

Re-thinking innovative E-learning along the lines of local culture

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Abstract

As we move towards a knowledge-based society, our understanding of education and knowledge development must undergo some transformation. New and emerging culture and the realities of the Information age have undoubtedly made knowledge development a technologically assisted activity. E-learning is a consequence of this movement towards more flexibility, choice and outreach. However, in the e-learning environment the playing field is uneven especially for developing countries still struggling to overcome internal challenges, organization culture and traditional structures. Perhaps the key to overcoming the internal struggle lies in validating the strengths of the human resource base locally and through innovative means. This paper re-visits e-learning strategy along the lines of demonstrated value as well as the role that innovation plays in implementing e-learning initiatives to build institutional capacity and to influence a culture of change.

Keywords: Knowledge development, E-learning, Added Value, Innovation, Local Human Resource

It is undeniable that one of the landmarks of a developed nation is that of education because it is responsible for enriching the lives of citizens by providing them with understanding of themselves, of others and of surrounding environments. It becomes commonplace to say that 'no country can achieve sustainable economic development without substantial investment in human capital' (Ihan Ozturk 2001) and should come as little or no surprise that the Vision2020 Master Plan of the Government of Trinidad and Tobago would recognize the determinant role that education would play as an instrument of change in transforming this country into a knowledge-based society.

It should also be established at the very outset that investment in Education alone does not represent the panacea with regards to our transformation into a developed society and economy. Crucial determinants in building a successful knowledge-based society also lie in the quantity and quality of investment, domestic and foreign input along with the general policy environment. Ozturk (2001) goes even further to indicate that the level of human development also impacts on these determinants since 'the quality of policy-makers and investment decisions is bound to be influenced by the education of both policy-makers and managers.'

So then what of this 'knowledge-based society' to which we subscribe? Katherine Rockett (2009) asserts that:

'When a society becomes knowledge-based it faces challenges on a variety of levels. How and why knowledge is produced and shared, where it is produced, how knowledge spillovers affect new knowledge creation and parameters of use, changes in strategic decision making in knowledge-based environments and how public policy can and should adapt are all crucial issues.'

Csila Szabó (2005) draws our attention to the reality that we have been experiencing the effects of new and emerging social structures for some time now and therefore 'the examination of modern society, its new possibilities and players is the most worthwhile in view of the order of industrialized societies and the knowledge necessary to understand them.' Szabó (2005) further states that:

'since knowledge is not only indispensable for modern societies and its production processes, but also for keeping social coherence and integration...the term knowledge society seems to be appropriate to describe the ways of life being born in modern society.'

If Szabó (2005) puts forward that 'the foundations of the now emerging society can be best described based on knowledge', then let us also consider that 'knowledge development in the information age is a technologically aided activity' (Garrison & Anderson 2003:18).

Modern society can attest to a surge of technological expansion in what has been dubbed 'the information age'. The ever-evolving digital age along with its continual developments in information and communication technologies has changed the way things are done across the globe. It appears that:

'there are no more logistical barriers to information access and communication among people, institutions and countries as rapid progress in electronics, telecommunications and satellite technologies, permitting high capacity transmission of data at low cost have allowed for the abolition of physical distance' (Salmi 2006).

Technological innovations are revolutionizing the capacity to store, transmit access and use information. Realities such as the Internet and Web 2.0 have already created complex social and economic changes and iPods, Laptops, PDAs and Mobile phones are just a few gadgets which have become ways of life in modern society. It is therefore to be expected that the impact on the way knowledge could be shared and stored and ultimately on the way education is transmitted and transferred to learners would also be extraordinary.

E-learning emerges as a consequence of this revolution and mutation from traditional and static concepts of education and knowledge towards more flexible, innovative and intelligent systems, processes, applications and assistive technologies that support 'the ways of life being born into modern society.' E-learning or electronic learning typically refers to the delivery of educational content via all electronic media including the Internet, intranets, extranets, satellite broadcasts, audio/videotape, interactive TV and

CD-ROM, Interactive CDs, and computer-based training. Educational programs which involve e-learning are distributed in various formats such as online courses, web-enhanced, web-enabled, web-based learning and distance education.

Although it might be tempting to bask in the assumption of that E-learning is the new and improved version of knowledge development, transfer and acquisition in modern society, it would be erroneous to do so. Far from being a 'quick fix' facilitated by technology, the E-learning process from design to implementation is as complex, multi-faceted and ground-breaking as the modern society learners or 'digital natives' it is intended to address. The presence of E-learning, just as Education, is not the cure of all ills and does not automatically translate into a knowledge based society or 'generate a cadre of qualified, skilled, capable, marketable and civic-minded citizens who can preserve democracy, transform the socio-economic environment and modernize the society.'

It is true that many governments of Small States in recognizing the impacts and benefits of learning management systems and networks have worked hard to spread e-culture, but with varying degrees of success suggesting that effective e-learning strategies and models depend on how fast they can rise to the occasion, how accurately they can assess their needs and articulate the desired outcomes, how creatively they can use the resources available to them, and how well they can manage the process. Salmi (2006) notes that though change is taking place, the pace at which it is taking place is not reflected universally. He claims that:

'Most developing countries continue to wrestle with difficulties produced by inadequate responses to long standing challenges. Among these unresolved challenges are ...the reduction of inequalities of access and outcomes, the improvement of educational quality and relevance, and the introduction of more effective governance structures and management practices.'

Although new e-learning models continue to emerge as new research findings in the area of e-learning become available and undoubtedly signal exciting times for knowledge development in general, it is wise that governments, especially those of Small States, develop individual understanding of their strengths. Whilst the ICT revolution has impacted worldwide, it is interesting to note that idiosyncrasies do exist as social and organizational cultures vary from place to place.

'Planning for the implementation of quality and sustainable e-learning programmes requires an understanding of the impact of ICT on current teaching and learning practices in order to identify critical success factors that have to be addressed in an e-learning strategy' (Rosenberg 2001).

Rather than effecting a whole-hearted or even partial transplant of the many seductive and elaborate e-learning products, applications or models which exist outside of our borders and which may have been quite successful in other countries, one of the challenges that this paper is intended to discuss is the idea of first bringing the search

closer to the people the model is meant to serve and drawing from the resource base that exists locally.

Elmarie Engelbrecht (2003) maintains 'the first step in an e-learning strategic planning process is to fully analyse the current situation as it pertains to the ability to launch and sustain e-learning.' Engelbrecht (2003) asserts that this should be used to produce a vision statement which should 'not be about how many online courses should be offered or what technology should be used, but rather about how...[institutions] will be recognised and valued internally and through the eyes of the learner.' On all levels, these remarks thrust the e-learning movement into the domain of real innovation- a torch so very few dare to pick up and carry- because it is a call to demonstrate the added value of the 'E' in E-learning.

One such case study which takes Engelbrecht's statements to heart is the test pilot 'Podcasting in your nets' undertaken by the Distance Learning Secretariat (DLS) of the Ministry of Science, Technology and Tertiary Education and the Caribbean Fisheries Training & Development Institute (CFTDI) in January 2009. Attending courses at the Institute, located in Chaguaramas, was considered to be disruptive to the operations of fishermen in outlying areas such as Toco, Cedros and Moruga. This situation made access to learning difficult and frustrated quality control and outreach efforts by the Institute to not only sustain the motivation of such key players of the Fishing Industry but also to effectively raise standards, transform, improve and validate the professional status of the local fishermen. Other serious obstacles identified by the CFTDI included: low levels of literacy, poor interest in the subject matter and little or no practice of water safety and precaution in the operations of local fishermen. The eventual learning initiative would involve the design and production of educational podcasts by Subject Matter Experts on Basic Navigation and Sea Survival Techniques and was intended to test the impact of audio-based learning objects on fisher folk from marginalized communities as well as the ability of the Training Institute to apply distance learning initiatives as an alternative learning path to its outreach programmes.

The *pièce de résistance* in this e-learning initiative would prove to be the mobile phone, a common and most valued communication tool clearly 'born into the way of life' and culture of fishermen in a new and emerging society. The question arises as to why should this device be used to measure and influence change? Due to the impact of the mobile phone on local culture, the ability to launch and test without removing the audience from his/her environment was feasible and encouraging. Terry Mayes and Sara de Freitas (2004) in their review of e-learning models echo sentiments similar to Engelbrecht (2003):

"There are really no models of e-learning per se- only e-enhancements of models of learning...using technology to achieve better learning outcomes...or a more cost-efficient way of bringing the learning environment to the learners...A model of e-learning would need to demonstrate on what pedagogic principles the added value of the 'e' was operating. Where, for example, the 'e' allows remote learners to interact with each other and with the representations of the subject matter in a

form that could simply not be achieved for those learners without the technology then we have a genuine example of added value. ”

They however point out that this enhancement is more pragmatic than it is pedagogic and warn against narrow viewpoints of e-learning and its value.

In considering the ability to launch and sustain this e-learning initiative using the mobile phone, an understanding of what is meant by innovation was also re-visited. The Innovation Unit, an intermediary for public services established in the Dept of Education and Skills in the U.K. under the Education Act of 2002, views an innovation as an ‘extension of an invention.’ In making a distinction between the two, it puts forward the view that the innovation is not just ‘the new idea we are interested in, but that this idea is actually brought to market, used, put into practice, exploited in some way, leading to new products, processes, systems, attitudes or services that improve something or add value.’

With its mandate to connect learning access to human development, the DLS saw its role in this test pilot as being one to use accessible platforms and existing technologies for the expansion of learning outside of the traditional classroom and to build institutional capacity by demonstrating and training the Institute’s Subject Matter Experts and Faculty in new approaches to alternative and supportive material. Faculty was exposed to free training sessions on podcasting, script-writing, the creation of audio learning objects and eventually placed in a studio recording setting. What was most noteworthy in this stage of the exercise is the high levels of enthusiasm and commitment demonstrated on the part of the CFTDI Faculty. Podcasting as a concept was entirely new to the CFTDI faculty although globally, it has been around for quite some time. Though they struggled initially with the technological aspects of the pilot, they all immediately recognised the potential value of audio-based learning to the Institute’s programmes. What was also forthcoming with this group aged between 25-55 was not just their in-dept knowledge and understanding of the culture and mentality of the average Trinidad and Tobago fisher folk but even more so, how these Subject Matter Experts were able to use this cultural understanding to creatively influence the knowledge content of the curriculum to suit the targeted audience.

Existing technologies and accessible platforms, namely Bluetooth and the use of an IVR service (Interactive Voice Response) were identified as viable delivery options for the audio learning objects. The modern mobile handsets of selected participants with MP3 storage and playback as well as Bluetooth functionality were used as one possibility in which CFTDI’s Extension Officers would Bluetooth the file or files to the phones of his assigned group and conduct his evaluation over the period of assessment set by the Institute. The other possibility for lower-end mobile phones would be the use of a commercial line resembling ‘1-800-FISH’ to access an IVR service from a popular Telecommunications Company with the expectation that the learner would interact with the files stored on the IVR using the mobile phone keypad.

With the implementation stage set to take place in May of 2009 and reporting to take place in June 2009, the actual evaluation of the audio learning objects and its pedagogic impact on the targeted learner will be managed by the Institute as this is the

identified Authority on the issue. The role of the DLS in facilitating a potential solution via an alternative learning path and exploring the existing platform and accessible technology to do so is of significant value to the e-learning process because of its innovative focus even if it is considered a test pilot. 'Podcasting in your nets' engenders the creation, development and implementation of a new product, process and service with the aim of improving efficiency, effectiveness and competitive advantage of an Institution by providing the luxury of 'choice' to meet the learner at his level while strengthening and expanding the skills of the professionals entrusted with knowledge development.

Test pilots which elaborate small scale projects to introduce ICT products, applications or strategies in areas where they are traditionally absent can allow E-learning professionals not only to gather data on what works and what does not and its reasons, but more importantly provide a level of investment in local capacity building exercises. This results-based approach goes beyond mere survey or data collection and it is so crucial for e-learning strategy because it allows for an authentic engagement, understanding and appreciation of the culture of the environment, its people and the synergies which currently exist. Engaging in test pilots that harness the local strengths, that build upon these and that test capacity at both the teaching and learning levels can provide quality feedback and clearer pictures of existing realities and future possibilities with regards to policy development or amendments.

Nevertheless, this approach seems to be too far and few between when one considers the voice of the E-learning community in Trinidad and Tobago. Have we truly created a culture of change or innovation in our approaches to knowledge development? Have we explored and invested in our human resource capital in a manner which would allow it to sustain itself but also evolve with development? A country's human resource capital is its goldmine. Younger generations must be encouraged and allowed to influence innovative culture. Their efforts must be rewarded and valued within their Country because neglected talent will necessarily seek outlets elsewhere or worse, simply remain under-developed.

What has been constantly evident with this and other test pilots undertaken by the DLS, is, that even though there is an earnest motivation and interest from some of the teaching and learning community to embrace knowledge development at a new level, the local telecommunications business remains reluctant and unchanged in their services. C.C. Colton hints that sometimes company culture and leadership can prove to be prominent barriers to innovation, " We ought not to be over anxious to encourage innovation in case of doubtful improvement, for an old system must ever have two advantages over a new one: it is established and it is understood." E-professionals in Trinidad and Tobago are yet to influence the business value and investment dimension also associated with the E-learning process. In the absence of a concerted drive from the E-learning community to articulate and to increase innovative projects geared towards the expansion of choice, a business monopoly continues to operate for communication systems within the country.

How then can we as the e-learning community 'be the change that we would like to see'? If it is our instinctive duty as education pioneers to constantly seek ways to

facilitate seamless integration of more empowered learners into modern society, then surely one answer lies in our ability to associate e-learning with the spirit of innovation since it involves 'the taking of the work of an individual or team of inventors and taking it to a broader audience.' (Innovation Unit, Dept of Education and Skills, U.K. 2006) Our efforts must now extend themselves beyond building communication systems to creating intelligent systems and services reflective of a knowledge-based society.

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