



THE FUTURES OF AI AND EMPLOYMENT

PROSPECTS AND CHALLENGES

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Future of work

- Companies, universities
- International Labour Organisation
- OECD
- World Economic Forum
- European Union
- New Zealand Future of Work Forum



OECD

EFFECTS ON JOBS

- Estimates vary widely: 2013 US study of occupations estimated 47% of US jobs were at risk of automation by assessing occupations at risk
- Research about tasks that can be automated, rather than categories of jobs: estimates of job losses or job impact were much lower. For example, OECD report which assessed tasks within occupations, found that only 10% of all jobs in the UK (9% in the US) were “automatable” through “automation and digitalization” (2016)

(Royal Society and British Academy)

VARIATIONS IN RESEARCH

- Definitions of the process by which humans are fully or partly replaced in the workplace
- Time scale
- Reliance on theoretical models
- Quality of administrative data about job tasks

BEST GUESS

- “Many projections of jobs lost, gained, or changed by AI have been published over the last 5 years. More recently, a consensus has begun to emerge that 10-30% of jobs in the UK are highly automatable, meaning AI could result in significant job losses. Many new jobs will also be created.”
- “... there is a growing consensus of the main types of jobs that will suffer and where the growth in new jobs will appear. However, there remain large uncertainties about the likely new technologies and their precise relationship to tasks. Consequently, it is difficult to make precise predictions as to precisely which jobs will see a fall in demand and the scale of new job creation.”

(Royal Society and British Academy)

Key themes

- Jobs will change: >33% of jobs 'at risk' of automation (Germany 35%, USA 38%, United Kingdom 30% and Japan 21%. Many new jobs will be created.
- Net impact: job growth.
- Automation will change job types, their number and perceived value.
- Workers performing tasks that cannot be automated will become more valuable, as will the skills they have.

NEW JOBS? Many different views, for example:

Trainers - those training AI

Explainers - workers explaining AI outputs for accountability

Sustainers - monitoring the work of AI systems and outputs

Eurofound (2017)

THE DISCOURSE: CHARTING THE FUTURES

- Competing regulatory narratives (Prassl)
- Entrepreneurship: flexibility, income and jobs
- Innovation: better income, lower costs

OR

- Medieval exploitation? Tightly controlled insecurity, algorithmic boss
- Ancient business model with powerful corporate intermediaries

Policy and regulatory responses

- Few national strategies seem to be focused on workforce skills that will be needed such as in creative and caring work
- There is little and weak gender and race analysis

REGULATORY CHALLENGES

- Adequacy of existing legal framework
- Will new legal concepts be needed e.g. “electronic personhood” similar to other forms of “legal personhood”
- Will new rights emerge e.g. the right to human interaction
- Will new ethical / legal standards be needed
- Upholding human rights (non-discrimination, privacy)

REGULATORY ISSUES: New Zealand

- Regulator preparedness
- Employment law and regulation of trade unions
- Different regulatory models for each of the professions
- Professional standards
- Specific areas for law reform eg privacy law

AREAS FOR MORE RESEARCH

- Predictive programming and employment: identify key informants for interviewing and assessment of how recruitment systems can be scrutinised
- Research on redundancy and dismissal law
- Analysis of mechanisation and the professions
- Analysis of regulatory approaches to different professions

AI and Law Project

- Project information is available at:
<https://www.cs.otago.ac.nz/research/ai/AI-Law/outputs.html>
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