

OECD - Singapore Conference

# HIGHER EDUCATION FUTURES

**14-15**  
**OCTOBER 2015**

## Conference Summary and Outcomes

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Ministry of Education  
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# ‘HIGHER EDUCATION FUTURES’

## Singapore

14-15 October 2015

### CONFERENCE SUMMARY AND OUTCOMES

Prepared by

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The *Higher Education Futures* Conference was timely and significant in that it came at a time when higher education institutions, higher education systems, governments and education policy planners across the world are grappling with the issues of demographic change, the competition for funds for both teaching and research, the drive for quality assurance and the imperatives for relevance in an ever changing education marketplace striving to meet the needs of both global and local societies and economies.

The Conference provided an opportunity to reflect on what has been happening, to share experiences, perspectives and responses to those challenges and at the same time to give thought to setting the directions for the future.

To remain competitive and relevant, higher education institutions must keep up with and respond to the pressures of the rapid and dynamic social and economic changes which are currently evident but, even more importantly, they must show leadership in creating and shaping the future and in preparing our communities and resources to be significant, successful and confident contributors and participants in the changes which are yet to come.

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\*Professor Peter Coaldrake, who is Vice-Chancellor and President of Queensland University of Technology (QUT), was the Conference Program Convenor. He is also Chair of OECD's IMHE. Shelagh Whittleston is QUT's European Representative.

In his opening message, **OECD Deputy Secretary General, Stefan Kapferer** reminded participants that "...higher education matters,...contributing to economic and social outcomes for countries as well as global benefits. Higher education produces the advanced skills and expertise countries need for their economies. Higher education also produces new knowledge and generates innovation – both of which are vital for greater productivity and economic growth". OECD research shows, he said, that "higher education has important social benefits such as enhancing people's employability, health and social outcomes; facilitating social mobility; and strengthening social cohesion".

The Conference was significant in that it was the first attempt to bring together the experience and expertise of the more traditional and long established higher education institutions and systems often associated with Europe, the United Kingdom, the United States, Australia and New Zealand (OECD members) with the rapidly growing and developing newer institutions and systems which are responding to the demographic and economic challenges and aspirations of Asia and ASEAN members, notably China, India, Singapore, Japan, and South Korea amongst others.

The Conference was convened by **Professor Peter Coaldrake, Vice-Chancellor and President of Queensland University of Technology (QUT)** in his role as **Chair of the OECD IMHE Governing Board**.

Four conference themes shaped the discussion for the two-day program.

### Mapping and Meeting the Future Demand for Higher Education

Setting out his vision for education in Singapore the newly appointed **Acting Singaporean Minister for Education (Higher Education and Skills), Mr Ong Ye Kung**, noted the tensions of balancing individual and national aspirations and needs at a time of dynamic social, economic and technological change; of achieving and maintaining a skilled workforce which can maintain relevance in a time of rapid change; and in increasing opportunities for learning to meet lifestyle and work demands at a time of reduced resources.

Minister Ong drew attention to the OECD Skills Outlook which notes that 'high skills (specialist skills) are in high demand, low skills in low demand and medium skills in declining demand due to the growing impact of technology'.

In particular, Minister Ong stressed the need for the "learner experience [to] be more attuned to the complexity of life". Individual choices must be collectively balanced with serving the nation's best interests. "Higher education" he said "must help young people find their role and direction". Singapore is increasing its participation rate from 30 to 40 per cent, increasing the number of providers and is taking a lifelong learning approach where learning will take place in school and universities and will also be available online, in workplaces and on the job.

Singapore, like other economies, commented the **Permanent Secretary of the Singapore Ministry of Education, Ms Chan Lai Fung**, is facing the challenge of an ageing workforce, of "skills mismatch and skills obsolescence". Students and their families place high value on a qualification but the qualification needs to be more than a paper chase. It needs to be useful, relevant, timely and lead to employment. Ms Chan noted that there is an urgent need to facilitate upskilling and reskilling; she outlined Singapore's new 'Skills Future' program which will provide Singaporeans with opportunities to develop their potential and advance

based on their academic learning through pre-employment education and training (PET) and build on those foundations through continuing education and training (CET).

For many countries the increasing number of over-qualified yet unemployed or underemployed graduates is of growing concern. This is a problem for governments, employers and higher education institutions. Student aspirations, parent expectations and employer demands of graduate employability are changing and challenge the role of higher education. The changing composition of the student population and the widening gap of social and economic outcomes demand new strategies and new approaches to preparing graduates for and sustaining them in the world of work.

Stefan Kapferer (OECD) noted the new set of challenges in societies, those of unemployment, weak productivity growth, and the widening gap of education outcomes and growing inequality in OECD countries. “Employability”, he said, “has an uncertain future”.

**Professor Tyler Cowen, George Mason University**, drew attention to the qualities sought and rewarded by industry. The skills of the future are about managing and motivating people and coaching them to retrain themselves. He argued that the more technology there is, the more a ‘new vision of humanities’ - knowledge, synthesis and innovation - becomes important. The challenge is to market that knowledge and those skills in context to project deeper understanding and vision, and he cited the success stories of Steve Jobs and Mark Zuckerberg. He went on to propose that the advances in technology and increased productivity will highlight the weaknesses of people, demanding a new service sector and different thinking about the uses of that technology. Education will need to change to meet these evolving roles and he called for ‘an inversion’ of the way education is organised.

Like others, Professor Cowen agreed that online education is fundamental for the future but he argued face-to-face teaching and individual tutoring are equally important with greater exposure to different teaching and learning models and styles.

## The Rise of Higher Education in Asia and its Impact on the Global Landscape

The rise of Asia and especially East Asia is not well understood outside that region and a number of those countries welcomed the opportunity to share their challenges and successes and to describe and demonstrate the Asian models which necessarily respond to similar concerns but of different magnitudes.

The presentation by **T.V. Mohandas Pai, Chairman of Manipal Global Education Services** very clearly set out the unprecedented growth and aspirations towards participation in higher education in Asia, most starkly in China and India. With a population of 1.27 billion and an annual growth rate of 1.3 per cent, together with real GDP growth of 7.3 per cent, India is experiencing significant increases in university enrolment with a national aim of 30 per cent participation by 2020, up from 18 per cent in 2014. The focus has been on teaching with little funding for research but there is a steady inflow of academic and research collaboration and strong partnerships developed in the United States, Dubai and elsewhere. Technology plays a strong role in the provision of education and the economy. A significant challenge for India is that in 2030 the median age of the workforce will be 32 years.

China is also experiencing unprecedented growth in higher education with entrance rates having increased 35 per cent since 2013 and 54,000 PhDs awarded in 2014. **Professor Song Yonghua, Vice President of Zhejiang University**, indicated that internationalisation

and collaboration are the future for Chinese higher education with Chinese universities, including Zhejiang University, seeking to become world class institutions in the near future. Conference Rapporteur **Professor Simon Marginson, Director ESRC/HEFCE Centre for Global Higher Education, London** noted that East Asia is bigger than Europe in terms of science and that China increased its share of published journal papers from 3.7 percent in 2000 to 16.9 per cent in 2012.

The rise of the middle class in Singapore has seen similar spikes in demand with 25 per cent of students going offshore to study and there are many examples of academic exchange and research collaboration, joint campuses, partnerships and relationships with both publicly and privately funded education organisations and industry in the United States and Israel and many foreign universities establishing campuses in Singapore.

More broadly, the success of the various Asian models of higher education is evident in the growing demand for undergraduate access at home, the establishment of some universities as hosts for foreign students in the region, the increasing provision of postgraduate education and the increase in research and development, the growing number of global and Asian Alliances such as the AUN (ASEAN University Network) and APRU (Association of Pacific Rim Universities) and in the increasing presence of Asian universities in significant placings in the international rankings. Professor Song proposed that Asia could become the “third pole” in the map of global higher education.

The questions for any Asian model (as they are for other universities) are around place and relevance in the local as well as global economies. Similarly the quest for world class status asks the question “in whose image?” Will world class status mean a loss of cultural identity? Will this just be more of the same, will we lose diversity? Conference Rapporteur **Professor Joshua Mok, Vice President of Lingnan University, Hong Kong** noted that “policy learning is not policy copying”. Universities need to recognise local cultures, practices and traditions to solve globalised problems. Will the test be, as **Professor Bertil Andersson, President of Nanyang Technological University, Singapore** argued, when ‘western students might choose Asian universities?’

### Technology, Disruption and the Unbundling of Higher Education: Challenges to Traditional Modes of Education

A number of presentations to the conference focussed on the use of technology to broaden access to increased numbers of students and to reduce the financial burdens on institutions, governments, students and their families. **Dr David Barnard, President and Vice-Chancellor, University of Manitoba** cautioned against the naivety of focussing on the cost aspect and reminded participants of the opportunities for pedagogical reform, greater engagement of students, innovative collaborative work spaces and the new learner experiences.

Dr Barnard also questioned the notion of disruption – whether it be of technology, of pedagogy or business models. Technology, he argued, has changed the relationship between teacher and learner and he questioned whether this is really disruptive or part of the learning and teaching process.

**Dr Diana Oblinger, President Emerita, EDUCAUSE**, reflected on difference and change, that institutions are different and that students, their skills, motivations and goals are different

and change in the course of their careers. In this context technology provides new methods of engagement, digital, physical and mentored learning, experiential learning spaces using gaming technology, mentoring and virtual internships as well collaborative or networked learning spaces or ‘collaboratories’. **Professor Masako Egawa, former Executive Vice President of Tokyo** also talked about the flexibility, access and customisation benefits of collaborative and social learning including the opportunities to collaborate with other universities and institutions, domestically and internationally.

The challenge for these innovative forms of learning is how traditional universities respond in terms of recognition, accreditation and quality assurance. **Mr Adam Tyson, Acting Director, Education and Innovation, Directorate-General for Education and Culture in the European Commission** advised that the European single accreditation system across 48 countries should be flexible enough to manage these demands. **Dr Rahul Choudaha, of the US-based World Education Services**, noted that the challenge is “not about abandoning accreditation but updating accreditation to measure the learning and academic practices that lead to better achievement of learning outcomes”.

These new modes of learning and courses like MOOCs will not fit the traditional models, but do they need to? They are “transformational not disruptive” commented **Dr Dewayne Matthews, Vice-President of the Lumina Foundation**. They are focussed on student centred learning, meeting the needs of students as they pass from school to college and in and through employment, they enable learning and the acquisition of skills on which to build future learning and they challenge existing financing systems.

### Two Sides of the Same Coin: Resource Challenges, the Drive for Quality and Imperatives for Relevance

All governments, higher education systems and institutions are faced with the unenviable challenge of reducing and containing costs to the public purse while at the same time increasing access and maintaining quality and relevance, balancing the priorities of teaching and research and addressing the competing demands of administration and professional requirements.

A key feature of the financing versus quality debate is about how students, parents, employers and institutions themselves make decisions about offerings and courses. Are reputation and price proxies in the absence of acceptable and comparable standards of academic output?

**Professor Madeleine Atkins, Chief Executive of the Higher Education Council for England**, outlined the current thinking to implement quality assessment in the UK. The consultation process builds on a review which focussed on the quality of the student experience and outcomes and academic standards. Key questions have to be about how to meet the underlying purposes of professional and meaningful quality assessment without stifling the innovation of providers, or making it too difficult for them to respond to meet opportunities and changes in the education market as they arise.

The ongoing consultation process is recognising the quality assurance principles of autonomy and co-regulation, risk based and proportionate student engagement outcomes and outputs (not processes or systems) and external (peer) review which will encourage

continuous improvement and maintenance of excellence against responsible and meaningful metrics and a Teaching Excellence Framework.

In outlining significant management and business practice reform undertaken at one leading university, **Professor Glyn Davis, the Vice-Chancellor of The University of Melbourne**, noted the eternal dilemma for higher education institutions: “How can higher education institutions manage themselves?” “It is easy”, he said, to “change curriculum but not so easy to change administrative systems. There is no theory of administration and no guide to the process and we accept sub-standard practice or bad administration”.

Having undergone major reform of the Melbourne curriculum, moving from 96 undergraduate offerings to six, with the balance of courses moved to postgraduate study, Melbourne embarked on a major project to move to a shared services model. Services were consolidated to support the University’s academic mission and resulted in significant reductions and changes in jobs and has saved AUD\$80 million, funds which could be reinvested in research. These changes have challenged the imagined communities around a university and are breaking down the barriers between academic and professional staff. Professor Davis cited the examples of shared services at Yale and Berkeley (where the transition took 5 years). His strong advice was “if you are going to do it, keep at it”.

Quality assurance is also a very strong driver for the fast-growing universities in Asia as they seek their place in the global rankings. Size and resources may have dominated their aspirations in the past but the rapid growth of high quality science publications in China, commented **Professor Wei Ha, Professor in Education Policy and Leadership at Peking University**, is demonstrating that they are and will be a force to be reckoned with.

Managing costs and public financing through student tuition fees have been at the forefront of some of the recent higher education debates in UK, the US and Australia. Concerns about access and equity have dominated headlines but **Alex Usher, President of Higher Education Strategy Associates** (whose organisation has conducted studies in nine countries), indicated that the evidence has been that even where there had been significant fee increases, for example, the increase to £9,000 in England, numbers of applications from lower income earners did not drop, in fact they went up. The mitigating factors have been access to loans and the aspirations of employability. However, as the cost crisis and the push for reduced overheads continue the future remains unclear.

## Conclusion

Did the Conference define the future for higher education? Dewayne Matthews (Lumina) suggested that there is “a much more coherent vision of where we are going and that we are beginning to see and understand it”. Diana Oblinger (EDUCAUSE), argued that we should not be thinking of a future but many futures as they will be different for different stakeholders.

Can we set directions? Not entirely, but we can prepare the settings and systems of higher education to be more agile and able to respond to the rapidly changing social and economic needs and aspirations of students, parents, employers and the community, both locally and globally. We can lead and prepare for the new ways of education, whether these be through new technologies or new approaches which require new ways of thinking and learning, interdisciplinary programs and new methods of engagement with students, and greater

collaborations with research organisations, employers and industry. We might then be better prepared for what we do not yet know.

The Conference concluded with some unfinished business, not least of which is the measurement of learning outcomes, which was in fact the subject of a post-conference workshop attended by a number of the conference delegates as well as other experts. The AHELO project, it should be recalled, had sparked the interest for such measurement, especially among government funding bodies keen to better know and benchmark the outcomes of higher education. But that interest faded. AHELO suffered from a lack of agreement about whether its purpose was high stakes accountability or low stakes self improvement; there were also serious technical issues at the feasibility stage. Those factors sapped support for AHELO as an international benchmarking mechanism, particularly because the benefits of the exercise were unclear and too far into the future. Other methodologies might be more acceptable, less costly and more responsive to those who need to know, who include funding and quality assurance agencies, institutions, their staff and students as well as future employers and the social and economic institutions who depend on high quality skilled resources and expertise to deliver their objectives. Stefan Kapferer (OECD) hinted that the OECD is developing a new tool to produce comparable data on the achievement of learning outcomes and we can await that work with interest. In the meantime, we should not overlook the increasingly serious interest being placed on learning outcomes by a number of the professional bodies (some of which are international in their coverage) overlooking particular disciplinary fields. That interest by professional bodies should be harnessed in the inevitable next phase of seeking to meaningfully measure learning and teaching outcomes.

We opened but did not finish the discussion about the future of the Asian region. Clearly the Asian experiences have much to offer - the speed of transformation, the significant impact on future knowledge and innovation. Meanwhile the vast resource of potential skills and expertise can only ramp-up the already dynamic social, economic and technological changes we are already experiencing.

With Asia as the 'third pole' (**Professor Song Yonghua, Zhejiang University**) there are increasing opportunities to work together, to collaborate and develop deeper partnerships, to opening up greater diversity and mutual understanding.

In his role as Conference Rapporteur, **Professor Marginson (Centre for Global Education)** argued that the Asian models may in fact be the location to test those issues with which a number of countries have been struggling. The region could well take the lead in the identification and development of metrics of learning. "The more centralised systems, with government funding and support lend themselves to trying out the measures of learning outcomes. The metrics of learning need to be balanced with something that is bottom up i.e. robust professional cultures nested in respected systems and nurtured by government".

The Singapore Conference on *Higher Education Futures* initiated a conversation on which we might wish to build. The challenge for us all is to shape and grasp the future, to lead and at the same time be responsive to achieve excellence and better outcomes for all.

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