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The Future of Universities: New Dynamics for Development

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The Future of Universities:
New Dynamics for Development

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Abstract

Are universities becoming more open or more closed? Starting from the trends identified at UNESCO's 2009 World Conference on Higher Education the presentation looks at the recent evolution of higher education, most especially the use of technology. It finds that the for-profit sector is moving much faster into the use of eLearning than public institutions. This raises the possibility that higher education might split into a public sector focused on research and a for-profit sector doing most of the teaching. However, the use of open educational resources may provide a vehicle for the public sector to become more open through an Open Educational Resource University with a network of participating institutions.

Introduction

It is a great pleasure for my colleagues from the Commonwealth of Learning and me to be in Trinidad again. We are most grateful to the Minister of Science, Technology and Tertiary Education for encouraging us to convene our meeting of Focal Points from the Caribbean in Trinidad & Tobago. This is the first of series of four meetings of our focal points in the four Commonwealth regions, which are a very important element in our planning process. Future meetings will be held in Mauritius, for Africa; in New Zealand, for the Pacific; and in Malaysian for Asia.

It is particularly appropriate that we are holding the Caribbean meeting here because the Principal of the St. Augustine Campus of the University of the West Indies, Professor Clement Sankat, also represents the Caribbean Region on COL's Board of Governors. We much appreciate his effectiveness in acting as spokesperson for the these countries and I am most grateful for the invitation

We are in the University of the West Indies so I have taken as my title today *The Future of Universities: New Dynamics for Development.* These are challenging times in higher education almost everywhere. Some developing countries are faced by massive growth in demand whereas some jurisdictions in the developed world – I give England and Pennsylvania as just two examples – are facing drastic cuts in the public funding of the teaching function of higher education.

My talk will be in two parts. I shall begin by enumerating some of the new dynamics that are determining the evolution of higher education around the world.

My point of reference for this first part will be the World Conference on Higher Education that UNESCO convened in Paris in July 2009. The Executive Secretary and organiser of the event was COL's Focal Point at UNESCO, Stamenka Uvalić-Trumbić. Various new trends and issues emerged during the conference but I shall mention just eight of them.

In the second part of the talk I shall focus on the particular impact of digital technology and its potential to change the dynamics of higher education.

Let us give some background about the World Conference on Higher Education before presenting the new trends that emerged from its debates.

To express its global coverage and give voice to regional and national specificities, the World Conference was preceded by six regional conferences. They were held in Cartagena de Indias for Latin America and the Caribbean; Macau for East Asia and the Pacific; Dakar for Africa; New Delhi for South Asia; Bucharest for Europe and North America; and Cairo for the Arab States.

The WCHE brought together leaders from countries big and small.

Present from small countries were the President of Slovenia, the Governor-General of Saint Lucia, and the Minister of Higher Education of Oman. They spoke alongside Ministers from Brazil, Egypt, France, and India. Africa was a major focus and the Rapporteur General for Africa, Nigeria's Peter Okebukola, emphasised the great importance of higher education for Africa.

THE NEW DYNAMICS OF HIGHER EDUCATION

Let us now identify eight new dynamics that came out of the WCHE debates.

Rising demand and massification

The first is rising demand. Higher education's role in constructing the knowledge society is now acknowledged by all. University degrees and diplomas have become passports to a good future and the demand for higher education has been growing rapidly. As a consequence, we now talk of *massification* as the dominant trend. Globally, age participation rates in higher education have grown from 19% in 2000 to 26% in 2007. There were almost 153 million students enrolled in tertiary education worldwide in 2008, which represents a 53% increase over 2000 and a fivefold increase in less than 40 years. In low income countries these percentages were much lower and rose from 5% in 2000 to a modest 7% in 2007. This means we can expect continuing rapid growth in those countries.

Diversification of providers and methods

It will not be possible to satisfy this rising demand, especially in developing countries, by relying on traditional approaches based solely on public universities. So a multitude of new providers of higher education is emerging. But there is a major contradiction, because just as systems are diversifying there is trend, driven by the fad for university rankings, to make universities more homogeneous.

These rankings, such as those from Shanghai's Jiao Tong University, are essentially about performance in research. In response to the question 'where is teaching in the international rankings?' Boston College's higher education scholar Philip Altbach replies, 'in a word – nowhere'.

One consequence of rankings is the attempts to create so-called world-class universities, as described in a book by the World Bank's Jamil Salmi, *The Challenge of Establishing World Class Universities*, which analyses what makes for a top university. The designation refers to only a tiny fraction of the world's universities, but some countries are lavishing funds on favoured institutions in a probably futile attempt to get them into the list of the top 100 – or top 300 – research universities. Perhaps alarmed at the Gadarene rush that he has helped to provoke, Salmi is already sounding a warning note. He now writes of *Nine Common Errors in Building a World-Class University* and cautions those focusing on boosting one or two institutions not to neglect 'full alignment with the national tertiary education strategy and to avoid distortions in resource allocation patterns within the sector'.

The upshot of all this, made very explicit in the recent dramatic funding cuts made by the Higher Education Funding Council for England and the State of Pennsylvania, to take just two examples, is to swing the balance of public investment in higher education significantly towards research and away from teaching.

At the other end of the spectrum, as an increasing proportion of the population seeks higher education, transition programmes between schools and universities, such as community colleges, are attracting worldwide attention. Ms Jill Biden, the wife of the US Vice-President, who teaches in a community college herself, presented the community college model at the World Conference. Community colleges provide access for disadvantaged students, offer flexible curricula – include skills-based training – and allow progression to university.

Private provision

Corporate structures are also changing. Private higher education is now the fastest growing sub-sector of higher education with some 30% of students enrolled in private higher education institutions globally. Some countries (Japan, South Korea) enrol 80% of their students in private higher education institutions and in parts of Latin America these percentages reach 50%.

For-profit higher education is also growing and developing specific business models. The Conference stressed the importance of including the private sector in all quality assurance arrangements. In North America and Europe for-profit institutions are moving more rapidly into eLearning than the public institutions.

Distance education

Modes of teaching and learning are also changing. Indeed, applications of ICTs have impacted higher education significantly. Operations like UWI's Open Campus, are multiplying around the world. They, and the increasing number of open universities, are an important response to the challenge of scaling up higher education in response to

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growing demand and are increasingly powerful players in national higher education systems.

We will talk more about distance education later. But here let me simply give the example of UNISA, the University of South Africa, one of the oldest and largest distance education institutions in the world which enrols a quarter of a million students a year.

Cross-border Higher Education

These trends come together in a steady increase in cross-border higher education.

As defined by the 2005 UNESCO-OECD Guidelines for Quality Provision in Cross-border Higher Education, the term designates higher education that occurs when 'the teacher, student, programme, institution/provider or course materials cross national jurisdictional borders'.

Cross-border higher education can take different forms, ranging from branch campuses and franchises of universities offering courses abroad to e-learning across borders. Cross-border provision is an important phenomenon here in the Caribbean and COL published a book about it, entitled *Foreign Providers in the Caribbean: Pillagers or Preceptors*, a few years ago.

Cross-border Higher Education, if regulated properly, as it is in China, offers great opportunities for capacity building at institutional level both in teaching and learning. This example from China is the University of Nottingham, Ningbo, China, a cross-border provider representing a partnership between the University of Nottingham in the UK and a local partner approved by the Ministry of Education of China.

However, without proper regulation, CBHE easily lends itself to fraud and low quality provision, the most striking example being degree mills that sell diplomas for money. The internet is an attractive tool for these bogus providers. One used Blenheim Palace, Winston Churchill's birthplace, on their website claiming it as their campus. Others misuse UNESCO's name to appear legitimate.

Fortunately, quality assurance provides some protection against such bogus providers.

Quality assurance

Quality assurance – and especially the internationalisation of quality assurance – is one of the most striking new developments since UNESCO held its previous World Conference on Higher Education in 1998. This new emphasis on QA was reflected not only in the conference Communiqué but also in both political and academic debates during the Conference.

The internationalisation of quality assurance is a response to the growing policy challenges facing higher education systems and institutions.

UNESCO has prepared the ground for this process of internationalisation through the standard-setting tools that were highlighted at the WCHE. These are the Conventions for the Recognition of Degrees and the 2005 Guidelines for Quality Provision in Cross-Border Higher Education.

COL's assistance in quality assurance takes the form of our Review and Improvement Model, COL-RIM, which was developed under the guidance of our former Higher Education Specialist, Willie Clarke-Okah and is now being implemented by his successor, Madhulika Kaushik. It was first tested here in the Caribbean two years ago.

Another initiative is the UNESCO - World Bank Global Initiative for Quality Assurance Capacity (GIQAC). GIQAC supports regional networks of quality assurance agencies and I am privileged to serve on its steering committee. In this region, it supports the Caribbean Network of Quality Assurance Agencies for Tertiary Education (CANQATE).

An important contribution to global quality assurance is the UNESCO Web Portal on Recognised Higher Education Institutions. This provides students and all stakeholders with white list of accredited institutions provided by governments so that they can check the bona fides of institutions in other countries. Finally I should mention a document entitled - *Toward Effective Practice Discouraging Degree Mills in Higher Education.*

Teacher Education

The growing challenges of teacher education were highlighted as one of the global trends, underlined in Conference Communiqué in these words:

 "Our ability to realize the goals of EFA is dependent upon our ability to address the worldwide shortage of teachers. Higher education must scale up teacher education, both pre-service and in-service, with curricula that equip teachers to provide individuals with the knowledge and skills they need in the twenty-first century. This will require new approaches, including open and distance learning (ODL) and information and communications technologies (ICTs). (Article 11)"

The teacher shortage is the core challenge. According to UNESCO's Institute of Statistics, a global total of 10.3 million teachers should be recruited between 2007 and 2015. However, this is a global figure. Actual needs vary greatly from country to country. The 96 countries that have not achieved Universal Primary Education will need to recruit 1.9 million teachers for this purpose alone.

COL's work in Teacher Education, under the leadership of Abdurrahman Umar, aims to help countries expand teacher training through distance learning and also to incorporate UNICEF's notions of Child-Friendly schools into teacher education.

Academic profession

Higher education teachers were naturally a particular focus of the WCHE. Rapid expansion is putting various stresses on HE systems and their academic staff.

First, pressure of student numbers has required the hiring of less qualified faculty.

Second, the use of part-time professors is becoming more widespread. For example in Latin America and the Caribbean, up to 80% of the faculty have part-time status.

Third, part-time faculty seek adequate salaries by working in several institutions. In particular, private higher education institutions tend to rely heavily on part-timers, some of whom are moonlighting from public institutions, which can cause tensions.

Fourth, the academic labour market is now global. Academics migrate from poorer to richer countries. Singapore, the Gulf States, Western Europe and North America tend to import faculty whereas regions like the South Asia, the Caribbean and Africa are exporters.

Fifth, one side effect of the rapid spread of technology is that young people who are used to using digital devices in everyday life expect to use them as students – whereas many faculty continue to teach in traditional ways.

Sixth, however, ICTs provide new opportunities to expand access to quality learning and

facilitate the tasks of teachers. In particular, the growing trend to develop Open Educational Resources means that academics and students will be able to draw on a worldwide pool of excellent teaching and learning material that can be fully adapted to local needs.

COL is working with UNESCO to empower HE institutions, ministries of education and quality assurance agencies to take full advantage of these resources. In particular we want to ensure multidirectional flows of Open Educational Resources so that developed countries use resources from developing countries as well as vice-versa.

This was the topic of a vigorous debate between two South Africans, Barney Pityana and Brenda Gourley, at the World Conference.

Since then four workshops held in Cape Town, South Africa; Windhoek, Namibia; Bamako, Mali; and Kochi, India have provided examples of OERs from institutions in Ghana and Malawi being used in America. This helps to dispel the fear of neo-colonialism.

THE POTENTIAL OF DIGITAL TECHNOLOGY

This leads naturally into the second part of this address where I shall look more closely at the potential impact of digital technology on higher education. My starting point is a recent report by our fellow Vancouverite, Professor Tony Bates on the *2011 Outlook for Online Learning and Distance*

Three key points from his report are relevant here. The first is the rapid growth of eLearning. Enrolment in fully online (distance) courses in the USA expanded by 21% between 2009 and 2010 compared to a 2% expansion in campus-based enrolments.

His second finding is that despite this growth institutional goals for eLearning are short on ambition. He argues, as do I, that the intelligent use of technology could help higher education to accommodate more students, improve learning outcomes, provide more flexible access and do all this at less cost. Instead, he found that costs are rising because investment in technology and staff is increasing without replacing other activities. There is no evidence of improved learning outcomes and a failure to meet best quality standards for eLearning in some institutions.

A third finding, which should worry public-sector higher education given the rapid growth of eLearning, is that in the US the for-profit sector has a much higher proportion of the total online market (32%) compared to its share of the overall higher education market (7%). Seven of the ten US institutions with the highest online enrolments are for-profits. For-profits are better placed to expand online because they do not have to worry about resistance from academic staff, nor about exploiting their earlier investment in campus facilities.

Bates notes that over 80% of US students are expected to be taking courses online in 2014, up from 44% in 2009. Clearly the providers that are already established in this mode of delivery, i.e. the for-profits, will have the advantage. Indeed, the UK Report *Collaborate to Compete: Seizing the opportunity of online learning for UK higher education,* explicitly recommends that public higher education institutions should link up with for-profit companies in order not to get left behind in offering online learning.

Tony Bates concludes his report by alerting Canadian institutions to a growing market that is not well served by campus-based education. In his view Canadian public colleges and universities are not moving into online distance learning fast enough to meet the demand. "If public institutions do not step up to the plate, then the corporate for-profit sector will".

Will higher education split?

This leads us an important question. Will higher education split over the coming years into a public sector focused on research and a for-profit sector doing most of the teaching?

Some governments would like to see higher education divide itself into research universities and teaching institutions. Extrapolating the trends we have identified suggests that their wish may come true, with the added difference that most research will take place in publicly-supported institutions while most teaching will be done by for-profit enterprises.

Where does this leave us? A disruptive technology, which online learning may prove to be, rarely favours existing providers. When photography went digital the electronics industry displaced the makers of film from the market.

So I pose the question, can public institutions use technology to compete effectively with the for-profit providers? Tony Bates report suggests that they are not doing it yet.

Let's look at the use of technology and ask whether it can help us achieve the dream of every minister of education, which is to achieve wider access, higher quality and lower cost *all at the same time*.

The iron triangle

In some parts of the world I am best known for my iron triangle made up of the vectors of access, quality and cost. The basic point is that with classroom education you have little scope to alter this triangle advantageously because extending one vector will make the others shorter. Pack more students into the class and quality suffers. I was at a conference with university presidents in Australia three weeks ago and they have clear evidence that quality has gone down as student/staff ratios have gone up.

However, technology is able to stretch this triangle so that you can achieve the revolution of wider access, higher quality and lower cost. Many institutions have done this, especially the open universities, so this is not news. The challenge is that we have achieved this revolution with the traditional distance learning technologies of the industrial era.

We are the daughters and sons of Adam Smith and we have put to good use his industrial production principles of division of labour, specialization, economies of scale and the use of machines and media. But we now have a new generation of digital technology, which even an intellect like Adam Smith might have difficulty defining in a snappy way, although the concepts of networks, connectedness, collaboration and community capture elements of it.

The crucial question is can we combine production and digital technologies in distance learning in ways that are scalable? The disappointing picture found by Tony Bates suggests that few people have yet done so. The economies of scale associated with production technology have gone out of the window as people have leapt on the bandwagon of eLearning.

I shall leave that question hanging for a moment and ask what digital technology can contribute to openness, since we talk about <u>open</u> and distance learning.

Dimensions of openness

Let's start with a brief historical review of the dimensions of openness.

One hundred and fifty years ago the University of London launched its External Studies

Programme on the principle at it did not matter how people acquired knowledge provided they could demonstrate mastery of it in examinations. In the century and a half of its existence five London External graduates have won Nobel prizes, so no one can call it a Mickey Mouse programme. Over the years more and more teaching was offered to help people prepare for the examinations, either by third parties or by London itself, but today the original 'examination-only' concept suddenly looks very modern, for reasons that I will come to in a moment.

A century after London University the UK Open University, which has embedded the term 'open' in the vocabulary of higher education, set out to be open in two ways. First, it abolished all academic pre-requisites for admission. Second, it operated at a distance. Its evolving mission is to be open to people, open to places, open to methods, and open to ideas. Openness to methods was clearly required by the decision to carry out distance teaching at scale, and openness to ideas reflected a desire to use its scale and intellectual muscle to re-think the orthodoxy in some disciplines.

Nevertheless, the Open University curriculum is closed in the sense that the programs and courses were defined and developed by the University – students can take them or leave them although they have great flexibility to mix and match. \

However, at the same time as the UKOU opened 40 years ago, the State University of New York set up Empire State College with the aim of opening up the curriculum by allowing students to invent their own courses of study according to their interests and needs. Its slogan 'my degree, my way' captures this perfectly.

These dimensions of openness: open admissions; distance learning at scale, and open curricula remained the principal expressions of openness for the next thirty years.

The first two dimensions were widely copied and there are now millions of students in open universities around the world. In 1996, in my book of that name, I identified 11 mega-universities, which I defined as a distance teaching university enrolling over 100,000 learners. Mega-universities have multiplied considerably and at least three of the mega-universities, those in China, India and Pakistan, now have over a million students each.

The next wave of attempts at openness is nicely documented in Taylor Walsh's book *Unlocking the Gates*, in which she records how during the dot-com frenzy of the turn of the millennium universities such as Columbia, Chicago, the London School of Economics, Oxford, Yale and Stanford thought they could make serious money by offering non-credit courses online. In the event they lost serious money before ventures like Fathom and AllLearn were ignominiously shuttered.

Other universities learned the lesson and in the next wave of eExperimentation, led by MIT, universities put materials associated with their credit courses on the web for free. Here, of course, the subtitle to her book is somewhat misleading. These universities are not 'opening up access to their courses'. MIT, for example, lets people look at some of the materials used in their courses, and millions do, but they explicitly do not offer interaction with MIT faculty, still less the possibility of obtaining an MIT credential.

The materials on MIT's and similar websites are called Open Educational Resources, or OER, although MIT's are not fully open because they carry a restriction on commercial use. But elsewhere in higher education open educational resources are becoming truly open and are a game-changer. A growing corpus of OER, which we can now use and adapt to our own needs with confidence, is available on the web. This is already changing institutional behaviour.

For example, colleagues at the Asia eUniversity in Malaysia say that once they have agreed on course curriculum outlines they do not need to develop any original learning materials because they can find good quality material on the web for all the topics they

require and adapt it to their precise needs. Other distance teaching universities, such as Athabasca University, will not approve development of a course until proposing department has shown that it has done a thorough search for relevant open material that can be used as a starting point.

But some want to go much further. Paul Stacey, of Canada's BC Campus, recently outlined the concept of 'The University Open'. He points out that the combination of open source software, open access publishing, open educational resources, and the general trend to open government creates the potential for a new paradigm in higher education.

Similar ideas often occur in several places at once and in Europe we have seen the development, under the leadership Germany's Ulf-Daniel Ehlers and the UK's Grainne Conole, of the notion of open educational practices built around the use of open educational resources.

I must confess that until recently I had tended to dismiss Open Educational Practices movement as flaky for two reasons.

First, I have always remembered the injunction of Lord Walter Perry, the founding vice-chancellor of the UKOU, that if you innovate in too many ways at once you will scare off students. Second, I believe that radical innovations in higher education must be accompanied by particularly robust frameworks of accreditation and credentialing in order to attract a broad public. 150 years ago the External Programme had solid foundations in the University of London and 40 years ago Empire State College had all the gravitas of SUNY behind it, whereas the UKOU had a Royal Charter just like the older UK universities.

The Open Educational Resource University

However, recent developments have made me more supportive of this movement. I refer particularly to a meeting that was convened in New Zealand last month by Wayne Mackintosh of the Open Education Resource Foundation in order to operationalize what they called the *Open Educational Resource University*, a concept developed from Paul Stacey's *The University Open.*

The idea, and this slide comes from Jim Taylor of the University of Southern Queensland who is one of the thinkers in the movement and an academic leader with a very credible track record of innovation, is to have students find their content as OERs, get tutoring from a global network of volunteers, be assessed, for a fee, by a participating institution and earn a credible credential. Such a system would reduce the cost of higher education dramatically and clearly has echoes of the University of London External system that I mentioned earlier.

As regards the first step in this ladder, here is no question but that open educational resources are being used. We know that already literally millions of students and informal learners are using the open educational resources put out by MIT, the UK Open University, and others to find better and clearer teaching than they are getting in the universities where they are registered. The 32 small states of the Commonwealth are working together within a network called the Virtual University for Small States of the Commonwealth to develop open educational resources that they can all adapt and use. Trinidad & Tobago is a leader in this group.

The interest in OER is considerable. The UKOU's OpenLearn site has 11 million users and hundreds of courses can be downloaded as interactive eBooks. Furthermore, with 300,000 downloads per week the UKOU alone accounts for 10% of all downloads from iTunesU. And we must not forget the worldwide viewing audience of millions for OU/BBC TV programs.

Martin Bean, the Australian-American who moved from Microsoft HQ to become vice-chancellor of the UK Open University last year, argues that the task of universities today is to provide paths or steps from this informal cloud of learning towards formal study for those who wish to take them. Good paths will provide continuity of technology because many millions of people around the world first encounter the Open University through iTunes, its TV broadcasts or the resources on its OpenLearn website. The thousands who then elect to enrol as students will find themselves studying in similar digital environments.

Furthermore, the UKOU's performance in national comparative assessments of teaching quality is impressive. The last time comparative assessments were published the Open University placed above Oxford, where I once studied. Moreover, in national surveys of student satisfaction conducted with a very large sample of students the Open University placed third out of a hundred institutions last year and came first in earlier years

Let me take you back to Martin Bean's remark about leading learners step by step from the informal cloud of learning to formal study and juxtapose that with Jim Taylor's representation of the steps in the Open Education Resource University.

We can be confident that the first step, namely access to open educational resource learning materials will be increasingly will be increasingly solid. The pool of OER is growing fast and the means of finding and retrieving them are getting better and better.

I have already suggested the solidity of the top step, credible credentials, depends on the involvement of existing, reputable institutions with longstanding accreditation that resonate with this approach. UWI's Open Campus may want to take a view about this.

What about the three intermediate steps? For the first, student support, we would need institutions that have the skills needed to manage networks of tutors or mentors. Jim Taylor envisages the emergence of a body rather like *Médecins sans Frontières* or *Engineers without Borders*, which he calls Academic Volunteers International. That may work in some places, but having students buy support on a pay-as-you-go basis would make for a more sustainable model.

It is also important to recognize that social software is greatly enriching the possibilities for student support and interaction. For example the UKOU's OpenLearn website is not just a repository of OERs but a hive of activity involving many groups of learners. Digital technology is breathing new life into the notion of a community of scholars and social software gives students the opportunity to create academic communities that take us far beyond the rather behaviouristic forms of online learning that give eLearning a bad name. Some of this social learning activity involves various forms of informal assessment that can be most helpful in preparing students for the formal kind.

When we come to step three, assessment, it seems to me that payment is essential but this is well travelled territory. It takes us back to the University of London model with the difference, again, that some assessments would be based on curricula developed by the student. With credible assessment by reputable institutions the next step, the granting and transfer of credit, is straightforward and leads to the top step of credentials.

Implicit in my own vision for the Open Educational Resource University is that it is not an accredited institution, but rather an umbrella organization for a network of participating institutions with longstanding reputations and accreditation, such as the University of the West Indies.

There is an analogy here with the Virtual University for Small States of the Commonwealth, which is not a new institution but a collaborative network that allows 32 small countries jointly to create courses as open educational resources that each can then adapt and use to extend and strengthen the offerings of its own tertiary institutions. No institution is likely to adopt the Open Educational Resource University

model for its core operations in the foreseeable future since the revenues – as well, of course, as the costs – would be much lower than we are used to.

When the meeting on the Open Educational Resource University in New Zealand last month generated this headline in *The Australian,* Jim Taylor faced some questions from his president at the University of Southern Queensland when he got home! However, USQ has a long and strong track record in open, distance and blended learning and intends to test the waters by offering studies on this model initially as part of its community service function. That seems a sensible approach and one that UWI might wish to examine.

Conclusion

I conclude with that suggestion.

In this lecture I have outlined some of the new dynamics that are changing higher education and then looked at some very recent developments centred on the important phenomenon of open educational resources. I hope that I have stimulated your own thinking about the future of tertiary education in the Caribbean in general and that of the University of the West Indies in particular.

I thank you for your attention and I am grateful to Professor Sankat and the St. Augustine Campus of UWI for hosting this event.

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