MAKING A JOB VERSUS GETTING A JOB, THE FUTURE OF WORK HAS CHANGED!

"Get comfortable being uncomfortable."

Quote from Melinda Gates
SUMMARY OF OUR PRESENTATION

To take you on a Journey to walk through aspects such as the:

- Changing and challenging values that education and training providers will face; and
- Fundamental core knowledge and skill requirements that will be needed for individuals to survive in this fast changing global environment with many of the historically held learning values, knowledge and skills becoming obsolete
- Q and A
INTRODUCTION

• Automation and artificial intelligence (AI) is changing the future and nature of work

• Increased underemployment and casualisation of the work force together with low wage growth

• Educational, training institutions and governments have a vital role to play in empowering our future workforce.
  • For example the current review into Reforming Training Packages may lead to less qualifications and more specialisations (skill sets)
  • Another example is reforming the way VET is currently funded so that it includes separate arrangements for training, assessment and specialisations instead of just completions and qualifications
ROBOTS CREATING A WAGES AND EMPLOYMENT “DEATH SPIRAL” WARNS IMF – ARE WE AFRAID?
Defining employment

- **Employed** persons are defined as all persons 15 years of age and over who, during the reference week: worked for one hour or more for pay, profit, commission or payment in kind, in a job or business or on a farm (comprising employees, employers and own account workers)

- Source:
  
REFRAMING OUR THINKING

• Reframing the thinking about training and education to an “investment in your (institutions and individuals) future” mindset is a strong theme that has come through our research.

• Strategic investment by institutions and individuals will allow for a more rapid refocusing of specialisations that enable and empower individuals to create/make a job.

• Will allow individuals to adapt and have an ability to respond quickly to future work opportunities on their terms (including remuneration) rather than fighting to find a job in a diminishing underemployment employer based future.
LETS LOOK BACK TO LOOK FORWARD!
History informs us that work has not always had a positive moral value.
The purpose of the majority was to labour so the minority elite might engage in pure exercises of the mind, art, philosophy and politics.
For the Romans, work was to be done by slaves, and only two occupations were suitable for a free man: agriculture and big business.
The sense of control over one's destiny was missing in the new workplace, and the emptiness and lack of intellectual stimulation in work threatened the work ethic.
EMPLOYMENT AS AN EVOLUTION

One of the central themes of a work ethic is that an individual can be the master of their own fate through hard work.

This has changed and shifted dramatically over the past few years as shown in the image to the right.

source: The Future of Work, by Jacob Morgan
A BRIEF LOOK AT WHAT THE WORLD ECONOMIC FORUM TELLS US!
According to the McKinsey Global Institute, robots could replace 800 million jobs by 2030, while the World Economic Forum suggests a “skills revolution” could open up a raft of new opportunities.

Towards a Reskilling Revolution

• Individual workers will have to engage in life-long learning if they are to achieve fulfilling and rewarding careers.

• For companies, reskilling and upskilling strategies will be critical if they are to find the talent they need.

• For policy-makers, reskilling and retraining the existing workforce are essential levers to fuel future economic growth, enhance societal resilience in the face of technological change and pave the way for future-ready education systems for the next generation of workers.
EDUCATION AND SKILLS

- Technological innovation is fundamentally transforming education, and updating the skills required for the contemporary workplace.
- Building future ready education systems requires designing curricula fit for the 21st century, coupled with the consistent delivery of a basic education for everyone that builds a solid foundation for a lifetime of adapting and developing new abilities.
- Specialised education should provide in-demand skills and address the disconnect between employer needs and existing instruction in order to optimise global talent.
"If we do not change the way we teach, thirty years from now we will be in trouble." - Jack Ma
Technology and globalisation are transforming the ways that we work and learn, and disrupting education and training systems that have remained static and under-funded for decades.

Prevailing gender biases have only introduced further inefficiency and inequality.

The World Economic Forum’s System Initiative on Shaping the Future of Education, Gender and Work seeks to ensure that talent is developed and deployed for maximum benefit to economies and societies, by mobilising businesses, governments and civil society to pursue common agendas and collaborative action.
"Everything we teach should be different from machines." - Jack Ma
Robots were once used only for dull and difficult work, confined to isolated locations and factory floors.

Today, robots are found everywhere, both inside and outside of our homes.

Some are drones, others are autonomous cars, and still more are surprisingly realistic humanoids.

Now they are ready to get more social, they are smart enough to move around without bumping into objects, and they can mingle in crowds.

Embedded with sensors and motors, some of latest humanoids can jump over the “uncanny valley” by convincing us they are really human - at least until we start speaking to them (though that may soon change).
• The Fourth Industrial Revolution represents a fundamental change in the way we live, work and relate to one another.

• It is a new chapter in human development, enabled by extraordinary technology advances commensurate with those of the first, second and third industrial revolutions.

• These advances are merging the physical, digital and biological worlds in ways that create both huge promise and potential peril.

• The speed, breadth and depth of this revolution is forcing us to rethink how countries develop, how organisations create value and even what it means to be human.

• The Fourth Industrial Revolution is about more than just technology driven change, it is an opportunity to help everyone, including leaders, policy-makers and people from all income groups and nations, to harness converging technologies in order to create an inclusive, human centred future.

The real opportunity is to look beyond technology, and find ways to give the greatest number of people the ability to positively impact their families, organisations and communities.
By 2020, the global population of those over 60 years of age will reach 1 billion; by 2050, it is expected to reach 2 billion.

This trend, combined with a general decline in birth rates, is leading to a situation where the world's old will outnumber the young.

This presents an economic opportunity, as consumers over 60 will have trillions of dollars in spending power to help drive global consumption.

There is also an opportunity to better leverage the abilities of those over 60, by adjusting workplace policies and redefining what “retirement” means.

Investing more significantly in healthier ageing processes can help combat related health conditions, improve functional ability, and increase productivity.

A transformation of institutional structures is called for, alongside public policies better aligned to the world’s new demographic makeup.
LETS EXPLORE OUR FUTURE FURTHER!
“ALMOST HALF OF AUSTRALIAN BUSINESSES WOULD RATHER HIRE TALENT THAN TRAIN EXISTING EMPLOYEES - AND ITS A WORRYING SIGN FOR THE FUTURE OF THE WORKFORCE”
“WHY BEING OVER 50 SHOULD BE AN ASSET, NOT A LIABILITY …”
THE TECHNOLOGY BIT

Today
Automating repetitive, standardised or time-consuming tasks and providing assisted intelligence.
Increased demand for STEM skills to build new tech ecosystem.

Emerging
Fundamental change in the nature of work. Humans and machines collaborate to make decisions.
Uniquely human traits – emotional intelligence, creativity, persuasion, innovation – become more valuable.

Future
Adaptive continuous intelligent systems take over decision-making.
The future of humans at work is questioned.
Cool Jobs of the Future

The future of jobs, work and education: the return of human-only skills

Subjective reasoning
Imagination
Negotiation
Questioning
Empathising
Storytelling
Connecting
Creativity
Design

- agricultural drone pilot
- healthcare robot manager
- outer space tour guide
- water architect
- micro-weather programmer
- 3D printer clothing designer
- computer hacker anti-hacker
- remote sports performance analyst
- smart highway traffic manager
- smart packaging advertising manager
THIS CAR BRINGS YOUR GROCERIES ON-DEMAND
DEMISE OF THE TEACHER AS TEST MARKER
“ROBO” GRADES STUDENT ESSAYS BY COMPUTER
STEP INTO A FULLY ROBOTIC KITCHEN
MORE JAPANESE PEOPLE THAN EVER ARE TAKING A SECOND JOB ...
JAPAN IS EMBRACING NURSING-CARE ROBOTS
8 ROBOTS THAT ACT LIKE HUMANS, FROM MOULDING POTTERY TO MAKING...
THE MACHINE FIRED ME!
... NO HUMAN COULD DO A THING ABOUT IT!
What is a 21st-century career?

We define it as a series of developmental experiences, each offering a person the opportunity to acquire new skills, perspectives, and judgment.

Disruptive change

61% of survey respondents told us they are actively:
- redesigning jobs around artificial intelligence
- robotics
- new business models

Careers in this century may follow an upward arc, with progression and promotion at various times—but they will look nothing like the simple stair-step path of generations ago.
THE 10 SKILLS EMPLOYERS MOST WANT TODAY

https://www.forbes.com/sites/susanadams/2013/10/11

1. Ability to work in a team
2. Ability to make decisions and solve problems
3. Ability to plan, organize and prioritize work
4. Ability to communicate verbally with people inside and outside an organization
5. Ability to obtain and process information
6. Ability to analyze quantitative data
7. Technical knowledge related to the job
8. Proficiency with computer software programs
9. Ability to create and/or edit written reports
10. Ability to sell and influence others

Soft Skills

Competency Skills
Tertiary education fees free

Fees-free tertiary study or training is now available for eligible learners.

Investing in education and the future of New Zealanders is an absolute priority for the government.

Whether you are an aspiring apprentice or thinking about taking on a degree, we will invest in you.

Broadly, if you’re a New Zealander who finished school in 2017, or if you will finish school during 2018, you qualify for a year of fees-free provider-based tertiary education or two years of industry training in 2018.

If you’re not a recent school leaver, and you’ve done less than half a year of tertiary education or training (whether in New Zealand or in any other country), you may also qualify.

https://www.feesfree.govt.nz/
80,000 people eligible for fees free

*This Government has taken the first major steps to break down financial barriers to post-school training and education. Next year, around 80,000 people will be eligible for fees free post-school training and education.

https://www.beehive.govt.nz/release/80000-people-eligible-fees-free

No enrolment increase despite zero fees: universities

The government's zero-fee policy for new tertiary students has increased administration costs, but is having little impact on enrolments, universities say.

https://www.odt.co.nz/news/national/rnz/no-

https://www.educationcounts.govt.nz/statistics/indicatorIS
“The completion rate is between 5 and 15% depending on whether you count simply finishing or completing assessments and receiving a certificate.

That’s a rate that makes even the approximately 40% completion rate for apprenticeships, we have in this country look good.

One of the reasons for this that we can refer to these courses as ‘easy in, easy out’ ...

*There is not real cost, or condition on entry and enrollment, and no cost or consequence for exiting or no completion.*”

Source:
BUSINESS FATIGUE IS REAL

- Internships and work placements
- Need to show the value
- Alignment of learning with needs of the business – operation and direction of the business.
A studio school is a type of secondary school in England that is designed to give students practical skills in workplace environments as well as traditional academic and vocational courses of study.

Swiss Apprenticeship model

Swiss 16-year-olds face an important choice at the end of their three compulsory years in lower secondary school. When moving on to upper secondary level, they can either enrol in vocational education and training (VET) or they can, if their marks are good enough, go to a baccalaureate (pre-university) school, known as collège or Gymnasium.

More than two-thirds of students in this age group take the vocational route.
LEARNER HUBS

• Where students work collaboratively with industry in the application of the learning on “live” projects.

For example in China …

• Designing a block of apartments and then working with project managers

• Undertaking scientific tests on marine farms as part of the businesses compliance monitoring and reporting
LEARNING SPACES AND ENVIRONMENTS ARE CHANGING ...

Ziferblat

• A place where you can do as you please… guests clock in and out at the desk on entry and are encouraged to treat the space like home.
CREATE ONLINE THINK TANKS

• With what if scenarios generate by industry as an employment strategy and invite future students and employees to be allowed to imagine …

• E.g. what will replace the iPad in 15 years?
IN CLOSING

Lost Generation

Published on Nov 30, 2007
But still so relevant!
QUESTION AND ANSWER
THANK YOU

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