



known knowns
know
know
known unknowns
know
don't know

There are known knowns.
There are things we know
that we know. There are
known unknowns. That is
to say, there are things
that we now know we
don't know

US Secretary of State
Donald Rumsfeld
Dept of Defence Briefing
Feb 2002

This is the **4th industrial revolution**
and the **2nd renaissance**

“people often naively talk about ‘the future of work’ as some distant point in time... but the future is here, now”

Professor Attila Brungs
Vice-Chancellor UTS

complicated
complex
complex
ity

examples

sustainability

climate change

our ageing population

complicated
complex
complex
ity

suggested reading

A Leader’s Framework for Decision Making
by David J. Snowden and Mary E. Boone

The Harvard Business Review
November 2007

Singapore in midst of far-reaching revolution in education

Straits Times, Apr 24, 2018, 4:00 pm SGT

"In his role driving innovation in the public service, Mr Ong has called on civil servants to *"think big, start small, act fast"*. Some observers are hoping to see this slogan applied to the education system in an age of disruption."

<https://www.straitstimes.com/politics/cabinet-reshuffle-ong-ye-kung-to-helm-ministry-of-education-which-will-revert-to-having-one>



Singapore in midst of far-reaching revolution in education

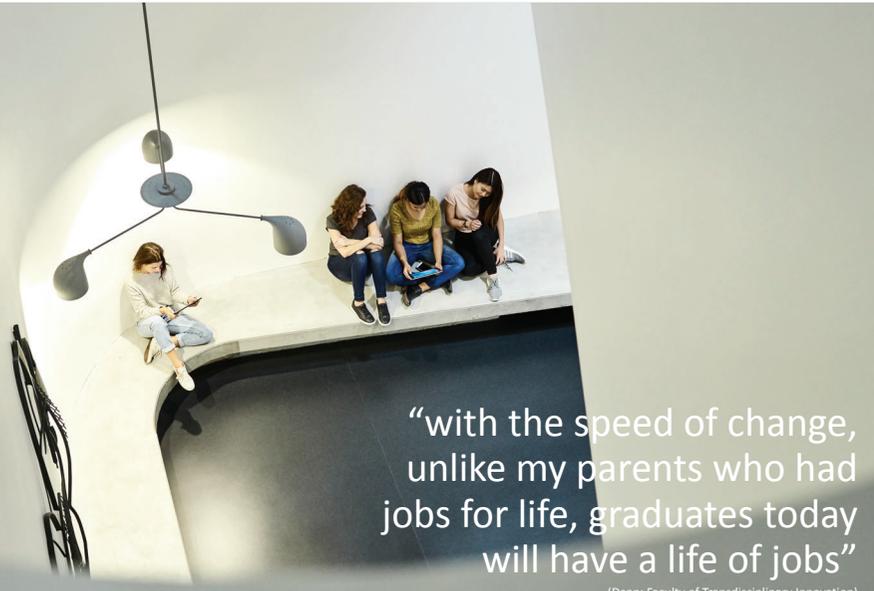
Straits Times, Apr 24, 2018, 4:00 pm SGT

Addressing about 400 business and thought leaders from around the world... Mr Ong highlighted the push for lifelong learning, helping the next generation discover and grow their strengths, and shifting to more applied learning.

But he also admitted that there is still a lot of work to do, including focusing less on academic teaching and examination scores, and more on cultivating creativity and critical thinking.

<https://www.straitstimes.com/politics/cabinet-reshuffle-ong-ye-kung-to-helm-ministry-of-education-which-will-revert-to-having-one>

the future of work



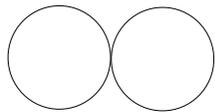
“with the speed of change, unlike my parents who had jobs for life, graduates today will have a life of jobs”

(Dean: Faculty of Transdisciplinary Innovation)

what is

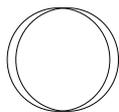
transdisciplinarity?

+ what isn't it?



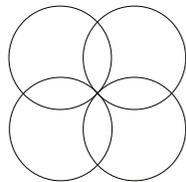
MULTI
DISCIPLINARITY

simply refers to the obtaining of information from two or more disciplines, without either being altered by this interaction



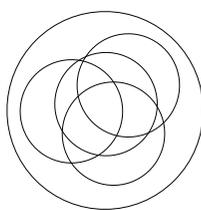
CROSS
DISCIPLINARITY

is when the aspects of one discipline are imposed on another discipline, such as design-thinking being applied to business, which might alter business, but does not alter design



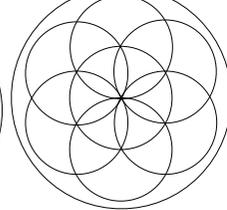
INTER
DISCIPLINARITY

is where several sub-disciplines within a broader disciplinary field co-operate, but with no permanent change to any of them



TRANS
DISCIPLINARITY

however takes this further. It is a more holistic approach. It is not just about the joining up of individual outcomes or the interactions between disciplines, but about integrating these interactions into a new system of thinking, resulting in new outcomes that singular or conjoined disciplines would and could not create



The Bachelor of

Creative Intelligence + Innovation

(BCII)

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FACULTY OF DESIGN, ARCHITECTURE & BUILDING



FACULTY OF SCIENCE



FACULTY OF ENGINEERING & INFORMATION TECHNOLOGY



FACULTY OF HEALTH



FACULTY OF BUSINESS



FACULTY OF LAW



Creative Intelligence + Innovation

(BCII)

PM Lee calls for design thinking in the reimagining of Singapore

Straits Times, Apr 6, 2018, 5:00 am SGT

"Calling for more design thinking in the reimagining of Singapore, Prime Minister Lee Hsien Loong yesterday described how such thinking shapes public transport, a "multi-level design problem". On the surface, it looks like an engineering problem, he noted. But it is also an economic problem - of setting up the right incentives for each stakeholder. Finally, it is a socio-political problem, as public transport can be an economic mobiliser and a social equaliser - and fare hikes have to be justified to the public, he noted. "We have to evaluate the trade-offs carefully and holistically, to decide what will work best, on the whole, for Singapore," he said at a forum at the Singapore University of Technology and Design.

<https://www.straitstimes.com/singapore/pm-lee-calls-for-design-thinking-in-the-reimagining-of-singapore>



"In many industries and countries, the most in-demand occupations or specialties did not exist 10 or even 5 years ago"

The Future of Jobs (The World Economic Forum)



THE JOB TITLES

- connection maker
- innovation & digital solutions analyst
- design & innovation consultant
- content & design thinking training coordinator
- design & innovation consultant
- foresight and innovation analyst
- instructional designer
- cx analyst
- experience design consultant
- ux researcher and designer
- design thinking project member
- transformation designer
- experience design consultant
- service designer
- entrepreneur
- co-founder
- Silicon Valley start-up co-founder





method cards



method cards



industry meets education

Fiona Anson from JobGetter working with first year UTS Bachelor of Technology & Innovation student

connecting thinking + learning

technology + ethics

The internet
gave us access
to everything,
but it also gave
everything
access to us

James Veitch

<https://www.videoblocks.com/video/abstract-network-connection-background-technology-and-connectivity-concept-molecule-and-communication-background-3d-render-3d-illustration-swg8ttjg0e90nd>

mistakes^x + failure

Would you like me
to give you a
formula for success?
It's quite simple, really
... double your rate of
failure

Thomas J. Watson
Founder of IBM

<https://candidkay.com/2015/06/26/mistakes-will-be-made/>



JUST THE BEGINING

**EDUCATING
FOR THE KNOWN
UNKNOWNNS**

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