Signs of the Times: Change or Be Changed?

SIGNS OF THE TIMES: CHANGE OR BE CHANGED?

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Introduction

We were wise indeed, could we discern truly the signs of our own time; and by knowledge of its wants and advantages, wisely adjust our own position in it.

Thomas Carlyle

It is indeed an honour and privilege to speak at this important international conference. I thank the organisers for this opportunity and congratulate them for their vision and foresight in identifying a theme of such far-reaching relevance. It is my first visit to Brunei Darussalam, a country which has a special significance for the Commonwealth of Learning (COL). When COL was first established in 1987, it was His Majesty, Sultan Haji Hassanal Bolkiah Mu'izzaddin Waddaulah, the Sultan and Yang Di-Pertuan of Brunei Darussalam, who made a magnificent contribution to put this fledgling organisation on its feet. We at COL have been very grateful for this generosity which has contributed significantly to bringing education and training to thousands of Commonwealth citizens in Africa and South Asia, who might otherwise never have had this opportunity.

In this paper I will look at five major trends that are shaping the Higher Education (HE) landscape across the world. These include i) the phenomenal expansion and diversity of HE Institutions (HEIs) in the developing world, ii) the rise of crossborder HE (CBHE); iii) the significant emergence of private provision, iv) the Open Education Resource movement and v) the advent of the 'new learner'. I have given examples from different countries in the developing Commonwealth to show how they have responded creatively to these developments. An understanding of the 'best practice' from different jurisdictions will help us to formulate 'next practice', as C.K. Prahalad puts it, for our own contexts. I conclude with a consideration of whether to change or not to change are the only two options available to us.

It is not the strongest of the species that survive, nor the most intelligent, but the one most responsive to change.

Charles Darwin

I. Higher Education: from the developed to the developing world?

The 2006 Spelling Report on Higher Education in the US notes that '...the sector's past attainments have led our nation to unwarranted complacency about its future.... We may still have more than our share of the world's best universities. But a lot of other countries have followed our lead, and they are now educating more of their citizens to more advanced levels than we are.' [1]

With over 19 million students in 2006, China has overtaken the US as the largest higher education system in the world with India a close third. The majority of people in the developing Commonwealth are under the age of 25. By 2020, 40% of the global workforce will be knowledge workers, with a need for tertiary qualifications. The World Bank, which in the eighties and nineties privileged basic education, is now of the view that for countries to achieve sustainable economic development, the Age Participation Rates (APR's) in HE must be in the region of 40 to 50 %. With access to HE being less than 10% of the relevant age group, this key concern is being addressed by most developing countries. Malaysia plans to raise its APR's to 35% over the next four years, requiring a 250% increase in student numbers. [2] The Government of Trinidad and Tobago plan to see an APR of 60% by 2015. [3]

This change in priority and in demography has major consequences for not just changes in public policy, but also for the locus of HE to shift from the developed to the developing world. This 'tectonic shift' [4] is expected to accelerate over the next two decades.

Are we prepared for this change? Let us see if lessons can be drawn from the American experience. With a population of 300 million and over 1,000 higher education institutions (HEIs), the US records an impressive APR of over 50%. **First,** it is clear that a population of 300,000 has at least *one* university/higher education institute (HEI), and that a country/state with a population of one million could have approximately *three*, to achieve comparable levels of participation in higher education. **Second,** the proportion of the relevant age group for higher education (18-24 year olds) is said to vary between 5-10% of the total population. Accordingly, there will be between 15,000 to 30,000 students of the relevant age group within this population of 300,000. In short on an average there would be approximately 22,500 students, seeking entrance to one university. **Third,** given the current scenario, a large number of students who seek places at universities are over 25 years-this constituency of lifelong learners needs to be factored into the estimates. Obviously, apart from the relevant age group, society needs professional and continuing education for thousands of those outside these groups. The implication is that in order to build a registration size of around 22,500 students, a population base of even less than 300,000 justifies establishing a university to cater to their educational needs. While Brunei with a population of approximately 400,000 would require no more than one additional university, [5] high population countries such as India would need nearly 2400 additional HEIs [6] in the next 25 years to cater to the growing demand.

Since building brick and mortar institutions will not be an option for most developing countries, the search for viable alternative approaches will continue. Open and distance education has captured the imagination of policy makers in many E9 countries such as India, Pakistan, China and Bangladesh. Of all HE enrolments in India, 24 % are in distance education system (13 open universities and 119 dual-mode institutions). The government's target is that by 2010, 40% of all HE participation will be through distance delivery. In 1996-1998, when Indonesia faced a serious economic crisis, the enrolment figures at

the Universitas Terbuka increased by 15% as students found distance education a more affordable and flexible option. [7]

While open and distance learning (ODL) is seen as a cost-effective option in many developing countries, the boundaries between face-to-face and distance education are getting blurred as more and more institutions adopt eLearning. For Malaysia eLearning and distance education are almost interchangeable. Brunei's response to the changing scenario is to harness the potential of ICTs in order to make its tertiary education world class. With the number of internet users growing by 350% to 135,000 in the last seven years, to cover one third of the population, this is a realistic aspiration for Brunei.

Today we have all manners of institutions-corporate universities, virtual institutions, offshore providers, twinning and franchise arrangements, dual and multi-modal institutions. We have witnessed the growth of more new institutions in the last twenty-five years than previous generations have seen over the whole nine hundred year history of the university, as we know it. What will be the university of the future?

Whatever shape the university will take, one thing is clear. Rather than conserve their age-old cultures, the institutions of the future will respond quickly to the pressing developmental needs of a rapidly changing world. The university of the twenty first century will not just cater to 'learning to know' and 'learning to do' but also 'learning to be' and 'learning to live together': the four pillars of 21st century education identified by the Jacques Delors Commission of UNESCO.

What implications do these developments have for policy? Do we need more institutions of the same kind or do we need to create institutions which will cater to present and future needs of society? The UK-led Commission for Africa propose to support the development of the Indian Institutes of Technology on the continent. Considering that these institutions were the product of a specific historical and social context, it is clear that the African analogues would need to be adapted to contemporary realities. Universities will no longer be elite academic enclaves but will play a major role as engines of development. The mission of EARTH university in Costa Rica is to a) be a leader in university education, committed to the formation of 'agents of change' with strong ethical and human values, social and environmental consciousness, and an entrepreneurial mentality.... committed to serving others; b) be innovative and critical in the generation of knowledge which promotes the well being of the Earth's inhabitants....and c) promote the interchange, analysis, synthesis and dissemination of knowledge and skills which will lead to improvements in the quality of life...

The model combines work experience, entrepreneurial development, social and community interaction with research to develop graduates who will contribute to sustainable development. More such innovative models should be developed to cater to the specific needs and priorities of the developing world.

II. Cross-border Higher Education (CBHE)

As the demand for HE increases in the developing world, we witness the growing phenomenon of HE crossing borders. This is not new to Asia for we know of scholars such as Huein Tsang and Fa Hian crossing into ancient India to study at seats of learning such as Nalanda. Yet within the context of globalisation, CBHE has assumed huge proportions. What does CBHE really mean? It simply refers to HE programs, providers, people and services that cross national boundaries. [8] CBHE is often based on

collaborative arrangements and presupposes access to technology. It includes both face-to-face and distance education provision and usually offers employment-related qualifications.

In a recent paper, we conclude that cross-border enrolments in countries with low rankings on the Human Development Index are minimal. [9] Indeed, given the unmet demand in countries such as India and Pakistan, they are practically negligible. On the other hand, there is significant and successful cross-border activity among the middle-income countries such as Malaysia and Singapore. At the moment, cross-border provision from the developed to the developing world has yet to register as a significant phenomenon.

One encouraging sign is the growing exports of education from one developing country to another. The Open University of Malaysia in the Middle East and India's Indira Gandhi National Open University (IGNOU), are already targeting niche markets of the diaspora in the Middle East and elsewhere. Cross-border activities reveal a north-south divide. Can they become a global phenomenon?

Cross-border higher education will not help developing countries unless it is accessible, available, affordable, relevant, and of acceptable quality. Also key are the contentious issues of who awards the degree, who recognises the degree and whether this is accredited or quality assured.

South Africa has responded to foreign providers by demanding that these institutions satisfy the accreditation requirements of the host country. As such, of the 34 foreign institutions operating in the country, only two were able to survive the rigorous national accreditation requirements. In Bangladesh there are no regulations so far. Governments need to respond with neither a laissez faire approach nor stringent punitive measures but find creative solutions that will a) develop indigenous capacity, b) raise the standards of local institutions to become more competitive on a global scale and c) expand access to HE. Information-sharing would support these interventions and can be facilitated through regional and global collaborations.

Jamaica seems to have found a viable solution. The Government expects to raise the APR in tertiary education to 30% by 2015. Existing unmet demand opens the door for cross-border tertiary education and there are at least 50 providers, registered and unregistered, in the country. [10] They are seen as offering valuable service to adult learners whose needs are not being addressed by local institutions and are not perceived as competing with national providers. On the contrary they are seen as building the capacity of local institutions. For example, the University of Technology (UTech), Jamaica, offered a joint degree with the Southern Illinois University (SIU), USA-for the first five years the degree was offered through UTech and awarded by SIU but now the degree is offered and awarded entirely by UTech. If national institutions are to be strengthened in the long term, it is important to have a sunset clause in partnership arrangements with foreign providers, who would be phased out when local capacity is in place.

While it is easy to regulate CBHE providers who have a physical presence, how do we deal with 'site-based and distance-based degree mills'? The Council for Higher Education Accreditation (CHEA) in the US has suggested a six-step strategy to deal with such fly-by-night providers. These include i) identifying who these providers are; ii) denying all public and private funding support; iii) raising public awareness; iv) pursuing legal action; v) using recognised standards to establish quality and vi) forming international

coalitions to contain this phenomenon. [11] International organisations, national governments and HEIs will all have to work together to protect the interests of both students and society.

III Private Providers and the Public Good

The changing character of higher education has led to the evolution of differentiated types of HEI's. Many countries have broken state monopoly on higher education by encouraging private investment in educational enterprise. While economic liberalism and democratic idealism have supported this development, it has generated a great deal of 'sound and fury' regarding the role of the state in providing HE which is seen as primarily a public good. In India, the number of privately managed institutions is increasing, especially in professional disciplines. [12] The net result will be that within a decade or two, private, for-profit provision, already estimated at $350 billion worldwide, is likely to account for a larger proportion of higher education in the developing countries than it now does in the industrialised world. [13]

What do we learn from global experience? Malaysia and Zambia had similar levels of GNP forty years ago but subsequent developments show that the trajectory of growth has been in opposite directions in both cases. While there are several reasons for Malaysia's growth, one explanation is that it invested in the development of higher education with private-sector participation, while Zambia relied only on a highly subsidized public sector intervention with free tuitions.

Let us take the case of the Open University of Malaysia (OUM), a private institution, which is a consortium of 11 public sector HEIs. This model promotes: i) collaboration among public-private institutions thereby pooling academic talents; ii) economies of scale which are critical to the cost-effectiveness of a DE operation; and iii) a win-win situation by making academics business partners in a joint enterprise.

In some countries, such as Japan, national universities/institutions have been granted *corporate status* to allow them greater control on the finances they receive from their governments, and to provide them a legal*framework* for raising substantial funds through consultancy work, sale of expert services and intellectual products.

As we can see, there have been creative responses to the growth of private provision across different jurisdictions. However, the tension between a welfare-inspired system and profit-driven approach continues to be debated. What of social justice and equitable distribution of national wealth for educational purposes? What if these measures favour only those who can afford to pay rather than deserving poor students? While private institutions are likely to retain their standards, by regulating their fee intake in accordance with their levels of expenditure, will those institutions dependent entirely on public funding lose their competitive edge? This raises the issue of equity across different types of institution.

Scholarship and loan programmes have been introduced to mitigate the negative effects of cost-sharing schemes and the commercial costing of education. In addition, the loan schemes seem to benefit larger numbers. Some of the more common loan schemes today are i) the *mixed-loan systems* comprising private funding with government guarantees such as those in USA and Canada and ii) the income -*contingent*

loan systems in which loan repayments are a fixed portion of a borrower's income. The latter system is showing greater success in operational terms.

More recently, public institutions and the corporate sector are entering into joint ventures, especially in the case of knowledge products and services, to generate funds through mutually beneficial synergies. This appears to be a more robust approach than most others. Another way of involving the private sector, is to raise funds through levies charged on the industrial sector specifically for educational/professional development as is the case in Nigeria and Mauritius.

It is clear that the State will no longer be the sole source of funding. There are other sustainable strategies, which can and should be explored. Each country, however, has to find the model that best suits its political, economic and cultural context

There are four billion people at the bottom of the world economic pyramid. Prahalad & Hart,(2002) suggest that *'for companies with the resources and persistence to compete at the bottom of the world economic pyramid, the prospective rewards include growth, profits and incalculable contributions to humankind''*. If the private sector wishes to address this constituency, they will need to create viable economic models such as the Whitney International University in the USA. Some features of their model include i) a 90% decrease in fees; b) a partnership approach; iii) quality courses and iv) economies of scale.

IV. A New Paradigm: Open Education Resources

If you have an apple and I have an apple and we exchange these apples then you and I will still each have one apple. But if you have an idea and I have an idea and we exchange these ideas, then each of us will have two ideas.

GB Shaw

The changing functions and the new ways of functioning of higher education institutions indicate a major paradigm shift. The pursuit of excellence has traditionally been an individual enterprise based on competition among academics and institutions. The open education resource movement (OERs) is turning the focus away from competition to collaboration and to a search for collective excellence. The OERs refer to open course content, open source software, and free course development and delivery tools. Pioneered by the MIT in 2002, the OER movement has evolved very quickly in the last five years. It is largely based on four principles: i) encouraging mass ownership rather than elitism; ii) acknowledging faith in everyone's inherent capability to self-organise; iii) enlisting amateurs as producers of content; and iv) promoting collaboration for the common good

Let us take the case of a hypothetical *21st Century Institute of Higher Education* (21CIHE). The 21CIHE uses software applications based on the open source operating system Linux. This saves them from expensive licensing deals. In addition, they use free authoring tools, opt for low cost hardware with limited but relevant features for students as well as the institution through *purchase consortia*, a bulk procurement mechanism that provides for economies of scale and cost-effective services. In this model, course materials, are transformed into *learning objects*, which can be re-purposed and re-used according

to specific learner needs. The interaction is managed through various on-line interactive components and *formative self-tests*. This process goes beyond mere *course delivery*, and integrates pedagogy as its primary feature from the initial stages of content selection, the teaching/learning transaction to learner assessment.

In addition to Portals, Learning Objects and Learning Object Repositories, the wikiEducator is emerging as a dynamic and collaborative tool of free content development. COL is taking a leading role in bringing free software and content to Member States in the Commonwealth.

At the request of Ministers of Education, COL has set up the Virtual University for Small States of the Commonwealth (VUSSC). This virtual institution is by, for and of the 32 small states of the Commonwealth. Course materials are being collaboratively developed across the Commonwealth on the wikiEducator. Teams of academics first come together in a three-week face-to-face 'bootcamp' that builds capacity in instructional design, content creation and the uses of technology. Following this initial training, the teams continue to work together to develop free open content as well as to train other colleagues in the use of technologies.

Interestingly, the disciplines that the small states have chosen to develop range from teacher training to agriculture to tourism and hospitality to health services. This again demonstrates that universities will need to revisit what they teach to make it more versatile and responsive to a rapidly changing world. As Marc Prensky asks 'How much of what our kids learn today will they use in the rest of their lives? ...far less than 20%. Why? Because our education is almost entirely focused on the *was*, not what *will* be'. [14] Does it mean that we abandon the lessons of history and the collective consciousness of human civilisation? No, it simply means that we achieve a balance between what Raymond Williams termed as three structures of feeling which are operational at any given point in time in society: the residual, the dominant and the emergent. How this is done will depend upon the creativity of our academic leaders.

In addition to developing quality content, the OER initiative creates communities of practice and enhances capability at both the local and global levels. In a world, torn by the so-called 'clash of civilisations', the OER movement could bring together different cultures, epistemological traditions and perspectives to provide the glue that will hold us all together.

V. The New Learner: a New Teacher?

How much worse will it have to get for these clever chaps to change?

Hills

The nature of the twenty-first century student has changed. Half the world's population
(6.5 billion) is under twenty. Two billion teenagers in developing world. These then are the 'new' learners
.

The 'new learner' is a 'digital native', a twenty-something, who takes to technology as a fish to water. This is in contrast to the 'digital migrant'[15] the adult who has adopted technology relatively later in life. The digital native is a multi-tasker who can perform several tasks at the same time.

According to Wood and Zurcher, the 'new learner' seeks immediate gratification rather than delayed responses; prefers fun rather than suffering; wants education that is meaningful and relevant to real life and would much rather have social relations and interactivity than isolation.[16]

The 'new learner' can be the adult who needs continuing professional development combined with full-time employment. She would have little time for synchronous instruction. Such an academic *customer* is on the rise in both developed and developing contexts. Traditional universities do offer services such as *evening* and *week-end classes*, but these remain at the peripheries of the system. Makarere University, Uganda runs midnight classes in management and professional disciplines so that the institution is open round the clock and throughout the week.

Then there is the traditional young learner, who by virtue of her circumstances is forced into a job or a family. In a different situation, she is the out-of-school teenager, who chooses not to join a traditional university. The 'new learner' belongs to a very diverse constituency and has a range of needs that the university thus far has never known.

What implications does this have for the new teacher? The 'new teacher' must unlearn many of her existing practices. The focus is now on i) creative and innovative thinking rather than memorisation; ii) using different ICT tools rather than relying only on the printed text; iii) encouraging multiple perspectives rather than the right answers; iv) helping learners construct knowledge for themselves and most importantly v) being the 'guide on the side' rather than 'a sage on the stage'.

Teachers at our hypothetical 21CIHE would not be tenured faculty but associate staff from a range of professional backgrounds. These would be contractual appointments, not necessarily aligned to any one educational institution or may be working for more than one institution. This arrangement can cut costs and streamline operational processes. The staff at 21CIHE would provide *academic facilitation*. Competent facilitation would require expertise in a particular subject/discipline, communication skills, and distance and on-line teaching techniques. A typical academic would be a sound scholar, an excellent communicator, a versatile instructional designer, a computer expert and an effective mentor/guide. How many of us as teachers can answer to this description?

Most academics are 'digital migrants', and many of whom they teach are 'digital natives'. If the digital migrants think learning is work and the natives are convinced that learning should be fun, how will the twain ever meet? Teachers face a radical challenge as they prepare to meet the new learner. As access to communities become increasingly networked, we see yet another shift taking place. Are we moving from 'constructivism' to 'connectivism'? [17]

Technology has caused a revolution in the ways we teach and learn but there can be no real revolution unless the faculty change how they teach.[18] There is an urgent need to a) research on the 'new' learner; b) equip the 'new' learner to be an agent of change and c) transform pedagogic practice.

VI. To Change or Not to Change

Decades ago, as President of my country, I told Tanzanians that the choice before them was to change or be changed. I was wrong. There was no choice. They had to change and even so, they would still be changed.

Julius Nyerere

The nature, character, constituency and mandate of higher education have changed. These changes are irreversible; how well are we prepared to cope? Is there an inevitability about change as Julius Nyerere's words suggest? Are there any options beyond 'change or be changed'? Will we be swept along in a deterministic stream? Or do we have the power and agency to determine the course of this change? What will prepare us?

First, knowledge itself is power, as Bacon wrote centuries ago. At no time in human history have we had so much knowledge and information within such easy reach. Experience, however, has shown that *knowledge* by itself is *not power*, it is *power* only when *we use it*. Are we ready and inclined to use the *knowledge* of what is going on around us?

Second, let us not forget the lessons of history. History is a valuable foundation upon which to build the edifice of the future.

Third, crisis generates creativity. The pace of change and the various shapes it takes leaves us in a constant state of crisis. This encourages us to look for innovative solutions and radical strategies to deal with the issues of access, equity, costs and quality.

Fourth, it is clear that the future lies in partnerships, collaborations and networking.

Finally for all the new and mesmerising technologies, let us remember that our ultimate mission and goal is to provide good education. Education and learning is at the centre of our endeavours-all the rest helps us to get there.

We can either be carried away by the change around us or be changed regardless. Or we can actively influence and shape the course of that change. We do have a choice. Let us seize it.

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