

Confronting challenges to e-learning in Higher Education Institutions

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ABSTRACT

Technological innovations have not only brought benefits to business, but to Higher Education Institutions (HEIs) where an unprecedented demand for tertiary education has seen students enrolling for courses, some doing so through distance education. This has made the internet a very significant and indispensable learning and business tool for information dissemination for both education purposes and business transactions. The Internet is a technological development that has the potential to change not only the way society retains and accesses knowledge but also to transform and restructure traditional models of higher education, particularly the delivery and interaction in and with course materials and associated resources. Utilising the Internet to deliver e-learning initiatives has created expectations both in the business market and in higher education institutions (Singh, O'Donoghue and Worton, 2005:3). Universities have been faced with the daunting task of having to re-adjust and re-organise themselves in preparation for the incorporation of e-learning within their institutions. Institutional leaders have also been faced with the challenge of having to align their institutional objectives to meet the needs and demands of the e-learning dispensation. Indeed, e-learning has enabled universities to expand on their current geographical reach, to capitalise on new prospective students and to establish themselves as global educational providers. This article explores the issues surrounding the implementation of e-learning into higher education, including the structure and delivery of higher education, the implications to both students and lecturers and the global impact on society.

Key words: *Implementation of e-learning, e-pedagogy, students, institutional, university, lecturers, education, implementation, technology, environment*

INTRODUCTION

In their attempt to incorporate ICTs in the provision of enhanced learning, HEIs have encountered a myriad of challenges, most of which require commitment and devotion to overcome. Enhanced learning has been brought about by the incorporation of e-tools to provide quality education to students. On the same note, the incorporation of e-learning has eased the burden of having to contend with an influx of students seeking tertiary education to enhance their skills for the ever-demanding job market. Subsequently e-learning has become an indispensable learning and business tool. Many institutions of Higher Education and Corporate Training Institutes are resorting to e-learning as a means of solving authentic learning and performance problems, while other institutions are hopping onto the bandwagon simply because they do not want to be left behind (Govindasamy, 2000:287). Despite the different reasons for adopting e-learning within HEIs across the globe, the underlying end-result has been that in the HEIs, e-learning has helped to transform education and has become associated with, and construed in a variety of contexts, such as distance learning, online learning and networked learning (Wilson 2001:56). In the context of this paper all of these instances will be considered to describe learning that utilises information communications technology (ICT) to promote educational interaction between students, lecturers and learning communities (Holley 2002:58). Recommendations on the best practices will form the basis of how HEIs should tackle the burden of having to implement e-learning on the backdrop of critical shortages of skilled manpower to execute e-learning programmes within institutions, and adequate resources to see the adoption of e-learning

through. Volery (2000:35) argues that the fast expansion of the internet and related technological advancements, in conjunction with limited budgets and social demands for improved access to higher education, has produced a substantial incentive for universities to introduce e-learning courses. Volery (2000:36) concurs that if universities do not embrace e-learning technology that is readily available, they will be left behind in the pursuit for globalisation. Ribiero (2002:23) argues that if universities are to maximise the potential of e-learning as a means of delivering higher education, they must be fully aware of the critical success factors concerned with introducing online models of education. All these are issues that HEIs have to contend with in their endeavours to adopt e-learning.

Despite the desire to implement e-learning within HEIs, the role of the academic staff and students is significant. Therefore preparatory work should be done to incorporate these by creating a conducive environment for the adoption of e-learning. O'Hearn (2000:7) contends that university structures are rigid and unproven, regarding the incorporation of technological advancements. Holley (2000:35) states that e-learning is difficult to implement without the full cooperation and support of lecturers, as the degree of interaction between lecturers and students is still predominant in e-learning environments (Volery 2000:37). Traditional universities should be able to compete with other independent education providers in relation to social demands for 'life long learning' and globalised education services (O'Hearn 2000; 24).

E-learning as a pedagogical issue has brought many benefits to students. It has been found to be convenient and can enable students to access educational material with ease. It can facilitate enhanced communication between and among students and lecturers. Among the most visible and valuable attributes of e-learning techniques and delivery are that they potentially give students greater access to education, in comparison to more traditional less flexible educational methods (Singh, 2001:528). Other proponents of e-learning such as Hemsley (2002:27) have expressed the view that full time and part time students can now partake in their chosen degree courses from any location, giving people who travel or who are relocated, a transferable and easily accessible learning resource and experience. Through the use of advanced technology, students who have previously not had access to higher education now have the opportunity to study at the location that best suits their needs (Sadler-Smith 2000:32). E-learning offers people with disabilities the opportunity to further their education from home (Brown, Cromby and Staden 2001:294). Although these views propose the positive aspects of home working, there is still evidence to suggest that students who learn from their most convenient location will not engage in a positive learning experience (Singh, 2001:529). Working from home may, at first sight, seem a positive way forward but the learning process is often disrupted, as the surroundings are not necessarily conducive to study (Shaba 2000:6) due to the household chores and the interruptions from family members.

Accessibility to educational technology has been identified as vital for acquisition of knowledge and information dissemination to students, as well as interaction between lecturers and students. If e-learning is to benefit students by offering students greater access to higher education, it is necessary to consider not only access to education but also the access to technology where computers become an indispensable element of effective e-learning courses (Ribiero 2002:85). Students who have access to networked computers may have the opportunity to experience a more flexible learning process but students and indeed higher educational institutions could fail to benefit from this opportunity, due to students not being able to afford or gain access to a computer (Shaba 2002:19). Therefore, students with no computer at home are disadvantaged in e-learning environments. In addition, as a major consequence of an increased participation in higher education, a large number of students originate from low income backgrounds and will have little disposable income to purchase computers (Holley 2002:116), and therefore increased reliance on technology to deliver higher education may potentially lead to further divisions in society (Shaba 2002:26). In such cases, deprived home backgrounds militant against the

acquisition of technological skills which further impedes on acquisition of knowledge through e-learning.

METHODOLOGY

The author interviewed students from various departments about the challenges that HEIs encounter in their attempt to integrate e-learning programmes within the institution, with specific reference being made to the University of the Western Cape. The author hopes that the challenges encountered by students and academic staff at the institution represent a microcosm of challenges encountered by other HEIs across the globe. This was in response to the research question 'What are some of the barriers to the adoption and integration of e-learning in HEIs?' A snap survey on the same objective has been carried out. Documentary analysis of the institution's E-learning Strategy was done to ascertain the extent to which the institution has developed programmes and initiatives to overcome challenges and barriers to e-learning within the institution. Debates around such challenges encountered at other institutions have been used as the basis on which this article has been based.

INSTITUTIONAL LEADERSHIP

Institutional leadership determines the direction and thrust of an institution towards learning programmes that are to be assimilated into the institution. The rigour with which institutions implement e-learning among their students and staff is based on the institutional leadership's thrust and initiatives towards the realisation of this goal. There are considerations that institutional leaders have to make to make the implementation come to fruition. One of the most crucial prerequisites for successful implementation of e-learning is the need for careful consideration of the underlying pedagogy, or how learning takes place online (Govindasamy, 2002:287). This is the prerogative of institutional leaders to ensure that the right approach is adopted and the appropriate infrastructure and attitude is inculcated in those whose task it is to finally implement e-learning. Leadership and management are seen as key to effective e-learning implementation. "Lack of leadership" among people in senior positions throughout the education system (Principals, finance officers, learning directors and local authority officers) can be considered to be one of the most important barriers to effective e-learning implementation (Thorpe, 2007:67). Poor planning and lack of foresight by institutional leaders would create problems emanating from a lack of understanding (and vision) of what e-learning could do for their particular organisation, with insufficient recognition of the resources required; as well as poor understanding of what e-learning can offer more generally, resulting in "strategies, plans, and funding arrangements" that do not exploit e-learning (Harris et al, 2007:5).

The role of institutional leaders should therefore be explored because these are the implementation arm of HEIs and their decisions impact on the adoption or non-adoption as well as their attitudes towards the adoption of e-learning in their institutions. In the implementation of such programmes as e-learning within HEIs, institutional leaders are a determinant factor, given their decision-making roles which could either make-or-break the e-learning projects by either facilitating or impeding its implementation within their institutions. The modus operandi of HEIs entirely rests with the attitude of these institutional leaders and the institutional structures and organisations that they implant within their institutions for the execution of policy. Research has shown that institutional leaders and administrators who have keen interest in adopting new technology have shown the desire to inculcate the same to their respective institutions by providing a supportive environment, through '...their recognition of the [institutions'] in loco parentis role in protecting them from inappropriate material' (Levin and Arafeh's, 2002:66). Such

leaders would devote or channel much more resources (expertise/personnel, infrastructure and financial) for the subsequent implementation of e-learning and e-pedagogy within their institutions, especially given the large number of students questing for tertiary education. Fry (2001:36) expresses the view that if universities are to compete in a global higher education market, they must embrace the technological advancements and use them as a strategic tool, capable of transforming educational and business practices. Fry (2001:29) considers that e-learning initiatives will not only give universities a new channel of educational deployment, they will also support strategic objectives by assisting asynchronous discussion consortiums and networked communities. The success of e-learning implementation depends on the institutional structures that institutional leaders create within their institutions in preparation for the incorporation of any new technological innovations for improving the efficiency of their lecturers and the effectiveness of the pedagogical methods that lecturers use in disseminating educational material to learners. It is therefore necessary to explore HEI organisational structures that enable the adoption of e-learning.

THE CHANGING ORGANISATIONAL STRUCTURE

Global trends in ICTs and the use of e-learning in HEIs has necessitated the re-alignment of organisational structures and a paradigm shift in pedagogical approaches. This has equally affected organisational structures which had also to be aligned in preparation for the adoption and use of ICTs in the HE sector, primarily for skills-development purpose. Debates have raged about the importance of changing organisational structures in preparation for the incorporation of technological innovations within HEIs. The last decade has experienced structural changes of higher educational institutions, in preparation for the introduction of technological initiatives. This has been supported by Scott (2000:36) who contends that as e-learning is now facilitating a more flexible learning approach, contemporary institutional structures are less robust than in previous years. In addition, Shaba (2000:7) states that technology in general has not only improved knowledge storing methods and learning techniques but has also acted as a catalyst to combat the barrier of inflexible organisational structures. Singh, et al, (2005:9) concur by pointing out that this view suggests that to fully experience the benefits of technological advancements in higher education, such as e-learning, universities must have flexible organisational structures.

To survive the winds of intense competition, organizations need to acquire the right approach. There is an appreciation and adoption of new managerial strategies like strategic management, flexible work culture, job redesign and organizational reengineering ([Anuradha](#), S; Thakur, and Mahima Singh, 2003:6). Debates around flexibility have given the perception of flexibility as a job design paradigm, by IT managers and correlates the perception of flexibility by the employee. Flexibility in management can be of various types, such as functional flexibility, financial flexibility (Atkinson, 1984; Nolan., O'Donnell, and 1996:56) temporal flexibility (Blyton and Morris 1992:9) numerical flexibility, legal flexibility, skills flexibility, job flexibility, location flexibility, work pattern flexibility, and wage cost flexibility. There are multiple connotations attached to the concept of flexibility. According to Sloane, and Gasteen, (2004:11), it implies openness in thinking adaptiveness, to the environment, responsibility to change, necessity of action contingency, non rigidity, variability of parameters and specifications, multiplicity of process setting freedom, liberalization, informal attitude adjustment, compromise autonomy of function, agility in action, resilience in system, elasticity, looseness ,customized or tailor made solutions, and broadening of mind. The success of flexibility is dependent on attitude of employees, positive attitude for flexibility and approach needed for its success. Success of flexibility practice in the organization is dependent to an extent on the attitudes of the employees towards it. Bernard (1938) expressed the view that a major part of an organization's success depended on obtaining cooperation from its personnel. The criticism however that is there is a lack of effort in gaining the employees commitment. There needs to be support and positive attitude for the flexibility approach to bear

fruits. Flexibility is an excellent example of making human resource planning work for an organization (Cappelli, and Rogovsky, 1998:9).

According to Scott (2000:37), the structure of today's universities must be 'changeable' in order to integrate distance learning courses, and those institutions that will not or cannot change their structure to incorporate this technology may be bypassed by other educational providers, such as virtual universities and independent educational services. It might well be the case that corporate universities which hitherto only offered training to its employees will be in competition with the higher education sector. Darling (2002:43) argues that such a wide acceptance of e-learning methods in higher educational institutions will create broader repercussions regarding organisational structure. This point is illustrated by Shaba (2000:65) who suggests that universities are currently inexperienced concerning the acceptance and incorporation of e-learning and other technological changes into their organisational structures. Shaba (2000:31) considers that this lack of experience will initiate a number of reactions within universities, such as ambiguity towards future technology strategy and how to incorporate new technological advancements into organisational structure; and how to cope with the diverse range of teaching courses and learning programmes ongoing within the university comprising of full time and part time students. Shapiro (2000:45) suggests one of the challenges facing traditional universities intending to transform organisational structure to incorporate technological innovations is coming to terms with the process design for distance learning courses, without ignoring the organisational, managerial and financial constraints. Many universities in developing countries have been the worst hit by technological innovations given their deeply entrenched traditional pedagogical experiences based on the talk-and –chalk teaching methods. Shortage of resources have also impacted on the universities in developing and under-developed countries to implement and adopt e-learning in their midst.

Although advocates of traditional approaches to higher education may argue that courses should be taught in fixed locations using somewhat rigid organisational structures, the opinions of many writers suggest that e-learning methods will greatly change future higher educational systems. Volery (2000:65) recommends the broadening geographic distribution, flexible learning environments and variety of educational models that are offered by distance learning facilitate improved education, and points out that if universities do not embrace this technology they will be left behind in the pursuit for globalisation and technological development and excellence.

The impact of e-learning initiatives will have direct effects on the future structure of universities on both strategic and tactical levels (Shaba 2000:34). Strategically, universities will experience issues concerning face-to-face versus virtual environments, how many buildings to keep and most importantly whether to maintain the existing organisational framework. On a tactical level, the changing role of lecturers, the changeable learning environment and the design of e-learning facilities will all contribute to a potentially more flexible organisational structure. Despite the apparent dysfunctional effects the implementation of distance learning techniques can assert on university structure, O'Hearn (2000:29) adds that contemporary university structures must be changeable and adaptable, able to embrace new learning and communications technology offered through e-learning, or faces the consequence of limiting student's direct access to global knowledge repositories that have the ability to extend higher education. In addition to the organisation and structural organisation of HEIs, the lecturing staff plays a pivotal role in the implementation of e-learning within HEIs. Therefore their role as pacesetters and implementers as well as determinants of e-learning in HEIs should be explored.

THE NEED FOR TRAINING OF TEACHING STAFF AS A DETERMINANT COMPONENT IN ADOPTING E-LEARNING.

The importance of training and development have been highlighted by Schuler and Jackson (2006:56) who view these as initiative tools that can be employed to enhance the knowledge and skills necessary for work-related performance. They further note that for these initiatives to bear fruit, motivation of the incumbents should be of paramount importance. The teaching staff are a vital component of HEIs and forms a policy-implementation arm of any HEI through acceptable pedagogic dispatches to students. Educational material should be transmitted to students through the teaching staff who are tasked with the dissemination of educational material to students. Debates on the pivotal role of lecturers have ensued with the bottom-line indicating the indispensable nature of the teaching staff in education. Volery (2000:57) maintains that technical expertise on its own is not of great value unless lecturers conceive effective ways to utilise it. Lecturers will always play a key role in the effective delivery of e-learning initiatives, as it is the lecturer not the technology that facilitates the students learning experience. Wilson (2001:8) suggests that three characteristics of the lecturer will control the degree of learning; attitude towards technology, teaching style and the control of technology.

The availability of lecturers alone does not suffice in successful adoption and implementation of e-learning within HEIs. Attitudinal aspects should be considered as well. Commitment and a positive attitude towards e-learning by lecturers help to create a conducive environment for the successful implementation of e-pedagogy which would subsequently yield positive results for students as well. In support of this view Holley (2002:117) concludes that students will experience a more positive learning experience if guided by a lecturer who retains a positive attitude towards traditional learning whilst promoting e-learning methods. This has been referred to as 'Blended Learning' which is "an important building block of the new schoolhouse that offers students both flexibility and convenience, important characteristics for working adults who decide to pursue postsecondary degrees" (Singh, O'Donoghue and Worton, 2005:12). 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 (Collis and Moonen, 2001:28).

However, despite the possession of positive attitudinal attributes, the dynamic nature of the IT industry in conjunction with evolving e-learning technologies has created challenges and in some cases tension for lecturers in higher education. E-learning initiatives have reportedly created new educational issues for lecturers, such as changing work patterns and in some case the reluctant integration of technology. Serwatka (2002:49) argues that sometimes student success can be achieved simply by preventing student withdrawals from e-learning programmes. The teaching techniques used by lecturers in traditional courses may also have to be reviewed and modified, as they do not always prove effective or necessarily transferable in e-learning environments (Serwatka 2002:49). Lecturers in networked learning environments modify their courses as they go along, meaning the longer a course is taught in a particular format the more effective it is (Volery 2000:22).

Given the pivotal role that lecturing staff play in the adoption and execution of e-pedagogy, it becomes necessary to continuously equip them with more knowledge through training and refresher courses as a way of creating confidence in them. It has been observed that most lecturers are not impervious to learning new skills. Many are more than prepared and receptive to new ideas. Recent studies indicate that the success of e-learning methods in higher education can only be measured according to the effectiveness of delivery; training staff may be regarded as a major challenge in the adoption of e-learning initiatives (Singh, et al 2005:528). However, given the different experiences and ideologies among the lecturers, it is acknowledged that some academics working in higher education are reluctant in accepting aspects of technology in their

teaching and learning because of lack of understanding and confidence in the new technological innovations. Charlesworth (2002:179) adds that contemporary lecturers are not resistant to training in the use of technological applications; they are simply confused as to how to implement such into lectures or more formal teaching methods. Lecturers that enter the profession in today's information age are much more likely to have used computers and have significant access to the Internet than those in previous years and are more likely to accept technological advances in teaching methods. (Wilson 2001:24). Academics are often encouraged to "go online" by their institution, by either moving or supplementing teaching in an online environment. This could simply be attempting to replicate face to face teaching, in effect changing nothing; enhancing face to face teaching with the available technology; or transforming face to face teaching by the available technology. The approach chosen will be determined by several factors, one of which will be existing knowledge of the technological environment being used (Coldwell 2003:185).

The pivotal and determinant nature of lecturers is further shown by the fact that they should be involved in the whole process of the education dissemination continuum. (Shank 2002:56) concurs with this argument by asserting that "educators must therefore be involved in all stages of e-learning course development, including determining the prospective audience, the purpose of the learning programme and the best format". This view highlights the requirement for lecturers not only to be trained how to apply e-learning technology in higher education but also be attentive of the theories behind distance based learning. Proficient training includes both technical and conceptual issues, and if executed correctly will generate increased support for the merits of e-learning (Shapiro 2000). Lecturers must possess the appropriate facilitation skills if e-learning courses are to be successful. Shank (2002:65) argues that facilitation skills fall into three sections: facilitating real time events, moderating online discussions and coaching students. Shank (2002:66) continues that if lecturers do not maintain a high level of facilitation skills, even the most effectively designed e-learning courses will be unsuccessful through inattention on behalf of the lecturer. The evidence suggests that staff training is a central concern for universities implementing any form of learning methods. It is essential that the opportunity to redesign and improve university teaching practises through e-learning is not usurped by a focus on training lecturers how to use the hardware and software (Shapiro 2000:56). Inadequately trained lecturers using e-learning in educational environments can become an obstacle in a finely balanced learning process and can lead to problems in application use and in the perception of students (Volery 2000:8). In contrast to traditional teaching skills (such as the talk-and-chalk and rote teaching methods), e-learning requires lecturers themselves to be committed to a constant and changing learning curve, which may involve a mixture of formal training courses in conjunction with conferences and other less formal techniques, if they are to acquire and develop the skills needed to be an effective e-learning tutor (Shank 2000:19).

Lecturers in HEIs work in a unique educational environment given that they are expected to implement technological changes within their respective working environments. It therefore becomes incumbent upon the lecturing fraternity to be receptive to changes in technology and to be prepared to embrace and impart the same skills to students. Lecturers in higher educational institutions must accept and embrace technological advancements offered by e-learning. Holley (2002:119) explains that lecturers have to adopt new educational approaches in order to maintain the quality of courses. Collectively, the evidence offered on the role of lecturing staff in contemporary e-learning courses suggests that online learning should not be regarded as an alternative to a traditional tutor. Effective e-learning programmes use lecturing staff combined with the appropriate technology to deliver effective learning. In addition, the lecturer is not only the knowledge source but is also a knowledge navigator using the Internet as a teaching tool. This enables lecturers to transfer their skills in other business areas such as developing training and corporate courses (Ribiero 2002:85).

CREATING A CONDUCTIVE LEARNING ENVIRONMENT

Students form the central and epi-centre of the learning continuum and as such, form the principal clientele for HEIs and therefore their incorporation in this paper is inevitable. It therefore becomes compulsory that institutions create conducive learning environments for their students. A good learning environment has a bearing on the provision of an improved learning experience. Singh, et al (2005:526) have come up with a notion that an e-learning environment offers students an improved learning experience when compared to a more traditional learning environment. Holley (2002:120) found that student participants on e-learning university courses using techniques such as virtual lectures and bulletin boards, achieved better grades than students who studied in traditional learning settings. Hartley (2000:37) maintains that the constraints of conventional university teaching practises with regards to group working are removed in e-learning environments, as students can participate in group activities without actually being situated in the same location. Indeed alternative relationships are developed within the context of an online community (O'Donoghue and Singh, 2001:525). This supports the view that e-learning environments loosen the time and space restrictions associated with traditional university practises.

The infusion of modern and traditional teaching methods has been espoused by many educationists who argue that there is no one method that is all-encompassing and effective. Serwatka, (2002:62) concluded that although e-learning environments overcome the traditional time and space constraints, universities must be cautious when deciding if modern an distance learning environments should replace the traditional methods, as students recognise the benefits of the e-learning environments but only when combined with traditional formats.

However, there have been debates about the environment as a determinant factor in e-learning. Many writers have proposed that the current significant limitations of e-learning environments are not exposed by contemporary research (Singh, et al 2001:527). O'Connell (2002:15) proposes those students from non-technical backgrounds or those who are more accustomed to traditional face to face learning environments, experience problems absorbing course material in e-learning environments. Similarly, Holley (2002:118) suggests that even undergraduate students who are perhaps more assertive and motivated should be given focused training on how they can take full advantage of e-learning environments. IT skills can prove problematic for students on distance learning courses and if the requirement for training is not addressed, students will not experience the full benefits of the e-learning environment (Holley 2002:119). Furthermore, a lack of IT skills is one of the main reasons for student non-participation in e-learning courses (Wilson 2001:17). Whilst not looking to replace 'real' paper with technology based resource, it is the process of augmentation and enhancement with the 'traditional' resources to enable reflection, encapsulation, consolidation and extension of the written word (Wilson, 2001:18).

CHALLENGES AND BARRIERS ENCOUNTERED BY HEIS IN IMPLEMENTING E-LEARNING

Higher education institutions have encountered a myriad of pedagogical challenges that they should overcome if their attempts at adopting e-learning is to bear any fruit. Some of the problems have emanated from the students' lack of confidence to use technology and their interaction with lecturers. Students need to be prepared to adapt to advances in technology, especially for learning and communication purposes. Untimely e-learning initiatives create unproductive learning environments in which students encounter difficulties with course material, are unsure how to prepare for online assessments and are reluctant to contact lecturers for assistance (Serwatka 2002:27). A major challenge for contemporary universities is to offer students a more client orientated educational programme (Hartley 2000:48) and this requires an educational understanding of the students need for a more flexible, easily accessible learning

environment, which can be offered through distance learning (Fry 2001:236). Moreover, contemporary learners need to communicate and require the ability to share knowledge and skills from distance, therefore networked initiatives that are technically satisfactory and are highly personal offer students and universities the opportunity to customise the learning environment (Hemsley 2002:28).

The competitive nature of utilising ICTs has put many HEIs at a very precarious position, especially given that many HEIs will find themselves grappling with the threat of being 'left behind' by their competitors. Similarly, in the business world, "as the market continues to grow, new entrants will offer innovative world-class solutions at low cost ("Lifelong learning," 1998) – making it impossible for the 'static' or 'complacent' providers to compete. HEIs have also been found on the same awkward situation. Proponents of the adoption of e-learning in HEIs stress the dangers of 'jumping on the bandwagon' too soon or without due diligence, given the influx of students and this justifies many HEIs' desire to extend their brand. The extension of an institution's brand is not without risk. Increasing the number of students who claim to have studied there can damage a university's reputation if those students do not receive the level of teaching that the university's name was built on" (O'Donoghue, et al 2004:318). Following on this argument, Pollock and Cornford (2000:67) acknowledge that in the implementation of e-learning, institutions will bear the risk of destroying those processes that offer important forms of support to students. Ultimately, it is possible that standardising a number of informal support systems will create competitive disadvantage – exactly the opposite to what the process sets out to achieve. Thus, need to consider the implications for everyone involved before implementing any new e-learning strategies.

Quality of service should be considered when HEIs institute e-learning programmes within their constituencies. Universities need to consider cost-effective and efficient methods of operation if they, according to Daniel (Singh, 2004:45), it certainly can play a key role. As has been alluded to above, the incorporation of e-learning in HEIs does not imply replacing face-to-face tuition, as relationships can also be fostered within the context of an online environment. Technology is a powerful medium particularly for part time work based students who find erratic attendance requirements and study difficult (O'Donoghue & Singh, 2001:47). The implications are clearly multi-faceted. The institution will itself necessitate change physical, cultural and managerial. Students will require support in adapting to a potentially unfamiliar learning context. Finally the implications are immense for staff who are under pressure to introduce and develop often radically different approaches to their teaching and delivery.

In recent developments, issues associated with the infrastructural aspects, pedagogical considerations and the need to associate the usefulness of technology to enhance the learning experience" have dominated the provision of e-learning in HEIs (O'Neill, Singh, & O'Donoghue;2004:313). In their presentation, the authors attempt to dispel the notion that e-learning would eventually replace the lecturer or tutor. They maintain that "the technological path will potentially enhance the learning process, not replace the lecturer or tutor (and that) for lecturers and students, the implications of e-learning are extensive as universities will be called upon to provide quality and flexibility to meet the diverse needs of students". This development will inevitably involve tailoring courses to suit differing educational needs and aspirations and at the same time calling upon lecturers to re-align their approach and teaching methods to suit the new e-learning dispensation. Pedagogical issues such as a shift in approach on the part of lecturers will also be inevitable in the new thrust for the adoption of e-learning in HEIs. Donoghue, et al (2004:313) concur by pointing out that in the new-learning dispensation "[l]ecturers will be forced to fundamentally change their approach to teaching to accommodate the shift in student learning styles" and large numbers. Closely associated with that HEIs have to contend with the adoption of e-learning in HEIs is the sudden influx of students seeking tertiary education. The associated implication of increased workload requires proactive and effective management.

Those pessimistic of the successful implementation of e-learning on the backdrop of an impending influx of students argue that alongside this influx, e-learning threatens the fundamental structure of the university itself, as research forecasts that institutions cannot retain their traditional structure, in facilities and delivery via formal lectures and class based activity (O'Neill, Singh and Donoghue, 2004:313).

The onus eventually rests with universities which must transform to accommodate demand and in response to new competition from global, giant corporate and virtual universities, however the problems associated with the change must be fully understood and taken into account prior to the transition taking place. Despite the fact that the benefits of e-learning may be highly prophesied, the many implications of implementing an e-learning programme require careful consideration, and getting it 'right' the first time will ensure long term success in a highly competitive market (O'Neill, Singh and Donoghue, 2004:313). In addition to the viability of e-learning programmes in the face of high students' turn-overs, there are other underlying challenges that universities need to contend with. Many of these implementations are costly and yet superficial, in terms of learner engagement and activity (O'Neill, Singh and Donoghue, 2004:313). They provide a content repository and in many cases limited active learner participation. For many students this result in endless reading of screen based text. Pessimists of e-learning are also of the view that given the myriad of challenges that confront lecturers, such as lack of adequate skills to execute e-learning confidently and in some cases, lack of appropriate resources and infrastructure, "staff are 'forced' down the e-learning route as a consequence of management directives and mission statements the creation of sound pedagogic practice is often flawed or missing completely and activities constructed service the technology rather than student or learner progression or association (O'Neill, Singh and Donoghue, 2004:313). This has left staff in a quagmire on the prospects of successfully implementing and achieving their teaching and learning objective.

In an attempt to improve the accessibility of internet facilities within HEIs, many have introduced the wireless network facility which enables students and lecturers alike to access the internet without having to have internet accessories like internet cables and portals. While these developments have been hailed by many HEIs as a positive development, but they have been accompanied by challenges. The integration of existing cellular systems with wireless access technologies, such as wireless LANs, have attracted considerable attention during the past few years. There are a number of challenges need to be addressed including authentication, security, student support, and mobility management. Efficient mobility management, and especially handover management, is considered one of the major factors toward a seamless connectivity across networks of different technologies.

PROSPECTS FOR E-LEARNING IN HEIS

E-learning in education HEIs is experiencing unprecedented usage and development. Despite challenges faced by HEIs, e-learning has successfully managed to bring education to the doorstep of all those who seek it. The need to create more conducive environment for learners has proved to be a requirement for the attainment of good results. Lecturers, to be able to conduct themselves confidently, should receive continuously training and upgrading of their pedagogical skills in accordance with the dynamic nature of technology. Students, being the central focal point for HEIs, should have access to internet and e-learning facilities if they are to prove themselves and attain their goals. Institutional leaders should continuously adapt themselves to changing technological environments and inculcate a positive attitude to adoption and implementation of e-learning within their institutions. Attitudinal aspects have been cited as determining the success or failure of adopting e-learning in institutions. The prospects for e-learning in HEIs remain bright, especially given the receptive nature that numerous HEIs and

institutional leadership have and the optimism that students and lecturers hold of the future of e-learning in education. This has been compounded by the preparedness of lecturers to meet challenges posed by the continuous technological innovations and their preparedness to learn new skills.

CONCLUSION

Despite the various debates on the adoption and implementation of e-learning as well as the accompanying challenges, e-learning remains an indispensable pedagogical phenomenon in the 21st century and beyond. Its ability to cater for a myriad of students seeking educational opportunities have made it the best conduit through which lecturers can interact with students anytime anywhere. The utilisation of e-learning has also cut distances which students in conventional learning institutions would have covered to access lecturers and learning materials. Incentives should therefore be accorded to HEIs to enhance e-learning facilities within their institutions. More financial resources should be devoted to the acquisition of resources and infrastructure for the promotion of e-learning facilities and infrastructure in HEIs. Attitudinal change should also be inculcated in institutional leaders to keep abreast of technological innovations for their respective institutions for the advancement of both their lecturers and students.

Given that the challenges encountered by HEIs and the barriers that inhibit the adoption of e-learning within institutions are common across the educational spectrum, the onus rests with institutional leadership whose thrust should be focused on providing the necessary resources and infrastructure with which to implement their respective institutional e-learning strategies. Governments should also take it upon themselves to commit more funding for HEIs to be able to undertake training programmes for academic staff, procure more computers and provide for bigger bandwidth for different HEIs. This should be buttressed by a reliable internet and network system that does not further provide further challenges like crashing or getting offline at a time when students and staff need it most.

The large influx of students seeking tertiary education has also presented a challenge as HEIs have to contend with these students, some taking part time classes. Through availing adequate tutors and facilitators would help ameliorate the situation. At the University of the Western Cape, the E-Learning Department has facilitators on stand by to provide help to any e-learning-related problems throughout the year. The Department also deploys its trained staff to visit different departments in the institution to help resolve any issues pertaining to the disbursement of e-learning and recently, e-teaching problems. In addition to these facilitators, there are also other teams within the E-Learning Department such as the Material Designers who prepare learning materials for use by academic staff during delivery of lectures to students. The Education Development Support Unit (EDSU) Research, housed within the same E-Learning Department undertakes research on challenges that those who utilise the e-learning facilities within the institution encounter and bring these problems to the attention of appropriate personnel for resolution. Through adopting a collaborative approach, the E-Learning Department's various teams have made a concerted effort to make the use of e-learning facility within the institution a hassle-free exercise. Given the similarity of challenges within and among HEIs, the solutions to e-learning-related challenges at the University of the Western Cape can be applied to other HEIs in South Africa, the Developing World and even globally.

Problems associated with the wireless network at UWC is being addressed with the assistance of experts to ensure that the system does not let down students and lecturers, although in some cases, the reception is very low and cannot enable users to access internet. There has also been

efforts to increase the number of locations where one can access the wireless facility. Currently these are few and sparsely populated.

ENDNOTE

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