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What a LUVLE way to learn Law

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Abstract

This paper focuses on the production, development and implementation of the Lancaster University Virtual Learning Environment (LUVLE) and its subsequent pilot to support collaborative learning on a compulsory Law course for 1st year undergraduates.

This has been a collaborative venture between academic staff in the Law School and the University's central learning technology support staff to move beyond a simple web-based discussion space that was used previously on this course, to the more substantial web-based learning environment provided by LUVLE.

The course has been designed to promote independent, co-operative and collaborative, networked learning with a significant emphasis on problem solving activities. This reflects the pedagogic objective of facilitating "effective learning" by engaging students in the process of constructing knowledge by acquiring, generating, analysing, manipulating, and structuring information. It was decided to use the new LUVLE both to support these pedagogic objectives and to further enhance the learning environment for students on the course.

The complexity of the web-based negotiations that form the main collaborative component of this course, provide an ideal test-bed for LUVLE. As yet, most other undergraduate courses require simpler web-based learning environments, with fewer group-based activities taking place on-line.

LUVLE was designed over summer vacation 2001 and implemented for the start of the academic year in October 2001. The technology underpinning this environment is the Lotus Domino software. Outside the lecture/seminar format, LUVLE provides the main communications medium between staff and students for administrative and academic issues relating to the course. There is also a good deal of student/student interaction within the environment, particularly during the negotiation exercises.

Issues to be addressed in this paper are:

- Process of collaboration between Law academics and learning technology staff
- Design/development of LUVLE
- Integration with existing IT systems e.g. student registry
- Identification of suitable Law resources for LUVLE
- Staff/Student training
- Monitoring and adjustment of LUVLE to meet the needs of the Law course

- Staff/Student feedback
- Issues for the future use of LUVLE in Law

It should be noted that LUVLE is used most intensively for the collaborative learning part of the course, which takes place in early March. Analysis of feedback from students regarding LUVLE will be `hot off the press' for delegates at this conference.

1. Introduction

This paper focuses on the production, development and implementation of the Lancaster University Virtual Learning Environment (LUVLE - pronounced lovely) and its subsequent pilot to support collaborative learning on a compulsory, Law course for 1st year undergraduates.

This has been a collaborative venture between academic staff in the Law School and the University's central learning technology support staff to move beyond a simple web-based discussion space that was used previously on this course, to the more substantial web-based learning environment provided by LUVLE.

Critical to this development is the feedback from both staff and students about the environment and how it has supported the networked learning aspects of the course. However, LUVLE will be used most intensively in early March. Analysis of the feedback from students will be presented `hot off the press' at the BILETA 2002 conference.

The following sections consider a number of aspects - design and development; professional collaboration; the pedagogic rationale for the course, the structure of LUVLE; identification and organisation of suitable resources; operational experience and fine tuning; student training and staff development; future developments.

2. Design and Development

Lancaster University chose Lotus Domino to support networked learning elements of course provision in 1996. The University's learning technology strategy[1] places emphasis on the use of such technologies to support collaborative learning. Initial collaborative learning support tools focussed on the development of simple web-based environments to support discussions and dissemination of timely course information through the addition of a simple noticeboard element.

Recent developments in the commercial markets with respect to virtual learning environments (VLEs) and their uptake in HE[2] led the learning technology development group at Lancaster University to revisit this design.

Commercial VLEs in general provide more customisability of what appears to students and the labels that are used. This is often in the form of simple show/don't show switches, but nevertheless still provides more choice to the tutor than Lancaster's existing VLE provision.

Initial designs were story-boarded and feedback sought from current users. A final design for the look and feel of the system was produced in April 2001, a prototype by August 2001 and a first release in October 2001.

Below is a screendump from the main discussion space where students are encouraged to ask any questions that they require clarification on, or to invite the tutor to visit their team area to address an issue that they may not want made public.

Note that the main navigation tools are in the form of drop down menus near the top of the screen. It was felt that the ordering and behaviour of these menus should mimic Microsoft Office products as

far as possible since students are familiar with this layout.

The top left of the screen shows who the student is to give a more personalised feel to the interface. Under the name of the website, a scrolling bar shows the titles for all the current notices so that no matter where you are within LUVLE if there is a "STOP PRESS" type of notice students will see it without having to remember to check the notices page. It should also be noted that the default start screen in the environment is at the Noticeboard again to try and ensure that students are aware of the latest announcements from tutors.
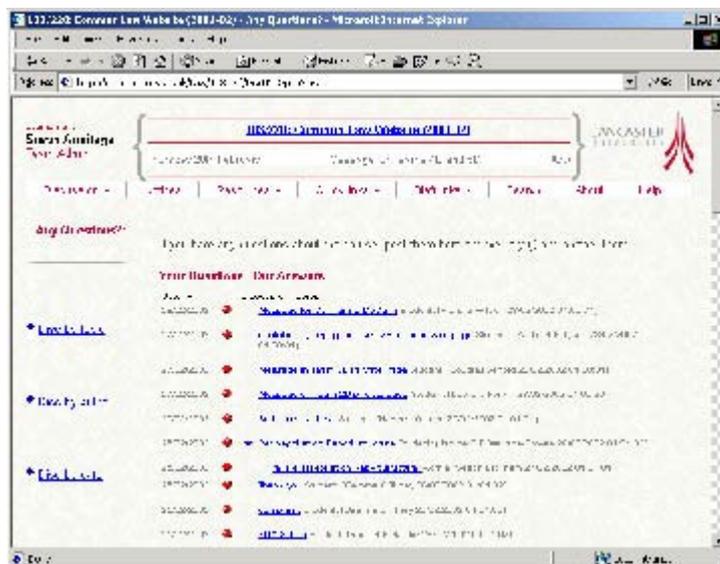

Fig 1: LUVLE main discussion space

Another aspect of the development was to create links between Lotus Domino and the University's students records system. This would drastically reduce the amount of administration required to set up these virtual learning environments. Lancaster University's student information system (LUSI) is based on an SQL server. Authentication is provided by Microsoft NT through IIS. Lotus Domino has a scripting language similar to visual basic. This was used to create links between the Student Information and Lotus Domino accounts. Students could thus use the same username and password required for access to the network to gain access to the LUVLE environment.

3. Collaboration

In order to test the new design as fully as possible the learning technology group approached the Law School, in particular the tutor on the Law of Obligations course. This course has a particularly sophisticated design that uses networked learning as an essential integrated element *(see section 4)*. The design requires the networked learning environment to allow large group, small group and inter-group discussion, with sophisticated access control mechanisms required to ensure that only those students who should have access to discussions can do so.

Collaboration forms a key part of the tutors willingness to try out this new environment, which, should it fail could lead to serious problems for student learning on the course. The working partnership between the learning technology group and the Law School has been built up over the last 5 years. As far as possible the principles of good collaboration such as mutual respect for professional expertise, understanding of others' perspective and good interpersonal relationships are adhered to by both groups[3]. Once set up, the Law tutors took over the management of LUVLE. The tutors decided how to organise and name the discussion spaces and resource areas.

The course leader and the learning technology development officer, in addition to maintaining

frequent email contact, held regular meetings every two weeks to evaluate the pilot. A number of issues have arisen during the course of the year, some of which have been resolved, but others require further evaluation, in terms of either technology or pedagogy, or both *(see section 7)*. The regular meetings and email communication allowed tutors to notify developers of problems or ask for changes to LUVLE to meet their needs. At the end of the pilot the developers will review which amendments are specific to the Law course and which will be of more general application to other course support situations.

4. Pedagogy

The course constitutes a compulsory element of both the LLB and LLB (European Legal Studies) degree programmes at Lancaster University Law School. The Law of Obligations course covers two of the Foundations of Legal Knowledge (Contract & Tort) required in a Qualifying Law Degree by the legal professions [4]. The course runs for a full year, is worth 40 credits in both CAT and Law Society terms, and involves 100 students.

The educational aims and objectives of the course are to develop an understanding of the underlying principles the English common law of personal obligations, considered as a unitary subject within a European context; to facilitate and develop independent study by students within an active learning context; to develop the acquisition of key skills, both generic and specifically legal. The course design is based on the premise that the objectives of the initial stage of legal education cannot be achieved through learning dominated by passively absorbing or receiving knowledge but require an active learning process which promotes the general powers of the mind [5].

The intended student learning outcomes include an understanding of the underlying conceptual structure of the law of obligations and of the basic principles of both contract and tort law; an ability to pursue independent legal study and research; an ability to analyse legal issues and to present legal arguments in both written and oral form; an ability to engage in collaborative study and research with other students; an ability to use a range of learning technologies designed to support their independent study and research. These learning outcomes broadly reflect the appropriate "areas of performance" identified in the Law Benchmarks as essential requirements of a law graduate [6].

The learning , teaching & assessment strategy which underpins the course design consists of three main elements:

- Firstly, it reflects the view that "effective learning" is best facilitated by supporting a "deep", as opposed to "surface", approach to learning by students [7], [8]-. The pedagogic framework is based on the four features identified as supporting such an approach - learner activity, learner interaction, motivational context, and a well-structured knowledge base[9], [10]-.
- Secondly, it reflects the view that skills development is most effectively facilitated when embedded within the framework of the study of a substantive academic subject, thus enabling students to acquire skills, not in the abstract, but by application to concrete problems and tasks. The same process also enhances knowledge acquisition and understanding [11].
- Thirdly, it reflects the view that to facilitate "effective learning" the use of web-based learning technologies should be designed to engage students in constructing knowledge by acquiring, generating, analysing, manipulating, and structuring information [12].

In pursuit of these objectives, students were organised into teams of five or six members with four teams constituting a seminar group from the start of the course. Seminar assignments usually involved some aspect of teamwork and online communications between teams. The collaborative learning aspects are discussed in more detail elsewhere[13] and an evaluation of the student learning experience was conducted two years ago [14]. It should be noted that a full lecture programme was maintained during the first 4 weeks of the course which provided further opportunities for guidance, advice and feedback. The most significant element of networked learning involved two, team-based,

negotiation assignments undertaken over a 6-week period during the second term. This gradual development and intensification of the use of LUVLE is based, as far as possible, on Salmon's 5-stage model for online learning [15].

- Access and motivation
- Online socialisation
- Information exchange
- Knowledge construction
- Development

The nature of these learning tasks are informed by the pedagogy of problem-based learning, key aspects of which have been identified as [16]:

- Using stimulus material to help students discuss an important problem, question or issue
- Presenting the problem as a simulation of professional practice or a `real life' situation
- Appropriately guiding students' critical thinking and providing limited resources to help them learn from defining and attempting to resolve the given problem
- Having students work co-operatively as a group, exploring information in and out of class, with access to a tutor (not necessarily a subject specialist) who knows the problem well and can facilitate the group's learning process
- Getting students to identify their own learning needs and appropriate use of available resources
- Re-applying this new knowledge to the original problem and evaluating their learning processes.

For the negotiations each team represented a "client" in a simulation of a four-cornered legal dispute with the objective of reaching a realistic "out of court" settlement. The assignment for the negotiations was designed to test the students' ability to conduct independent legal research, to think creatively and independently in applying knowledge to problematic situations, to work collaboratively within a networked learning environment, to communicate with clarity and to manage their time effectively, in order to achieve their objective - a mutually acceptable and realistic settlement. A more detailed exposition is provided elsewhere [17].

5. Structure of LUVLE

From the student perspective, the structure consisted of a Main Noticeboard (read only access) and a Main Discussion area, or "chat room". Within this Discussion area there were two sections, one for student-led discussions and one, called "Any Questions?", for students to put questions to the tutors. Links were provided to the Resources area which in turn contained a number of sub-sections (*see section 6*). Each of the five seminar group (four teams in each) was also provided with a Group Noticeboard (read only access) and Group Discussion area. Within the Group Discussion area, each Team was provided with a) its own private space, only accessible to that Team, b) three inter-team spaces linking it with each of the other teams, only accessible to those two teams, and c) a general discussion space, accessible to all four teams in the group.

Additional navigational links (not available to students) were provided to facilitate the tutors' ability to move from one group area to another. This feature was essential when the negotiations were in progress to enable the tutors to perform their moderating role or to respond to specific queries.

6. Law resources for LUVLE

The organisation of the course documentation presented a challenge in responding to the shift from the linear structure of the handbook to the more fluid structure of the resources area in LUVLE. The following table identifies the separate areas which were created, together with a brief description of

the content:

Description	Content
General Information	course structure, timetable, curriculum, learning outcomes, academic aims
Seminar Assignments	seminar readings, guidance on learning activities
Lecture Outlines	copies of lecture outlines (added as the course progressed)
Assessment	assessment structure and criteria, guidance on assessed coursework, feedback/assessment forms for coursework submissions
Negotiations	schedule and guidance on the negotiations, case study facts, supplementary information as each negotiation has progressed
Weblinks	list of links to relevant websites

The course leader was able to create and edit new resources spaces independently of the technical support team, although some aspects of the design required greater expertise than he possessed! Much of the existing documentation which had been consolidated in the course handbook during previous years was posted in advance of the start of the course. Some documentation has been systematically added during the course - for example, lecture outlines are posted as the lectues take place. Other documentation has been added as and when the need has arisen, either as a result of student requests or at the instigation of the teaching staff - for example, supplementary guidance on seminar learning tasks and assessed coursework assignments. It is likely that many of these additional items will be included from the outset in the future.

The list of weblinks has been developed gradually as each new topic has been covered in the course. Initially a small number of key sites were included, the main one being the Law Library website which had already been developed by the Law School Librarian, Michael Dunne. This site was more comprehensive than anything that could have been included in LUVLE and to avoid duplication, students were recommended to make full use of it. The course tutor made certain assumptions about which sites were likely to be most frequently used by students and, despite duplication with the Law Library site, links to these have been included - the Athens gateway, Westlaw UK, BAILII, The House of Lords decisions, The Law Commission and others. Additionally, there is a link to the Law School homepage which contains full information about all courses on the degree programme and a discussion "chat room" for all law students. During the course of this year, the Law School has been developing e-noticeboards for all undergraduate courses and a link to this site has recently been added.

7. Fine Tuning

A number of technical problems were encountered and various improvements have been made already, while others need further evaluation.

During the early stages of the course, required student use of LUVLE was limited to posting outline of debates and skeleton arguments for moots which were to be presented in the seminars. These were posted in their Group Discussion areas. Tutors then provided some preliminary feedback prior to the seminars. Initially messages posted by students did not identify their team, making the tutors' task more difficult as at that stage they were not fully familiar with all the names. Changes were implemented, enabling tutors to identify which students/teams more rapidly.

Another related problem was that the tutors' view of the private Team spaces showed messages from all four teams on the same screen without differentiation. Again, changes were implemented so

messages from each team were categorized in team order on the screen, thereby improving the tutors' ability to rapidly identify the source of any queries.

Messages posted on the Noticeboards and in the Resources area could be placed in any order by the tutors when each message was posted. However the tutors felt that while this facilty was useful and should be retained, the default settings should be set to ensure that messages appeared in chronological order with the most recent posting appearing at the top of the list on screen. Again, time was a crucial factor in reaching this conclusion. As the Resources area is developed in the future, it may become more feasible to re-structure the order of messages in a different format in advance of the start of the course when there is less pressure of time.

Early feedback from students indicated a need for improved editing facilities when posting messages. Many students had initially prepared their submissions as WORD files and were unable to reproduce formatted features on screen. They were able to attach the WORD file but subsequent readers then faced the time delay of having to download the document. As a result, various editing facilities were added - font size and colour, bold, italics and underlining, text alignment. Unfortunately this had the effect of considerably slowing the downloading process for remote access users working from home and these facilities have subsequently been withdrawn.

The implications for remote access users in general is an issue which may demand further consideration in the light of the more comprehensive quantative feedback which is currently being undertaken. One aspect of this, especially for tutors who need to access a number of different discussion areas and rapidly formulate consistent responses, which is already being investigated is to develop the ability to download conferences in bulk in order to work offline before posting responses.

Preliminary evaluation, based on the tutors' experience, suggests that the existing structure is more complex than it needs to be. In the Group areas, for example, the Noticeboards have not been use extensively by the tutors, again due to time constraints, and it is intended to dispense with these. The general Group Discussion areas will be retained as these have proved useful for communicating with specific seminar groups as a whole and also in enabling students within those groups to communicate with all four teams within the group. Anecdotal feedback also suggests that some students are more at ease posting messages in this area than on the Main Discussion area for the whole course. This appears to be due to the fact that they have got to know the students within their own group and feel some sense of collective "ownership" of that space.

8. Student Training

This is an increasingly important issue in the use and implementation of learning technologies[18] and VLEs in particular. During the second week of the course, students were provided with a printed worksheet designed to enable them to logon and post a message in their respective team discussion spaces. The worksheet also contained information about additional, more complex, facilities such as text editing, message threading and the use of attachments. Students were encouraged to complete the worksheet independently and training workshops were organised on a voluntary basis for those who were less confident, or competent, with C&IT applications.

About 75% of the students successfully completed the worksheet independently and without assistance. Most of the remainder were able to do likewise following attendance at the workshops. A small minority either did not attend or experienced password access problems but these were all resolved by the end of the third week. Throughout this stage of the course, tutors and learning technology staff maintained regular contact to ensure that technical obstacles did not act as a barrier to the students' ability to complete their learning tasks. Students were able to email learning technology staff directly if they experienced problems.

The students were largely conventional students, the majority living on campus. *(figures to be added folowing student evaluation)* Some of these had networked PCs in the rooms with 24 hour access to LUVLE. *(figures to be added folowing student evaluation)* Students who lived off campus had access to LUVLE using a standard web browser from home. *(figures to be added folowing student evaluation)* The impact of differential access to the networked environment will be evaluated on completion of the student feedback questionnaires.

9. Staff Development

There has been little formal staff development. The course leader has had at least five years experience of using a networked learning environment and has been integrally involved with the development of the LUVLE pilot, so training was felt to be unecessary apart from some one-to-one sessions with the learning technology officer to explain the basic structure and navigational aspects of LUVLE. The one new tutor has had regular weekly meetings with the course leader and has been introduced to the pedagogy and practice of the course through those sessions. Most of the contact teaching sessions are also "team taught" (both tutors are present) and this has also provided a further opportunity for observation of the pedagogy in practice.

However, in the longer term and within the wider context of HE application generally, staff development issues should not be ignored. If the technology is not to be used merely for its own sake, or because it is available, and instead is to be used to enhance and support the student leaning experience future developments must be informed by appropriate pedagogic understanding. The danger for online learning generally is that without this, conventional pedagogical preconceptions will simply be transferred online [19], [20]. The underlying pedagogy, course design and assessment structure all need to take account of the potential obstacles presented by networked learning in order to facilitate the alignment of the learning environment with the students approach to their learning [21]. The importance of developing e-moderating skills would seem to be crucial in this respect.

10. Staff/Student Feedback

At the time of writing, the negotiations as still on-going and the authors have made a decision to delay conducting any formal staff and student evaluation until the completion of the negotiations. It is intended to seek student feedback through the use of questionnaires and focus groups. Data from the questionnaires will be evaluated prior to the conference and it is hoped that it will be possible to present preliminary findings at that stage. Unfortunately, evaluation of the findings of the focus group discussions is unlikely to be available in time for the conference but can be made available on request when completed.

11. Future Developments

Work is ongoing to improve the links between the student records system and LUVLE. This aims to improve the accuracy of the data being collected and used as well as exploring bi-directional links such as assessment marks being fed back into student records.

Integration into a student portal interface to the wide range of systems that hold student information at the University is also being explored. Related to this is the issue of single sign-on authentication methods to minimise the need for users to repeatedly login to different systems.

It is intended to expand the Resources section both by extending the range of links to external sources and by the provision of more support material related to specific seminar assignments and substantive topics. This latter aspect is likely to be limited to some extent by copyright considerations, although recent developments in relation to the Copyright Licensing Agency agreement may facilitate matters in this respect.

One major development to LUVLE itself will be the ability for staff to select and assign students to tutor groups. At present this is done by the LT team, which can create delays in students being able to access the appropriate area of the website. Devolving this to the staff in departments should speed up this process and provide accurate allocation of students to groups.

Whilst in the current version formatting of text has had to be removed, ways of restoring this feature are being investigated. An alternative solution which may prove more popular with students is to find a way to upload WORD files directly into the message body.

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