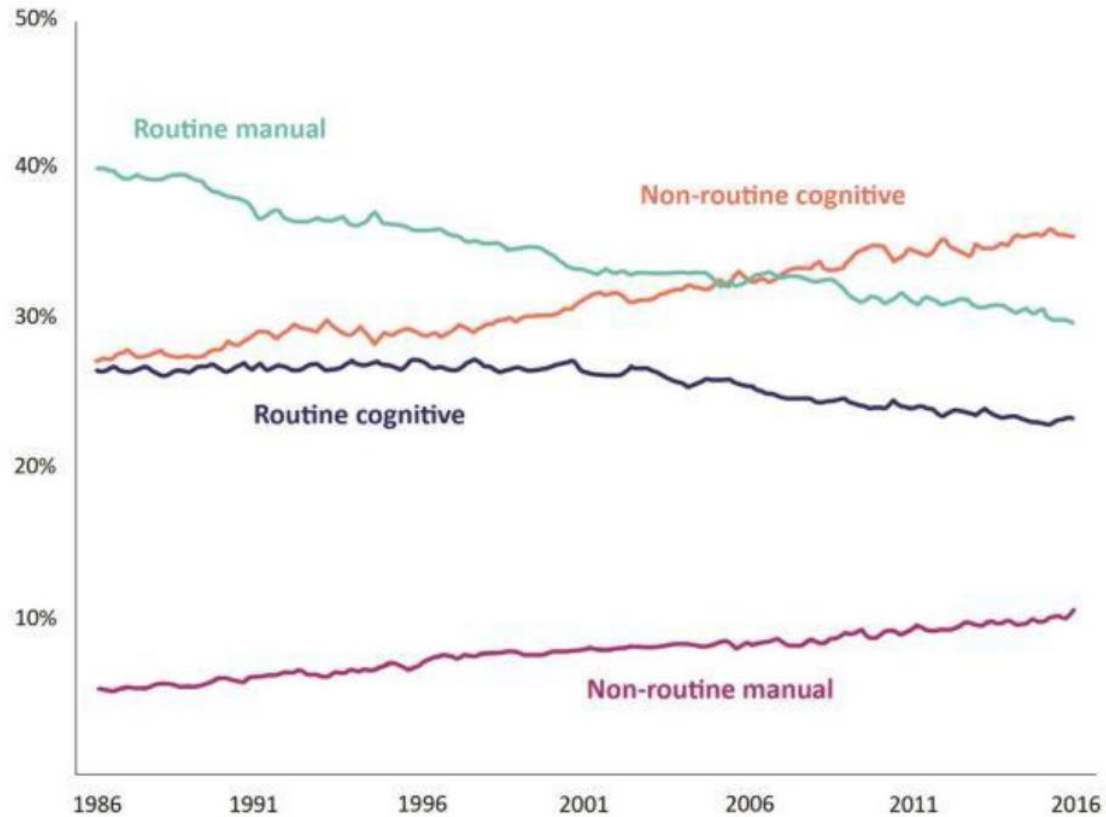
- Automation and AI
- Global Supply Chains
- Disruption
- Off-shoring
- The rise of the Gig Economy
- 3D Printing
- Population Services



What jobs will remain/emerge/transform?



Chart 1: Employment by skill type





McKinsey Scenarios for Employment Growth

(Jobs Lost, Jobs Gained Report 2017)

- Rising incomes and consumption
- Ageing population
- Development and deployment of technology
- Investment in infrastructure and buildings
- Investments in renewable energy, energy efficiency and climate adaptation
- Marketisation of previously unpaid domestic work



McKinsey Job types

- In 6/10 current jobs, 30% of the tasks are automatable.
- Interaction Jobs
- Production Jobs
- Transaction Jobs



Should we be worried?

What are the opportunities

for employment?



Skills Shortages

- We have underemployment, but at the same time thousands of jobs left vacant
- ANZ Bank's job advertisements research indicates that the number of job vacancies on any given day is over 100 000. There is a mismatch between the people who are willing and the people who are able
- A 2015 Australian Industry Group Study found that 44% of companies had positions they could not fill – this rose to 75% in 2018.



Skills Shortages(ctd)

- The decline in youth population impacts the supply of domestic graduates to jobs
- STEM skills jobs grew at about 1.5 times the rate of other jobs yet only 18 % of the Australian workforce has STEM qualifications
- Design, engineering, science, transport and ICT professionals the fastest growing occupations
- The lack of **middle layer** skills results in huge financial losses for the companies. These jobs are the ones with the biggest impact on company performance
- Employers are ringing my lecturers all the time

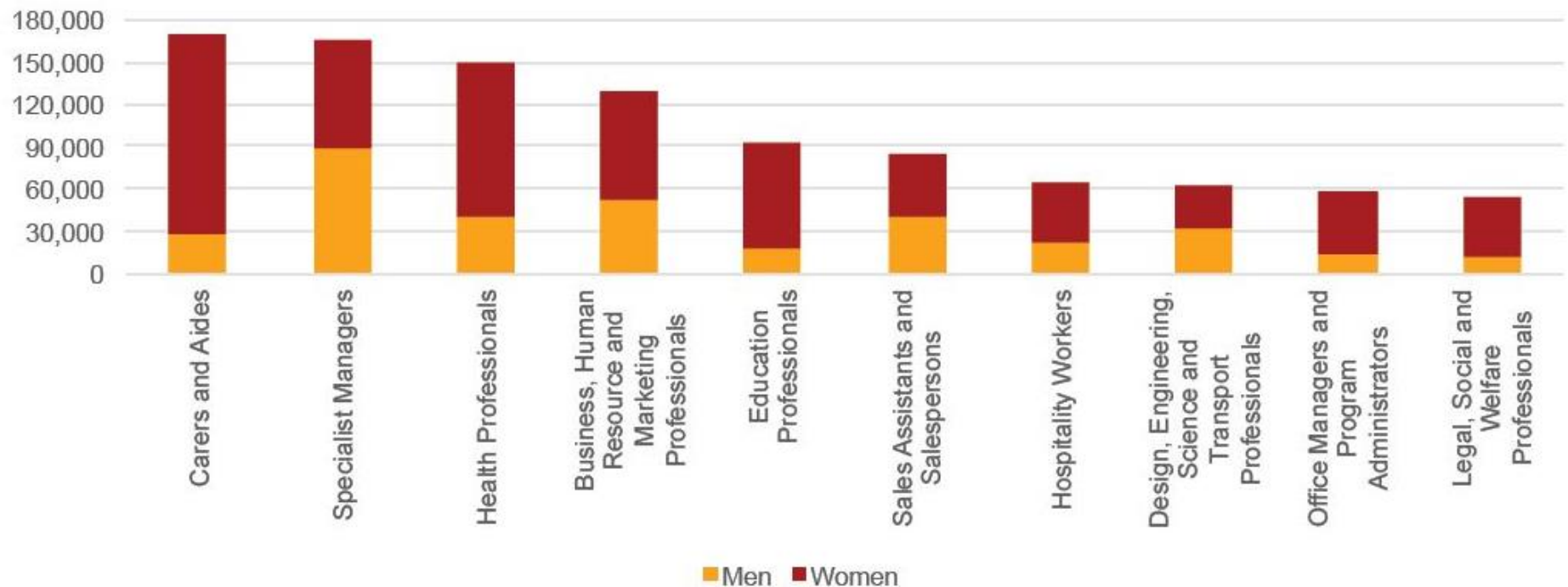


Mid Layer Career Opportunities

- Economy will need more people with multiple qualifications across a range of industry areas with an adaptive capacity and an ability to deal with innovation and technology
- We are not talking minimum wage, low mobility, low variability
- An AIS Study found that the greatest shortages were in the middle skilled categories: machinists, technicians, operators and craft positions that have traditionally offered stable middle class employment



Figure 14 Top ten growth occupations (volume), 2006 to 2016



Note: Occupations are classified using the Australian and New Zealand Classification of Occupations (ANZSCO) 2-digit level.

Source: Bankwest Curtin Economics Centre | Authors' calculations from Census Tablebuilder.



It's not one career path for life...

10-15 jobs

5-7 careers



A student's perspective





A more informed student perspective:





Reality





Employment Options

In Western Australia:

- 0.2% of companies are large
- 3% are medium (20-200)
- 10% are small (5-19 people)
- 25% are micro (1-4 people)
- 62% are sole operator
- The rise of the gig economy (freelancing)



21st Century Skills

- Critical Thinking
- Creative Thinking
- Communications
- Collaboration
- Digital Literacy



Matching training to jobs



Opportunity	Jobs	Courses
Manufacturing/ wholesaling	Production Managers Engineers and Engineering Technicians Plant Operators Sales and marketing/export trade Purchasing and Supply clerks ICT technicians Security	Engineering Mechatronics Civil and Structural Eng Process Plant Operations Integrated Technology Systems Business Administration Warehousing IT networking and security
Transport and Logistics	Logistics managers/Schedulers Project Management Driverless technology/IT management Proprietary Software ICT technicians and security Warehousing/storepersons	Integrated Technology Project Management Warehousing Business Administration Logistics IT networking and security
Agribusiness	Horticulturalists/Agriculturalists Agrifood processors Driverless Technology International Traders Purchasing and Supply clerks Marketing and E-commerce	AgriFood Processing and Operations Surveying and Drone Technology Environmental Monitoring and Technology Conservation & Land Management



Matching training to jobs



Opportunity	Jobs	Courses
Tourism	Hospitality staff Events and technical production Sales, marketing and promotion Commercial Cooks Managers	Leadership and management International Trade Production Managers Tourism E-commerce
Education	Education aides Early childhood workers Library assistants Special care workers ICT technicians Gamefication of learning developers	Education Support Early Childhood Library services Individual support Screen and Media (Games development)
Health	Personal Care Consultants Special Care workers Nurses and Nursing support workers Dental workers Indigenous Health workers Massage therapists Anaesthetic technicians Pathologists and technicians	Health/Dental/Nursing Pathology Laboratory Operations Anaesthetic technology Sterilisation technology Business and management Mental Health Community Service Work



Opportunity awaits...



Dip in Information, Digital Media and Technology(Cyber Security)

Dip in IT Networking

Dip of Environmental Monitoring and Technology

CIV in Screen and Media (Animation and Games Design)

CIII in Sterilisation Services

Dip Civil and Structural Engineering

Dip of Surveying

Dip of Lab Technology

CIII in Landscape Construction

Adv Dip of Engineering (Mechatronics)

Cert IV in Engineering (Fluid Power)



Need help?



- One-stop shops for careers, training and employment advice and assistance.
- Services are free, and accessible to all members of the community.
- The centres are located at TAFE campuses – Joondalup, Balga & Northbridge.



Need help?

We can help you with:

- information and guidance on your career choices;
- information about training and courses;
- Choosing the right training course or qualification to suit your personal, work or career goals;
- information about different industry areas and occupations;
- job searching and job matching;
- skills and qualification recognition information;
- apprenticeship and traineeship assistance; and
- culturally sensitive employment and career services for Aboriginal people.



Need help?

We can help you with:

- recruitment assistance, including for apprentices and trainees;
- information on training solutions and services that can be customised to meet enterprise-specific needs;
- advertising employment opportunities on our jobs board or our Aboriginal-specific jobs board;
- advice and resources to support your workforce planning; and
- resources and advice on Aboriginal recruitment and retention strategies.



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