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Greening the Business Curriculum through Collaborative Learning Spaces: Theoretical and Practical Perspectives

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Abstract

In an era characterised by human-induced climate disruption and escalating environmental degradation, 'business as usual', is just not an option. By implication, 'business education as usual' also requires a paradigm shift; not just the curriculum, but also the mode of delivery. This paradigm shift entails an immediate infusion of a) ecological sustainability, the principles of which should permeate the entire business management curriculum, and b) a participatory pedagogy, which is capable of engaging learners and delivering deep learning outcomes. The paper begins with a discussion of theoretical perspectives, which builds a case for the creation of a socially mediated online learning platform offering customised digital content targeted at today's 'digital natives'. The focus then shifts to the critical importance of ensuring the principles of sustainability are incorporated into the core of individual subject offerings.

Keywords: sustainability, collaborative learning space, participatory pedagogy, online learning, Open and Distance Learning, collaborative learning, constructivism

Abstrak

Dalam era yang dicirikan oleh gangguan iklim cetusan manusia dan peningkatan kemerosotan alam sekitar, 'perniagaan seperti biasa', bukanlah cuma satu pilihan. Secara tidak langsung, 'pendidikan perniagaan seperti biasa' juga memerlukan anjakan paradigma; bukan hanya terhadap kurikulum tetapi juga cara penyampaian. Anjakan paradigma ini melibatkan penerapan segera terhadap a) kelestarian ekologi, prinsip yang sepatutnya menyelubungi seluruh kurikulum pengurusan perniagaan, dan b) pedagogi penyertaan, yang berupaya menarik minat pelajar dan menyampaikan hasil pembelajaran yang mendalam. Artikel ini bermula dengan perbincangan tentang perspektif berteori, yang membina suatu alasan bagi penciptaan satu platform pembelajaran dalam talian berantarakan sosial, yang menawarkan kandungan digital tersuai disasarkan kepada 'warga asli digital' hari ini. Fokus kemudiannya beralih kepada kepentingan kritikal dalam

memastikan prinsip kelestarian digabungkan ke dalam teras subjek individu yang ditawarkan.

Kata kunci: kelestarian, ruang pembelajaran kolaboratif, pedagogi penyertaan, pembelajaran dalam talian, pembelajaran terbuka dan jarak jauh, pembelajaran kolaboratif, konstruktivisme

Introduction

In an era characterised by human-induced climate disruption and escalating environmental degradation, it is frequently stated that 'business as usual' is not an option. By implication, therefore, 'business education as usual' should also be off the agenda, yet a survey of the curriculum in any of the leading business schools around the world would reveal that little has changed, or is likely to change any time soon.

Given the urgency of the situation, it is not just the curriculum that requires serious review, but the mode of delivery. Herein lies the main contribution of this paper. It is taken as a given that education in general, and business education, in particular, requires an infusion of ecological sustainability and that, conceptually, it should permeate throughout business management programmes. Equally important, we believed, is the infusion of a participatory pedagogy, which is capable of engaging learning and delivering deep learning outcomes. Put simply, education for sustainable development is not just about passing exams. The argument mounted here is that the requisite ecological consciousness is more likely to be forthcoming with the creation and propagation of a robust, online, collaborative learning spaces that, in turn, can be used to deliver customised and highly contextualised learning solutions.

The paper begins with a discussion of theoretical perspectives, which builds the case for online learning and a participatory pedagogy, before moving on to showcase a unique degree programme, delivered in an equally unique fashion.

The Changing Face of Distance Education

Open and Distance Learning[1] (ODL) has come a long way since its humble, offline beginnings in the nineties. The information technology (IT) industry has made giant leaps and strides in the last decade, paving the way for a complete makeover in distance teaching and learning. In particular, technology-mediated distance learning, a new method of distance education, is currently in use. It can be described as learning involving implementation of information, computing, and communications technology applications (Alavi, Wheeler and Valacich, 1995), in more than one location (Webster and Hackley, 1997). This method of education, also known as Online Learning, allows for flexibility of access, from anywhere and usually at anytime–essentially, it allows participants to collapse time and space (Cole, 2000)–however, the learning materials must be designed properly to engage the learner and promote learning. In this context, online learning is defined as the use of the Internet to access learning materials; to interact with the content, instructor, and other learners; and to obtain support during the learning process, in order to acquire knowledge, to construct personal meaning, and to grow from the learning experience (Ally, 2004).

It is also pertinent for us to touch upon a more recent variation of online learning, namely, Blended Learning. According to Collis and Moonen (2001), blended learning is a hybrid of traditional face-to-face and online learning so that instruction occurs both in the classroom and online, and where the online component becomes a natural extension of traditional classroom learning. Blended learning is thus a flexible approach to course design that supports the blending of different times and places for learning, offering some of the conveniences of fully online courses without the complete loss of face-to-face contact (Rovai and Jordan, 2004). Both online and blended learning are attractive options for today's working professionals who want to pursue post secondary qualifications, but do not possess the luxury of time to devote themselves to completely brick and mortar setups. Blended learning and delivery, in particular, is ideal for

[1] According to UNESCO, Open learning and distance education refers to approaches to learning that focus on freeing learners from constraints of time and place while offering flexible learning opportunities. For many students, Open and Distance Learning (ODL) is a way of combining work and family responsibilities with educational opportunities.

certain types of customised programmes in which some face-toface interaction is requested for and/or necessary given the nature of the subjects involved.

Collaborative Learning Environments

Collaborative learning in general is defined as any kind of group learning in which there are some meaningful learning interactions between learners. We speak of virtual collaborative e-learning if these interactions take place in virtual environments (Laister and Kober, 2002). The principles of collaborative learning find their roots in constructivist theory. Constructivism is a cognitive theory that assumes that all learning are active processes of mental construction. Each learner has unique knowledge that was derived from experience, interactions with others, or through direct training, and learning occurs through relating new experiences to prior knowledge, and constructing new understandings based on what is already known (Sherman and Kurshan, 2005). Constructivism is based on the work of John Dewey, Lev Vygotsky, Jean Piaget and Jerome Bruner, who proposed that students actively construct knowledge in a social context (Stewart, Bachman and Babb, 2009). Thus, in a constructivist classroom, knowledge is actively constructed by the learner, not passively received from the outside. Learning is something done by the learner, not something that is imposed on the learner (Sjøberg, 2007). It is this essence of constructivism, which sowed the seeds of collaborative online learning, as we know it today.

To better explain the concept and virtues of online collaborative learning, we now introduce Siemens's theory of learning. Siemens (2005) proposes a contemporary theory of learning called Connectivism that recognises the impact of technology on society and ways of knowing. From his viewpoint, learning in the digital age is no longer dependent on individual knowledge acquisition, storage, and retrieval; rather, it relies on the connected learning that occurs through interaction with various sources of knowledge (including the Internet and learning management systems) and participation in communities of common interest, social networks, and group tasks. From this perspective, learning consists of retrieving information from self, others, and machines, collaborating to create knowledge, and applying information to current contexts (Brindley, Walti and Blaschke, 2009).

Now that we have a "visual" of a Collaborative Learning Space (CLS), we will dwell briefly on the rationale for creating a Masters of Business Administration (Sustainable Development) programme that will be delivered almost entirely, online. Thereafter, we will present a live CLS, which is currently being prepped to digitise and deliver a wide range of programmes, starting with, most significantly, the MBA in Sustainable Development.

Teaching Sustainability to Business Students is About Changing Mindsets

Business is the direct or indirect cause of most ecological challenges, but it is becoming increasingly evident that it is also the only institution left on the planet large enough, well managed enough and resourceful enough to solve the problems facing us. This being said, there are still only a handful of undergraduate and graduate business administration programmes around the world, which incorporate the principles of sustainability into the very core of the programme structure itself (Willard, 2004). In their paper, which debated, whether sustainability should be taught as standalone units or be integrated into core course offerings for MBA students, Stubbs and Cocklin (2008) concluded that a standalone sustainability unit allows students to explore basic concepts, principles and worldviews, but sustainability needs to be integrated into the core MBA units. Otherwise sustainability may be seen as a separate issue, disconnected from business strategy, the legal environment, economics, accounting, corporate finance, marketing and international business, all of which are commonly core MBA units.

Also, Today's Learners are Different

Another phenomenon, which lends corroboration and support to, and provides the rationale for digital learning, participatory pedagogy and collaborative learning spaces, is that of the digital native. This is a new generation of learners entering our educational institutions, one which has grown up with information and communication technology (ICT) as an integral part of their everyday lives (Bennett, Maton and Kervin, 2008). They are described as living lives immersed in technology, 'surrounded by and using computers, videogames, digital music players, video cams, cell phones, and all the other toys and tools of the digital age' (Prensky, 2001).

This next wave of learners is said to be born roughly between 1980 and the mid nineties.

Given their proclivity to all things digital, its only logical for them to want to operate in a learning environment that supports this lifestyle. Learning Objects (LOs) help us speak the digital native language. They enable and facilitate the use of educational content online. LOs are sometimes defined as being educational resources that can be employed in technology-supported learning. A LO can be based on an electronic text, a simulation, a website, a .gif graphic image, a QuickTime movie, a Java applet or any other resource that can be used in learning (McGreal, 2004). Why do we use learning objects? When text is interspersed with meaningful and relevant learning objects, the subject matter automatically "springs to life". LOs like videos and images in particular, stimulate the minds eye in a way that pure text simply cannot. Breaking monotony is another important reason. Often, learning objects are that crucial link to the real (live) world, enabling learners to connect theory with practice.

Digital natives embody 'networked individualism', a concept put forth by Castells (2001). Castells proposes that the Internet provides material support for a 'new pattern of sociability based on individualism' (Castells 2001, p. 130) which connects people not only through traditional family and local community networks, but also through geographically dispersed social networks connected by computer communications. This conceptualisation comes to life in the example about to follow.

Case Study: The Green MBA

In collaboration with a British university, a small tertiary education institution in Singapore is offering a unique degree programme in a unique way. Tapping into the zeitgeist, it has developed a 'Green MBA' to be delivered in a format that is specially designed to appeal to the 'digital native'. The curriculum has been developed by a team of adjunct faculty from all around the globe; a custom-built delivery platform has been constructed that takes full advantages of the social media revolution; and learning design is conducive to a participatory pedagogy, where authentic learning tasks allow students to take centre stage.

Background

This initiative came about as a result of a number of failures and false starts. A small teacher education college in Singapore, faced with an increasingly dynamic marketplace and rising competitive pressures, calculated that survival was only likely to be secured if it was to reinvent itself as a 21st century educational institution imparting 21st century skills. A name change, a broadening of the suite of course offerings in the education domain, the addition of a new School of Management with two new masters degree programmes and – perhaps most significantly – a paradigm shift in educational philosophy, all had to take place within a 12-month period and all within the confines of existing budgets.

Objectives

The main objective was to avoid going out of business. A new Education Act in Singapore has made life very difficult for educational institutions operating on a small scale. The college in question was successful in servicing a niche market, but to meet higher overheads, and to reduce reliance upon a hitherto single target market, diversification became imperative, not only in terms of the scope of course offerings, but how and where these courses could be offered.

Description

The Green MBA is to be the flagship programme of the re-branded, re-positioned college. The course has all the usual disciplines one would expect to find in an MBA programme, but at the foundation of each, are the principles of sustainable development. Economics is ecological economics, marketing is green and social marketing, organisational behaviour is organisational transformation for sustainability, and so on. It is not a mainstream MBA curriculum with sustainability tagged on the end. On the contrary, the learning outcomes of every module focus on corporate sustainability.

The course is learning outcomes driven. Having determined what a student should know and be able to do once they graduate, the next task is to settle on the assessment instruments that will measure these learning outcomes ensuring, thereafter, that learning strategies are in alignment with the

choice of these assessment instruments. To illustrate the point, a case-based, problem-solving approach (which this course favours) is not constructively aligned with an assessment regime that relies heavily on multiple-choice examinations.

Curriculum design is innovative, highly flexible and low cost. In simple terms, the guiding philosophy is that there is high quality material freely available on the Internet, and it is simply of a question of assembling a collection of 'reusable learning objects' (RLOs) of linking to them. These RLOs take many forms including open access journal articles, e-books, video clips, podcasts, data sets, slide decks, animations and images. Module authors (subject matter experts from around the world) then utilise these resources to provide a commentary on the key concepts and theories in each module (comprising six units), together with complementary interactive, authentic learning activities that provide students with opportunities to apply their knowledge. The approach to learning is one that embraces what might be described as a 'participatory pedagogy'. Modules are delivered using a state-of-the art, 'Web 2.0'– enabled learning management system – or Collaborative Learning Space (CLS) – that takes full advantages of the burgeoning social networking phenomenon. The student's personal profile page is 'Facebook'– like in appearance and functionality, and there is an emphasis on active learning. A unique feature is that students get to be both consumers and *producers* of knowledge (Brown and Adler, 2008), in that the learning platform incorporates a facility that allows students to upload their own RLOs. Accompanied by appropriate commentary, these resources are peer reviewed in accordance with a 5-star rating system. This feature of the CLS is designed to enhance student engagement and contribute to a robust learning community.

Adjunct faculty from around the world facilitate all modules; the majority of whom are Ph.D. qualified. Interaction with students is largely asynchronous through discussion boards (especially given time zone differences). A dedicated student services team that deals with a range of administrative, technical, and pastoral issues also supports the learning process. The CLS has a number of tracking tools to assist with the monitoring of student activity. Thus, student services can be proactive and identify students at risk, minimising student attrition.

Results

The Green MBA curriculum has now been fully developed, and a number of modules are being piloted along with the CLS. This pilot will conclude by the end of August and be fully evaluated by the end of September. The course will be formally offered for in the final quarter of 2011 exclusively to cohorts of corporate clients in the first instance. A quasi-government body in Singapore with a strong focus on the environment is partnering with the college in this regard as it already has a list of corporate clients identified as prospective enrolees. This has been done inexpensively, in a relatively short period of time, and in a mode that is scalable and highly profitable. Breaking free of the mainstream paradigm has proven to be an exciting and invigorating experience.

Innovative Aspects

A Google search will reveal that there are several institutions around the world (mainly in North America) that offer 'green' MBA programmes. Upon close inspection, however, none are truly committed to sustainability to the extent that all core and elective courses are built solidly around the principles of sustainable development. Furthermore, none are offered globally; none have been developed by a team of globally dispersed faculty; and none can claim any innovative delivery techniques along the lines described above.

Recommendations to Other Institutions/Organizations

Clayton Christensen, the Harvard Business School academic, recently applied 'disruptive innovation' – a concept he popularised – to the field of education, in his book "Disrupting Class: How Disruptive Innovation will Change the Way the World Learns". Much of what is written in this book is germane to the project being described here. With little to lose, a college threatened with closure now has a new lease of life. Offering an innovative course in an innovative way can be a transformative experience for an educational institution.

Conclusion

Educators have a role in helping students understand that sustainable business practices present a long-term mutually beneficial situation for companies, employees, consumers, and society (Albinsson, Perera and Sautter, 2011). The authors join their fellow researchers in declaring that educators can, using reflective and discussion based online "activities"; leverage the power of the internet and indeed, Collaborative Learning Spaces to successfully implant the sustainability seed in students' minds. For instance, Albinsson, Perera and Sautter (2011) conclude from their study, "students who participate in these activities more successfully identify the relevance of sustainability, and corporate social responsibility in the work place and in their personal lives. In contrast, students who did not participate in these activities exhibited a vague understanding of these concepts, and were less adept at both identifying and describing socially responsible practices."

This paper put forth a theory-based argument for the creation of a socially mediated online learning platform to offer customised digital content targeted at today's digital natives. The importance of teaching sustainability to business management students was also emphasised, while stressing on the fact that the principles of sustainability must be integrated into each and every module of an MBA programme, in order for knowledge to seep in, in a holistic fashion. Finally, a real Collaborative Learning Space (CLS) was illustrated through a live case study.

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