Bringing the NZDipBus on-line.
A case study.

NEW ZEALAND DIPLOMA IN BUSINESS CONFERENCE
Student expectations – academic delivery and content
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ABSTRACT
This paper examines the processes that have been undertaken at UNITEC over the last two years to incorporate quality on-line learning into the NZ Diploma in Business programme.

In Semester 2 1998 150 Computer Concepts was developed as an on-line course. The successful development of the course was due to the combined efforts of an instructional designer, two web programmers, a graphic designer and the course lecturer. This course was very costly to produce. As one of UNITEC’s vision statements is to have “a flexible learning environment characterised by innovation in teaching and the use of education technology” we realised that a more cost-effective manner of presenting course material on-line was necessary.

Various course authoring tools were evaluated and BlackBoard CourseInfo was chosen as the preferred software. By the end of Semester 1 2000 all NZ Diploma in Business courses offered at UNITEC had an on-line presence. The content of the courses differs but all are presented in the same manner under the BlackBoard CourseInfo shell.

This paper describes why BlackBoard CourseInfo was selected as the authoring tool and how lecturers have so quickly become proficient in the use of BlackBoard CourseInfo.

The methods in which lecturers and students use BlackBoard CourseInfo are presented in this paper as well as advice for other NZ Diploma in Business lecturers who are considering offering courses on-line.

BACKGROUND

In previous papers presented at NZDipBus Conferences (Malcolm 1999, Sherry 1999) the manner in which on-line resources have been used by students on the 150 Computer Concepts course at UNITEC have been described and evaluated. The online course demonstrated at the 1999 conference was very costly to produce as it involved the combined
expertise of an instructional designer, two web programmers, a graphic designer and the course lecturer.

The Department of Learning Technologies had been given the responsibility in 1997 of investigating the various course authoring tools available and had decided that BlackBoard CourseInfo was the best tool to use. Therefore, starting in Semester 2 1999 NZ Diploma of Business and Bachelor of Business Studies lecturers started to make use of BlackBoard CourseInfo.

What is a Course Authoring Tool?

Browsing through the Internet there are many thousands of courses offered on-line. Many have done what was originally done at UNITEC and adopted a do-it-yourself approach and produced a complete course themselves. However, with the realisation of the increasing market, many software developers have created packages that allow course lecturers to put course material on-line in a relatively quick and easy way. A course authoring tool provides a framework into which lecturers can place course material without having a thorough knowledge of the programming languages used on the Internet.

The role of the Department of Learning Technologies at UNITEC has changed from being part of the design team, as was the case when the original 150 Computer Concepts course was developed, to being consultants, trouble-shooters and technology experts now that the majority of courses are sitting under the Blackboard CourseInfo umbrella.

What makes a good course authoring tool?

Alexander (1999) found that the reason that the majority of staff wanted to use some form of on-line learning was “out of concern for, or a desire to, improve the quality of learning”. Therefore, in order to accomplish this, a good course authoring tool must be easy to use for students and for lecturers.

McCollum (1997) describes what various members of different faculties throughout the USA look for in a course authoring tool. These include ease of use, availability of technical support, on-line quizzes, a stable system across different platforms, affordable cost, security and the ability to track student use.

Students who are using an on-line course must be able to navigate the site quickly and easily. This is achieved if there is a consistent “look and feel” to all pages on the site. Students also need to be protected against getting “lost” when using the site. This can be achieved by having external pages opened up within the course shell.
Many lecturers feel that having to maintain an on-line course is just another burden in an already busy schedule. Therefore course authoring tools have to be easy for staff, with perhaps little computer experience, to use. Lecturers need to be able to simply upload and modify files and folders, add external links, e-mail students and create and monitor discussion board areas.

In order to prove the worth of providing resources on-line the course authoring tool should provide some method of tracking student use of the on-line course. Shown below is an example of some tracking data which shows the time of day that the course is used. Information can also be shown on the different areas that have been accessed, the days information has been accessed and who has been on-line and when or perhaps more importantly which students haven't yet made use of the on-line course.

The security of the on-line resources is another consideration. A decision needs to be made if entry is by password only, if there is to be guest entry allowed and if different groups of users are to be admitted to different parts of the site.

Why Blackboard CourseInfo was chosen for UNITEC.

Although a Bulletin Board system under FirstClass has been used at UNITEC since 1993, a full investigation of course authoring tools wasn't initiated until early 1997. TopClass, LearningSpace, WebCT, Web CourseInABox and Blackboard CourseInfo were evaluated. The primary evaluation criterion was that whatever system was chosen it must be easy to use. There needed to be ease of use for students with a “clean” looking interface which made navigation easy, allowed students to explore different parts of the site and go back to where they had come from. There had to be ease of use for the course administrator/lecturer.
The software had to allow lecturers to easily add or remove content, maintain and update resources and control the working of the on-line course without having knowledge of Internet programming languages and with a minimum of technical support.

Other considerations included the speed with which technical support staff would be able to create and maintain courses and that the chosen tool could upload a file from any application e.g Excel, Word, Access, MYOB etc.

BlackBoard CourseInfo scored highly when all these aspects were considered. Currently BlackBoard CourseInfo Level 1 is used at UNITEC but it is hoped that in 2001 approval will be given to move to Level 3 which offers greater customisation and the ability to interface with other systems such as PeopleSoft.

An important final consideration was the cost. WebCT and TopClass have a charging system related to the number of courses and the number of students which could prove to have administrative difficulties whereas BlackBoard CourseInfo is sold with a site license.

**Examples of how Blackboard CourseInfo is used.**

Access to the on-line resource is protected by username and password. Lecturers at UNITEC have either enrolled all the students in their classes themselves or instructed students on how to self-enrol. For students enrolling in more than one course there were difficulties experienced in Semester 1 2000 when students enrolled themselves using more than one username and password and then forgot which username/password combination to apply to which course. Problems with logging on have also been reported by Kenny (1999) and McNaught (1999). It has therefore been recommended that all students use their UNITEC student id as their username and hopefully the same problems will not occur in Semester 2 2000.
When students enter Blackboard CourseInfo they see the Announcements page:

Lecturers can post announcements to students, which are dated and can be used to advise students about updates to the site and important course related matters. This is a very good method of ensuring that consistent information is available to all students.

The Course Information section is used to provide information about the course: - Learning Outcomes, timing of assessment items, course textbooks etc.

The Staff Information section allows names, phone numbers, office location, e-mail address (hot link), and other information such as office hours to be displayed for students. There is also the option of loading a photo of the staff member.
The Course Documents section is used for course material. At the discretion of the lecturer this can be used to load lecture notes, Powerpoint slides, handouts and other teaching resources. It can be sub-divided into folders to make navigation easy for students. In the example shown below:

- indicates a folder (which can contain more folders or documents)
- indicates a document. Students click on the link below the explanatory text to open the file. Any type of file can be attached with the only limitation being that the software for the application must be loaded on the student's (user's) computer.

The Assignments section is used for formative and summative assessment.
items. On-line quizzes can be loaded which are automatically marked and students are provided with immediate feedback. The format of these quizzes can be multi-choice, fill-in-the blanks, or true-false. Provision can also be made for questions where the student has to provide a longer answer and these are submitted to the lecturer for marking.

The Assignments section is also used to load current and previous assignments and assessments. Students can easily get access to previous semesters' assessment items, marking schedules and answers. Some lecturers have used the Assignments section to enable students to access interim assignment information i.e. the students complete and hand in the first part of an assignment, the lecturer then posts a model answer on which the second part of an assignment is based.

The Communications section provides student interactivity. The most used part of this section has been the Discussion Board. There is the opportunity for class discussions to be set up to which all class members have access or group discussions where the lecturer establishes groups and only members of each group are admitted to the group pages. These tools have been used to great effect within many courses. For example, students are invited to post questions about an assignment on to the discussion board. The lecturer answers the question and all other students have the opportunity to read the question and the answer. Another example is group activities. Students within a group can discuss a question and when they have formulated an answer post it for the rest of the class to read and/or for the lecturer to assess.

Also in this section is the Virtual Chat area. Again, this can be accessed either by the whole class or groups can have their own private chat area. This allows for synchronous chat and has proved useful in courses at UNITEC (not within the NZDipBus) which are offered as a distance package and the students logon to virtual chat with each other and the lecturer at pre-determined times.
The External Links section provides the opportunity for lecturers to post links to Internet sites that they would like students to access. The URL and a brief description of the site is entered and when students click on the link the external site is opened within the BlackBoard CourseInfo window.

The final section is the Student Tools section. In this area students can change their personal details (password, e-mail address etc), create their own home page, access a secure on-line gradebook and submit assessment items to their lecturer using the secure student drop-box (and have marked assessment items returned to them.)
How can lecturers become proficient BlackBoard CourseInfo Administrators?

BlackBoard CourseInfo is a very easy tool to use and all lecturers who have seen it have been very impressed with the options that it offers. As in any change, there have been early adopters who have championed and enthusiastically used BlackBoard CourseInfo and those who feel that it is yet another requirement being placed on them. The response from students who have used BlackBoard CourseInfo has been extremely positive (Malcolm, 2000) and for this reason the Faculty of Business at UNITEC has decided that all courses should have an on-line presence.

The RMIT experience reported by McNaught (1999) was that lecturing staff need a lot of support to become proficient and enthusiastic users of web-based learning resources. At UNITEC a number of support mechanisms have been established.

An on-line co-ordinator has been appointed, within the Faculty of Business, with the responsibility of working with individual staff members to ensure that all lecturers become proficient with using BlackBoard CourseInfo.

The co-ordinator has created all courses under the BlackBoard CourseInfo shell, and designed templates for lecturers to use to upload course material. Individual training sessions will be held for each staff member with the co-ordinator.

The Department of Learning Technologies also hold regular group training sessions for staff.

A BlackBoard CourseInfo user group has been established and all lecturing staff are invited to monthly meetings to discuss best practice. This allows for sharing of different methods of using BlackBoard CourseInfo for courses across the whole spectrum of UNITEC - boatbuilding to nursing, horticulture to business.

A BlackBoard CourseInfo site has been set-up by a group of lecturers across UNITEC which demonstrates how different parts of BlackBoard CourseInfo are used.

BlackBoard CourseInfo provide an on-line manual and help facility that lecturers can access if they have difficulties using the site.
The manner in which information is loaded onto the site is consistent for all of the different parts and is done through what is called the Control Panel.

What are the goals we hope to achieve using BlackBoard CourseInfo as an additional learning resource?

Included as Appendix I is the New Zealand National Qualifications Framework for the levels that apply to the NZ Diploma in Business.

Many of these can be matched against the following learning activities provided using BlackBoard CourseInfo:

- Data gathering and synthesis
  - Research information – using External links to other Internet sites
  - Evaluate – in groups using group discussion pages
  - Report – to the class using the class discussion pages or submit to the lecturer using the Student Drop-box

- Case Studies
  - Evaluate real life organisations by accessing their web sites and analysing situations and processes

- Accessing information provided by lecturers
  - Lecture notes, slides, overviews, explanations can be provided by lecturers using the Course Documents section.
  - Previous assessment items can be made available to students together with marking schedules if desired to facilitate student revision.

- Presentations by students
• Students' work can be presented for evaluation and critique by their peers using the Discussion Board

• Students' assessments can be electronically submitted for marking using the Student Drop-box

• Collaborative Learning
  • Students can form on-line study groups to discuss ideas and where required feedback to the rest of the class using Virtual Chat, e-mail and discussion boards

• Self-assessment exercises
  • Quizzes, surveys and other formative assessment items can be used.

RECOMMENDATIONS

Institutes who are thinking of including aspects of on-line teaching into their NZ Diploma in Business programme may benefit from some of the lessons that we have learnt at UNITEC.

It is essential that students and staff are provided with good training on how to use the tool. This can be provided through “hands on” training sessions or through the use of a handbook or similar. As a well-written course authoring tool should be reasonably easy for students to use the main emphasis should be on providing students with an efficient, trouble-free method of logging on.

Good help facilities, both on-line and via telephone or face-to-face can make students experiences of an on-line resource more enjoyable and valuable.

At UNITEC a change to the version of BlackBoard CourseInfo was made mid-semester. Although the Department of Learning Technologies felt that the change to the student interface was minor it did affect students and we received numerous complaints. From then on the policy has been that changes are only to be made at the end of the semester and all staff will receive full notification of changes.

If students have their own e-mail accounts student – student and student–lecturer communication is facilitated.

A consistent layout of course material, through the provision of templates, will help lecturers and students who are involved in more than one course to use the on-line resource.

Where possible a link to the URL for the on-line resource should be included on the default homepage that students see when they enter the browser.
Finally, continuing feedback from staff and students can only help to improve the quality of the on-line learning resources.
### APPENDIX I
New Zealand National Qualifications Framework for the levels that apply to the NZ Diploma in Business.

<table>
<thead>
<tr>
<th>Level</th>
<th>The student is able to carry out processes that</th>
<th>Employing</th>
<th>And applied</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>require a wide range of technical or scholastic skills</td>
<td>a broad knowledge base incorporating some theoretical concepts</td>
<td>in self-directed activity</td>
</tr>
<tr>
<td></td>
<td>offer a considerable choice of procedures</td>
<td>analytical interpretation of information</td>
<td>under broad guidance and evaluation</td>
</tr>
<tr>
<td></td>
<td>are employed in a variety of familiar and unfamiliar contexts</td>
<td>informed judgement</td>
<td>with complete responsibility for quantity and quality of output</td>
</tr>
<tr>
<td></td>
<td></td>
<td>a range of sometimes innovative responses to concrete but often unfamiliar problems</td>
<td>with possible responsibility for the quantity and quality of the output of others.</td>
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<table>
<thead>
<tr>
<th>Level</th>
<th>The student is able to carry out processes that</th>
<th>Employing</th>
<th>And applied</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>require a wide range of specialised technical or scholastic skills</td>
<td>a broad knowledge base with substantial depth in some areas</td>
<td>in self-directed and sometimes directive activity</td>
</tr>
<tr>
<td></td>
<td>involve a wide choice of standard and non-standard procedures</td>
<td>analytical interpretation of a wide range of data</td>
<td>within broad general guidelines or functions</td>
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<tr>
<td></td>
<td>are employed in a variety of routine and non-routine contexts</td>
<td>the determination of appropriate methods and procedures in response to a range of concrete problems with some theoretical elements</td>
<td>with full responsibility for the nature, quantity and quality of outcomes</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>with possible responsibility for the achievement of group outcomes.</td>
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<table>
<thead>
<tr>
<th>Level</th>
<th>The student is able to carry out processes that</th>
<th>Employing</th>
<th>And applied</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>require a command of wide-ranging highly specialised technical or scholastic skills</td>
<td>specialised knowledge with depth in more than one area</td>
<td>in managing processes</td>
</tr>
<tr>
<td></td>
<td>involve a wide choice of standard and non-standard</td>
<td>the analysis, reformatting and evaluation of a wide range of information</td>
<td>within broad parameters for defined activities</td>
</tr>
<tr>
<td></td>
<td></td>
<td>the formulation of</td>
<td>with complete accountability for determining and achieving personal and/or group outcomes</td>
</tr>
</tbody>
</table>
| procedures, often in non-standard combinations  
  • are employed in highly variable routine and non-routine contexts ... | appropriate responses to resolve both concrete and abstract problems ... | outcomes. |
REFERENCES


