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E-LEARNING - 'TRICK OR TREAT'? USING TECHNOLOGY FOR TEACHING AND LEARNING IN A TERTIARY SETTING

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Abstract

This paper is a critical analysis of current e-learning practice within a first year unit in the Faculty of Commerce at the University of Tasmania. It reflects on the changes in learning that have occurred over the last twenty years at a senior secondary level in Tasmania, then reviews and documents the nature of e-learning currently being employed at a tertiary level as experienced by the author. With over 20 years experience in using Information & Communication Technology (ICT) within a senior secondary educational environment the author was then appointed as a Lecturer to the University of Tasmania in July 2002. He was required to implement an e-learning program for a first year unit, Business Information Systems (BSA101) within the Commerce Faculty. Essentially, the paper is from a personal perspective and attempts to document what has occurred before the moment is lost.

Keywords

E-learning, assessment, learning styles.

Introduction

The way in which students learn and utilise ICT is changing. This paper analyses two changes that have influenced learning at a senior secondary level. It then reflects on how ICT is currently being employed by students within a University unit in order to understand whether some of the changes at senior secondary level are being reflected at University. An analysis of a particular e-learning platform, WebCT, will be considered with reference to how students are utilising it to meet their learning needs. The paper recommends directions for e-learning at University in order to address the experiences of students at the senior secondary level. This paper will endeavour to understand whether e-learning is a trick or a treat from an educational perspective and share insights that may be useful for practitioners.

Background

There have been profound changes occurring in senior secondary education within Tasmania. Since the early 1980s there has been a move away from assessment where students were graded effectively against each other using a norm based referencing system. The traditional approach to education was that teachers transmitted the content to students and exams were the main tool for assessment. Whilst there was an internal component to assessment it was standardised against the exam, and most subjects had a weighting of 75% for the exam towards the final mark. In 1992 the Tasmanian Secondary Assessment Board (TASSAB) introduced criterion-based assessment and accreditation for year 9 to 12 students with the Tasmanian Certificate of Education. According to TASSAB (2003) "Student assessment is criterion based and measures student performance against specified standards within criteria. The criteria separate the knowledge, skills and competencies that students must acquire to succeed in a given syllabus and

the standards describe the graded outcomes attainable within each criterion". There has been increased emphasis on continuous assessment and whilst exams still form an integral component of most subjects they typically contribute around only 40% of the total criteria that will help form the overall award. The method used to calculate the final award varies slightly from subject to subject. Measuring students against an agreed standard for each criterion, moderating and assessing using these criteria and then giving feedback to students was seen as a critical process at the senior secondary level. How students construct knowledge and learn has been reconsidered and this is reflected in how TASSAB assesses students and provides feedback to them.

Coupled with this change in the nature of learning and assessment was the widespread introduction of computers into colleges and schools. Whilst ICT has been increasingly employed at a senior secondary level, it has done so across the curriculum and not just in traditional "computing" subjects, to the extent that the average ratio of computers to students in secondary colleges is now greater than 1:6. This could be compared to twenty years ago when the ratio was 1:60. The increased level and capacity of ICT has spawned a new generation in e-learning. E-learning has become a generic term that covers elements of online learning, distance learning and flexible education. At a fundamental level e-learning is the use of ICT to enable learning, yet it remains so much more than just e-technology. Heppell (2002) remarked on e-learning "it is the opportunity for children to explore new expertises, take new risks, develop new collaborations (and) gain new understandings". The Department of Education in Tasmania continues to invest millions of dollars in e-learning endeavours and organisations such as e-magine, that build on the early beginning of centres for e-learning and innovation such as the Elizabeth Computer Centre. Learning, including e-learning, seeks to be a student centred activity with a focus less on content and more on context and collaboration. ICT is being used to ensure learners are actively and centrally involved in the process and that the various learning styles are being addressed.

WebCT has been the centrally supported e-learning platform for the University of Tasmania since 2001. Different schools and faculties within the University have previously trialled WebCT or had employed other means such as course material servers to provide elements of e-learning. The author after accepting an appointment, as a lecturer in the Commerce Faculty, was given a limited period to structure Business Information Systems, BSA101, to meet the University delivery requirements for WebCT (currently version 3.8). BSA101 is a core unit for the Commerce Faculty and is taught over three campuses within Tasmania and two campuses outside Australia. The total enrolment exceeds 700 students over two semesters in Tasmania. Conventional content delivery techniques such as PowerPoint presentations were employed for BSA101 and then uploaded on to the platform. The course is flexible in that students can use the Internet to view lecture presentations and hear recorded lectures as well as access and submit assessment tasks. The platform allowed for the transmission of static results. Learning tasks such as tests were typically monitored by teaching staff to ensure integrity, and used in a summative rather than a formative manner. Online multiple-choice tests were used for formative purposes but these were optional. Students are no longer required to attend lectures in BSA101 and hence lecturers/tutors and students may end up never engaging in a face-to-face experience. WebCT has a number of course management tools that allow students, teaching assistants and content to be tracked by the unit co-ordinator/course designer.

Methodology and data collection

An empirical approach was initially used in gathering and analysing the data. The scope was limited to considering BSA101 in Semester 1, 2003. Data was collected from the content, assessment and communication tools in WebCT. Students also communicated to the lecturer using the University's Webmail system and data was collected from that system. Most hits relate to content (3109) and assessment, though from a first semester group of 472 students there were 233 discussion postings by 72 students. The number of emails, both in and out, exceeded 1200 for a group of 472 students. Features such as group discussion and e-mail are useful functions on the WebCT platform but are not the primary tool used by most students enrolled in BSA101. Asynchronous communication was a frequently used part of the learning experience for many students.

Findings and Discussion

Communication and feedback, particularly relating to assessment tasks, are of importance to students enrolled in BSA101. In particular, the inability to automatically notify students who had not submitted work was problematic. Most student communication and discussion were related to assessment tasks. Yet feedback using a criterion based referencing was not possible across assessment tasks. One of the driving issues behind accreditation and assessment at the senior secondary level has not been incorporated in the university's current e-learning platform. As an educational practitioner a number of issues were of interest including the ability for students to engage in material at a much deeper level and with each other. Learning tasks and assessments need to be meaningful and content to be related to assessment where students can receive feedback on the learning objectives. Whilst many of the learning tasks that were employed in BSA101 were well structured and related directly to the material covered in lectures (and virtual lectures) there were limited means within WebCT to connect it dynamically with assessment and feedback. The learning environment did not adequately address individual differences. Each component tended to be discrete rather than a world in which learners could explore, integrate and learn using linked objects. It is clear from the evidence that many students are requiring feedback and communication about their learning and assessment. These may be due to their learning experience at senior secondary level or reflective of the way in which they learn and construct their knowledge. Therefore, it is imperative to utilise the e-learning platform in a way that addresses these issues.

Content and assessment can be transmitted in a traditional mode using the WebCT platform. Most content hits related specifically to the content that was to be assessed. Students comments and grades whilst unique to the students did not enable the students to engage in further learning activities and to learn dynamically from the feedback. Indeed it was only possible this year to return graded assignments with embedded remarks. ICT has made it possible for students in BSA101 to no longer physically attend lectures and tutorials. Whilst this may acceptable for large groups within the University it may also mean that students miss some of the richness of the learning experience, particularly where group work or workshops are concerned. Students may appreciate the flexibility that this e-learning mode provides, particularly for those with other work, study or family commitments, but the lack of human interaction is an ongoing concern. The asynchronous mode is being employed because it fits with the students' requirements yet still more needs to be done in a synchronous mode if students are to engage in interactive learning. A variety of modes can be employed to suit the needs and styles of learners. Students even when they use ICT to access on-line learning resources also tend to also seek human contact, both synchronous and asynchronous, to supplement and enhance their learning experience.

With any tool it is important that it assists with the essential activity for which it was designed. For students who wish to have learning occurring "anytime, anywhere", ease of access and use of ICT is an important consideration. Schrum (2002), who examined strategies for successful online learning, indicated that one of the factors effecting success is having access to the right tool. Despite WebCT having many features and functions, and clearly being an expensive and accepted tool, it lacked a real sense of user friendliness and failed to allow some basic activities to be undertaken with simplicity. For example, it can take from 8 to 12 steps, for a student to be able to submit an assignment. It is critical that ICT facilitates not frustrates e-learning.

So what has worked well? The traditional form of record keeping was discarded and WebCT was used within BSA101 to record students' marks, which were then exported at the end of the semester. The inability to measure effectively and easily the learning objectives within assessment tasks remains an educational concern. Previously a blended method of electronic spreadsheeting and submission folders was used for assessment. The management of eight teaching assistants/ tutors, the distribution of assessment tasks and results, the monitoring of progress in marking were much easier. The ability to manage the assessment tasks (pages) being graded by each tutor, the calculation of average marks for each tutor and ensuring marks were not altered at a latter stage were not available in WebCT. Moderation of assessment standards is a core concern in senior secondary education. WebCT in the future should be able to address these integrity problems.

Conclusion

To classify the experience of e-learning at university as a trick or treat would be to simplify a complex and yet unfinished process. If teachers and educators are truly to lead and inspire, then the technology needs to be used with imagination and understanding. Life needs to be infused into the e-learning process. The economic imperatives of delivering information in a cost effective "anytime, anywhere" mode should not override the basic needs of learners for a well designed, integrated, learner centred and directed experience. Communication is the cornerstone of e-learning, the connection point for the construction of collaborative communities. The power of the technology should be used to create communication and community, curriculum and co-ordination, content and context, and connection. The curriculum should allow for learner directed activities where engaging, relevant content can be accessed in a contextual setting thus enabling lifelong learning and change.

The nature of learning at university is changing, as it has at the senior secondary level. The changes in assessment and learning, particularly where ICT is utilised, requires practitioners to reconsider their current practice. Biggs (2003) draws out the importance of not just having a well-structured knowledge base but also of having a suitable context, reflective teaching practice, appropriate learner activities and interaction. He rejects the myth that information technology will do the trick of solving teaching problems, since ICT is still too often being used to underpin the transmission mode of learning. Students may simply 'surf the Net' for an educational experience without experiencing any deeper learning. Whilst there exist powerful management tools, educators are seeking learning experiences that motivate and engage students in an interactive manner and considers the learning styles of students. Practitioners need first to understand the nature of learning, how to create an effective e-learning environment that allows learning to occur and then be able to assess how students' learning is progressing using learning profiles. Group work where students interact and learn from each other using both synchronous and asynchronous communication should be included. Importantly the structure and construction of e-learning platforms need to accommodate the many learning styles of students. We need a world of e-learning fired by imagination and creativity. We are yet to be fully treated to that experience with WebCT.

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