Online Education in the Asian Century – The Australian Opportunity

Earlier this year I expressed the view that there was no reason why Australian educators couldn’t be teaching 10 million international students in a decade.

In some quarters from within the education sector itself my remarks were met with scepticism.

How on earth could we go from teaching fewer than 700,000 international students to a mind boggling 10 million in 10 years?

It was clear that some who raised concern had the blinkers on.

Their immediate thought was how could we possibly accommodate all these students in Australia?

They missed the point.

While we should be aiming to increase international enrolments in-country, the real growth opportunities are off-shore.

Australian university and vocational education institutions are so well placed for major ‘bricks and mortar’ involvement within Asia Pacific countries.

The RMIT experience in Ho Chi Minh city, and now Hanoi, is a case in point, as is the recent opening of Monash University’s joint-graduate campus in Suzhou.
As importantly, content will be delivered over different online platforms in a variety of ways, online lectures via sophisticated videoconferencing, vocational training modules delivered over tablets and I-Phones, to increasing aggregation and partnerships of universities and VET institutions across the region.

I was most heartened after a story appeared in The Australian which reported my ‘10 million’ comments, to be contacted by several individuals who are extremely active in this space.

Instead of saying: “Andrew, what were you thinking?” the response was: “You are right on the money.”

One of them was Jonathan Marshall who is one of the sponsors of today’s event.

His innovative thinking, his passion and his drive are infectious.

It was at Jonathan’s invitation that I have the privilege to speak to you today.

Education is one of our nation’s top strengths, up there with energy, resources, agriculture and medical research.

It has been tracking as our third largest export behind iron ore and coal, and represents more than 25 per cent of our total services exports.

ABS statistics track the sustained growth in exports of Australian education services. In 1999 total education exports were put at $4 billion and peaked in 2009-10 at an incredible $19 billion.

Australian international student enrolments have grown from just under 300,000 in 2002, to 450,000 in 2007 to 696,000 last year including 139,000 who were studying off-shore.
The training sector has however been hit in the recent dip we have seen in education exports on account of the high dollar and ham fisted changes to student visa requirements.

Analysis by PIMCO, the world’s largest bond trader, suggests that some of the stickiness of the $A at current high levels, despite easing terms of trade, reflects the impact of an unprecedented $256 billion in Commonwealth Government Bonds under issuance – our second biggest export in 2011-12.

But that’s another story and we’ll keep the politics out of this!

DFAT data shows that total education earnings fell by $2.6 billion between 2009 and 2011, with vocational colleges losing some $500 million in fees.

As with any person, or organisation or company, if we are to broaden and deepen our economic base and take advantage of our opportunities we must back our strengths.

**Middle Class Growth**

And the opportunity to take our strengths to a higher level is emerging on our doorstep, with the massive expansion of the middle class throughout the Asia Pacific over the coming decades.

OECD figures paint an extraordinary picture.

In 2009 the Asia Pacific accounted for 28 per cent of the global middle class or 525 million people.

By 2030, not 2050 or 2100, that figure is expected to be an almost inconceivable 66 per cent or 3.2 billion people. Europe by comparison will be a distant second at 14 per cent.

Over this period middle class spending is expected to surge from $4.9 billion to $32.5 billion.
Well paid employment is what will break billions of people out of poverty, and the lower classes, and into the middle class.

Education at various levels is the crucial ingredient for this to happen.

This extends from basic literacy and numeracy, tailored vocational training through to high level tertiary education.

For Australia there are simply wonderful opportunities in these developing mass markets.

As well, we are in the same geographic region.

The advantage of being in the same time zone is seldom recognised but can’t be emphasised enough.

I have run the Australian arm of a major global company headquartered in the eastern states of the U.S.A. Believe me, you tire very quickly of regular 24 hour each way trips, and of constant conference calls in the middle of the night.

By contrast, I have also run a company focussed on the Asian region. Overnight flights to and fro, and telephone and electronic contact in roughly the same time zone bring enormous efficiencies and advantages, not least of which is quality of life and impact on families.

But these opportunities won’t fall into our laps; the rest of the world has recognised the opportunity. If we don't take it, others will.

And the trend to online learning won’t go away; in fact it is accelerating dramatically. In the United States close to 10 per cent of tertiary students in 2003 took at least one online course. That percentage grew to 25 per cent in 2008, nearly 30 per cent in 2009 and is forecast to be 50 per cent by 2014.
In education Australia has strong fundamentals, we have a good reputation; we have the technology and the capacity to innovate.

But there is no time to waste. We need to be flexible and responsive to the various demands of the market.

**A Surging India**

Let’s for a moment look at India, the world’s largest democracy, current population 1.24 billion.

It is estimated that India’s working age population will grow by 240 million over the next 20 years.

Currently, around 60-70 per cent of the Indian workforce has not completed secondary education.

The need to increase the education and skills base of the population is crucial given India’s annual growth targets of around 8 per cent on average over the next five years.

The magnitude of the challenge was highlighted in a recent significant study by McKinsey Global Institute (MGI).

It found that India will need to retrain at least 285 million working Indians with no secondary education – and 150 million of these have not even completed primary education.

Capacity constraints within the Indian education system present an enormous challenge.

For instance 15 million young Indians enter the labour market each year, yet current VET capacity is estimated at just three million and the standard of training is generally poor.

It is estimated that an additional 50,000 new VET colleges would be required to meet in-country demand and the cost of construction alone is prohibitive.
Demand for Skills

The need for vocationally skilled workers in India spans across most industry verticals including mining, agriculture, retail, automotive, hospitality, aged care, tourism and education itself.

The focus on skills and skill sets is vital. In the developing world the requirement to up-skill the workforce is paramount.

Rigid qualifications are far less important than the skills obtained.

Retail for instance will require an additional five million skilled workers by 2016.

There is a similar story in regard to VET demand across the Asia Pacific in countries such as Indonesia, Vietnam and Thailand. Then you have Africa.

It is estimated that nearly 60 per cent of a predicted 600 million net additions to the global labour force through to 2030 will occur in India, south Asia and Africa.

According to McKinsey unprecedented action will be required on education and training to address global mismatches in supply of workers with skills needed to drive 21st century economies.

Demand for Higher Education

While practical, vocational training will be critical to supporting growth, higher levels of skills and university qualifications are also in desperate need.

India for example needs four million capable engineering graduates per year, yet is only producing 500,000.

Of these an estimated 97 per cent required extra training in order to be employable, according to The Economist.
The utilisation of technology and the rapidly evolving online environment seems the obvious means of providing new educational firepower throughout the Asia Pacific.

The affordability of wireless mobile devices and the mobility they provide bring almost boundless opportunities for the delivery of online education and training.

They are also empowering millions and millions of people and can provide a virtual classroom almost regardless of where they live.

An estimated 120 million Indians currently have internet access, which includes about 90 million in regional areas.

By 2015 McKinsey estimates that figure will surge to 450 million.

Already the majority of internet access (55 per cent) is by way of mobile device, phones, tablets and notebooks.

McKinsey in fact predicts that India will become the first truly mobile digital society.

India’s online education market will be worth $40 billion by 2017 and that is the tip of the iceberg in terms of the region.

Look at the ECE market in India alone. It is growing by 25 per cent per year. Currently about 120 million children under the age of six receive no formal early childhood education.

More than 90 per cent of the current ECE workforce has no formal training.

By 2020 there is a projected need for an extra two million ECE teachers/educators, yet there is almost no physical training infrastructure in place.
For the masses in India and elsewhere, the online environment would seem the only cost-effective, scalable solution for the timely provision of innovative educational outcomes.

The technology and the platforms are and will be increasingly available but content will be king.

The potential of mobile devices as the enabler of new learning is well understood in India.

The price of Apple products and the like puts them out of reach of the vast majority of Indians, the very people who will help drive growth with training and education.

**World’s Cheapest Tablet**

Last year what is described as the ‘world’s cheapest tablet’ was launched in India.

The ‘AaKash’ or ‘Sky’ in Hindi, is being sold to students at a subsidised price of just $35, but even at full price it retails for about $65.

While lacking the speed and whiz-bang features of the more sophisticated tablets we are accustomed to, it is light-weight, has a touch-screen and USB ports.

It supports video conferencing and has three hour battery life. It can connect to the Internet via WiFi and through mobile phone networks.

The development of fourth generation (4G) mobile networks will help address capacity constraints.

Infotel Broadband for instance has plans to roll out more than 100,000 towers which will deliver high-speed wireless services.

It is now estimated by Cisco that by 2016 there will be two billion networked devices, up from one billion in 2011.
The government’s aim is to use the ‘Aakash’ to help provide university students access to course materials.

India’s Telecoms and Education Minister Kapil Sibal said: “The rich have access to the digital world, the poor and ordinary have been excluded. ‘Aakash’ will end that digital divide.”

Clearly, with sophisticated content, specifically targeted to demand, the ‘Aakash’ and similar devices present enormous potential for delivering vocational training and base ‘job-readiness’ education.

The same applies in other developing parts of the globe, in major countries in our region such as Indonesia, Vietnam, Malaysia and Thailand, and further afield in Africa and South America.

**China’s Evolving Story**

China’s demand for international education is also an evolving story.

Again, capacity constraints including fierce student competition for limited domestic places present enormous challenges.

Economic growth and increasing incomes have put overseas study within the reach of many.

There is also a keen appetite for western educational experiences.

Chinese government data shows that as of 2011 there were 339,700 Chinese students studying abroad, an increase of 19 per cent on 2010.

Between 1978 and 2011 a total of 2.2 million Chinese have studied abroad.
China’s embrace of online technology is underlined by projections that 45 per cent of the population will have Internet access by 2015.

This will also bring new demand for content and opportunities to train and educate the workforce required to drive growth in an ageing population.

Given the high regard and the fascination among younger Chinese for western products and experiences, those without the means to physically study or train abroad may increasingly turn to international online offerings, or online combined with shorter, more affordable international experiences.

**A Brand to Leverage**

Australian Universities and VET colleges in general, and many individually, have a stellar global reputation and they have an exciting opportunity to capitalise on transformative technology to digitise and distribute their content.

For starters there is almost a false dichotomy between the vocational and university sector, yet both have opportunities in both practical and theoretical content.

Much of the content universities sit on could focus more on the practical elements without losing their academic (theoretical) heritage and thus provide a very attractive educational product for the Indian and Asian markets.

They just have to overcome the stigma of the words ‘vocational’, ‘competencies’ and ‘skill sets’ and realise they have a strategic asset they should capitalise on.

For example the University of Queensland, the University of Melbourne, the University of New England and Charles Sturt University all have world class agricultural schools – they sit on content that could be contextualised for regional agricultural industry skills development needs – which also eventually
create a pathway to qualification/certification in the future if or when there is sufficient economic validity to going down that path.

Tropical medicine is another example – there are always shortages of sufficiently qualified doctors in most of the region that could benefit from high quality visually based digital instructional content developed by say University of Queensland Health Sciences.

There is not one university in Australia that does not have content that could be contextualised and adapted to the needs of markets in the region and where it makes sense could partner with existing VET operators with shared capabilities in a particular domain.

Even mimicking the lab experience is being tackled in some U.S. universities; the boundaries of simulations are being aggressively pushed using the skills and experience of the online gaming world.

The point being universities and VET colleges have a terrific brand they can leverage and content they can adapt – they just need to view the opportunity through a different lens.

Yet, it is seen as too costly and risky.

Our education sector needs to approach the market opportunity as a business problem requiring a business solution – a solution that is efficient, effective and scalable.

As a country we need to identify and assess this Asian Pacific opportunity to determine the total addressable market for potential educational products and services – start with the big picture and work backwards.

Identify where the largest profit pools exist – Where’s the money? Who will pay?
Once key industry customers are identified – work with them to develop products to ensure these are designed to satisfy their needs and get assurance that they will purchase the product in principle – no ‘build it and they will come’ approaches.

We need to identify low cost scalable distribution channels and potential partners whose products complement ours, while targeting the same customer group.

We need to design core products to be adapted for different markets without significant and costly re-build (similar to standard car platforms).

And we need operational excellence as the key to sustainable success – design a lean business system that can scale efficiently to produce premium products at low cost.

Growth in demand for education both domestically and throughout the region is not going to be driven purely by secondary school leavers. In fact they are really only a small part of the picture I am talking about today.

Demand for skills and qualifications will constantly change as workforces adapt to technological and economic development, and in this context it is demand from the adult population that will really drive growth.

As many adults already work and don’t have the capacity to attend regular bricks and mortar institutions, the advent of online and electronic education is a true enabler.

This evolution will be very difficult for many individual educational institutions, and successful transition may well involve establishing autonomous business units unencumbered by existing processes and priorities. In many cases this will involve partnering with innovators.

Furthermore, enormous online opportunities exist to both enhance the educational experience within Australian
universities and VET colleges, as well as using such material to capture international opportunities.

For example, some are streaming lectures, with the lecturer speaking in one window and slides or other teaching aids being clearly presented and in sync in another window.

Others are preparing similar online lectures but using them for what some call ‘hybrid teaching’ – asking students to view the online lecture as homework, and then using the time when they come to class to engage in active dialogue, rather than sit through a traditional lecture and have only a couple of minutes, if that, to answer questions at the end.

**Targeting our Online Educational Effort**

While this online adaption of traditional teaching methods will have a useful place, capturing the extraordinary educational needs in our region will involve highly sophisticated new age educational products, using enormous creativity and innovation.

It will have to take account of illiteracy and innumeracy, be user friendly, visual and interactive. It will involve role playing scenarios delivered via smart but simple apps.

Fundamentally most people learn by seeing and by doing, not by reading abstract texts and complex theories.

To be effective online content must be relevant and meaningful, it must be immersive, entertaining, stimulating and emotionally engaging.

The smartest and most driven of innovators already know all of this and they are working to make it happen.

They see a market opportunity as a business problem that requires a business solution not an academic solution – a solution that is efficient, effective and scalable.
They are building relationships and partnerships identifying need and developing content.

They are drawing on the talents of film producers, animators, programmers, language specialists and even script writers, actors and voice over specialists. And it isn’t cheap.

For example, developing an effective equivalent Certificate III course in retail, for use on a $35 tablet, could alone cost several million dollars.

They are spending time upfront in the design phase to ensure better end products and effective online content; content which sees students or employees become immersed in a 'story based' curriculum.

They are developing products that are intuitive, with extensive user testing ensuring user interfaces are user friendly.

They are working on designing such core products and platforms that can be readily adapted to different markets without the need for costly re-builds.

They are focusing on operational excellence with market scale providing the scope to deliver premium products at a necessary low cost.

The ultimate return on investment can be spectacular given the numbers of potential customers.

**Collaboration and Quality**

I understand concerns that the advent of free Massive Online Open Courses (MOOCs) will impact upon the way academics and universities work and teach.

However, while there isn’t a business model for MOOCs that stacks up, it does underscore that there are very large numbers
of people following MOOCs who traditional higher education is not reaching.

MOOCs are also highlighting the power and potential of collaboration by quality professors, teachers and instructors across the education space to improve the skills being taught and the qualifications on offer.

Michael Jones, Google’s Chief Technology Advocate, recently spoke of ‘movie star’ professors and, whilst I am not going to get into that debate, I can envision collaboration by leaders in a field resulting in top-quality branded product for use in teaching, with much of the content involving animatics and simulations.

This collaboration might result in a purely online or electronically delivered course however it could also result in a flagship on-site course, perhaps a residential period as a portion of a full course, one semester in six for example.

The premium product offered through collaboration could well increase overall demand for the course based on the appeal of an in-person component hosted by a world-leading team.

Collaborative teams may even be cross-disciplinary, drawing together relevant aspects from different spheres, indeed that may be one of the best ways to make the most of collaboration.

**Capturing the Opportunity**

Australian university and vocational education has an enviable brand reputation but that will only take us so far, we need to be among the first movers because others are acting on the opportunity.

German, Singaporean, Malaysian and Israeli VET training entities are rapidly setting up operations in India.
They are developing partnerships like Israel in agriculture and Germany in automotives. They are adopting blended models utilising both technology and ‘training the trainers’.

Several large Indian private education and technology companies are also establishing partnerships with U.S. educational publishers to deliver online skills development content in India.

Elsewhere, global education leader Houghton Mifflin Harcourt (HMH) is combining with leading Korean wireless service provider SK Telecom to develop and deliver world-class educational content to mobile devices.

And in Singapore the Ministry of Education will launch a sophisticated online learning portal in 2013.

Complacency and narrow minded thinking will be our greatest enemy.

Simply providing some course material in PDF form, without visual engagement and tactility simply doesn’t cut it.

But I can understand how the need to evolve to meet global demand is a daunting task.

It has resulted in a reluctance among universities, major VET operators, including TAFEs and even private early childhood education (ECE) providers to invest or collaborate in the production of high quality online content.

Yet, education is a key part of the next wave of microeconomic reform that will boost productivity and innovation and ensure Australia’s prosperity in the decades ahead. Online and electronic education have a key role to play in this reform.
The Role of Government

To this end government can play a critical role in fostering a more entrepreneurial, risk-taking, innovative response from our university and vocational education institutions.

Reducing very significantly the strangling red tape is fundamental, as is providing much greater management autonomy, for the TAFE sector in particular, but also our universities, and increasingly the private providers.

Providers of higher education need more freedom and flexibility to leverage the particular strengths of their own institution, and to respond to the dramatically changing circumstances and opportunities they now confront.

The one-size-fits-all approach has held our tertiary education sector back. The emerging online technology and innovation facilitates a progression to policies that focus on competency and mastery, allowing students to accelerate or consolidate, making the most of their time.

To this end, especially in the VET space, we must progress to the recognition, accreditation and training of skill sets as a fundamental component of life-long learning.

The funding approaches to higher education needs to reflect the diverse missions of all our providers, while driving increasing quality, with decreasing cost.

Conclusion

Australia’s educational sector has the potential to lead our engagement with the emerging middle class of the Asia Pacific, and in the process establish literally tens of millions of personal linkages into the region.

Such linkages will contribute hugely to future economic and social engagement, and do more than anything else to foster peace and harmony with our regional neighbours.
For their part, Australia’s governments, both state and federal, need to lead Australia’s advocacy of our educational ambitions and abilities, but not in a predatory way, but rather in a way which treats our Asian Pacific neighbours as potential partners.

This means that Australian governments and Australian society must be ready for deeper relationships with Asia.

The future for Australia's university and vocational education sector is rich with opportunity, if only we have the courage and freedom to grasp it.