

# The Impact of Quality On-Line Distance Education of the 21<sup>st</sup> Century Professionals and Learners: a Global Perspective

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**Abstract** - The trillion dollar global education and training industry had undergone a radical change and the fully on-line distance learning market is a rapidly growing opportunity that generated billion in tuition revenues for institutions. Market forces are providing a catalyst to alter the traditional ways education is delivered. The mega trends such as demographics, the internet, and the globalization, the advent of new cyber technologies and solutions, the changing times and outsourcing strategies, all play major roles in the transformation towards the higher education landscape of 21<sup>st</sup> Century professionals and learners. The impact of the technological changes and specifically the cyber environment will play a vital role in this transformation by reducing the cost deployment, and increasing education's accessibility. For example, digital resource libraries, smart virtual classroom, hybrid distributed learning, interactive multimedia together have the capacity to convey voice, data and video to almost any location that have cyber connectivity. The result of these technology innovations was the emergence of a new knowledge-based economy that driven by knowledge and information. The attributes of this paper present the arguments that the new innovative information technologies were forcing major changes on the traditional campus-based learning institutions in both the public and private sectors. The policy makers are still relied heavily on high-stakes testing as the mainstay in their education reforms. In fact, it was necessary for education can empower

learner to become thinkers, learner communicators, and social beings as well as to be good citizens of tomorrow. It also addresses the growing consensus from professional practitioners, parental and public opinion that the obsession with tests and league tables has had its day.

**Keywords** - Innovation, Education Technology, Quality On-Line Distance Learning

## I. INTRODUCTION

The history of distance learning goes back more than 100 years in Europe, Africa, and Asia. That time, the Open University distance learning made little impact on established universities, colleges and schools, most of whom very happy to ignore it. Appended below are some of the significant milestone with regards to on-line distance development:

1. The first London University External Degree programs for overseas students started in 1858. Followed up by the innovative Open University started in 1969 in Great Britain and has been replicated around the world.

2. In Australia, the University of Queensland offered an external degree in the 1890's due to sparse populations and large open expanses. Today, Australia's higher education system incorporates distance learning in many programs, and is considered a model for the nations.

3. In the United State of America, some schools offered courses through distance

learning in the late 19<sup>th</sup> century. Columbia University offered distance learning options in the 1920's, and other schools offered courses by radio in the 30's and courses via television in the 60's.

4. In India, for many years, a numbers of Indian's universities had offered shoddy correspondence courses or programs in the past as cash cow to subsidize their campus operations. It was a clean up after the national and state governments of India set-up the network of national and state open universities, vesting the Indira Gandhi National Open University a coordinating role for all university distance learning in the country.

5. In 1996, British Columbia, the Open learning Agency, and local community skills centre received a grant from the Canadian Federal Government to investigate the impact of technology-based course on adult learners, the participating institutions in place a range of strategies to help students who cannot afford a computer which include a work-on-campus scheme whereby students can get a computer then work pay it off, and also the students' low-cost rental scheme and for some free loans of computers from a pool donated by IBM and Apple. The participating institutions improved their local area network, providing docking ports for portables, and making available easy access to public place on campus. This scheme was well received by parents, students and employers.

## **II. CHANGING TECHNOLOGY AND TIME**

1. Hitherto, the trillion dollar global education and training industry had undergone a radical change and the fully on-line (web-based) distance learning market is a rapidly growing opportunity that generated billion in tuition revenues for institutions.

2. The constant market forces are providing a catalyst to alter the traditional ways that education was delivered. Following the changing mega trends such as demographics,

the internet, and the globalization, the advent of new cyber technologies and solutions, changing times and outsourcing strategies, all play major roles in the transformation towards the higher education landscape of 21<sup>st</sup> Century professionals and learners' way in learning. The face of distance education was changed for ever, and open learning as most of us understand it finally arrived.

3. Today, majority of the traditional universities, colleges and schools have embraced on-line distance learning and increasingly offered educational program through web-based distance learning. Through emergence of web-based on-line distance education, leveraged on individuals' increasing access to the internet and coincided with the "dot-com" boom. Now, the on-line distance education in particular, was no longer an alien word to learners, but something that all will do now and forever.

## **III. DEFINITION OF DISTANCE EDUCATION**

1. Distance Education also known as Distance learning, is simply learning from a distance, usually from home, or from a convenient place located off-campus site. Distance Learning allows adults to earn college credits, even entire degrees without ever leaving home. Distance Learning makes use of the Internet, software, modems, TV station, 2 way television using fiber optics, microwave, digital phone line, satellites, radio, video, and normal mail.

## **IV. WHO NEEDS DISTANCE LEARNING?**

1. People who prefer to study solo can do so with Distance Learning, whilst those who enjoy group learning can find Distance Learning classes online. People who live in remote areas or where weather can be extreme, those who have disabilities that make commuting difficult and many others who are working overseas turn to Distance Learning, as the most practical way to earn college credits.

2. Another development that is impacting on open and distance learners was the concept of distributed learning. The Institute for Academic Technology, University of North Carolina (March, 1995) defined the latter as:

*“A distributed learning environment is a learner-centred approach to education, which integrate a number of technologies to enable opportunities for activities and interaction in real-time modes. The model is based on blending a choice of appropriate technologies with aspects of campus-based delivery, open learning system and distance education. The approach gives instructors the flexibility to customize learning environments to meet the needs of diverse student populations, while providing both high quality and cost-effective learning”.*

## V. CRITICAL SUCCESS FACTORS TO ON-LINE DISTANCE LEARNING

1. It was clear that web-based distance learning is “not” solely depended on deployment of technology or software infrastructure. But for any successful institutions, it is the technology, academic services and support infrastructure that proven to be the critical factors in driving program success.

2. At the same time, it is important not to

get carried away by the propaganda. The newer technologies certainly offer us the promise of any course delivered at any time, any where, the promise of truly international courses, fully inter-cultural, with students and teachers drawn from all over the world. The technology does promise greater learning effectiveness, more learner-centred approaches, and better quality of interaction.

3. Education in today’s knowledge-based economy and the advance in technological changes, both have positive impact on demand for distance learning in higher education, specifically the internet that play a vital role in this transformation, by reducing the cost in education, and increasing education’s accessibility to all potential pool of learners seeking educational opportunities at a distance, around the world.

For examples, digital resource libraries, smart virtual classroom, hybrid distributed learning, interactive multimedia together have the capacity to convey voice, data and video, iPhone, iPod, and iPad to almost any location that have wireless connectivity, powered by high speed broadband. The result of these technology innovations is the emergence of a new knowledge-based economy that driven by knowledge and information. The key characteristics of the knowledge-based economy are summarized in Table I below:

TABLE I  
NEW VIEW OF EDUCATION IN KNOWLEDGE-BASED ECONOMY

Old Economy	New Economy
Four-Year degree	Forty-Year degree
Training as Cost Centre	Training as #1 Source of Competitive Advantage
Learners Mobility	Content Mobility
Distance education	Distributed Learning
Correspondence & Video	High-Tech Multimedia Centers
One-size Fits all	Tailored Programs
Geographic Institutions	Brand name Universities & Celebrity Professors
Just-in-case	Just-in-Time
Isolated	Virtual Learning Communities

Source: The Book of Knowledge, Merrill Lynch, 1999

4. The new innovative information technologies are forcing major changes on the traditional campus-based learning institutions in both the public and private sectors. The policy makers are still relied heavily on high-stakes testing as the mainstay in their education reforms. In fact, it was necessary for education can empower learner to become thinkers, learner communicators, and social beings as well as to be good citizens of tomorrow.

5. Institutions that have had success with web-based distance learning initiatives recognize that fully on-line programs demand an institutional focus, a high level of administrative and student support and a very reliable technical infrastructure. With this platform, its does not necessarily lead to open learning, without careful course management, curriculum design and quality assessment

## VI. OPPORTUNITY THROUGH FULLY ON-LINE DISTANCE LEARNING

1. In developing fully on-line distance learning programs, it is critical that institutions make sufficient investments in their technology and service infrastructure. The efficient operation of a fully on-line program rest upon the strength of its technology and services architecture, as the core business of the institution is now being delivered entirely via the Web. The strategic and operational risk involved in developing a fully online program is far higher than with on-campus e-learning supplements or hybrid programs in which there are physical classrooms and administrative offices on which to fall back. In Table II, its show an example of a typical Education Portal Solution.

TABLE II  
EDUCATION PORTAL SOLUTION (EPS)

Customer	Education Portal
Hardware upgrades are frequent and expensive	EPS buys Hardware, install and upgrades.
Application upgrades software is frequent and expensive.	EPS upgrade software as frequently as needed.
Hardware and software maintenance is expensive.	EPS contracts for maintenance.
Hiring IT staff is expensive and increasing difficult.	EPS recruits and retains expert staff.
Planning foe IT obsolescence.	EPS cost sharing and are spread across multiple institutions. EPS can afford to replace equipment and software as required.
No disaster recovery.	EPS contract with disaster recovery service.
Financial resources for capital expenditures.	Lease model eliminates need for capital outlay.

Source: Adapted from Sun's Value Proposition for Education Portals

2. Now, the latter aim then to challenge you to consider the “values – added” proposition through the use of technology in open and on-line distance learning, access to quality courses or programs, and to change of an individual mindset to use web-based distance learning, to help both *learners* and *teachers* to achieve “*Learn more and Teach less*”. This on-line distance learning represents

the dawning of a new era in higher education.

3. There were four good reasons for using technology that could be frequency heard from discussion (there are probably many more):

- **To improve access to education and training.** Technology can be used to deliver training right into the workplace, by embedding training in computer applications,

by enabling just-in-time or on-demanding training, and by bringing specialists from anywhere in the world into conferences and meetings. This certainly widens access to employers and employees;

- **To improve the quality of learning.**

This reason can be contradictory to different people in different positions tend to place different emphasis on each of these rationales and this does influence on the way technology was been used. Here, what really set fire to many university professors is the possibility of improving the quality of learning through the use of multimedia and more students both in-campus or off- campus to widen their access by surfing their Web pages.

- **To reduce the cost of education.**

Evidently, technology cannot substantially reduce costs of education without a parallel loss in quality. The interaction between learner and a real teacher can be substituted only to a certain extent by learning materials. Learners are always capable of generating questions and ideas that cannot be adequately anticipated by machine-based learning. If the learning system cannot handle this diversity, then the quality will drop.

- **To improve the cost-effectiveness of education.** Lastly, others look to technology to improve the cost effectiveness of education. This was not the same as reducing costs, here the argument is that the same dollars expenditure learning effectiveness can be increased, or more students can be taught to the same level or above from the same level of investment.

## **VII. ON-LINE DISTANCE LEARNING IS GROWING IN IMPORTANCE**

1. In Thailand, the most commendable on-line institution, Sukhothai Thammathirat Open University in Thailand, for making the highest single contribution to Thailand's output of university graduates. The distance learning was no longer a non-traditional part of academic life in the country and taken seriously because of it growing importance in

the way the world was going.

2. The high success rates of the graduates of Thailand's Open University that had gained admission to graduates schools and the extensive use of the University's academic materials in the country are good manifesto on the quality academic excellence as well as quantitative leadership.

3. Recalled Sir John Daniel, Vice-Chancellor, the Open University of the United Kingdom and also President of the Open University of the United States said that *"by twenty year time from now, there may be 150 million university students in the world. It's a safe bet that a significant proportion of students will be involved in on-line distance learning. Even today, the twelve largest Open Universities, the mega-universities, enroll over 3 million students between them"*.

4. However, the more important note for today's on-line distance learning was not just an extra wing that all the universities to build on the existing infrastructure of higher education, but to build on-line distance learning into academy will renovate, refurbish and transform the structure for the better, if done well, will drive all higher education to greater height and achieve quality standard that make a different in the diversity in higher education.

## **VIII. CONCERNS ON QUALITY ASSURANCE ISSUES IN ON-LINE DISTANCE LEARNING**

1. Drawing upon many discussions on-line distance education, the open feedback on the issues of quality assurance concerns on on-line distance education degree. This feedback was certainly valid but it shows that on-line distance learning was still not a well-understood concept with many people. There prejudice against these types of degrees with some believing that on-line distance learning was an inferior education. Hitherto, these issues of quality assurance had been addressed in different platform, involving accreditation bodies, consumer protection, licensing and

other quality assurance measures that had been evident as follows:

- The British universities attained their ability to offer degree from Papal Charter in earlier times, followed by the by Royal Charter after the reformation in 1934.

- The American universities exist through compliance with individual state requirements since each state government was the competent education authority and not the US federal government.

- Over in Australia, although self-accrediting, universities were authorized by a separate Act of Parliament in each case. Qualifications however are issued in accordance with a set framework that encompasses all education to PhD.

- In Canada, there was no federal degree granting authority. Degrees are granted by virtue of each province's legislature having empowered an institution with the authority to grant degrees.

2. The students' concerns in any kind of classroom teaching, there is some physical contract between teachers and taught. That contact keeps people somewhat honest; but distance learning had no such fetters. In future, on-line degrees can be better accepted in some occupations than in others, and prejudice was lessening as the facts of on-line distance learning become known, and as the number of people holding such degrees increases.

3. Fifty years ago, it was called correspondence education and those who practiced it with integrity had constantly to chase away unscrupulous schools operating from post-offices boxes that did vanishing acts. E-mail addresses are even more transient than post-office boxes so a whole new breed of scam-artists is been attracted to on-line education. This would be a consumer protection issue rather than an accreditation issue except that it may involve accredited bodies.

4. On-line education will put similar temptations in the way of university in this country. Accreditation bodies of on-line distance education must watch for that when they look at institutions in a totality. The accreditors must not be naïve to look at big-name institutions that are putting shoddy on-line courses with low student success rates too.

5. As people concerned with accreditation to ensure that universities stand behind what they do and offer reliable quality education to their students and places faculty members in more productive environment where they operate more consistent quality. In this regards, the profound difference with great future promise by quality on-line distance learning is that *"In conventional or traditional higher education the teacher teaches. In on-line distance learning the university teaches"*.

## **IX. CONCLUSION**

1. In conclusion, all universities could exploit on the use of technology-based quality on-line open distance learning and the anticipated majors issue raises of access, types of learning outcomes and student support for the distance learners in real time learning, at anytime, anywhere, the promise of truly and fully inter-cultural, with students and teachers drawn from all over the world to achieve specific educational goals.

2. As for the quality assurance concerns, this factor could be controlled to make all students to undergo an assessment and evaluation at the universities. The examinations conducted will closely invigilate by examiners in a traditional way. This assessment and evaluation processes will certainly ensure university's quality standard and in fulfillment accreditation requirement at large.

3. From the refining new insights on the impact of good on-line distance learning experiences and it real revolution, achieving both quality and quantity at the same time for on-line distance learning and its spin off to help embrace individual life-long learning, so

in order for people to stay relevant in the 21<sup>st</sup> Century. Surely, there were enough good reasons to go with the flow, and try to steer things and believe to be the right direction.

4. On the contrary, the fully on-line distance learning courses or programs represent the dawning of a new day for higher education, and these programs will be the core of colleges' and universities' effort to expand access to post-secondary education in the decade to come. With the help of the technologies on the high education institutions to reengineer and reinvent both the teaching and learning modes that can even lead to greater distance learning effectiveness, more learner centric approaches and better quality of interaction to all potential learners seeking education opportunities and in search of a best solution to address the *"the growing consensus from professional practitioners, learners, parental and public opinion that the obsession with tests and league tables has had its day"*.

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**(Arranged in the order of citation in the same fashion as the case of Footnotes.)**

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