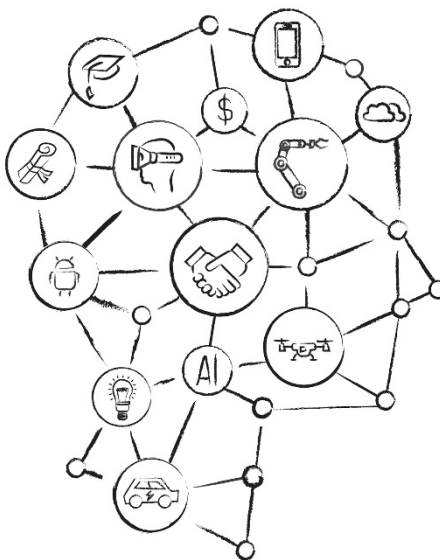


Technological change and the future of work



**Professor Gail Pacheco, Commissioner, NZPC,
Director, New Zealand Work Research Institute**

The inquiry's brief and format

Two high-level questions at the heart of this inquiry :

- *What are the current and likely future impacts of technological change & disruption on the future of work, the workforce, labour markets, productivity and wellbeing?*
- *How can the Government better position New Zealand and New Zealanders to take advantage of innovation and technological change in terms of productivity, labour market participation and the nature of work?*

Reports and their themes

Report 1 – September 2019 ***New Zealand, technology and productivity***

- Defining technology, technological change and disruption
- What factors affect technology adoption and diffusion?
- What are the labour-market effects of technology diffusion to date?
- What might future technology adoption and labour market change look like?
- Preparing for an uncertain future

Report 2 – November 2019 ***Employment, labour markets and income***

- How has technology affected NZ's labour market?
- Are digital platforms and gig jobs changing the nature of work?
- How well do employment laws balance protections and flexibility?
- How can income support for displaced workers be improved?
- Can the Government better support those affected by labour-market change?
- What might improve NZ's technology adoption rates, and its labour market?

Report 3 – December 2019 ***Training New Zealand's workforce***

- How well does NZ's training and skills system support people in work to retrain and acquire new skills over time?
- What changes would make the system more responsive to the needs of a dynamic labour market?

Report 4 – January 2020 ***Educating New Zealand's future workforce***

- How well does the NZ education system prepare people for future uncertainty?
- Does the national curriculum help or hinder?
- How well does the system promote flexibility and adaptability in students?
- Are there attributes of the system that close off student options too early?

Report 5 – January 2020 ***Technology adoption by firms***

- What motivates firms to adopt new technologies?
- How do markets for land, labour, capital and other inputs affect technology adoption by firms? What else influences firm decision making?
- Firm and labour dynamics in a competitive business environment
- How can governments better encourage technology uptake by firms – and hence productivity growth?

Final report delivered to Government in **March 2020.**

Focus on Report Two

- How has technology affected NZ's labour market?
- Are digital platforms and gig jobs changing the nature of work?
- How well do employment laws balance protections and flexibility?
- How can income support for displaced workers be improved?

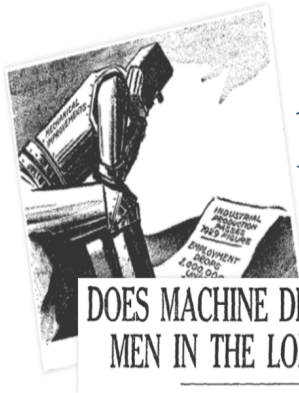
The future of work

Confluence of several meta-trends affecting the ways people work:

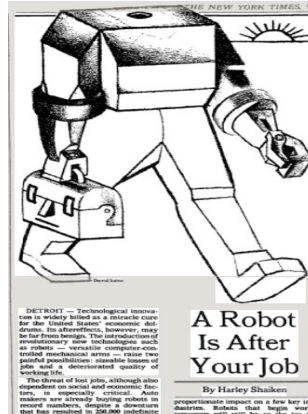
- Technological advances
- New organisational work practices
- Rise of platform and gig work
- Changing industry mix
- Broader demographic, environmental and economic changes

Machines replacing humans

1928

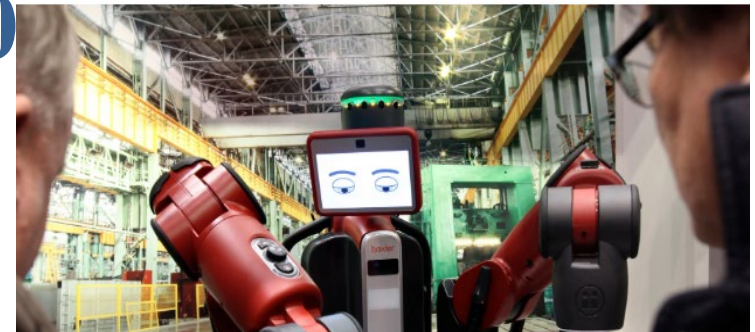


1940



1980

Robot Makers Spread Global Gospel of Automation 2013



AUTOMATION NATION

2017

Evidence That Robots Are Winning Race for American Jobs

Soon a Robot Will Be Writing This Headline

2020

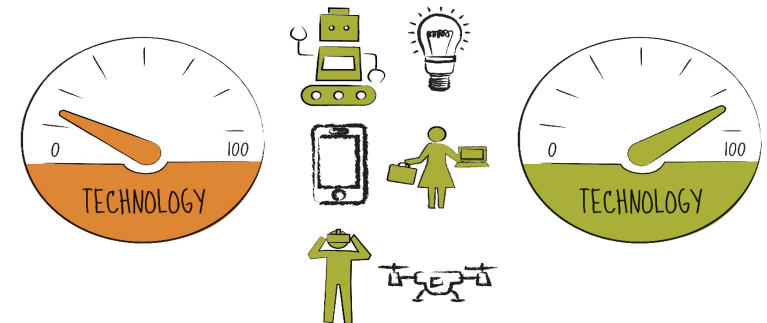
Signs of a tech-based disruption

- Wide range of automation predictions. Many assumptions and analytical approaches are questionable. Even the godfather of such studies (Frey) has criticised their use
- Little evidence of expected effects
- Instead, we find:
 - *Slowdown in occupational drift*
 - *Increasing labour market participation of older workers*
 - *No drop in low skilled jobs over time*
 - *No increase in casualisation (albeit small growth in platform mediated 'gig' work)*

NZ needs *more* technology

- The main problem facing New Zealand today isn't too much technology, it's not enough

Figure 3.1 Average growth rates in labour productivity, 1971–2017



NZ's poor long-run productivity performance is largely a story of weak technology adoption and diffusion

Faster future productivity and income growth depends on greater technology adoption

Gig work, not much change...

- Gig work: precarious jobs and platforms
- No obvious trend to more self-employment/casual/fixed term work

Figure 2.5 Percentage of the workforce self-employed, New Zealand, 1987–2018

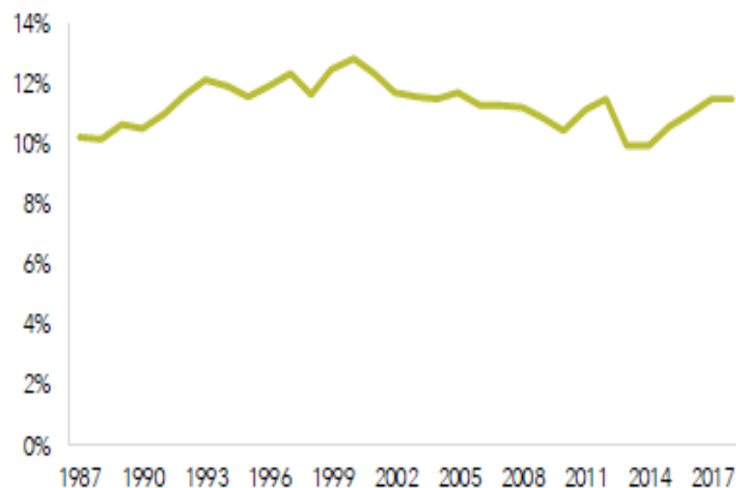
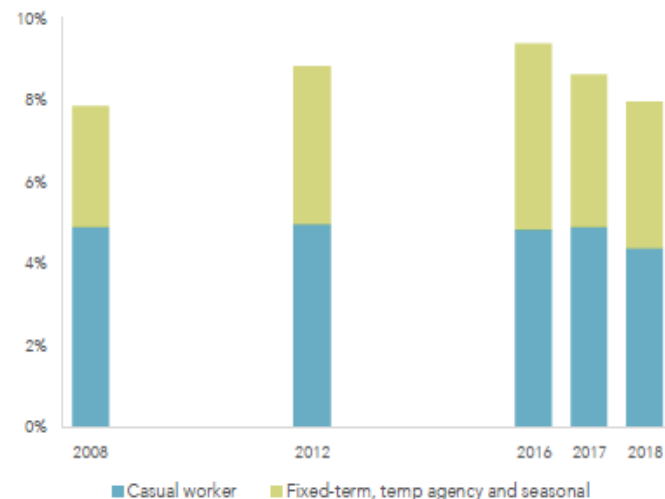


Figure 2.6 Percentage of the workforce on a casual, fixed-term, temporary or seasonal work arrangement, New Zealand, 2008–18



Gig work, not much change...

- Despite high profile examples, most non-standard jobs aren't platform-based "gigs". Platform work isn't growing markedly
- Many studies indicate that people tend to do platform-mediated work for short periods and for supplementary income, rather than as a main job
- **Measurement of 'gig' and non-standard work could be improved**

Gig work, platform-mediated work

Benefits:

- Better choice, quality and prices for consumers/hirers
- Easy matching/contracting draws new activity into the economy
- Flexibility, independence, and opportunity for workers (from skilled freelancers to marginalised low-skilled workers)
- Business cost savings (productivity) and new markets

Concerns:

- Displacing existing “good” jobs
- ‘Precarious’ work (hours/income/job security)
- Undermines employment standards and protections for other workers
- Social impacts of disruption and changes in work patterns
- Weakens worker engagement, voice

Gig work, how to regulate in NZ?

- Much debate reflects issues in countries where social protections (eg, health care, income insurance) and tax are tightly linked to specific forms of work, with incentives for firms to avoid related costs (eg, national insurance levies). NZ policy settings are more neutral (eg, ACC, health, parental leave, tax) so that self-employment and gig work are less insecure

Recommendations:

- Don't change NZ's binary 'employee/contractor' model (ie, don't introduce new intermediate categories)
- Instead, **refine existing legal tests** to focus more on the fundamental nature of the work relationship (extent of employer control, worker autonomy/choice/'lock in')
- Encourage platforms to offer better conditions. For example, **consider regulatory 'safe harbour' options** for platforms wishing to offer benefits/conditions traditionally considered to indicate an employment relationship

Support for displaced workers:

Focus on *income* security, not *job* security

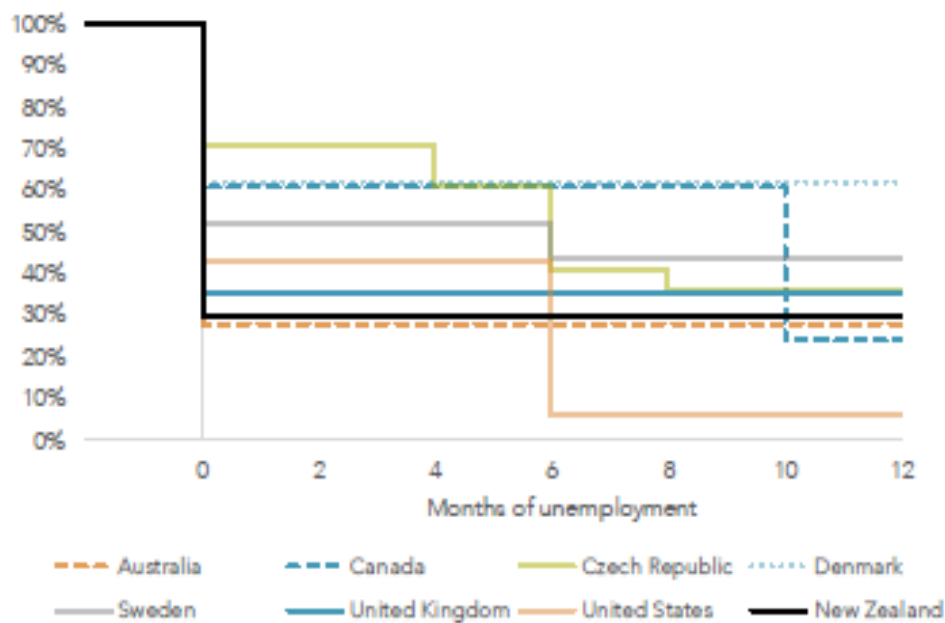
The best help for workers who may lose their jobs is a dynamic labour market with opportunities to find more work that suits them:

- More tech adoption will mean more job churn
- Policies to protect existing jobs can discourage tech adoption and employment, and may particularly harm the young and marginalised (eg, France)
- Should aim to encourage greater *income* security, not *job* security

Support for displaced workers

- Empirical evidence pre COVID-19 that most turnover was voluntary churn; with involuntary displacement associated with enduring 'wage scarring'
- NZ is unusual in lacking public unemployment insurance which typically provides higher (time limited) income replacement rates than welfare benefits

Figure 3.9 Income-replacement rates for a single person previously earning the average wage, first year of unemployment, selected OECD countries



Options to improve income smoothing

- There is a case for better income smoothing for displaced workers. We explored three possible options to improve income security:
 - Portable individual redundancy accounts (a bit like KiwiSaver)
 - An unemployment insurance scheme – more like ACC
 - Change existing benefits and tax credits to give higher (time limited) income support to people out of work and looking for a new job
- Each option has its benefits and drawbacks. Key issues to be worked through are:
 - **Cost to the Government:** how much is the taxpayer able/willing to bear?
 - **Replacement rate:** which replacement rate to target?
 - **Coverage and economic impacts:** which option best provides universal coverage and minimises disincentives for employment?

Inquiry recommendations are still relevant in the COVID-19 crisis

- A flexible labour market is more likely to create a diverse and abundant range of employment opportunities
 - NZ is lucky to have one and should ensure it continues to be flexible
- Skills matter for incomes & re-employment
 - Improve education & training access & outcomes
- COVID-19 job shock demonstrates the importance of income security

Has COVID-19 trumped the robot crisis?

Until early 2020, NZ enjoyed a long period of high labour market participation and falling unemployment

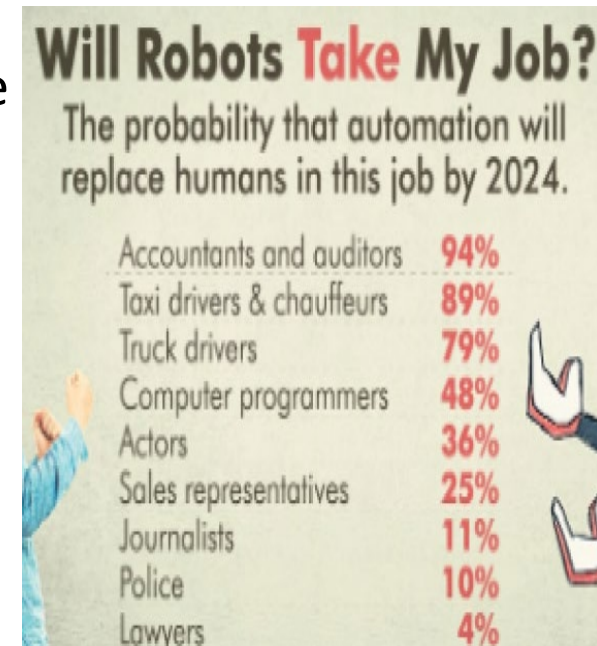
- This clearly is no longer the case
- Unemployment rose sharply, and has since improved, but will potentially rise further as supports are withdrawn

Those worried about robots offered career advice

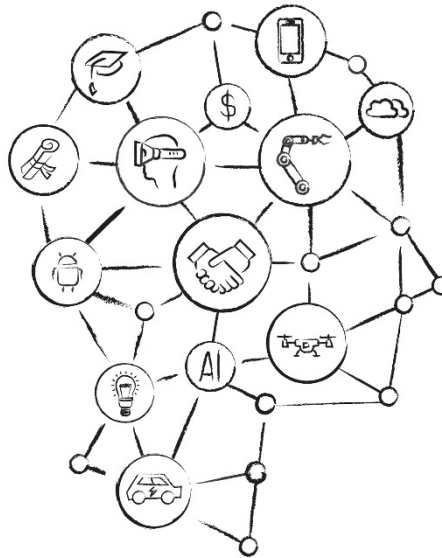
- Prefer jobs with human-to-human interaction
- Prefer service industries – hospitality, tourism
- Avoid accounting, driving, computers, ...

Poor advice for a COVID-19 crisis!

- Choose the crisis you prepare for with care ...



Questions?



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