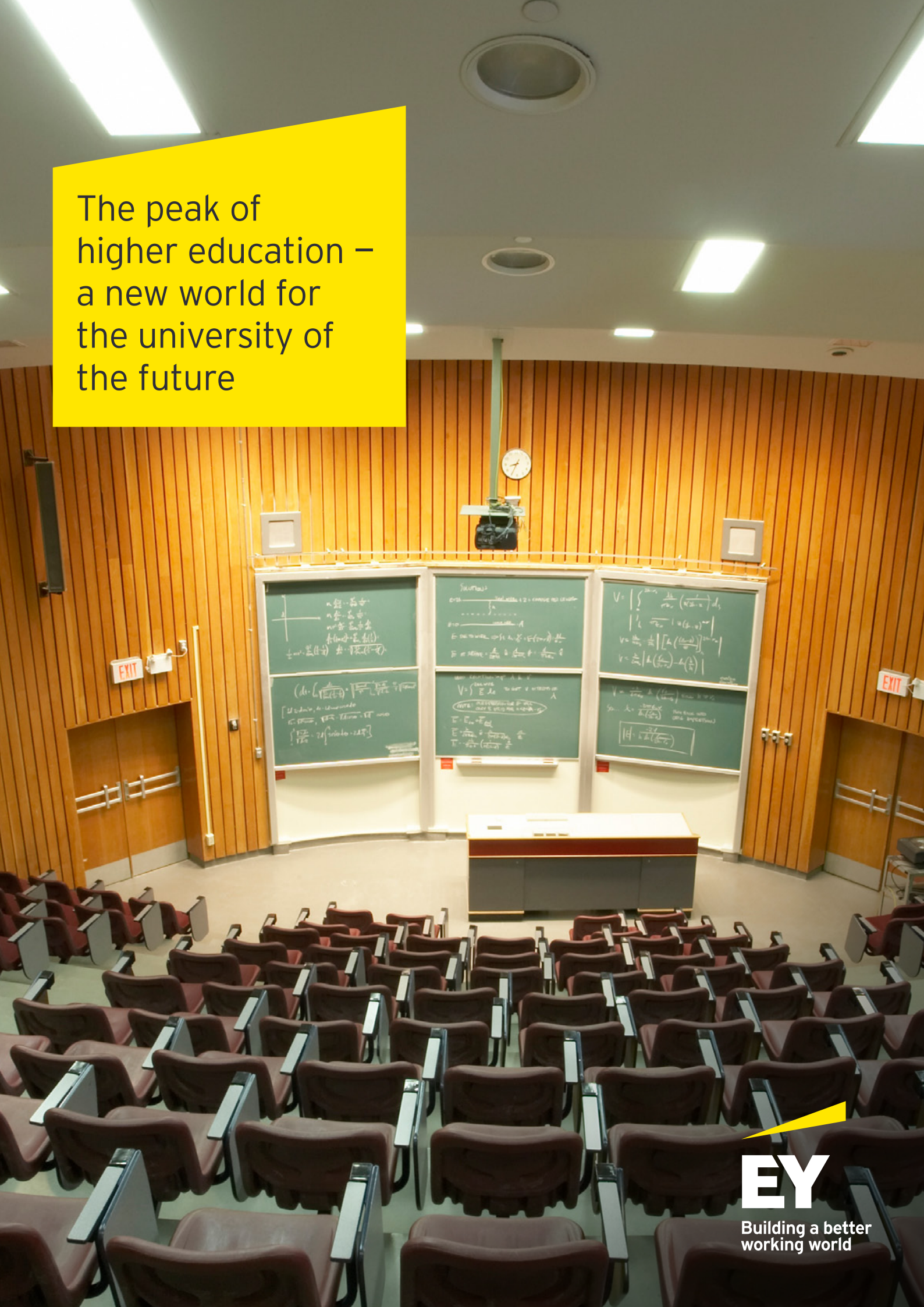


The peak of
higher education –
a new world for
the university of
the future



FOREWORD

WHAT IF

WE'VE

REACHED

THE

PEAK

OF HIGHER

EDUCATION

IN OCEANIA?

“

Our competitive differentiation is our campus + our people + our diversity. How does digital allow this to be better, rather than driving it down to the lowest viable product and price? How does digital augment and give us superpowers?

Professor Brian P. Schmidt AC FAA FRS
Vice-Chancellor, Australian National University

Renewable energy and electric vehicle adoption have brought the world to the point of 'peak oil' and 'peak car'. What if, after decades of growth, the size of the traditional higher education sector has also reached its upper limits? What if the advent of COVID-19 means we've reached peak international students, peak undergraduate degrees, peak campus and peak rankings? What if the decline of traditional higher education teaching and learning begins now?

There's plenty of evidence to support this hypothesis. Converging technologies are re-inventing higher education, along with every other industry on the planet. Digital is driving the emergence of new ecosystems for learning and knowledge creation, and setting the stage for immense innovation.

Already, we can see growing demand for learning that is continual, flexible, customisable - and close to free.

A growing supply of digital-by-design providers are offering new learning pathways and engaging content on platforms that harness AI to personalise what and how people learn.

And this is happening at a time when employers and society care less about traditional degrees - and more about proof of job-ready skills. The job market is crying out for innovators, problem solvers and self-actualising learners with the ability to collaborate and co-create with others.

Meanwhile, in the university sector, cost and delivery models are in crisis. Traditional degree courses are spiralling out of reach of more learners. Governments are failing to recover a higher proportion of traditional degree loans.

WHAT IF HIGHER EDUCATION IS REINVENTED AS THE KNOWLEDGE SERVICES SECTOR?

This paper presents a thought experiment that explores how converging technologies and new business models might change the structure of the higher education sector. It posits four 'What if...?' questions that every vice-chancellor should consider to chart a course from present to future with greater confidence and clarity. Our primary consideration has been the role of the university as a provider of teaching/learning, rather than its role in research - but we have one or two thoughts about research, too.

We hope this thought leadership paper provokes some light-bulb moments in campuses across Oceania.

Catherine Friday
EY Managing Partner,
Oceania Government and Health
Sciences and Global Education Leader

Alison Cairns
EY Oceania Education Leader

IT'S TIME TO THINK ABOUT THE FUTURE

D I F F E R E N T L Y

In 2018, EY made bold forecasts about the state of the university sector in Australia and New Zealand for 2030. Yet perhaps we were not bold enough. Because of COVID-19, much of the 2030 we predicted arrived in 2020. And the sector was not ready.

The pandemic proved that, while universities have been with us for centuries, they are not immune to the business reinvention that is taking down giants in media, automobiles and energy. In a world of 'work from anywhere', people also want to 'learn from anywhere' - and new education platforms are rising to meet this demand.

Given the radically new expectations of higher education, Clayton Christensen's prediction¹ may be correct. By 2030, a quarter of universities could go bankrupt, merge, restructure or close as the sector is reinvented. Survivors will need to have forged ever closer commercial relationships with industry,

disrupted themselves or coalesced into new networks of alliances.

As COVID-19's systemic shock continues to play out and technology changes the game of higher education, we challenge you to think the unthinkable:

Imagine that demand for traditional higher education never returns to previous levels; 2019 was the high watermark for universities in Oceania; we have reached peak higher education.

The pandemic threw Oceania's over-reliance on international student revenue into sharp relief - and demonstrated how universities create major systemic risk when they assume that today's sector structure, competitors and profit pools will persist through the next 5 to 10 year planning horizon.

As higher education gets re-invented around us, we should consider how the emerging knowledge services sector will challenge today's norms. Hence, this paper.

What follows are four plausible 'What if...?' scenarios for 2030 - all based on clear trends, signals and technologies from today - to help university leaders create a state of preparedness for the future.

“
Many of our universities face substitution risk and won't survive exponential technological change.

Edmund Wong
Managing Analyst, EYQ China

¹ Clayton M. Christensen and Michael B. Horn, "Innovation Imperative: Change Everything," The New York Times, 1 November 2013. Available at: <https://www.nytimes.com/2013/11/03/education/edlife/online-education-as-an-agent-of-transformation.html>



01

WHAT IF ...

THE COST
OF LEARNING

IS DRIVEN

DOWN

TO

ZERO

“

The future for universities is to both stream like Spotify and offer experiential learning like a Crowded House concert.

Professor Ian Wright
Deputy Vice-Chancellor (Research)
University of Canterbury

‘The classroom is dead’

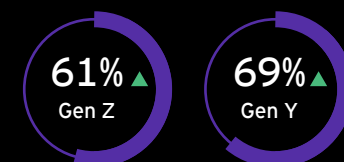
Imagine that accessing learning in 2030 is like listening to music via Spotify in 2021. It’s a do-it-yourself or self-directed experience - for a very low fee. At the touch of a screen, you access catalogues of learning content to consume at your own pace, with algorithms taking you deeper into topics of interest and artificial intelligence matching learning activities to current knowledge levels. You create and share your favourite educational playlists. The platform offers you increasingly personalised content based on your learning preferences, passions and career aspirations.

“

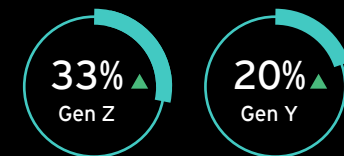
Universities need to stop trying to write every single piece of content when there are already terabytes of great content out there that students can access.

Professor Colin Stirling
President and Vice-Chancellor
Flinders University

Changing attitudes and behaviours towards digital present new opportunities for universities to reinvent learning delivery

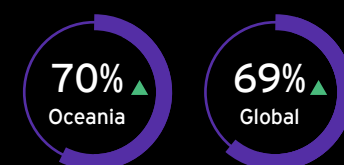


believe the way they use technology has changed since the pandemic began (Source: Future Consumer Index)



feel that the way they study will change over the longer term as a result of COVID (Source: Future Consumer Index)

Universities have a unique opportunity to build meaningful connections and relationships with a global audience



would enroll in online learning anywhere in the world (Source: IPSOS Mori research for Connected Citizen)

Sector structure in 2030

The knowledge services sector solves for accessibility.

Universities are just one category of a plethora of knowledge services providers accessed via digital platforms, which reduce the marginal costs of distributing content to almost zero while enabling almost infinite scale and reach. Universities in 2030 are like public libraries in 2021: temples of knowledge that few visit because information and services have been dematerialised to screens.

Implications for universities

Traditional higher education revenues decline by \$5-6bn and the non-research workforce shrinks by more than 50% as new learning services proliferate. Winning universities pivot early, think ahead of the market, embrace learning platforms and acquire new capabilities.

Signposts from today

Revenue declines for incumbents as industries digitise; rise of services like Clubhouse, Substack, YouTube and podcasts to replace pre-recorded lectures; availability of \$500 Google career certificates and free corporate MBAs as substitutes for university degrees.

02

WHAT IF ...

ACCREDITATION

IS THE NEW

BATTLEGROUND?

“

It doesn't matter whether you take three years or six years to finish your degree. As long as you're learning, that's a good thing.

Professor Amit Chakma
Vice-Chancellor
The University of Western Australia

'Work is the new uni'

Imagine that investing in knowledge in 2030 is as easy as investing in exchange traded funds in 2021. You live in 'beta' mode - constantly having to learn something new for your career. You want to make informed choices between acquiring intellectual or job skills, based on return on investment and outcome metrics. You log on to your independent career platform that provides expert advice on which programs link most strongly to your employability and career goals - with choices ranging from on-the-job learning to micro-credentials to university degree programs with job guarantees. The platform holds your growing portfolio of skills and has a dashboard that tracks the return on investment from your learning.

“

We are grappling with science labs and how to use digital tools like gamification and virtual reality, as there are accreditation challenges around this.

Professor Ian Wright
Deputy Vice-Chancellor (Research)
University of Canterbury

Sector structure in 2030

The knowledge services sector solves for accountability.

Universities have lost their monopoly on accreditation and non-degree credentials are mainstream. Some employers and industry bodies compete directly with the traditional accreditation system while others partner with universities to develop bespoke credentials. Universities compete, co-create and engage in 'co-opetition' by working with employers to develop training and the associated performance measures to assure graduates have required workforce skills.

Implications for universities

First movers in digital accreditation (e.g. stackable micro-certifications) gain access to a new \$10bn marketplace. (Source: EY analysis)

Signposts from today

Policy linking funding to student outcomes; mismatches between employers and universities on job-ready skills; corporates buying enterprise learning licenses from universities; digital credentialing technologies.

03

WHAT IF ...
GOVERNMENT
FUNDS
INDIVIDUAL
LEARNERS
NOT
INSTITUTIONS?

“

Why does doing digital well matter?
Different students have different needs.
We need personalisation at scale, and to enable
easy movement between physical and digital.

Professor Iain Martin
Vice-Chancellor
Deakin University

‘Learners
empowered
by choice’

Imagine that funding your learning journey in 2030 is like seeing a medical professional or accessing disabilities services in 2021. In a true shift to learning-centric education, you choose from a wide range of government-recognised knowledge services providers and are fully or partially reimbursed by government vouchers or private education insurance. The new ‘Educare’ system incentivises results by paying a higher percentage of costs when you achieve your goal credentials.

“

Our government is not covering the costs of the country’s undergraduate programs. A typical ANU non-science degree costs \$15,500 of which the government pays \$1,000 and the student pays \$14,500. The equivalent Harvard degree costs \$80,000.

Professor Brian P. Schmidt AC FAA FRS
Vice-Chancellor, Australian National University

“

Concentrate on the learner! If education is truly about the learner, then why are there so many separate sector bodies? This makes it too hard to navigate the sector, therefore corporate or new competitors can seize an advantage.

Professor Pascale G. Quester
Vice-Chancellor and President, Swinburne University of Technology

Sector structure in 2030

The knowledge services sector solves for affordability.

Universities have lost their monopoly on government funding for student places. The full spectrum of learning providers (many offshore) compete with different value propositions: teaching excellence and reputation in specific fields, innovative and effective pedagogical approaches, close partnerships with industry and potential employers, or simply value-for-money. Public universities exit markets with no unique selling point or where demand is low, and instead focus their investments on areas where they compete and win. Private universities enter markets where they can apply agile commercial models to selective courses at scale.

Implications for universities

\$10b of government funding to universities for student seats is now fully contestable.
(Source: EY analysis)

Signposts from today

Democratised access to learning; spiralling costs of traditional teaching and learning; cuts in government funding for education.

04

WHAT IF ...

COMMERCIALISED

RESEARCH

FUNDS UNIVERSITY

OPERATIONS?

'Research pays the bills'

Imagine that revenue from commercialised research in 2030 fulfills the role of government funding and international student revenue in 2021. Governments proactively support opening up the higher education sector to private and overseas investment in R&D. Corporates, governments, venture capitalists and foundations post business issues and research topics to an 'innovation marketplace', where PhD students and universities bid to secure funding and collaboration opportunities. Commercialised innovation boosts economic growth. Australia and New Zealand climb into the top rankings of the world's most innovative countries.

“

Universities must prevail because they ask and answer un-google-able questions. And we need to be better at passing on this critical skill to our students.

Professor Colin Stirling
President and Vice-Chancellor
Flinders University

Sector structure in 2030

The knowledge services sector solves for sustainability.

University research shifts to prioritise commercial, demand-driven research and development, creating closer collaboration between universities and industry and capital markets. Universities repurpose their under-used campus assets for business incubation. PhD students have clear career paths into industry, eventually working for companies whose commercial research they undertake. Researchers and universities gain a share of IP and its real commercial revenues. Government continues to fund non-commercial academic research that supports the national interest.

Implications for universities

Universities self-fund through research projects and commercialisation of IP. \$120b in commercial research funding provides universities with a sustainable income stream of \$10b per annum. (Source: EY analysis)

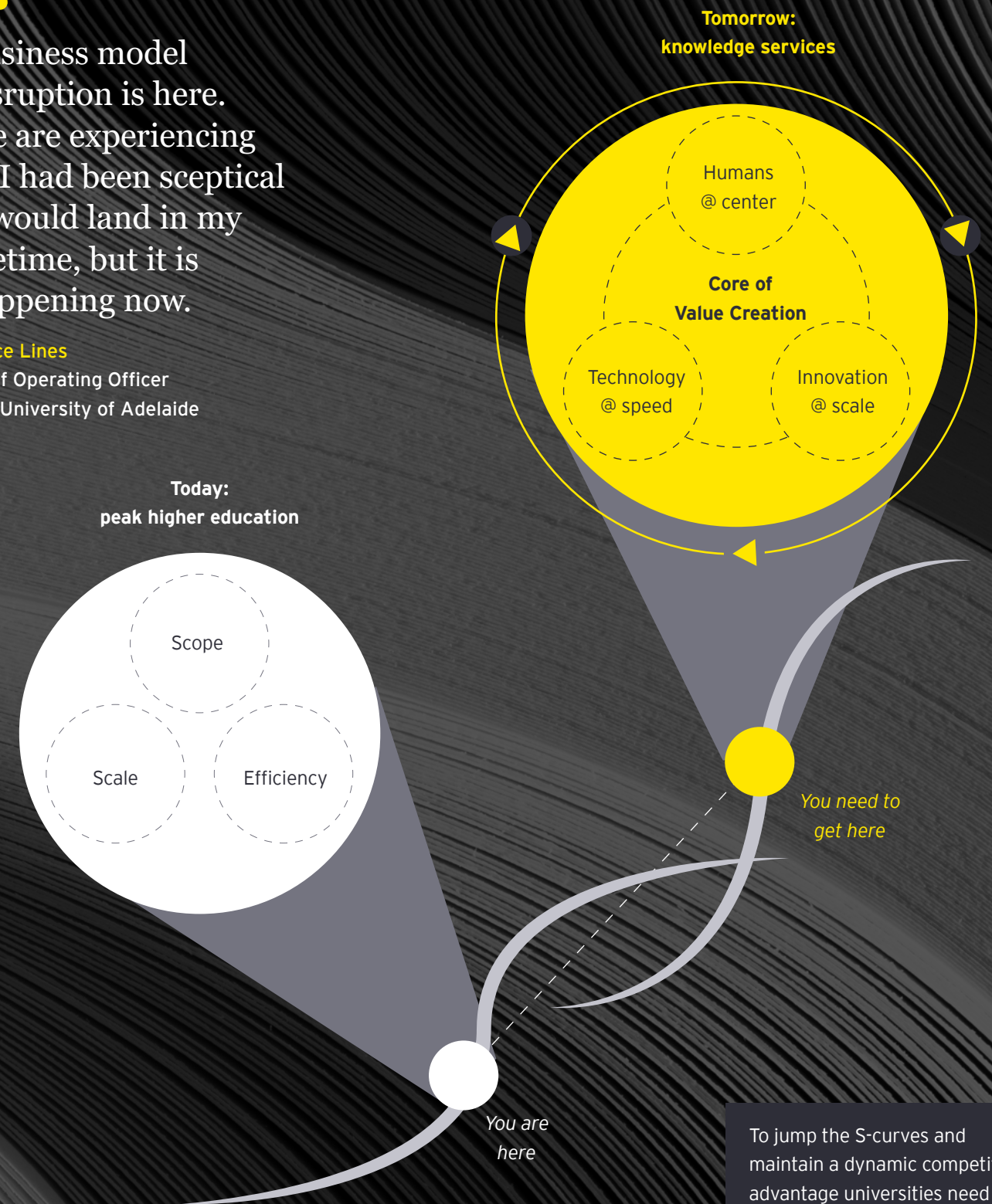
HOW
TO
JUMP
THE
S-CURVE?

“
Business model
disruption is here.
We are experiencing
it. I had been sceptical
it would land in my
lifetime, but it is
happening now.

Bruce Lines
Chief Operating Officer
The University of Adelaide

“
In the age of machine learning we all
need to become learning machines.

Riaz Shah
EY Global Learning Leader



To jump the S-curves and maintain a dynamic competitive advantage universities need to adopt a new set of behaviors to get and stay ahead

To survive and thrive in the knowledge services sector, universities must reinvent themselves by jumping the S-curve - moving from the maturity stage of 'peak higher education' to the growth stage of knowledge services. However, reinvention is challenging because organisations become trapped by today's assumptions.

Here is how you can repeat this thought experiment to create a state of preparedness for what is coming:

1

BE CLEAR ABOUT YOUR LONG-TERM PURPOSE

Ask: 'Why are we here?' Purpose will help you maintain relevance as you journey into an uncertain future. Is your purpose to: advance lifelong education wellbeing, collaborate to solve grand global challenges, unlock knowledge and commercialise research, or something else?

“

COVID is forcing strategic and business model diversification that regulators and universities have been unable to achieve before.

Tim Fowler
CEO, Tertiary Education Commission New Zealand

2

THINK 'FUTURE-BACK' TO SET YOUR REINVENTION AGENDA

Ask: 'How will my institution be relevant in one or two decades?' Use scenarios beyond the 'What if...?' questions in this paper to define the choices you need to make today. What if the sector consolidates via mergers? What if universities form global partnerships like the airline sector? What if universities become digital platforms? Engage with your broader ecosystem, including technology and consulting partners, to think differently about the future.



“

How do we create disruption within to create new markets? If we don't, we face decreasing demand.

Emeritus Professor Martin Bean CBE
Chief Executive Officer
The Bean Centre
Former Vice-Chancellor, RMIT

3

BUILD NEW VALUE WITH NEW CAPABILITIES

Ask: 'How can we create long-term sustainable value for all our stakeholders?' Your historical value came from scale, scope and efficiency. Tomorrow, value will come from a new set of dynamic behaviours: putting humans@centre, driving innovation@scale, and deploying technology@speed. Leapfrog your competitors with reinvention. Address a customer need - a job guarantee for graduates. Innovate your learning model and industry partnerships to enable this. Deliver it with AI-driven personalisation and digital credentialing. Scale it up.

To build this muscle, go outside your sector to find talent from other industries living with reinvention, such as media, financial services or energy.

4

INVEST ACROSS THREE TIME HORIZONS

Ask: 'How can we manage for today and change for tomorrow?' Balance your reinvention agenda to keep you thinking about exponential change.

HORIZON: NOW

Investment: 70%

Focus: Strengthen the core business models and operations of the university of today. For example: protect sensitive information with cybersecurity or digitally schedule classes using intelligent automation.

HORIZON: NEXT

Investment: 20%

Focus: Build the new business models and technologies for the university of tomorrow. For example: develop a next generation digital learning ecosystem to deliver 'on demand' learning.

HORIZON: BEYOND

Investment: 10%

Focus: Make big bets to reinvent yourself and your industry. For example: build a digital platform to enable offering job guarantees to students.

SECTOR

REINVENTION

WILL COME

GRADUALLY ...

Of course, universities will not disappear overnight. They will remain powerful vehicles for knowledge creation, economic growth and prosperity. And they will continue to be trusted curators of learning and knowledge whose teachers are known for their accessibility, credibility and engagement.

Not all universities are slow to change and reluctant to innovate. Some are starting to innovate for a future that accommodates both degrees and micro-credentials, intellectual and job-ready skills, synchronous and asynchronous learning.

And not all students will pursue alternatives to universities. Many will still want a coming-of-age experience before starting their professional lives. For this cohort, universities will continue to provide transformative experiences that go beyond acquiring a catalogue of skills.

AND THEN

SUDDENLY

Today, the landscape around universities is changing faster than the organisations themselves, making disruption more likely and decision-making more difficult. The COVID-19 pandemic is a systemic shock that brings our higher education sector to the fork in the road.

As higher education peaks, universities need to consider:

- ▶ What might the post 'peak higher education' world look like in Oceania?
- ▶ What opportunities are there to use technology to engage the world in new ways?
- ▶ How might we produce job-ready graduates as well as engaged, life-long learners?
- ▶ How might we build a university that uses disruption as a competitive advantage?
- ▶ Does every university deserve to survive?

**HIGHER EDUCATION
IS DEAD. LONG LIVE
THE KNOWLEDGE
SERVICES SECTOR!
THE FUTURE IS CLOSER
THAN YOU THINK.
CHANGE MUST START
NOW - OR NEVER.**

“

If the quality of life we now enjoy is the product of the learning of prior generations, then what does this moment in history demand of our peak education and research institutions?

Catherine Friday
EY Global Education Leader

EY can help

The future is uncertain, but the path there doesn't need to be. Take two simple steps:

► Self-diagnose your digital readiness

Some universities are accelerating digital innovation. Others are still in the planning stages. Take our **self-diagnostic** (adjacent page) to assess the readiness of your university to deploy technology at speed as you reinvent your university for a knowledge services future.

► Conduct your own thought experiment

Contact EY to facilitate a virtual 'future back' strategic workshop with your leadership team, using exercises grounded in scenario planning to envision an unconstrained future.

Acknowledgements

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SELF-DIAGNOSTIC:

HOW WELL ARE YOU DEPLOYING

TECHNOLOGY @ SPEED?

New technologies are emerging that present opportunities for knowledge services players to reinvent business models and drive significant efficiency in operating models. Organisations can seize significant advantage over competitors by being more prepared and adept at leveraging these technologies.

Use this list to diagnose the readiness of your university to deploy technology at speed as you reinvent for the knowledge services future.

Rank your institution on how well you are: (use a 5-point scale: 5-excellent, 4-good, 3-average, 2-poor, 1-no action)

1. Converting your traditional learning management system into a **next generation digital learning ecosystem** that provides adaptive or personalised learning opportunities for individual students?
2. Implementing a **career platform** that connects students to industry and provides career advice, planning and placements?
3. Enabling informed executive decision-making via a **unified data platform** that provides a 360-degree view of students, staff, faculty and operations?
4. Using **learning analytics** to predict student performance challenges and provide targeted improvements to courses?
5. Creating smart processes and workflows using **intelligent automation** to digitally schedule classes and interact with students, staff and faculty in a timely and personalised way?
6. Exploiting **artificial intelligence and machine learning** to assist teaching, supporting activities ranging from grading to tutoring to performance monitoring?
7. Leveraging **digital credentialing technology** to authenticate skills and knowledge to help students publish their achievements for their professional lives?
8. Using **cyber security** to protect all sensitive and personal information in the university ecosystem as your institution becomes more digital?

If the answers to any of these questions cause concern, it could be time to accelerate technology and digital innovation to meet the rapidly changing expectations of your learners, partners and ecosystems.

Talk to us about your options.

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