Quality Assurance of Cross Border in Higher Education: Challenges and Opportunities
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Cross-Border Higher Education in the era of MOOCs: Do we need new approaches to quality assurance?

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Introduction

Stamenka Uvalić-Trumbić

It is a pleasure to be here for this important seminar on Quality Assurance in Cross-Border Higher Education, a theme that continues be of lively interest around the world as the methods of cross-border higher education evolve.

MOOCs are a contemporary example of change in cross-border higher education and our title is *Cross-Border Higher Education in the era of MOOCs: Do we need new approaches to quality assurance?*

Sir John Daniel and I will alternate in giving parts of this presentation.

I shall begin by presenting various definitions of cross-border higher education, or CBHE, illustrated by the various ways in which it is offered. I will then trace the history of CBHE to remind us that it is not a new phenomenon and has existed for centuries. It is, however, undeniable that CBHE has taken on a new importance in this current century as a result of globalisation. This has been reinforced by the development of the Internet and trade negotiations.

At the beginning of this century the quality of CBHE was a particular concern because of fears that is might become a matter of commercial transactions. In that context there have been various international and regional attempts to address quality issues going back almost 50 years.

I will end this part of the presentation by evoking some more recent developments of CBHE, one of which is online learning. Sir John will then address these phenomena. He will outline the history of online education that led to the explosion of MOOCs after 2012. He will ask whether MOOCs can really be considered as higher education since most of them do not carry credentials and there is no convincing economic model for

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offering them. However, as MOOCs evolve and diversify these issues will be addressed.

We use the term 'post-traditional higher education' to designate new manifestations such as MOOCs and open educational resources. I will reflect with you on the challenges these pose to quality assurance and give examples of how they are being addressed. I will then conclude our presentation by addressing the question in our title, namely do we need new approaches to quality assurance in the era of MOOCs?

What is Cross-Border Higher Education?

In 2005 we developed the UNESCO-OECD Guidelines for Quality Provision in Cross-Border Higher Education. In those Guidelines, cross-border higher education includes higher education that takes place in situations where the teacher, student, programme, institution/provider or course materials cross national jurisdictional borders. Cross-border higher education may include higher education by public/private and not-for-profit/for-profit providers.

It encompasses a wide range of modalities, in a continuum from face-to-face (taking various forms such as students travelling abroad and campuses abroad) to distance learning (using a range of technologies and including e-learning).

CHBE has also been called transnational education and borderless education. It includes developments such as educational hubs, joint degrees, branch campuses, and franchises as well as the age-old phenomenon of student mobility.

History of cross-border higher education

The movement of students across borders goes back a long way. In the 7th century there were student exchanges between China and the Buddhist Nalanda University in northern India. Huen Tsang was a prominent scholar. Nearly a millennium later the Dutch scholar Erasmus, for whom Europe's student exchange programmes are named, moved easily between the continent's universities.

Several of the trends that define higher education today such as increasing access; offering programmes across national borders; and credit by examination have their origins in the 1800s. The External Studies Programme of the University of London is over 150 years old. A remarkable book, entitled *The People's University 1858-2008,* was published to mark the 150th anniversary. It is a beautifully illustrated account of a programme that has spawned innovation in higher education for a hundred and fifty years and produced five Nobel laureates along the way.

In 1858 the University of London made the radical innovation of delinking access to its examinations from study in any institution. This opened up the possibility of a university degree to those who had to go on earning a living while they studied, making higher education available to a far wider range of social classes and occupations. It broke the link between place and study.

A magazine published by Charles Dickens coined the term *The People's University* for the new venture and proposed 'the young shoemaker in his garret' as an icon for the new type of student. I note that the University of London was also a pioneer in the admission of women, who were passing examinations in the 1860s and admitted to London degrees on an equal status with men in 1878.

The example of the University of London is also noteworthy for pioneering another form of cross-border higher education. Its constituent colleges around the world were early examples of what we call today branch campuses. Among these were the University of Zimbabwe, the University of the West Indies, the University of Peradeniya (Sri Lanka), the University of Ibadan, Nigeria, the University of Nairobi, Kenya, and the University of South Africa.

On a personal note, as we mention the University of London, let me say that my own experience in cross-border education goes back to my secondary schooldays when I obtained a GCE diploma from the University of London in the 1960s. I was living in New Delhi and sat my exams in the British Council offices there. Wolsey Hall provided the coursework and tutorial support from Oxford. It was a new experience, in which my tutor in Oxford gave me more personal support than I had ever had in a classroom setting.

In the 1970s, I continued my studies in Paris because, long before programmes like ERASMUS were set up, international mobility was considered to be a 'must' in small countries like mine. France was a preferred destination and a family tradition. Studying at the Sorbonne Nouvelle, I spent hours reading in the Bibliothèque Sainte Genevieve, mixing with international students during seminars and refreshing my knowledge of French.

In the eighties, I had the privilege of being the Secretary-General of the Association of Universities of Yugoslavia, which was a very stimulating period in my professional life. We worked on the strategy for the scientific and technological development of Yugoslavia and strived to bring Yugoslav universities into the mainstream of European integration. We were signatories of the Bologna *Magna Charta Universitatum* in 1988 and got involved with the newly launched TEMPUS programme, the first EU student mobility scheme open to Central and Eastern Europe. We organized yearly international seminars at the Inter-University Centre in Dubrovnik adding an academic buzz at the end of the tourist season in this lovely city.

The end of the decade brought the fall of the Berlin Wall, a transformational event for the integration of Europe.

I then began my international career at CEPES, UNESCO's European Centre for Higher Education in Bucharest, a few months after the Romanian revolution and the fall of Ceausescu. It was an exciting time of change, of new beginnings and European integration. It was also the time of new divisions, civil wars and the disintegration of my

country, Yugoslavia. I had the privilege of working in one of the most beautiful palaces in Bucharest.

My main focus was the UNESCO European Convention on the recognition of degrees and how to bring it more in tune with developments in which the Council of Europe and the European Commission were taking the lead. UNESCO's Europe Region consisted of 50 countries. It included the U.S, Canada and Israel, as well as the successor states of the Soviet Union and Yugoslavia. This brought a wider scope to the more restricted club of the 12 EU Member States or the larger 26 Member States of the Council of Europe.

Within this framework in the mid-1990s a US initiative GATE, the Global Alliance for Transnational Education, launched by educational entrepreneur Glenn Jones, aimed at providing US accreditation to universities operating outside the USA. It was a controversial undertaking that caused mixed reactions and soon lost momentum. However, it highlighted an emerging trend: the growth of transnational or cross-border higher education.

In 1999 I moved to UNESCO Headquarters in Paris. When I arrived there I asked my bosses: "what do you want me to do now?" The answer was "Go global!" An important book "The Business of Borderless Education" had just been published. I met one of its authors, Robin Middlehurst, and worked with John Daniel as my boss. In fact UNESCO already had a history of addressing quality in cross-border education. In 1978 it issued guidelines on correspondence education, which was an early form of CBHE often targeted at developing countries.

Twenty-five years later the General Agreement on Trade in Services stimulated UNESCO's interest in cross-border education. My OECD colleague Kurt Larsen and I encouraged our organisations to take a greater interest in the impact of globalisation on higher education. Things soon heated up when the US and the OECD held a forum in Washington on *Trade in Educational Services*. I attended for UNESCO and reported back that a speech by Pierre Sauvé that was probably intended to reassure had the academic community up in arms.

One result was that UNESCO and the OECD agreed to develop guidelines on Quality Provision in Cross-Border Higher Education. UNESCO made the Guidelines available in all six UN languages. One strong recommendation called for better dialogue and collaboration between exporting and importing countries.

Among other significant documents were: The brochure *Higher Education Crossing Borders* published by UNESCO and the Commonwealth of Learning, the UNESCO-APQN Toolkit *Regulating the Quality of Cross-Border Education* and the *Framework for Higher Education Quality Assurance Principles in the Asia-Pacific Region,* known as the Chiba Principles, which also covers CBHE.

UNESCO held a major world conference on higher education in 2009. Top of the agenda was the huge unmet demand for higher education in developing countries. Cross-border higher education was put forward as one of the remedies to this problem.

Different forms of CBHE

Today, Cross-Border Higher Education remains at the forefront of higher education debates. The diverse forms of CBHE include branch campuses, franchises, joint programmes and courses delivered online.

Let me now say a word about international branch campuses, a small but distinct part of cross-border provision. At the end of 2014 there were 218 degree-awarding branch campuses in operation globally. 29 had already closed but 23 new ones are in the pipelines. The major exporters of campuses are the US, the UK, Australia, France and India, while the major importers are the UAE, China, Singapore, Qatar and Malaysia.

Branch campuses can have a number of benefits. They offer more opportunities for access to students, attract talent, and help universities to build a global brand. More important than their contribution to enhancing access is the role they can play in improving the quality of curricula and pedagogy as local and foreign institutions benchmark themselves against each other. But international branch campuses also face numerous challenges, particularly related to the quality of the teaching-learning process and the student experience.

Teachers play a vital role in ensuring that branch campuses achieve their potential and many are criticized as being ‘empty shells’ because instructors do not follow the programmes of the parent institutions. Sending teachers to staff overseas operations – often called ‘flying faculty’ - poses challenges of sustainability and adaptation, whereas the use of local teachers can create questions about the genuineness of the foreign programmes.

Nevertheless, some UK universities appear to have achieved sustainable operations and US universities are becoming more active as in the network being built by NYU. However, there are also a number of examples of branch campuses shutting down. But in the larger context of cross-border education, branch campuses remain a marginal phenomenon. In China, for example, branch campuses and joint programmes combined account for only 1% of Chinese student enrolments. However, the motivation of students for enrolling in branch campuses is as a route to studying on the home campus in the exporting country.

The online provision of courses across borders holds more promise for increasing access significantly.

Sir John Daniel

Sir John will now ask if MOOCs are a form of CBHE.

Are MOOCs CBHE?

You have asked us to talk about the quality assurance of MOOCs in order to help Fu Jen and other Taiwanese universities manage MOOCs. Stamenka has already discussed the general issue of quality assurance in cross-border higher education. We'll look at the specificities of quality assurance for MOOCs in moment, but first let's understand what MOOCs are, where they are going, and what their legacy is likely to be.

As you know, a MOOC is a Massive Open Online Course. Let me start with the word **open**.

There is a long tradition of idealism about making knowledge and opportunities to study open to people everywhere. This is expressed, for example, through the movement to create open universities that began with the UK Open University in 1969. There are now open universities in many countries, including here in Taiwan.

Some people distinguish three strands in the trend towards openness, the longstanding movement towards open source software, the increasingly successful campaign to ensure open access to the results of research, and the more recent phenomenon of Open Educational Resources.

The concept of Open Educational Resources, OER, emerged in the late 1990s when MIT started putting its lecturers course notes on the Web. UNESCO held a Forum on the topic in 2002. The Forum coined and defined the term Open Educational Resources, or OERs.

Ten years later in 2012 UNESCO organised a World OER Congress. Stamenka and I were closely involved in the preparation of this Congress and, in particular, in holding consultations around the world in order to develop a statement on OERs to guide the action of all stakeholders. This statement was approved by acclamation as the Paris Declaration on OER. Its key paragraph was to encourage governments and institutions to make educational materials produced with public funds available under open licences.

This recommendation is being more and more widely followed. For example, the province of British Columbia, where I live, now offers free, online open textbooks for the 40 most popular postsecondary courses. This means that each student saves $150 a term on the cost of textbooks.

OER were also the fuse that detonated the MOOCs explosion and to MOOCs I now turn. Open resources lead naturally to open courses. And a MOOC is a Massive Open Online Course. They dominated news coverage of higher education in 2012 and were widely hailed as a revolution.

I was a visiting fellow at the Korea National Open University that year and was able to write one of the first analyses of the MOOCs phenomenon with the title 'Making Sense of MOOCs'.

I quickly discovered that the term MOOC was first coined for a course offered free to the public in Canada in 2008. As the title, 'Connectivism and Connective Knowledge', implies, the idea was to connect learners together and have them find and share knowledge. But when MIT called a free course a MOOC it started a craze. Let's look at its first offering, which was very different from the Manitoba MOOC in being more instructional and teacher led.

With 155,000 registrations it was certainly **massive**; it was **open** in that it was free, but free as in free beer, not as in free speech. The materials in most early US MOOCs are not explicitly open educational resources, so they are closed in that sense.

It was offered **online** worldwide.

Was it a **course**? Not really. If you took and passed all the tests, which very few learners did, you could pay for a certificate of completion but you certainly could not get credit to use in any regular programme at MIT.

That is the first snag.

In our view MOOCs are not fully higher education, because higher education does not just require teaching and learning, but also the awarding of useful credentials.

What are some of the other difficulties with early formats of MOOCs that we must solve if MOOCs are to leave a sustainable legacy?

Earlier I mentioned the paper that I wrote in September 2012 at the Korea National Open University: *Making Sense of MOOCs: Musings in a Maze of Myth, Paradox and Possibility.* Apart from the fact that most MOOCs did not lead to credentials at that time the paper identified some other challenges.

First, MOOCs did not – and mostly still do not – have a viable economic framework. They cost money to produce. Indeed the cost of producing a MOOC is increasing steadily as new players compete to make their MOOCs more attractive. In the early days a MOOC cost from $20,000 to $50,000. Today universities can spend upwards of $200,000 on a MOOC.

One idea for making money from a MOOC takes us backwards. Although MOOCs grew out of Open Educational Resources, the learning materials in the early MOOCs were not openly licensed as OER. Institutions hoped to sell this copyrighted material. Few such sales occurred and I am pleased to say that the trend today is toward is to make the learning materials in MOOCs freely available.

A second challenge was that the early MOOCs had enormous dropout rates, as in the MIT course that I showed. You would be very ashamed if you had dropout rates like that at Fu Jen University! Of course, a lot of those who registered in the early MOOCs were simply curious – often university faculty members who wanted to see what the fuss was about. Today completion rates have increased somewhat as more people choose a MOOC for the purpose of learning about the topic, but most MOOCs are still 'recreational learning' for most of those who register.

The most common way for a university to recover a little money from its investment in a MOOC is to sell a certificate of completion to those who finish it. If you enrol in a MOOC and continue towards the end of it you will receive advertisements encouraging you to pay a few hundred dollars for a nicely designed certificate of completion. People buy these. Indeed, the FutureLearn MOOC consortium says that sales of these certificates are running at four times the level they anticipated. Maybe as such certificates become more credible with employers and universities they will begin to cover some of the cost of offering MOOCs for free.

A third challenge is that the early MOOCs depended on powerful cloud computing infrastructure that could handle very large numbers. This meant that universities wanting to offer MOOCs had to partner with commercial companies such as Coursera. Because these firms charge fees to the universities the companies have the elements of a business model but the universities do not. However, all this is changing too. An institution wanting to offer a MOOC today has less need to pay a commercial partner.

On the one hand, open source solutions, such as Open edX and Google Coursebuilder, are available, but on the other, fully integrated learning management systems are less necessary for offering MOOCs today. Most learners already have the habit of surfing the Web to find different resources, so an organisation offering a MOOC can simply direct them to the various elements of the course: a YouTube video here, and OER there, etc.

An appealing option is use an open-source MOOC platform in combination with OERs, so that local instructors have the flexibility to adapt curricula to meet the unique needs of their learners. To take full advantage of the MOOC format, implementers should plan to use existing technologies such as radio and mobile phones. Instruction designed for mobile phones has a similar pedagogical underpinning to the instructional design of MOOCs, meaning that students can receive high-quality instruction on devices they are familiar with.

Finally, some of the 2012 MOOCs were criticised for having an old-fashioned behaviourist instructional pedagogy. Computer scientists, not educators, developed the

big MOOC delivery systems. Only after criticisms surfaced did the MOOC pioneers even become aware of the prior research on distance learning conducted over decades by open universities and others.

In those early days people confused university reputation with pedagogical quality: they assumed that if it's from Harvard it must be good. Today people are more sophisticated. They recommend MOOCs to each other on the basis of their intrinsic interest and pedagogical quality rather than on the brands of the institutions behind them. Since those early days MOOCs have evolved rapidly. First, there are now many more organisations working with institutions to offer MOOCs. Here are some of them

FutureLearn is a MOOCs consortium of 40 universities that was launched in 2013. It aimed to draw on the experience of the Open University and the BBC to bring much better pedagogy to MOOCs. In my judgement it has succeeded. Stamenka and I have enrolled in three MOOCs from FutureLearn and thought they were excellent, with a consistently interesting and effective pedagogical style.

OpenUpEd is a venture of the European Association of Distance Teaching Universities and offers 60 courses in 12 languages.

Schoo is a Japanese MOOC platform, funded with venture capital, focussing particularly on IT-related topics.

Open2Study is a partnership of eight Australian universities offering an eclectic range of 50 courses.

Veduca, in Brazil began with a MOOC from the University of Sao Paolo and is focusing on basic courses, which have government-backed accreditation.

Iversity offers some 50 MOOCs in Germany and gives prizes for the best proposals.

NPTEL, in India, brings together the prestigious Indian Institutes of Technology and Science (IITs and IIScs). It has 1,000 MOOCs planned and will certify students on a large scale.

This expansion of activity is producing much greater diversity. This slide, arguing that the meaning of every letter in the acronym MOOC is now negotiable, has become famous!

According to a count done by the European MOOCs observatory there were some 4,000 MOOCs on offer around the world at the end of 2014. This means that it is impossible to generalise about all MOOCs. Few are now massive in the 2012 sense of hundreds of thousands of enrolments and some are restricted to particular groups of students. However, let me note two trends.

One is that some MOOCs are now demand led rather than supply driven. In the early days a professor or a whole department that were enthusiastic about the subject they taught decided to do a MOOC. Now we are seeing a trend to design MOOCs to respond to needs of particular groups in society to have more knowledge on a specific topic. Call this a demand-led approach.

A nice example of this comes from the University of Tasmania, in Australia, which realised that there are now large numbers of people, both professional carers and family members, caring for people with dementia. So their Wicking Centre offered a MOOC on understanding dementia. It attracted 10,000 learners from 60 countries. 89% were women, 70% were over 40 and only 17% had more than a bachelor's degree. They provided online technical and teaching support and achieved a completion rate of 39%, which is much better than the early MOOCs.

The second and similar trend is creating MOOCs that are aimed at large populations in developing countries for development purposes, rather than at the graduate population that supplies most MOOC learners. A pioneer in this trend was an alliance between my former organisation, the Commonwealth of Learning, and the Indian Institute of Technology, Kanpur. The course was on *Mobiles for Development.* They ran it at the end of last year.

Dr. Balaji, the course director at COL reports that:
"At the time of launch we had 2,282 registrants from 116 countries. The top five are: India, Nepal, Mauritius, Grenada and South Africa. The large presence of registrants from two small countries (totalling 187) was not expected. We have about 500 registrants in all from Sub-Saharan African countries and the Caribbean. From the Pacific, Solomon Islands has a noticeable presence."

Since then the same alliance has produced a MOOC on MOOC, again aimed at developing countries to show them that they can do MOOCs themselves without having to go into partnership with rich-world companies.

Evidence that the idea is catching on is a project in India, supported by the Ministry of Human Resource Development, which will create 20 MOOCs on topics related to Agriculture and Food and offer proctored exams in 100 centres around the country. The programme is driven by the fact that India will not be able to scratch the surface of its needs for the agricultural education without appealing to online and mobile technologies. The country needs to train over 50 million para-professionals in agriculture by 2020 but can only train two million using conventional methods.

One great asset in implementing this online training programme is that India already has a huge pool of open educational resources in the area of agriculture and food that can be used in course development. An important purpose of the courses will be to connect

learners with each other, so in that respect they will be more like the early Canadian MOOCs than the very instructional type of MOOC that emerged in 2012.

MOOCs: the broader legacy

So much for the story of MOOCs as MOOCs: but what about the bigger picture? MOOCs are going to change the way that universities operate in much more significant ways than just offering a few MOOCs. What will be the legacy of MOOCs? Fashions pass, needs change and technology evolves. What will MOOCs lead to?

Let me begin to put MOOCs in context by recalling general truths about new technological developments. One is summarised in the Gartner Hype Cycle, which describes the sequence of enthusiasm, disillusionment and sensible adoption through which new technologies often progress.

This diagram represents the hype cycle. A new technology appears. It is adopted with enthusiasm until people realise that it does not do everything that they anticipated. At that point we reach the peak of inflated expectations. In North America MOOCs were on this peak in 2013. I believe that last year, 2014, although many new MOOCs were created, the pioneers began to slide down into the trough of disillusionment. Evaluation reports on MOOCs started to come in and institutions began asking why they were spending money on MOOCs but offering them to the world free.

But the slide comes to an end. With other technologies the hype cycle usually leads out of the trough of disillusionment up a slope of enlightenment to a plateau of productivity. Moving up the slope of enlightenment will develop the legacies of MOOCs and, we hope, bring us to a plateau of productivity in online learning.

Here I introduce another model of technological innovation, which complements the hype cycle. This is Moore's Technology Adoption Cycle. The key point here is that when a new technology appears it immediately attracts innovators and then a group of early adopters. With many technologies there is then a pause – labelled here as the chasm – before an early majority of potential users decide to join in.

Let's think about this technology adoption cycle not as a pattern for the adoption of MOOCs, but for the adoption of online learning generally. There has been a chasm in the adoption of online learning by institutions. This is not true of students, who seem to migrate to online learning as soon as it is available. However, many of their institutions have been reluctant to engage seriously with online learning for various reasons. One reason was the disruption it would cause to their normal operations. Another was that for many institutions distance learning had a poor image.

I believe that the most important impact of MOOCs has been to bridge that chasm. This will be is the most important legacy of MOOCs. Nearly all institutions will now engage seriously with online learning.

This is because prestigious universities like Harvard, MIT and Stanford started the 2012 MOOCs craze. These institutions had no history of offering distance learning – and probably do not intend to have a future of offering distance learning leading to degrees – but they jumped into online learning with MOOCs.

Other elite institutions in the US around the world, which like to think of themselves in company with Harvard, joined in. This was a copycat phenomenon. Even some universities that already had a good distance-learning programme decided to offer MOOCs too, but without linking them to their existing distance operations. There was a herd instinct at work. Everyone was following the leaders but few, including the leaders, had any clear idea why they were moving or where they were going.

So today, to use another animal analogy, there is a large flock of institutions offering MOOCs in various ways. But most of these are no longer simply copying Harvard and MIT. We are now in 2015 and the sheep have had time to think. They realise that there is no business model for MOOCs. MOOCs cost money to produce and offer, but no revenue comes back in return. However, by offering MOOCs institutions have realised the power of online learning and want to take advantage of it.

Professor Tony Bates, a commentator on educational technology for whom I have great respect, said that in 2013 the teaching of regular programmes online finally came of age. Previously much online programming had been of poor quality but in 2013 institutions started to take it seriously and do a much better job.

Many of the MOOCs sheep came to the obvious conclusion. The way up the slope of enlightenment after the experience with MOOCs lies in offering regular programmes online and getting much better at it as they strive towards the plateau of productivity. So MOOCs are helping online learning to bridge the technology adoption chasm. We are now in a phase when an early majority of institutions are taking online learning very seriously.

To take an example from my own country, Canada, a survey five years ago showed that 15% of postsecondary courses and programmes were offered online. The 20,000 courses attracted 500,000 student registrations. Completion rates were over 70% in the colleges and over 80% in the universities.

Looking at the whole world, although it is impossible to get figures, it seems likely that the numbers of students taking regular credit courses online is already much larger than the numbers taking MOOCs, even though the MOOCs' numbers make the news. But that does not alter our point that MOOCs have played an important role in bridging the chasm between the early adopters of regular online learning and the majority of institutions.

Stamenka Uvalić-Trumbić

<u>What about quality?</u>

Your invitation to this seminar asked us to explore issues of quality in relation to MOOCs in order to help you manage MOOCs in Asia. Let me start with two simple points. We noted earlier that MOOCs are part of a trend towards openness in higher education that goes back many years. One important milestone in that trend was the creation of open universities. Open universities challenged traditional notions of quality assurance in two important ways, which also apply to MOOCs.

First, as their name implies open universities and MOOCs are open. This is usually taken to mean that there are no academic admission requirements. Entry is open but exiting successfully, that is to say passing the course or the programme is difficult. This is the exact reverse of the situation in most elite universities, where it is more difficult to gain admission than to exit with a degree.

In days gone by quality in higher education was measured by inputs. How difficult were the entry requirements for students; how well trained were the faculty; how big was the library? The open movement turns all this on its head by looking at outputs: what skills, competencies and knowledge have the students gained through their studies?

The second challenge that openness poses to quality assurance is that it changes the way universities operate. Lord Walter Perry, the founding vice-chancellor of the UK Open University, used to say that the University's major innovation was not distance education or the use of technology, but the process of developing courses with teams of faculty and professionals, rather than expecting individual faculty members to develop courses on their own.

This in itself tends to increase quality, because faculty like to criticise each other. Learning materials that have been scrutinised by a team are more likely to be of high quality than those produced by individuals on at least three dimensions: academic rigour and relevance; good pedagogy; and balance.

In the case of open universities and MOOCs there are two other quality factors partly related to teamwork. The first is that the learning materials are explicit and reviewable. There are no secrets about what is in a particular course and how it is examined. Other academics can see everything and make their own judgements. The second is that the processes of student support and assessment are explicit too.

For these reasons it is not surprising that the UK Open University, for example, was ranked in 5th place for the quality of its teaching after a decade of assessments, discipline by discipline, conducted by the national quality agency in a hundred universities. For similar reasons this institution always comes near the top in the annual survey of student satisfaction that the agency conducts.

It is interesting to observe that as the numbers of MOOCs expand the processes for creating them are increasingly based on teamwork. For instance, in the Indian initiative

for MOOCs in Agriculture and Food that we mentioned earlier, the government says that for quality assurance it will rely largely on reviews of the curricula by teams of academics and experts from other institutions.

These are very general points, but let us look more closely at more detailed approaches to quality assurance for MOOCs, for post-traditional higher education generally, and for regular programmes taught online.

Post-traditional higher education

MOOCs are one example of series of new developments that mostly have the aim of introducing greater openness to higher learning. We call them post-traditional higher education. Other examples are Open Badges, which open up the possibilities of certification to a wider range of players, and Open Educational Resources, which are making vast amounts of quality content freely available.

Open Educational Resources, or OER, are a good example of cross-border education because the Internet lets them fly around the world – and not only in a north-south direction. The University of Michigan uses OER created by the University of Ghana in teaching medicine.

Are new forms of QA needed?

Because of its less formal nature post-traditional higher education poses challenges of quality assurance. We are trying to meet this challenge in two ways.

First, I am working with the International Quality Group created by the President of the US Council for Higher Education Accreditation, Judith Eaton, to develop a quality platform, which could be a flexible process for reassuring users that MOOCs, OER and Open Badges have been created in a systematic and professional way.

In 2013 we edited a *Guide to Quality in Online Learning*. This addressed issue of quality in what you might call conventional online learning, that is to say courses and programmes that carry assessment and lead to credentials. This Guide, which was published simultaneously in Chinese and English, was well received, but since it appeared at a time of great interest in MOOCs, some users asked us to create a similar *Guide to Quality in Post-Traditional Online Higher Education.*

This was the result and it appeared last year. Like the first it was also published simultaneously in Chinese and English thanks to the good collaboration of the CCRTVU Press in Beijing. This new Guide to Quality in Post-Traditional Online Higher Education is intended to help all stakeholders address quality issues.

Getting a grip on quality in post-traditional higher education is a work in progress. Indeed, that is true of post-traditional higher educational generally. We do not know what the future of MOOCS, OER, Open Badges, etc. will be.

So we come back to the question we asked earlier. Are new forms of quality assurance needed? Specifically, as in the title of our talk, now that Cross-Border Higher Education is in the era of MOOCs, do we need new approaches to quality assurance?

You will have gathered from what we have said in this talk, notably in our discussion of the Gartner Hype Cycle, that we think the main legacy of MOOCs will be to accelerate the offering of regular credit programmes and courses online. If that is true then the first of the Guides that we just mentioned should cover most of the needs for quality assurance. This dealt with regular online teaching and learning leading to assessment and credentials.

However, we believe that there will also continue to be an effervescence of experimentation leading to forms of post-traditional higher education that are different in various ways. We are talking about much shorter courses, informal types of assessment, new credentials, and an explosion of open educational resources.

We like to think that our second, 2014 Guide provides a good basis for addressing the quality of such offerings and we commend it to you.

Thank you: it has been a pleasure to come to Taipei to address you.