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An Experiment with Electronic Law Tutorials

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Introduction

Durham University's campus network became fully operational in October 1994. Amongst other things, both academics and students now have access to electronic mail (email). In view of this development, we decided to explore the potential of electronic conferencing as a tool for legal education.

A number of formal electronic conferences involving law academics have recently been organized (Hardy, 1993; Katsh, 1994; Hardy, 1994a). Furthermore, there is evidence that opportunities for *ad hoc* conferencing between law academics are rapidly increasing as more and more email lists are set up (Louis-Jacques, 1994). The idea that such facilities can also be used for legal education is not new. The Law Courseware Consortium's funding application to the Teaching and Learning Technology Programme (TLTP) referred to such a possibility (BILETA, 1992). Despite this, however, enquiries and literature searches led us to conclude that with a few notable exceptions (Clark *et al.*, 1992; Hardy, 1994b) there has been little use of electronic conferencing for teaching and learning in law schools to date.

One-to-one teaching is probably the best educational resource that a law school can offer to its students. However, the economies of education are such that this resource is now rarely made available. Today, face-to-face tutorials and other such small-group teaching provide the most valuable alternative offered to students in UK law schools (Allen and Robinson, 1992). However, small-group teaching is itself very costly in terms of staff hours. For this reason, BILETA's funding application to the TLTP targeted small group teaching as an area where courseware development could be expected to produce significant productivity benefits (BILETA, 1992). Bearing this in mind, it appeared to us that it would be useful to explore the use of electronic conferencing as a medium for conducting tutorials. *Prima facie* there appeared to be a number of potential advantages to running such 'electronic tutorials'. We anticipated that these advantages would be:

1. Students would not have to gather in a particular place at a particular time.
2. The tutor would not have to be present in a particular place at a particular time.
3. Tutorials would not have to be squeezed into one short, timetabled slot. Discussion could take place over several days in a more relaxed and considered way.
4. As contributions from both tutors and students would have to be in writing, this might improve the quality and clarity of contributions.
5. Whilst face-to-face tutorials require the tutor to operate 'in series', electronic tutorials permitted tutors to operate 'in parallel', i.e. participating in several tutorials simultaneously.

The Experiment

As our experiment involved exploration of what happened when a face-to-face tutorial was replaced with an electronic tutorial, we wanted to try out our ideas with 'ordinary' students who were not necessarily skilled with, or enthusiastic about, computer technology. To achieve this goal, we decided to use a number of existing tutorial groups rather than put together volunteer groups. For the same reason, we resolved to work with groups studying a non-technological course. Unlike the Warwick experiment (Clark *et al.*, 1992), we deliberately avoided students who had taken, or were taking, Durham's undergraduate option in Law and Computing. Finally, we decided that it would be useful to work with groups of students who were taking one of the core subjects as the number of students taking these subjects dictates that the amount of staff time committed to small group teaching is high. As one of the authors runs the first-year contract law course at Durham, we chose to experiment with tutorial groups from this course.

The next issue was to decide which round of contract tutorials to use. In the Michaelmas Term at Durham (5 October to 7 December 1994) there were four rounds of contract tutorials. We felt that we needed a good lead-in time to set up our experiment. Also, we wanted to give students the experience of face-to-face tutorials first so that they would be able to compare the electronic tutorials with the traditional format. On the other hand, we wanted enough time after the experiment to obtain feedback from the students before the end of term. Bearing in mind these factors, we chose the third round of tutorials due to take place during the week of 21-25 November 1994.

What of the subject-matter for the electronic tutorials? Normally, contract law students are required to prepare three exercises for their tutorials in the first term: a case analysis, a complex, hypothetical fact situation and an essay-style question. Often, though, only two out of the three exercises are discussed fully in a face-to-face tutorial. Ideally, we wanted to have kept to the same tried and tested formula for the electronic tutorials. However, we foresaw difficulties in attempting to manage conferencing on three, or even two exercises. Therefore, we decided to choose just one exercise and then to enhance it by requiring a fuller and more detailed discussion than might otherwise occur. In the first term of the contract law course, tutorials tend to focus particularly on hypothetical fact situations because: (i) they are a totally new format to most students; (ii) they involve applying legal knowledge that the students have acquired in a systematic way; and (iii) they tend to help first year students to develop a legal mind set. So, it seemed natural to select a hypothetical fact situation as the subject-matter for our electronic tutorials. The fact situation that we chose is set out in Appendix A.

How then, to enhance discussion of our chosen exercise? After some consideration of the matter, we decided to adopt a 'mooting' format. For this reason, we put together the following agenda for discussion of our fact situation:

Stage I - Students had to imagine that they were acting for the likely defendant. They were asked to construct arguments on behalf of that party using appropriate authorities.

Stage II - Students had to play 'devil's advocate'. They had to imagine that they were acting for the likely plaintiff. Again, they were invited to construct arguments using appropriate authorities.

Stage III - Finally, students were asked to try to predict the outcome of any court case indicating which arguments they thought might be preferred by the judge and why.

As to the timing of contributions, early in the week students were required to give their views on Stage I. In the middle of the week, they had give their views on Stage II. Towards the end of the week, they were required to give their views on Stage III.

The standard size of tutorial groups at Durham is eight students and one tutor. We were uncertain how much work would be involved in setting up and running an electronic tutorial with each group. Eventually, and rather defensively, we decided to select just three tutorial groups for our experiment. All three groups had the same computer literate tutor. We took the view that 24 students would produce a manageable amount of email whilst still representing a significant sample of the total number studying contract law (about 17% of the class).

The Technology

What type of technology should we use for our experiment? In the Warwick experiment (Clark et al, 1992), the decision was made to use electronic conferencing software. Undeniably, such dedicated packages do contain features that facilitate electronic conferencing. However, we had deliberately chosen groups of first-year students who did not necessarily have any prior experience of computer technology. Therefore, we were concerned to keep the technological threshold as low as possible. For this reason, we decided to forego the benefits of a dedicated package and use a simple email software package for our electronic tutorials. The email package that the Law Department at Durham was already using was David Harris's *Pegasus Mail* running on *Novell 3.12*. This package allowed us to set up three different mailing lists with three different email addresses - one for each tutorial group. The tutor set up three special mail folders to separate tutorial mail from his other mail and also to distribute the incoming tutorial mail into the appropriate group. The students, most of whom were new to email, were unlikely to receive much mail other than that connected with the tutorial, so separate mail folders seemed unnecessary for them. On the other hand, it seemed to us to be wise to encourage good practice by insisting that the students make use of the 'subject heading' facility to indicate that their message was a contribution to the electronic tutorial. In addition, we made it clear that their heading should specify which stage of the discussion they were contributing to.

In the Warwick experiment, students were given a laboratory class at the outset designed to introduce them to computer conferencing (Clark et al, 1992). We decided that we would attempt to do without such a session. Instead, the electronic tutorial sheet, distributed some weeks before the tutorials themselves, contained a simple, step-by-step guide to the use of the relevant facilities of *Pegasus Mail*. Furthermore, students were encouraged to play with the package by sending practice messages to each other, the tutor (who had indicated his willingness to reply to any email received) and anyone else that they wished to communicate with. A 'help-desk' facility was also provided whereby the students were encouraged to visit, or to send private email to us in order to obtain assistance with any problems that they might have with the technology. Several students took advantage of this facility both before and during the electronic tutorials.

Findings

In evaluating the electronic tutorials, we wish to consider three areas: (i) the extent of tutor/student involvement in the tutorials; (ii) the responses of the students to the tutorials; and (iii) the views of the tutor about the tutorials.

Of the total of 24 potential students, 23 contributed to their respective electronic tutorials. One student was unable to participate because of personal difficulties. Of the 23 students who did participate, the number of contributions (ignoring test messages and multiple copies of the same message) was as follows:

4 Contributions: 1 Student
 3 Contributions: 8 Students
 2 Contributions: 10 Students
 1 Contribution: 4 Students

This means that the average number of contributions was approximately 2.3 per student. The tutor made an average of five contributions per group. His first contribution launched the electronic tutorial. Typically, his second congratulated the first few students for starting the discussion and invited other students to join in. The third and fourth contributions summarised the discussion at appropriate points and the fifth gave judgment between the parties and concluded the discussion.

What did the students think of the electronic tutorials? A questionnaire was prepared and distributed to them. 22 out of the 23 students filled in and returned the questionnaires. The first 11 questions sought precoded responses. Those questions, together with the responses, are set out below. Please note that the percentages have been rounded.

1. How easy was it to use the electronic tutorial technology?

Very Hard: 0 (0%)
 Hard: 2 (9%)
 So-so: 6 (27%)
 Easy: 7 (32%)
 Very Easy: 7 (32%)

2. How helpful was it to you that the electronic tutorial was spread over a longer period than a normal tutorial?

Very Unhelpful: 0 (0%)
 Unhelpful: 10 (45%)
 So-so: 5 (23%)
 Helpful: 5 (23%)
 Very Helpful: 2 (9%)

3. How helpful was it to you that all contributions to the electronic tutorial were in writing?

Very Unhelpful: 1 (5%)
 Unhelpful: 1 (5%)
 So-so: 6 (27%)
 Helpful: 9 (41%)
 Very Helpful: 5 (23%)

4. How helpful was the electronic tutorial to you in developing your ability to present your ideas in writing?

Very Unhelpful: 0 (0%)
 Unhelpful: 3 (14%)
 So-so: 3 (14%)
 Helpful: 13 (59%)
 Very Helpful: 3 (14%)

5. How helpful was the electronic tutorial to you in clarifying your understanding of the area of law you were studying?

Very Unhelpful: 0 (0%)
 Unhelpful: 0 (0%)
 So-so: 8 (36%)
 Helpful: 9 (41%)
 Very Helpful: 5 (23%)

6. How helpful was the electronic tutorial to you in learning how to apply the relevant area of law to a given fact situation?

Very Unhelpful: 0 (0%)
 Unhelpful: 1 (5%)
 So-so: 6 (27%)
 Helpful: 12 (54%)
 Very Helpful: 3 (14%)

7. How helpful was the electronic tutorial to you in learning how to use the relevant area of law to construct arguments in favour of a particular point of view?

Very Unhelpful: 0 (0%)
 Unhelpful: 0 (0%)
 So-so: 7 (32%)
 Helpful: 12 (54%)
 Very Helpful: 3 (14%)

8. How helpful was the electronic tutorial to you in learning how to evaluate the effectiveness, efficiency and fairness of the relevant area of law?

Very Unhelpful: 0 (0%)
 Unhelpful: 3 (14%)
 So-so: 9 (41%)
 Helpful: 8 (36%)
 Very Helpful: 2 (9%)

9. How much did you contribute to the electronic tutorial by comparison with a normal tutorial?

Much Less: 0 (0%)
 Less: 4 (18%)
 The Same: 6 (27%)
 More: 9 (41%)
 Much More: 3 (14%)

10. How useful did you find the electronic tutorial by comparison with a normal tutorial?

Much Less: 0 (0%)
 Less: 7 (32%)
 The Same: 6 (27%)
 More: 8 (36%)
 Much More: 1 (5%)

11. How enjoyable did you find the electronic tutorial by comparison with a normal tutorial?

Much Less: 1 (5%)
 Less: 8 (36%)
 The Same: 9 (41%)
 More: 2 (9%)
 Much More: 2 (9%)

In addition to the abovementioned 11 questions, we asked one 'catch-all' question inviting uncoded responses. This question took the form:

12. Finally, please use the space below to record any suggestions for improvement or any other positive/negative comments that you would like to make in relation to the electronic tutorial.

13 of the 22 students who returned their questionnaires answered this question. These responses are set out in full in Appendix B.

Finally, what did the tutor think of the electronic tutorials? The tutor could see the obvious benefits of requiring students to formulate their answers in writing. He was pleased to report that, generally, the quality and clarity of contributions was high - in some cases higher than in face-to-face tutorials. There was some evidence too that students who felt unwilling to contribute in a face-to-face tutorial were more forthcoming in the electronic tutorial. As to the pattern of the discussions, in the case of two of the groups, contributions by students tended to be directed inwards towards the tutor.

However, in the third group, the discussion took on the shape of a series of interactions amongst the students themselves. Overall, the discussions seemed to reflect both the type and frequency of the patterns that tended to emerge in face-to-face tutorials. Finally, the tutor stated that preparing for, and participating in, the electronic tutorials had not involved him in significantly more work that would have been the case for the equivalent face-to-face tutorials.

On the other hand, the tutor reported that he missed the spontaneity and 'cut and thrust' of face-to-face tutorials. He was also concerned that the discussion tended to move rather slowly in all three tutorial groups. As a result, when the tutor closed the discussions by giving judgment at the end of the designated week, most students had only contributed to Stage I and Stage II of the discussion. The tutor would have preferred that the tutorials took place over a longer period - perhaps ten days or a fortnight. He was also concerned that students only covered a hypothetical fact situation in the electronic tutorial, albeit at greater depth than might occur in a face-to-face tutorial. A longer tutorial might, perhaps, enable the students to tackle a more discursive, essay-style question as well.

Interpretation

We have sought to present the experiment and the findings 'warts and all'. Clearly there were problems. 46% of students thought that it was either unhelpful or very unhelpful that the electronic tutorials were spread over a longer period than the equivalent face-to-face tutorial. By contrast, the tutor thought that the period was too short! Only 45% of students thought that the electronic tutorial was helpful or very helpful in developing their ability to evaluate policy matters such as the effectiveness, efficiency and fairness of the law. However, the tutor thought that this was because the subject-matter of the tutorial was a hypothetical fact situation rather than an essay question - a question format that places the emphasis more on developing 'plumbing' skills rather than on those of a prospective 'Pericles' (Twining, 1967). The tutor's suggestion that both types of question should be posed is clearly worth considering, especially if an electronic tutorial is long enough to encompass both discussions. Alternatively, perhaps the subject-matter of the tutorial needs to be radically redesigned, tailored to fit the strengths and weaknesses of an electronic tutorial more closely. This might, for example, involve posing a series of linked 'questionettes' in a structure designed to widen progressively the range of cognitive skills used by the students.

As to enjoyment, a substantial 41% of students regarded the electronic tutorial as less or much less enjoyable than an equivalent face-to-face tutorial. Part of the problem appears to lie in the fact that a high proportion thought that the electronic tutorial required more contribution than the face-to-face version (Not surprisingly, the tutor regarded this as a good thing!). Other individual reasons for dissatisfaction, such as the predilection for face-to-face contact, can be gleaned from the uncoded responses to the questionnaire set out in Appendix B and the remarks of the tutor.

It appears, however, that the difficulties with the electronic tutorials were significantly outweighed by the benefits. The choice of low threshold technology seems to have paid off. 64% of students found the technology easy or very easy to use. 64% thought that it was helpful or very helpful to have tutorial contributions in writing. A gratifying 73% thought that the electronic tutorials were helpful or very helpful in developing their personal writing skills. 64% thought that they were helpful or very helpful in clarifying the area of law under discussion. 68% thought that the electronic tutorials were helpful or very helpful both in learning how to apply the law and developing the clinical skills of using the law to construct arguments. Finally, even though only 59% of students thought that the electronic tutorials were as enjoyable or more enjoyable than the face-to-face versions, this must be balanced against the 68% who thought that they were as useful, more useful, or much more useful than a face-to-face tutorial.

Overall, we conclude that our experiment with electronic tutorials was a qualified success. Clearly the duration, subject-matter and agenda of the tutorials need to be re-examined in the light of the above findings. On the other hand, it appears to us that these findings clearly indicate that electronic conferencing has a useful role to play in small group law teaching albeit as a partial replacement for, or supplement to, traditional face-to-face teaching methods rather than as a complete substitute (compare the discussion in (Collins, 1994) on the place of courseware in legal education).

We would like to finish by acknowledging the very valuable advice on the design of both our experiment and the questionnaire given to us by Professor I Trotter Hardy.

APPENDIX A

Carboclean Ltd manufactures industrial water purifiers. Sparkly Ltd uses purified water in the production of soft drinks. On 1 November, in response to an advertisement placed in the trade press, Sparkly telephone Carboclean and ask for details about the latter's Model X15 water purifier. The same day, Carboclean faxes a response the key paragraph of which reads as follows:

"We offer to supply one Model X15 water purifier together with a filter suitable for water as per your sample. Price - see our current price list. This proposal becomes a contract when accepted in writing by the purchaser and then approved by an executive officer of Carboclean."

On 2 November, Sparkly send a fax to Carboclean ordering a X15 water purifier. When the fax arrives at Carboclean's offices, it is stamped "received and accepted" by the sales director, and put into a drawer. On 3 November, Sparkly post a letter to Carboclean purporting to cancel the order. On 4 November, Carboclean write to Sparkly asking for a water sample so that the technical analysis necessary for design of the filter can be carried out. Sparkly's letter of cancellation arrives at Carboclean's offices on 5 November.

Advise Sparkly.

APPENDIX B

"Positive: Ideas + concepts in contract law more clearly established. Negative: Very time-consuming."

"Once I had got the hang of the technology, I thought it was an excellent exercise and I got far more out of it than an ordinary tutorial. However, I did find it frustrating that many people regurgitated responses rather than directly replying or challenging other members answers. This could be improved, but I don't know how."

"Took more time - as contributions had to be added regularly. Less reading time! Felt rather alien - I missed the company and spur of the moment debate in a tutorial. I enjoy a traditional tutorial for the guidance of the tutor throughout. It was good in that you had to type answers which meant you were looking at them 2-3 times. It meant that it was going into your head x2. Easier to learn! Good for revision!"

"In my opinion, it is a good idea to have a few electronic tutorials but they are VERY time consuming. Maybe if they take place, they could take place during mid-term and not at the end of term. Also, the electronic tutorial should be accessible though all networks."

"I prefer the normal tutorial setup as that way you can see the others' reactions to what you're saying even if it is wrong, which is more helpful than having to write down exactly what you think for everyone else to scrutinize. Tutorials are more personal and more relaxed. I think more inter-action occurs in tutorials as something you say can spark off thoughts in other people. There is less scope for this in electronic tutorials and you just end up writing down what everyone has written before you, if you contribute later. Therefore there is a waste of time here. I like the idea of learning more about the contract law in England by doing the four questions rather than the two we did for this tutorial."

"Overall, it was good although having problems with my email (the system failed) made it difficult to do."

"The contract tutorial is a very good idea, but I found your concluding comments (the judgment) hard to follow. I do not understand how judgment can be given in favour of the defendant (I think that is what it means) and why, therefore, the plaintiff should pay costs."

"It appeared that after 4 or so people had contributed to a stage then everything had been said. This made further contributions, without repetition, difficult."

"My main difficulty with the electronic tutorial arose from the nature of computers; I could only use one screen at once, thus to send an informed reply notes had to be made on all other contributions. Also I simply prefer discussing subjects face-to-face as opposed to via a third party. (technophobic?)"

"It could be more structured - I seemed to get lost down a few blind alleys. Its nice to be able to enter discussion when you feel like it, but too easy simply not to enter the discussion at all. Perhaps a series of sessions arranged at set times, in between the main discussion would be a good idea. If these were instantaneous, they could be used as mini-surgeries in which the tutor could clear up any problems we had. As things stand, its too easy to lose track of what other people mean in the main discussion."

"I didn't like the electronic tutorial because I thought everyone would laugh at my answers. It was useful when (the tutor) summed the points up, as this clarified the situation. However, all the different approaches of people and different arguments were confusing. It was also annoying that the computers in college were always busy and often being used for experiments. It therefore meant queuing for about half an hour before using them."

"Perhaps less written contributions over the course of the week but get together as a tutor group at the end of the week to discuss what has happened. The written part would then force you to get deep into the points of law and to construct arguments upon them, but you would still be able to bounce theories & hypotheses off people in the tutorial."

"The main problem I found with the contract tutorial was that the inspiration and ideas gained through face-to-face tutorials is lost. They often provide a different way of analysing a legal problem. However, I found it very useful that the option is there to view other students' views and see how they approach legal problems. Maybe a system which includes the two would be a better alternative."

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