University of the Future – Doing More With Less

National University Finance & Procurement Conference
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The EY Education team

The University of the Future

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The EY Education Team

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The University of the Future
The University of the Future

► In 2013 EY looked at how the higher education sector was undergoing a fundamental transformation in terms of its role in society, mode of operation, and economic structure and value.

► EY identified and categorised the main forces impacting the higher education industry globally and locally, and the opportunities, challenges and implications, for the University sector in Oceania.

► The resulting publication, ‘The University of the Future’, identifies the drivers of change in this brave new world and anticipates possible lines of evolution for institutions responding to these challenges.

► Our primary hypothesis is that the dominant university model: a broad-based teaching and research institution, supported by a large asset-base and in-house back-office, will not be sustainable for all universities within 5 years

► At a minimum, universities will need to streamline their operations and asset base, and at the same time add new teaching/learning delivery mechanisms - explicit stakeholder expectations for increased impact will increase

► At its extreme, private providers (and possibly some public universities) will create new products and markets which effectively blur the line between education, media, technology, innovation and venture capital

► What I would like to do today is review some of these challenges with a particular focus on how they give rise to pressure on Universities (and in particular the heads of Finance and Procurement) to do more but with less
Drivers for Change

Democratisation of knowledge and access
- Ubiquitous content
- Broader access to higher education
- Increased participation in emerging markets

Contestability of markets and funding
- Fiercely competitive domestic and international student markets
- Challenges to government funding
- Competing for new sources of funds

Digital technologies
- Bringing the university to the device – MOOCs and the rise of online learning
- Bringing the device to the university – the use of digital technologies in campus-based learning
- Blended learning

Global mobility
- Emerging markets becoming global-scale competitors in the international student market
- Academic talent increasingly sourced from emerging markets
- Emergence of elite, truly global university brands

Integration with industry
- Scale and depth of industry-based learning
- Research partnerships and commercialisation
- Industry as competitors in the certification and delivery of content
Broad Implications

There will be a significantly different education landscape 5 to 7 years from now - universities will choose their focus or the market will do if for them.

► Universities will be compelled to create new, leaner centred business models as competition increases for staff, students, funding and partners.

► Increasingly, public institutions will be run like corporations, while maintaining the necessary freedom of inquiry and academic rigour.

► Private institutions will exploit profitable market niches, while others will create new markets and sources of value; for example, by specialising in select parts of the education value chain.

► Policy makers will seek to maintain steady growth in access to university education. They will search for policy levers and programs that put the higher education sector at the centre of a genuine knowledge economy while inevitably tightening the public purse strings.

These changes will force universities to adapt in a number of ways:

► **Breadth of programs** — Universities will need to consider whether they can maintain a competitive position across a broad range of programs, or whether to concentrate resources on a smaller range of programs.

► **Target customers** — Universities will need to have a clear strategy around target student segments and their specific needs and preferences. Universities that do not become more focused on segments will be exposed to competitors with targeted student propositions.

► **Channels to market** — Universities will need to rethink the role of digital channels and third party partnerships in recruiting students and delivering teaching and research programs.

► **Operating Model** — The asset base and university administration will need to be significantly leaner than it is today.
1: Democratisation of Knowledge and Access

► Traditionally, universities held the key to knowledge, in both a physical and philosophical sense.
  ► Knowledge was created, stored and shared in universities and universities enjoyed the accompanying status
  ► Increasingly knowledge is open to anyone globally with connectivity - not just facts but also analysis, interpretation, and curation of knowledge although credentials are still controlled mainly by the institutions.
  ► 50 years ago access to universities in developed countries was about 5% of school - with increasing ‘massification’ of education this figure is heading towards or past 40%+ in most developed countries

► The impact of expanding access in emerging markets represents a more fundamental change
  ► In China participation trebled from 8.0% to 25.9% in the first decade of this century, and is likely to double again in the next 10-15 years.
  ► Five years ago there were no Chinese universities in the top 200; now there are six. With $250b a year being invested in Chinese universities, it is only a matter of time before these universities enter the top 100.
  ► Democratisation of knowledge and access, especially as it ripples through the developing world will create significant opportunities for those Universities who are globally competitive

More
  - more potential international students, more competition for domestic students

Less:
  - of a role for Universities as gate keepers of knowledge, tertiary education systems which are less affordable via traditional sources of funding
2: Contestability of Market and Funding

Since the global financial crisis, most developed economies have experienced a decline in State funding per student, some more rapidly and deeper than others.

- The UK experienced one of the most dramatic increases in the proportion of private expenditure on tertiary education from 2000-2011 (30-70%). The US and Australia showed marginal increases but were already about 65%.

Since the introduction of the demand-driven and uncapped funding model in 2012, numbers increased and distribution has shifted.

- A number of universities found themselves confronted by losses of 5-10% as some of the more highly ranked universities and those in niche areas increased their intakes to take advantage of marginal gains.
- Competition will intensify further when/if the proposed deregulation of fees for domestic undergraduate students is introduced.

While efforts may be made to limit the fiscal implications of growth in enrolments, the deepening of market contestability is unlikely to be reversed, either in Australia or internationally.

- The broad trend is that every dollar of government funding is contestable and securing funds from non-government sources — students, industry, philanthropists, and global collaborations — is fiercely competitive.

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<td>• more competition for every dollar of funding, a greater focus on non-governmental funding</td>
<td>• less medium-term certainty of funding sources and volumes</td>
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Digital technologies will transform the way education is delivered and supported - education will be available anywhere, anytime and will be supported by enhanced feedback, learning analytics, seamless student support systems, - both in the developed and developing world.

Digital innovation has disrupted many established industry sectors and while ‘online education’ has been here since the 1990s, in the last 2-3 years the pace of change has accelerated - the role of the academic will be increasingly disaggregated as curriculum development, presentation, online design and analysis of learning analytics become specialisations.

Efficiency gains delivered through the digitisation of the support functions of Finance, HR, IT, central procurement, student services and research support are yet to be realised in many institutions.

Universities will not in any way disappear as places of teaching and learning, research, community engagement, and of varied student experience – but they will be much more tightly integrated digital tools and approaches and personalised/blended/flipped learning will be the norm

Digital technologies will transform the way value is created within HE - public and private providers will specialise in parts of the ‘value chain’ - content generation/aggregation and new models of collaboration with media companies will evolve - some of these models will decline and fail, others will create very substantial economic value.

More
- more focus on efficiency as much as effectiveness of digital tools – teaching & administration
- greater focus on developing fee-based online services
- Frictionless online delivery will increase the importance of rankings and expectations of students

Less:
- less ability /desire for Universities to control every aspect of the value chain
- Less face-to-face and large lecture theatre learning – implications for learning spaces
4: Global Mobility

► Global mobility will continue to grow for students, academic talent, and increasingly for university brands –international students have been the lifeblood of the Australian higher education industry especially over the last 15 years.

► Of the 1m plus HE students in Australia, 22.3% (240,000) are full fee paying international students studying onshore. Several universities have more than 30-40% of the study body who are international students.

► In addition, tens of thousands of international students are studying at Australian off-shore campuses in Malaysia, Vietnam, Singapore, South Africa, India, China and the UAE;

► While the international student market is growing rapidly, it will fundamentally change in structure in the coming decade as traditional source markets – China, Malaysia, Singapore, South Korea and others – increasingly become global-scale destinations for international students.

► Global mobility of academic ‘brands’ is increasing and as the ‘MOOC’ model of online distribution of content by the likes of Harvard/MIT, Stanford, Open University, evolves (see HBX) – the impetus for the creation of global online brands increases and mobility favours elite universities

► Global mobility of students, professionals and university brands is also creating pressure for global recognition of accreditation. Who will determine global credential standards will be a contested area.

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<tr>
<td>Greater potential pool of international students on which to draw</td>
<td>less certainty of international student numbers – wider range of international universities focussing on these students – possibly also less certainty of domestic students (fee deregulation)</td>
</tr>
<tr>
<td>More traditional source markets becoming net recipients of international students</td>
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5: Integration with Industry

► The relationship between the higher education sector and industry will deepen – industry will be a key partner, and also a competitor in specialist professional programs.
  ► EY is a perfect example – we recruit 1000s of new graduates each year, we sponsor university activities > $20m pa, we deliver 9.5m hours pa training to our staff and deliver millions of hours training to our clients.

► For universities to survive and thrive, they will need to build significantly deeper relationships with industry in terms of curriculum design, employment outcomes and research collaboration.
  ► Scale and depth of industry-based learning and internships will become increasingly critical as a source of competitive advantage for those universities who have the industry partnerships and pedagogy to do it well.

► Research degree programs /applied research will increasingly be run in partnership with industry
  ► In Australia we have seen the Australian Technology Network of Universities’ deliver a new industry-based PhD program, and the mining industry establish tight research partnerships with the UQ & UWA
  ► Research commercialisation will go from being a fringe activity to being a core requirement to secure funding for many universities’ research programs.

► Increasingly industry will compete with universities in a number of specialist professional programs.
  ► Professional organisations (engineering, pharmacy etc.) may follow the lead of the accounting bodies and provide a range of specialised post-graduate programs with an emphasis on their role as certifiers /deliverers of content.

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<td>• more and deeper integration with business – as a partner/client/competitor</td>
<td>• less opportunities for those universities operating in areas with smaller industry or in areas of research with lesser industry interest</td>
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<td>• More focus on near to market and commercialisation type activities</td>
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Universities should critically examine their current model, develop a vision of what a future model might look like, and develop a broad transition plan.

Public universities need to consider a series of strategic questions related to the viability of their institution’s current model.

Deliberations on future models need to include customer segments to focus on, services they need, and the universities’ channels to market and role within the value chain.

Support functions will also need to be streamlined. Regardless of the path chosen, reform will need to align to the institution’s purpose and values.
Evolving University Models

The dominant university model in Australia and elsewhere, is a broad-based teaching and research institution, supported by a large asset base:

- Serve a broad mix of student segments
- Offer a broad range of disciplines
- Deliver teaching and learning programs primarily - supplemented by various online offerings, franchise arrangements, international branch campuses.
- Deliver and manage the vast bulk of student services and back-office functions in-house.

We now expect a significant transformation of university business models in the coming decade and beyond, despite the historically slow pace of change in the sector.

<table>
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<tr>
<th>Customers</th>
<th>Domestic students</th>
<th>International students</th>
<th>Industry</th>
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<tbody>
<tr>
<td>Product offerings</td>
<td>Vocational and further education and training</td>
<td>Higher education</td>
<td>Research</td>
</tr>
<tr>
<td>Education disciplines</td>
<td>Arts</td>
<td>Engineering</td>
<td>Science</td>
</tr>
<tr>
<td>Sales</td>
<td>Schools</td>
<td>Open days</td>
<td>Agents</td>
</tr>
<tr>
<td>Delivery</td>
<td>On campus</td>
<td>Digital</td>
<td>Partnerships</td>
</tr>
<tr>
<td>Student services</td>
<td>Student administration</td>
<td>Career centre</td>
<td>Other</td>
</tr>
<tr>
<td>Back office</td>
<td>HR</td>
<td>IT</td>
<td>Finance</td>
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Source: Ernst & Young

Legend: [ ] Current area of focus
Some universities will continue to operate as broad-based teaching and research institutions, but will transform the way they deliver their services and administer their organisations.

In this model, the university:

- Continues to serve a broad mix of student segments and continues to offer a broad range of disciplines.
- Discontinues a small number of sub-scale/unprofitable disciplines (or merges those disciplines with a ‘competitor institution’ to achieve scale) - providing the resources required to maintain international competitiveness in other disciplines.
- Invests heavily in digital sales and delivery channels, both ‘pure play’ digital channels and blended models.
- Forms a range of sales and delivery that open up new markets — or more efficiently serve existing markets.
- Outsources some back-office functions to realise lower operating costs, and/or drives efficiencies through shared services arrangements with like-minded institutions.
Evolving Models - Niche Dominators

Some universities will fundamentally reshape and refine the services and ‘markets’ they operate in, with a concurrent shift in their business model, organisation and operations.

The drive towards this model will come from the challenge of staying competitive — in domestic and international markets — across a broad range of disciplines and segments.

In this model, the university:

- Chooses particular customer segments to focus on - enabling the targeted development of course offerings, sales channels, delivery and related
- Significantly reduces its range of education disciplines - focus on areas of genuine global strength/credibility.
- Builds deep alliances with industry in its chosen fields, including partnerships to support R&D, commercialisation of research and innovation etc..
- Like Streamlined Status Quo, streamlines its back office, including using outsourcing and/or shared services models to drive efficiency & scale economies
Private providers and new entrants will carve out new positions in the traditional sector, creating new markets that merge parts of the higher education sector with other sectors.

The model opposite represents a range of possible market positions to be pursued by innovators, rather than a ‘model’ of a single institution.

The evolution of the Transformer model will be led by private providers rather than public universities (this level of ‘disruption’ is hard to lead from the inside) but savvy public universities will create value in this space by leveraging two of their critical assets: credibility and academic capability.

With democratisation of knowledge, credibility and increasingly curation is king and universities are uniquely positioned to bring credibility and to act as curators of content.