

Future State 2030



KPMG research undertaken in 2012/2013

What are the broad trends that are shaping society?

What are the impacts for Governments?





The global megatrends impacting governments into 2030



Individuals

Demographics Rise of the individual Enabling technology

Physical Environment

Climate change Resource stress Urbanisation

Global Economy

Economic interconnectedness
Public debt
Economic power shift





Reference: reports.afr.com/kpmg/future-of-work/



Future of Work participants











Johnson Johnson















Alexandra Badenoch Group Exec HR, Telstra



Scott Worrall
MD, Microsoft Aust



Ann Sherry
Exec Chair, Carnival Aust



Professor Lynda Gratton

Skills/workforce planning

"What we can see is that about a sixth of the core skills of our workforce will need to be different in about three years from what they are today - that's a massive volume shift."

"We're going to have to partner to be able to be successful, as we're not all going to be able to build a core differentiated skill base that we can own and manage

Innovation

"It's about the willingness and the desire and the appetite inside an organisation,". "Do they make it permissible to try some things? Do they have the skills? Do they have the imagination that could allow them to think through what's possible?"

Education

"a shift in thinking around education and training is also urgently required if Australian organisations are to have any hope of securing staff with the required mix of skills and knowledge."

Lifelong learning

""Robotics and AI will do
the easy stuff and the more
complex cognitive stuff will
get left to humans, so any
sort of skills that have got a
cognitive component could
be in demand. Secondly,
high levels of
interpersonal skills in
terms of empathy and the
ability to negotiate will also
be in demand and thirdly, I
think the most important
thing is you've got to be
prepared to learn."

Source: reports.afr.com/kpmg/future-of-work/



Future of Work: Professions of tomorrow



Bigger Big Data Analysts



Complex Decision Support Analysts



Remote Controlled Vehicle Operators



Customer Experience Experts



Personalised
Preventative Health
Helpers

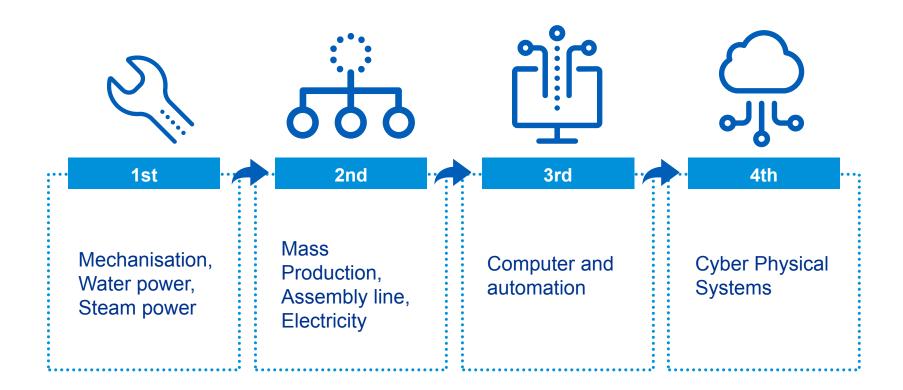


Online Chaperones

Source: reports.afr.com/kpmg/future-of-work/



4th Industrial Revolution





Rise of the Humans: Digital Labour

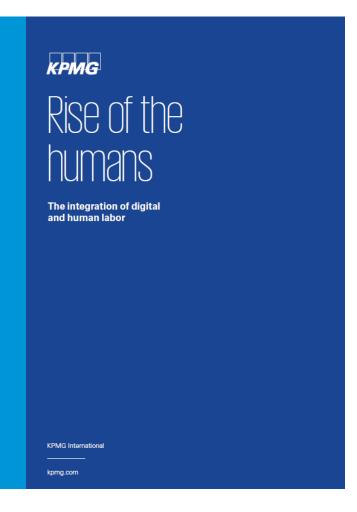
Despite doom and gloom scenarios for massive unemployment, cognitive technologies can spur new jobs and enhance human skills and expertise.

The kind of jobs will likely change, however, especially middle-income routine jobs that are likely to be replaced by cognitive platforms.

The challenge for leaders is to integrate and make the most of both kinds of labour.

A **five-stage process of inquiry** can help leaders systematically think through how the shape and size of their workforce should change.

Arguments range as to whether digital labour will remove or grow jobs, and in truth the jury is still out.

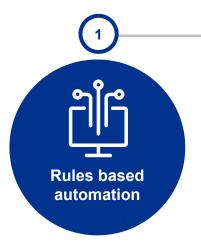


Source: https://home.kpmg.com/xx/en/home/insights/2016/11/rise-of-the-humans.html

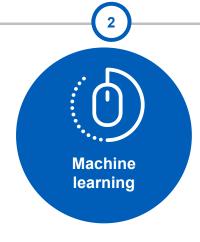


Enabling technology - what is it?

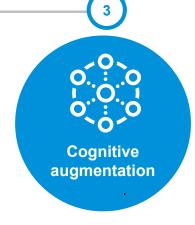
Digital labour can perform work faster and more efficiently than the current manual effort. When evaluating areas of digital labour, identify activities that meet the following criteria:



- Rules based activities
- High volume
- Repeatable and standardised
- Structured data
- Transactional



- · Chat box activities
- Automated assistance activities
- Basic natural language processing activities
- Learning capability to improve service



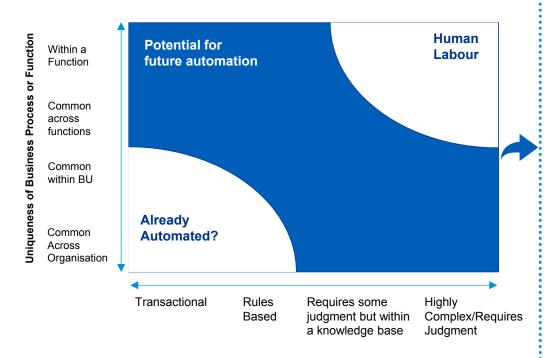
- Enhanced natural language processing activities
- Deep learning for HR processes
- Recommendations based upon synthesis
- Structured unstructured data

Source: https://home.kpmg.com/xx/en/home/insights/2016/11/rise-of-the-humans.html



Enabling Technology - how it impacts the workforce

The convergence of artificial intelligence, robotic process automation (RPA), machine learning, and cognitive platforms is potentially so disruptive that Klaus Schwab, founder of the World Economic Forum, calls it the "Fourth Industrial Revolution."



Nature of Process or Function

² Frey and Osborne



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How will jobs be affected?

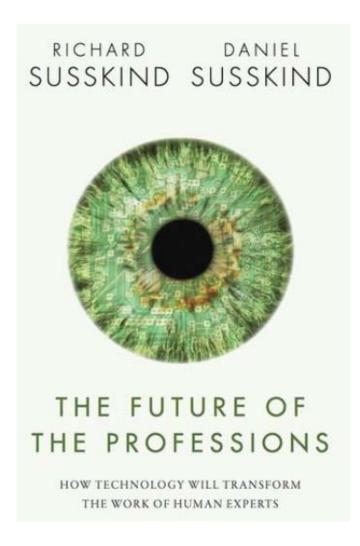
A possible way to illustrate how jobs are affected across the spectrum of **skills** versus increasing **automation** and **enablement** ²

- Perception and manipulation of things requiring high manual dexterity and discrimination between different objects in a cluttered environment – for example, hairdresser (because you don't want your ear to be cut off by mistake), street sweeper, or occupational therapist.
- Creativity, particularly fine art creativity and high-order originality, such as landscape photography or classical musician.
- Social interaction and social intelligence, for example, social worker, primary school teacher, or mental health nurse.

This describes a polarisation of the workforce into low-skilled manual work and high-skilled cognitive work, leaving a hollowing-out of middle-income routine jobs.

¹ Klaus Schwab, *The Fourth Industrial Revolution*, World Economic Forum, 2016.

Future of the Professions



The concept of the "grand bargain" is becoming increasingly disrupted

Technology:

- Exponential growth
- Increasingly capable
 - Problem solving
 - Big data
 - Affective computing
 - Robotics
- Increasingly pervasive
- Increasingly connected (to each other)

Blue collar and white collar impacts

Jobs:

- More a series of activities
- · Decomposition and repackaging

Artificial Intelligence

https://www.chathamhouse.org/event/chatham-house-primer-future-work



Skills and capabilities need to shift...

Working across the public and private sectors



Michael L'Estrange Qantas & Rio



Ann SherryCarnival Australia



Anna Bligh Aust Banker's Assoc



Ken Henry NAB



Mike Baird NAB



Jane Holton ANZ Bank



John Fraser C'wealth Treasury



Mike Pratt
Customer Svc Commissioner



Robert Whitfield NSW Treasury



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Physical Environment

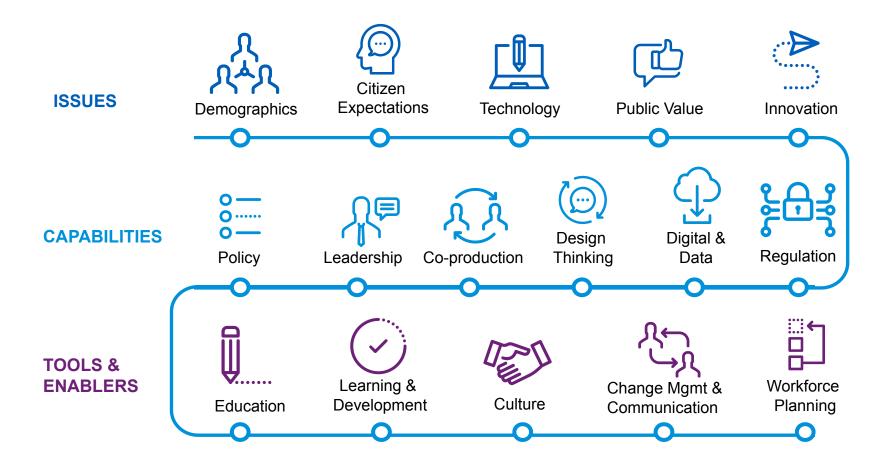
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Future of Work: some final things to consider





The workforce navigator



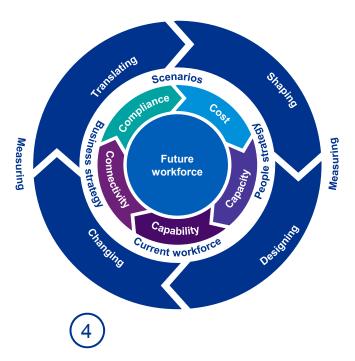
Translating

- Translate Business Strategy into people implications. Think about where we are headed as an organisation, understand our strategy and the roles of these technologies in executing our strategy
- Translate this business and technology strategy into the implications for people and explore which jobs will need to change



Measuring

- Tracking progress. Monitoring alternative scenarios that might take hold and adopting an agile response to ensure all risks are managed
- Value management tracking Measuring/evidencing the value of cognitive solutions and building on success
- Continual learning and development to support reskilling and career relevance over time



Changing

- Embarking on the journey of moving to the new shape and size of the workforce including:
 - · Strategic workforce planning
 - Talent Management
 - Change Management
 - HR Policies Managing robots and humans



Shaping

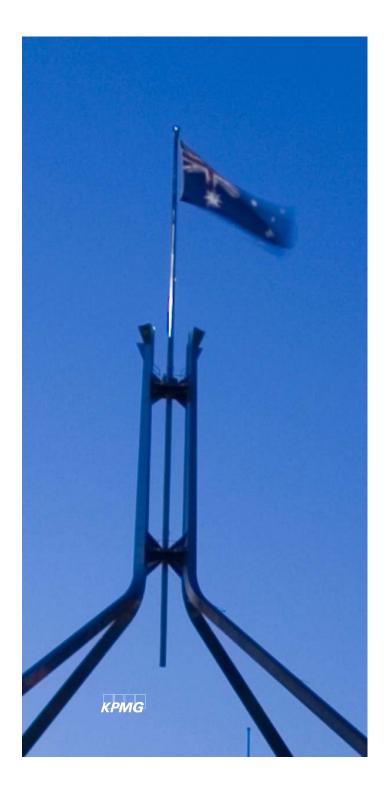
- Understanding how the shape, size and composition of the workforce will evolve over time. In particular, exploring different scenarios that might impact the organisation and developing an appropriate response to the most likely ones
- Design the ideal high level profile for your workforce of the future



Designing

- Design the workforce of the future
- Create a detailed blueprint of how human and digital labour can be optimally integrated? The blueprint needs to cover both structural aspects as well as enabling factors





A final thought ...

"Plenty of course changing for the APS in 2016 – digital disruption; greater transparency in data and information; contestability of advice; and rising community expectations for fast and personalised government services, are just a few of the challenges you face."

"These are not challenges to be avoided or regretted, they must be embraced.

In this new economy, we need Australians to be more innovative more entrepreneurial – and **government** should be the catalyst."

Malcolm Turnbull
Prime Minister

KPMG

Thank you



Michael Hiller

National Leader Infrastructure, Government & Healthcare

T: +61 7 3233 3299 E: mhiller1@kpmg.com.au

kpmg.com.au











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