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What future for online learning in China?

Theme

The Internet plays an increasingly central role in our lives.
How will it change higher education in China?

Introduction

Good day to you all. Thank you for the invitation to address you by video.

My topic is a question: *What future for online learning in China?*

We all know that the Internet plays an increasingly central role in our lives. People in China are great users of the Internet for shopping. But how will the Internet change higher education? Will online learning one day replace much of the study that today occurs in classrooms?

I shall focus on the development of online learning outside China and ask you to reflect on how online learning will evolve in China. Will China follow a similar path to the rest of the world or will China be different? Is online learning compatible with China's educational traditions?

My talk will be in three parts.

First, online learning is not new. It continues a long tradition of open and distance education in which China has been a major player. I shall summarise what the research says about the effectiveness of open and distance education.

Second, I will describe recent developments, notably MOOCs, or Massive Open Online Courses, that have made the public aware of the opportunities that online education provides.

Third, I will ask what is the future of online learning in our university campuses. Will education move out of the classrooms and onto students' personal computers or mobile devices?

So I turn first to the traditions and history of online learning.

Open and Distance Education

Online learning is the latest development in what is called 'open and distance education'. Open and distance education combines the concepts of open education and distance education.

The aim of open education is to remove the barriers that prevent people getting the education that they need.

For example, there are now many open universities around the world. Some of them have eliminated entrance exams to make it easier for people to enrol. Entry is easy but students then have to work hard to pass the university's exams in order to graduate. This is the opposite of how the world's elite universities operate. They have tough entrance exams. But once you are enrolled in these elite institutions it is relatively easy to graduate with some kind of degree.

Distance education is usually associated with open education. One way of removing barriers is to let people to study wherever they are - at home, or at work, or travelling. Distance education makes that possible and gives people great flexibility about when they study. Open and distance learning has a long tradition.

For example, Confucius did not teach at a distance on the Internet but he travelled throughout China as a teacher. He was a pioneer of the concept of open education that has always been associated with distance education. He was the first teacher in China to provide private education to the public, based on the concept of "teaching according to natural aptitude". He also emphasised the importance of self-improvement, which has been the motivation of millions of ordinary people who have studied by open and distance learning over the years.

More recent times saw the creation of the Radio and TV Universities by Deng Xiaoping in 1978. That created a nationwide open and distance learning system across China, which enrolled 3 million students over the following 20 years. One million of them graduated.

In 1999 the Radio & Television University network began to evolve into the Open University of China, which integrates an air network through satellites, a ground network through computers, and a human network through the full-time and part-time faculty in the open universities. This is now a large operation, even by Chinese standards. By 2008 over 5 million people had registered and over 2 million had graduated.

Distance Education evolves with technology

Everywhere distance learning has evolved as technology has evolved. Every new communications medium has made distance education more open and improved its quality. Here are a few examples.

The first - and perhaps still the most important - is the printing press. Before printing was invented there were few books, so teachers had to read them to their students. With printing everyone could have books, making education much more open.

The next key invention was railways, which made it cheap and quick to distribute material - including books and printed documents - across countries. National postal systems developed and people took advantage of them to open up education. Correspondence Education was born. When a postal system was put in place in Britain in 1850 Isaac Pitman offered a correspondence course in Shorthand for the growing numbers of office workers.

In the 20th century there were many developments, notably radio, film, television and computers. These were important media for the open universities, such as the UK Open University and the China Central Radio and TV University that opened in the 1970s.

All this led the way to the Internet, which brings together all the previous communications media. It can carry the written word, audio, still images and video.

The Internet has caused distance education to grow rapidly, not just in places like California, but also in countries like Brazil. More and more people are learning online. But there are two questions. First, does it work? Second, do students like it?

What does the research say?

There have been hundreds of studies of the effectiveness of distance and online learning. Two studies have re-analysed much of that research.

In Canada Bob Bernard analysed the results of 232 studies, conducted between 1985 and 2001 that had compared distance education with classroom instruction in terms of student achievement. They found that asynchronous distance education - which is where the interactions between students and teachers are not live - produced better results than classroom teaching.

Ten years later in the US Barbara Means compared online learning with face-to-face teaching using research articles published between 1996 and 2008 on web-based courses. These were courses where more than 25% of the instruction - but not all of it - was delivered online. Such mixtures of online learning and classroom teaching are called 'blended learning'.

Means also found that students doing blended learning performed better than those receiving face-to-face instruction. She also noted that students doing blended learning spent more time learning and had additional instructional resources.

She suggests, therefore, that a major reason for using blended learning is to increase the amount of time that students spend studying.

What do students think?

What do students think of online learning? There has been some interesting research in Hong Kong. It found that online learning is not nearly as popular with students as the Hong Kong authorities expected. Students there prefer face-to-face learning despite the fact that Hong Kong has high availability of personal computers and excellent broadband access. Why is this?

The most important barrier the researcher found was a lack of self-discipline and self-motivation in learners. This is linked to a teacher-centred and utilitarian learning culture with a tradition of rote learning that is the opposite of the self-directedness and student-centredness that online study requires. Also, the students' utilitarian aim of getting through the course with minimal work is often shared by teachers, who also seek to instruct with least effort.

In Canada, where I live, attitudes are very different. High-achieving students are particularly enthusiastic about learning online. They prefer blended learning courses to those that are fully face-to-face or fully online. They find blended courses more convenient and interesting and they learn key concepts better online than in face-to-face courses.

Summary

We can summarise this in two points.

First, an educational tradition where students are used to learning by rote and being assessed by conventional tests is not a good environment for introducing online learning without a lot of planning and preparation.

Second, both blended and online offerings stimulate students to work harder and engage more fully with the course.

MOOCs

I now come to part two of this lecture.

A recent development, which has greatly increased the awareness of online learning, is MOOCs: Massive Open Online Courses. MOOCs made news when elite US universities like Harvard and MIT started offering them

This early MIT course on *Circuits and Electronics* is an example. With over 150,000 registrations it was certainly **massive**. It was **open** in the sense of being free to the user. It was **online**, so accessible to anyone with a computer and a connection.

Because American universities are very respectful of Harvard they thought that if Harvard was going online and offering MOOCs, they must be OK. So a copycat phenomenon began. There was a herd instinct at work and many universities started producing MOOCs.

There were almost 4,000 MOOCs around the world the last time that anyone tried to count them. This means, of course, that MOOCs have diversified greatly. This diagram illustrates this. It says that the meaning of every letter in the acronym MOOC is now negotiable.

The key reasons that MOOCs are changing are that institutions are trying to solve their two important weaknesses. The first weakness is that they do not usually lead to credits. This means that regular university students are not very interested in MOOCs. They want recognition. The second weakness of MOOCs is that they have no clear business model. Universities have to spend money to make good MOOCs, but they do not get any money back from me because they offer them free.

Having a business model and giving credits go together. That is the way universities normally cover their costs. They charge fees or get government grants for courses and programmes leading to credits and credentials so they have revenues to match their expenditures.

This leads to another challenge. If universities try to assess what students have learned in a MOOC, they have a problem of scale. The world's open universities have the systems to assess and examine students on a large scale because they have thousands taking some of their courses, but regular universities do not. So as MOOCs diversify the average MOOC is becoming smaller.

What this means is that we are seeing a convergence between MOOCs and online teaching in regular courses leading to credit and qualifications.

What Future for Online Learning in China?

That brings me to the third part of this talk and my title: *What Future for Online Learning in China?*

Are we looking forward to a world when most university teaching and learning will be done online rather than in classrooms? On university campuses we already see a steady rise in the number of students taking regular credit courses online. This diagram shows the steady rise in the proportion of American students taking at least one course online. The figure had reached 32% by 2011.

Over this same ten-year period the proportion of US universities offering at least one programme that can be studied entirely online, with no classroom attendance, rose from 32% to 62%. Another revealing figure is that three-quarters (75%) of the enrolment growth in US higher education is in online courses and only one quarter in classroom courses. I give you figures for the US because the US publishes data on this phenomenon and there are many reports about it.

A final figure from the US leads into my concluding comments. Seventy per cent (70%) of leaders of US universities say that online learning is a very important element of the

future strategy for their universities. However, these leaders also report that only 28% of their academic staff members accept the value and legitimacy of online learning.

Summary

The future of online learning depends on how this tension is resolved. To summarise in five points:

- Students like online learning.
- Research shows that students learn more and better online.
- Online learning is expanding steadily
- MOOCs have made all universities take online learning seriously.
- A majority of academic staff do not accept the value and legitimacy of online learning.

The tension is that academic staff, the teachers, are not convinced of the value of online learning even though the research shows that students like it and learn more.

Look at this in terms of Moore's Technology Adoption Cycle. This shows that when new technologies are introduced the rate of their adoption often shows a break - called The Chasm on this diagram. Some enthusiasts and visionaries adopt the new technology early and then there is a gap before others, first the pragmatists and then the conservatives, jump in too.

For online learning the students are the visionaries who, being more oriented to the future, take to online learning quickly and exploit its advantages. On the other hand academics, who are used to traditional ways of teaching, take longer to adopt the new technology. In the case of the adoption of online teaching and learning we are now somewhere around the chasm.

My question for you is how this will develop in China. You know the situation better than I do. In the rest of the world online learning is growing steadily. Will that happen here in China?

I am proud to say that the DeTao Masters Academy, with which I work in China, is helping Chinese universities to experiment with online learning. Some of our Masters are now preparing online courses and will invite Chinese universities to integrate these into their existing programmes. Professor Yan Jin, an expert in Design Theory and Methodology is pioneering this initiative. His online course will be part of a series called O+O, meaning 'Online to Onsite'. A number of Chinese universities will offer this course onsite on their campuses this year.

In the case of O+O the receiving universities will adapt the online course to their own teaching needs, so student assessment will not be the same in each host university.

DeTao thinks that this is a good model. Most university professors are reluctant to import a course from somewhere else and use it exactly as it is. They want to add their own examples and give the course their own style. But the O+O courses can provide them some excellent online teaching material and also give them a chance to become familiar with the technology of online teaching and learning. One day they may produce online learning courses themselves.

I conclude that online learning will become a major part of higher education around the world in the years to come. But it will take time. Many students are ready to adopt it but it will take much longer for the academics to appreciate its strengths and be ready to teach online themselves. What do you think will happen in China?

Thank you

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