

## TONGJI UNIVERSITY LECTURE

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&  
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### **DIVERSITY AND QUALITY IN HIGHER EDUCATION**

#### Introduction

#### **Stamenka Uvalic-Trumbic**

It is a great pleasure for Sir John Daniel and me to give this lecture at Tongji University.

First of all let me thank my friend, Vice-President Jiang Bo for inviting us. I know him from his previous assignment as Secretary-General of China's Education Association for International Exchange. May I take this opportunity to congratulate him on his recent election as Chairman of the 1<sup>st</sup> Council of the Commission of Sino-Foreign Cooperation in Education of China, a very important task?

As former UNESCO officials, Sir John and I are also particularly delighted to visit a University that hosts UNESCO's World Heritage Centre for Asia-Pacific.

We are here today as part of the cooperation between Tongji University and the DeTao Masters' Academy, where we are both Education Masters. Our lecture is an expression of the continuing cooperation between the two institutions.

The title of our talk today is "*Diversity and Quality in Higher Education*".

I shall briefly list the major new dynamics in higher education as identified by the 2009 World Conference on Higher Education.

Sir John will then present the impact of new technologies on higher education. I shall then conclude with the new interpretations of quality needed for the changes facing higher education in the 21<sup>st</sup> century.

#### New Dynamics of Higher Education

Today, with knowledge being the driver of economic growth, the demand for higher education is rising steadily, especially in developing countries. Here in China you now have the world's largest higher education system. In 2008 there were 30 million students in Chinese higher education institutions, giving an age participation rate of 23.3%. Although growth is now slowing, a recent education reform strategy paper projects that enrolments will reach 35.5 million by 2020.

In most developing countries it will not be possible to satisfy this rising demand by relying only on traditional approaches based on public universities. Higher Education will need to change to rise to these challenges. We are seeing more and more diversification and differentiation of providers and modes of delivery such as: online teaching, world-class universities, competency-based education, cross-border provision.

One of the challenges is how to assure their quality.

I now hand over to Sir John to talk about how technology is contributing to the differentiation and diversification of higher education. I will then return to some of the challenges that this poses to concepts of quality assurance.

**Sir John Daniel**

### Technology in Higher Education

Technology is impacting on all aspects of university life.

A document for UNESCO's 2009 World Conference on Higher Education examined the role of ICTs in research, administration, community service and teaching and learning. Today I shall concentrate on the role of ICTs in teaching and learning.

Over the last fifty years technology's major contribution to higher learning has been the development of Open and Distance Learning, or ODL.

#### *Open Universities*

In the 20<sup>th</sup> century much of the growth of ODL occurred through the creation of open universities in many countries. These universities teach at a distance on a large scale. They open up higher learning to those who cannot or do not wish to study on campus. Some open universities are also open in other ways.

In one example, the UK Open University has no academic requirements for admission. Its slogan is 'open to people, open to places, open to methods and open to ideas'. In another example, Empire State College of the State University of New York opens up the curriculum by allowing students to design their own programmes of study. Its slogan is 'my degree, my way'.

Although they have abandoned many of universities' traditional practices, such as selective admissions, compulsory presence in class and curricula designed by the faculty, these two institutions have high reputations for quality. National assessments of teaching quality rank the UK Open University at number 5 out of 100 universities, just above Oxford University. Similarly, Empire State College receives the top ranking for student satisfaction out of the 60 campuses in the State University of New York system nearly every year.

The open universities created in the 20<sup>th</sup> century combined the concepts of openness and distance teaching. In the 21<sup>st</sup> century, however, these two concepts are being expressed in divergent ways by different institutions.

#### *Campus universities teaching online*

The major 21<sup>st</sup> century development in *distance* education is the adoption of distance teaching by campus universities that now offer online programmes alongside their campus courses. Here in China 68 research universities, including Tongji University are allowed to offer online courses. In the rest of the world most campus universities, except the most elite institutions, are starting to offer degree courses online.

Two years ago, when Professor Tony Bates surveyed the online programmes offered by North American campus universities, he found that they were not very good. However, when he did the survey again this year he found that the universities were taking online teaching more seriously

and doing it much better. One reason is the realisation that online teaching is an important part of their future.

Another reason for the improvement is that some 50 US state universities have teamed up with a commercial company, Academic Partnerships, to improve the effectiveness of their online teaching. Academic Partnerships works with each university on selected high demand programmes, particularly in Education and the Health Sciences.

The university faculty retain full control of curricula and student assessment, while the Academic Partnerships company helps them to put the courses online, undertakes student recruitment, organises a system of mentoring or tutoring for each student, and generally ensures that the programme is backed by efficient administration and logistics.

This formula is successful for all parties. The universities and the company share the tuition fee revenues and students gain credit in their courses and graduate from their programmes at rates as good or better than students on campus.

### *Open Educational Resources*

Meanwhile, the major 21<sup>st</sup> century development in *open* education is the trend to make learning resources freely available online.

More than ten years ago the Massachusetts Institute of Technology (MIT) began to put material from its courses on the Web for anyone to look at.

This created a sensation. In 2002 UNESCO held a forum to assess the potential impact of free learning materials on higher education in developing countries.

The Forum coined the term Open Educational Resources to designate educational materials that may be freely accessed, reused, modified and shared. In the Forum Declaration participants expressed a high ideal: 'to develop together a universal educational resource for the whole of humanity'.

Over the years since that Forum UNESCO and the Commonwealth of Learning have worked together to promote the potential of Open Educational Resources (OER).

This work produced two useful documents that you can download: *A Basic Guide to OER*, and *Guidelines for OER in Higher Education*.

Last year we helped to organise UNESCO's World OER Congress. The Congress approved, by acclamation, the Paris Declaration on OER, which includes a recommendation encouraging the open licensing of educational materials produced with public funds.

Stamenka and I have spent two years promoting OER and are pleased to see the idea of open licensing gaining ground rapidly for both idealistic and economic reasons.

I distinguished two distinct trends in distance and open education. Campus institutions are offering degrees by distance learning and many institutions are making study materials freely available as Open Educational Resources.

### *MOOCs: Massive Open Online Courses*

Very recently these trends have converged in MOOCs. This was a sensation in North America last year and it continues to reverberate around the globe.

MOOCs are Massive Open Online Courses that are being offered free worldwide by more than 50 prestigious universities, mostly American but with institutions in other countries now joining in.

Last year the Massachusetts Institute of Technology, offered its first MOOC. This online course, 6.002x, *Circuits and Electronics*, was free and open to anyone, anywhere in the world with no admission requirements. It attracted 155,000 registrations from 160 countries. Of these 155,000 learners only 7,157 passed the course as a whole. After MIT offered its first MOOC many more US universities began offering them. There is a herd instinct at work! No one wants to be left behind.

The MOOCs offered by elite US universities and the online courses offered by US state universities with Academic Partnerships are very different. The MOOCs attract tens of thousands of starters but very few complete the course successfully. Student numbers in the Academic Partnerships universities are in the thousands, rather than the tens of thousands, but most of the students get credit and graduate.

Clearly these two sets of universities are using the possibility of online learning in very different ways.

The elite universities are using MOOCs to increase their global visibility, but they are not trying to increase the number of their graduates. These universities operate highly selective admissions processes, so they do not consider it a problem that 95% of the MOOCs students drop out or fail. Moreover, even those few students who pass the exam do not get credit that they can count towards a degree.

Although MIT's initiatives in OER and MOOCs have the long-term aim of improving teaching on campus, most of the other MOOC universities seem to be using MOOCs as a way of protecting the rest of their universities' teaching from disruption by online developments. MOOCs give them global visibility and show some of their professors to tens of thousands, but the on-campus traditions of admission and teaching continue undisturbed.

The situation of the universities working with Academic Partnerships is very different. These universities realise that teaching degree programmes online will be an important part of their future. In future their teaching will likely be a hybrid of classroom and online methods, with the same student experiencing both.

So these universities have to do online teaching well so that students can learn and pass the courses. MOOCs universities, on the other hand, prefer that only a few students pass their courses because they do not want thousands of students asking to be given credit.

For the Academic Partnerships universities it is vital that students receive instruction and support of quality so that as many students as possible graduate with these socially important degrees.

Before passing you back to Stamenka I should mention an example of convergence between MOOCs and regular online programmes. Some of the Academic Partnerships universities are now offering the first course in their programmes as a MOOC – free and open to all but leading to credit – so that students can find out, at no cost, whether the programme is suited to them. If they pass they can go on and study the programme paying the normal fees. In another development some universities that do not offer MOOCs are now giving credit to students who have successfully completed a MOOC course with another institution.

In summary, you can see that MOOCs are having a disruptive impact. No one can yet tell where all this will lead higher education.

### **Stamenka Uvalic-Trumbic**

Sir John has given you an overview of the impact of technology on teaching and learning on universities in recent decades as an example of the diversification of delivery modes.

#### Diversification

I will now give additional examples of diversification in more traditional face-to-face teaching and note the challenges they pose to quality.

#### *World-Class Universities*

I begin with the global trend of ‘World-Class’ Universities. In some countries, like China, South Korea and Malaysia governments designate world-class universities, as in China’s 211 and 985 projects. World-class universities are part of what is sometimes called a global “race for excellence”.

World-class universities feed on global and national university rankings. Governments and institutions try to do better in these rankings in order to be more competitive. The top places in the rankings include new and innovative institutions as well as famous traditional universities like Tongji University.

However, rankings are controversial because most of them focus mainly on research output. They give the impression that there is only one model for a university, and although research is one of the important functions of universities, what we need today is a diversity of institutions.

#### *Competency-Based Education*

For example, many governments are encouraging the development of Community Colleges, which focus on preparing students for jobs. They focus on the learning outcomes for students, which they define in terms of the competencies that graduates can demonstrate.

Indeed, in some competency-based education models, there are no courses, but simply well defined “competencies” for the student to acquire. I shall return later to the new phenomenon of ‘open badges’, which are a way of capturing these competencies as qualifications.

An example of a competency-based programme here in China, which operates at a high level of specialisation, is the De Tao Masters Academy that we are proud to represent today. Its aim is to enhance China’s cultural, economic and social development by increasing its capacity for high-level innovation in business, industry and education.

De Tao brings eminent experts to China, where they share the tacit knowledge that brought them to world leadership in their fields with high-level Chinese colleagues. Sustained partnerships with elite universities such as PKU and Tongji University and with important business enterprises are a core feature of the DeTao approach. Some of you may wish to acquire a higher level of specialisation in a certain field in DeTao once you finish your studies.

George Lee was inspired to establish the DeTao Masters Academy by the creative excitement of the 2010 Shanghai Expo. Given these origins, many of the first group of 100 Masters are major international figures in architecture, design and the creative industries. This span of professional

expertise will broaden rapidly as the number of Masters grows to over 1,000. Several of the Masters have given lectures here at Tongji University as we are doing today.

The De Tao Masters Academy is still a very new project, but it could become a unique approach to fostering innovation and creativity at the highest level of industry. However, one of the challenges it faces is that none of the existing qualifications frameworks is really suitable for this type of advanced learning and tacit knowledge. I shall return to this when I come to talk about Open Badges.

### *Cross-Border Higher Education*

Another trend is a steady increase in cross-border higher education, which can take different forms, ranging from branch campuses and franchises of universities offering courses abroad to online learning across borders.

International branch campuses make the news, but they are actually a small part of cross-border provision, although they continue to multiply. By 2011 there were 200 degree-awarding IBCs in operation, with more due to open. East Asia is becoming the world's leading destination for new international campuses. In the last two years the number of branch campuses in Singapore increased by 50% to 18 campuses, while here in China a 70% increase brought the total to 17 schools.

An often-quoted example of a successful international branch campus is the UK's University of Nottingham in Ningbo, Zhejiang Province in China, which was the first one to receive a licence to operate some ten years ago. Many others followed and more recent examples are from the US such as New York University that has branches in Abu Dhabi and Albania, and another opened last year in Shanghai in partnership with East China Normal University.

Why do universities create these branch campuses when the investment required is considerable? One of their motivations is pooling international talent, another to have a global outreach.

### New Providers: Challenges for Quality

Diversification, however, poses questions about quality. Some define quality as fitness for purpose, so what purposes is diversification pursuing?

We all study with a purpose, to gain knowledge but also to obtain qualifications and then to move on and get jobs. As graduates of Tongji University you should not have difficulty finding good employment, but in the world generally, graduate employability is a big challenge, especially as today many richer countries have weak economies. It is no longer sufficient to have a degree or diploma, because some employers consider that graduates often do not know how to communicate effectively, have poor work habits and are not competent at problem-solving and decision-making.

This challenge is changing the way that higher education defines and measures quality, one element of which is its relevance for employment.

Today some 117 countries have some form of quality assurance system. Most use similar vocabulary, practices and instruments. In any educational enterprise you can identify inputs, processes and outputs – what are sometimes called learning outcomes.

The traditional way to judge the quality of universities was by their inputs: such as the school examination results of new students, the quality of the library, the qualifications of the academic staff, and so on. This approach was criticised by people who said that what counted was not the inputs but what the university did with them for the benefit of students.

That led the focus of quality judgements to switch to processes. How good is the teaching? Are counselling services useful? Are the administrative procedures effective and incorrupt? This new approach gave some indication of institutional efficiency but raised the next and obvious question.

What is the impact of all this on the graduates? What are the learning outcomes?

That is what quality assurance bodies are trying to focus on today. It is a difficult challenge because we do not want all universities to offer the same curricula and teach the same skills. This means that each university must clarify the content of its programmes in terms of student competencies, which has led to a need for new types of qualifications. I shall return to that in a moment.

In one of her presentations Judith Eaton, President of the US Councils for Higher Education Accreditation (CHEA), spoke of the internationalisation of quality assurance as the 'spread of the familiar'. She suggested we need new interpretations of quality and new tools for measuring it.

For instance, Sir John just gave us an overview of recent developments in ICTs and higher education. How does one assess the quality of OERs or MOOCs?

Furthermore with the spread of the internet, fake diplomas sold by fraudulent institutions called degree mills are an additional challenge. How does one distinguish degree mills from legitimate providers?

We also mentioned world class universities and the related phenomenon of rankings. Are rankings a proxy for quality? Should governments and institutions use them as a form of quality assurance?

Cross-border higher education is a continuing quality challenge. The 2005 UNESCO/OECD Cross-Border Guidelines set some basic principles for quality provision. However, many question the quality of branch campuses. Do international branch campuses really offer the international experience students are seeking? Are they supported by qualified teaching staff and do they have an international student body?

Under Mr Jiang Bo's leadership, Standards for Accreditation of Chinese-Foreign Cooperatively Run Educational Projects have been developed and they will help to solve some of the challenges.

### Conclusion

Let me end by noting the challenges for quality and certification posed by competency based education. Some of these models are based on courses, others, such as De Tao, are pitched at a level of professionalism beyond degrees that is above that of the traditional higher education system.

I shall give the example of a new type of qualification: Open Badges. These are an indication of accomplishment, backed by special software, that provide a more complete picture of learners' skills and competencies than conventional certificates and diplomas. The badge ecosystem allows individual learners to express their learning, skills and achievements through personal badge collections.

The value of the badge comes from the information that is attached to it in the badge software. This indicates:

- who issued the badge and on what date

- how the badge was earned
- hyperlinks to artefacts, documents or testimonials demonstrating the work that led to earning the badge, and
- authentication back to the issuer.

The information will vary according to the skill, the assessment and the body issuing the badge, but it does build an implicit validation system to prevent the illegal copying of badges.

Badges are a very new concept. The DeTao Masters Academy intends to introduce them to China, starting with courses in Industrial Design and Animation at the Shanghai Institute of Visual Arts. This is an exciting and important way of creating very specific qualifications in a wide variety of fields.

Open Badges are also a form of certification that can be used for study through OERs or MOOCs for example.

To look at these new interpretations of quality in an international context CHEA, the US Council for Higher Education Accreditation, launched an International Quality Group last September with which I am proud to be associated. Its objective is to share good practices across borders, develop policy briefs to guide governments and institutions about assuring quality and provide a space for dialogue on these emerging issues.

I hope that you found these reflections on diversity and quality interesting. It is clear that our higher education systems will be increasingly diverse and this will force us to keep our notion of quality under review. But if we always consider quality from the point of view of the benefits to students we will not go far wrong.

So let me end by asking you, as the students for whom this lecture is intended, how you would define quality in one sentence?