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Learning how to engage students online in hard times

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Learning how to engage students online in hard times

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Abstract

In a context of financial restraint and enterprising university managers, teacher-researchers have reason to be sceptical about the trend towards online teaching and away from learning for its own sake. This article departs from both economic and technological determinism and turns instead to ideas about technology embedded in social and political institutions. Activity theory offers a useful means of analysing such embeddedness. Its Marxian assumptions about human nature specify a non-deterministic approach to technology. Its dynamic model of the subjects, tools, and objects of activity within a context of rules, a community, and a division of labour helps to specify aspects of the author's process of learning how to use electronic conferencing effectively. A full deployment of activity theory would also analyse the activity of students. Here the evidence comes mainly from the activity of researcher-teachers engaging greater activity among students. The numbers of students involved precludes reliable quantitative analysis but qualitative evidence from students does support conclusions about researcher-teachers learning how to make best use of electronic conferencing.

Introduction

In many industrially advanced countries since the 1960s and especially since the 1980s, universities have attempted to depart from the ramshackle organisational residues of medieval communities of scholars, liberal congeries of autonomous and enlightened thinkers, bohemian collectives of artists, and diverse practices of public service bureaucracy, political activism,
social philanthropy, and class-dissolving mass education. The organisational structures of authority, management, and accountability developed within large corporations have been imposed on the diverse historical structures of actual universities. There is fairly wide agreement about the imposition of this corporate managerialism (Marginson and Considine 2000; Watson 2003) but there is less agreement about whether it has been accompanied by a neo-liberal worldview in which academics are service providers and students are consumers of that service (Thomson 2002). Similarly, there is less agreement about whether university researchers' work has become a source of commercial income, through patents and the formation of research parks, that has brought universities into not only industrial-military complexes but the political economy of a post-industrial knowledge society more generally (Kevles 2003; Noble 1997; Castells 1996; Noble 1998a, 1998b, 1999, 2000).

However one sees or understands the wider context, it is clear that universities face expectations from parents and governments to educate more students, more effectively with less public funding. Since the 1970s, the number of students per teaching staff has increased from about twelve to twenty or more in Australia and elsewhere (Australian Vice-Chancellors' Committee 2003; Marginson and Considine 2000). Consequently, the staff who teach students are now less likely to be tenured teacher-researchers and more likely to be comparatively cheap, casually employed post-graduate students, especially in faculties of commerce and information technology (Australian Vice-Chancellors' Committee 2003). Illustrating the widespread despair prompted by such developments, Garry Trudeau devoted a week of his daily cartoon strip Doonesbury in September 1996 to lampooning the Dickensian hard times evident in university managers' callous approach to employing young 'gypsy Faculty' (The Australian Sat-Fri 14-20th Sept 1996; see also http://www.doonsbury.com). Other observers have looked at the political economy of

In these diverse critiques, technology is often regarded as a tool, instrument, or means that is appropriate or inappropriate for achieving a purpose (Lairson 2003). In "good" hands, a tool such as, say, a nuclear reactor can produce vast amounts of relatively cheap energy without polluting the atmosphere or requiring dams across beautiful rivers. In "bad" hands, its bi-products can pollute the earth for very many generations and supply material to make nuclear weapons. Since the reactor itself is no more than buildings, equipment, and technicians to operate it, the problem of whether such a tool is misused lies with the intentions of the political leaders who regulate the scope and manner of its operation. Thus, an assumption of neutral tools goes with an assumption that ethics are to be found only in the wielder of the tool. If computer-mediated education was "just a tool" that was merely more efficient than the proverbial chalk and talk in a tutorial room, then it's deployment for good (educational) or bad (income-raising) purposes would depend on the intentions of those who control the scope and manner of its use (Lairson 2003). As Winner (1977, 1986) has argued, the chief problem with an instrumental view of technology is that it entails a separation of technology from ethics and politics, which prompts an assumption that technological development follows its own internal rules, driven by creative genius or rivalry for
scientific prestige. If one assumes that technology is neutral, devoid of ethical, political, and socio-economical implications, then it readily follows that one can also assume such technology develops autonomously. Assumptions of neutrality and autonomy underpin the thesis that technological development determines economic, social, political, or educational developments.

An alternative to assumptions of neutrality and autonomy is to assume that technologies are 'embedded in institutions …[which] are both shaped by and shape technology' (Lairson 2003). Such an assumption leads to rejection of the doctrine of technological determinism. Similarly, the assumption that an economy is embedded in social and political institutions leads to a rejection of economic determinism (Polanyi 1944; Granovetter 1985). To reject technological and economic determinisms in favour of an assumption of embeddedness does not, however, lead to any particular alternative doctrine. The assumption of embeddedness can, for example, lead to post-structuralist arguments about language and the discursive nature of technology in its context (Poster 1990, 1995; Barry 2001). It can also lead to Marxist, Nietzschean, Hiedeggerian, liberal, and other doctrines about the politics of technological development (Barney 2000). This paper deploys activity theory to specify how networked computers are embedded in universities and to interpret their use by staff and students in a particular context of financial restraint. As an open-ended (that is, non-deterministic) doctrine, activity theory is attractive because it offers a dynamic interpretative model of interaction between university staff, their students, and the context of university education in hard times.
Activity theory

Proponents of computer-mediated teaching technologies often argue in favour of "learner-centred" and "flexibly provided" education (Bantow 1998) that replaces "the sage on the stage" with a "guide on the side" (Grabinger and Dunlap 2000; Thomson 2002; Jones 2000). These arguments echo other arguments about face-to-face interaction between university lecturers and tutors who feel comfortable about their grasp of the content of their curriculum but feel less sure about methods or processes for teaching it (Stokes 1990; Gregory 2001). Uncertainty about teaching methods is of course greater when there is pressure to take the teaching online. A student who engages actively with other students, the study materials, and the teachers is a central image in the vision of networked computers improving the process of higher education features. It is less common to look at the activity of teachers who seek to engage students (Orrell 2003), especially as they also attempt to maintain research output and contribute to the administration of the university. Either way the activity of students and teachers is a key aspect to understanding how well computer-mediated education might proceed.

Social constructivism is the most common epistemology among the proponents of teaching online to engage active university students (see for example Sutherland 1997) but other traditions include behaviourism (Owens 1997) and the syntheses of Habermas (Mezirow 1997; Ess 2000). Activity theory is a less common approach. Given its Marxist origins, however, it offers a relevant means of appreciating teacher-researchers’ efforts to engage students and cope with the managerial rationalism that has pervaded the administration of higher education in recent decades.
Activity theory starts from Marx's notion of human nature as something 'not found within the human individual but in the movement between the inside and outside, in the worlds of artefact use and artefact creation' (Engeström and Miettinen 1999:5). It also presupposes the epistemology of Marx's early work on the transformation of knowledge within a material context, rather than either a mechanical materialism that eliminates human agency or a liberal idealism that keeps the construction of knowledge inside the mind of an individual (Engeström and Miettinen 1999:3). The theory starts from a distinction between action and activity. It contends that tools or artefacts (widely defined to include texts, theories, or technologies) mediate between the subjects (individuals or groups) and objects (purposes or aims) of actions, to constitute complex activities in pursuit of indirect outcomes. Yrjö Engeström (1999:29-32) offers a useful model of activity, theory (see Issroff and Scanlon 2002; Hedegaard 1999; Tikhomirov 1999). He combines the classical activity theory of the Soviet cultural-historical school of psychology from the 1920s and 30s with the thinking of Wittgenstein on language games and Dewey on experiential learning from the same period, and the theorising of activity theorists in Finland, Germany, Russia, and elsewhere since the 1970s. Engeström's model depicts the classical theory as a triangle formed by the subject of activity, the mediating tools of the activity, and the object of the activity. Interaction between the subject, tools, and object constitutes activity that leads to an outcome. In an effort to model a less abstract constitution of activity, Engeström offers a more complex triangle based on (embedded in) a context, as shown in Figure One.
The large arrow pointing to 'Outcome' indicates a process of transformation but it is too simple because Engeström draws on Marx's theory of human nature within a social context to model the achievement of outcomes over time. He assumes that there is a difference between action time, which 'flies like an arrow …is basically linear and anticipates a finite termination' and activity time, which 'is recurrent and cyclic' (Engeström 1999:33). The cycle of activity is driven by tension between internalisation and externalisation, and the cycle spirals outwards as the subject of activity deploys artefacts, interacts with a wider context, pursues developing objectives, and achieves various outcomes. Such a spiral may start with a novice's internalisation of a new activity's rules and competencies, and then move to the emerging expert's creative externalisation of innovative solutions to problems or inadequacies with the activity. It may continue with the accomplished expert's internalisation of a wider community's expectations of the expert and the
activity, and then move to the senior expert's externalisation of possible solutions to emerging or more general problems with the activity. Engeström imagines activity expanding as it goes through the cycle of reflection and response.

This model attempts to deal with a wide range of issues and extensive literatures about communication and action, individuals and contexts (for background on the theory see International Society for Cultural Research and Activity Theory 2002; Engeström, Miettin and Punamaki 1999). It offers considerable scope for interpreting the emotional, institutional, social, and economic context within which university researcher-teachers might use computer-mediated teaching technologies to engage students' active participation in their own learning.

The following discussion of three experiences with computer-mediated education offers an interpretation of how researcher-teachers of politics deployed electronic conferencing to teach students aspects of political theory, while conforming to the rules of their university, expectations of the academic community, and a division of labour among researcher-teachers. However sceptical one may be about the political economy of higher education, or however high the hopes are that one may harbour for changing the course of young people's lives, it is of course impossible to determine the extent to which self-transformation rather than altered retention rates, or social change rather than elite formation, has been the outcome of this teaching. But it is possible to reflect on why later experiences with the deployment of electronic conferencing worked better than the first experience, as the researcher-teachers reflected on their teaching and coped with the managerialism in their workplace.
Experiment One: book reviews in a Honours class

During 1998, 1999, and 2000, three researcher-teachers of politics and international relations used software for electronic conferencing (FirstClass) to team-teach a small group of fourth-level Arts students in an Honours program, which is offered to both on-campus and off-campus students. The software was an off-the-shelf product developed primarily for corporations, although it had been sold to several universities around the world. Within our university, the computing services division refused to support it (having declared that it could only manage to maintain the university's infrastructure of computing hardware) but the faculty of commerce championed the software, arguing that it helped increase the retention rate of highly demanding fee-paying students in the Master of Business Administration. For these reasons, we had mixed feelings about the advisability of using the software. Was it intrinsically suited to business and students of business administration, and therefore antithetical to the critical thinking and reflection we seek to teach students of politics? Would poor technical assistance impose high workloads on us?

The author and two colleagues taught the course for two years, and then the author continued for another year with two different colleagues. The students in the course were geographically dispersed. Several were in Melbourne, but others were spread around Australia, and one student was in Europe during one semester. The lecturers worked at different campuses and in 1999, the author participated from Europe.

The teaching team decided to adapt Gary Klass’s innovative use of an e-mail discussion list to teach his senior students of politics at Illinois State University (Klass 1995). In his teaching,
Klass asked his on-campus students to write reviews of three recent, non-academic, or 'best-selling' books about racism and then publish them on an e-mail list to which anyone in the world could subscribe. Many doctoral students and social-movement activists subscribed to the list and were quite happy to write to the students, who appeared to find it exciting to receive feedback on their book reviews "published" on the list. In our Honours course, the teaching team worried about the dangers of students' work being plagiarised, and decided against emulating Klass's email publication of students' assignments.

We asked our students to choose three recent academic or scholarly books that were relevant to their research on a 15-20,000 word dissertation, which they commenced in the first semester when the course was run, and completed in the second semester. We asked them to write short reviews of the three books, and then write a longer review article discussing several recent books on a theme covered by their book reviews. We suggested a long list of books, about citizenship and globalisation (a 'research priority area' used to promote the prestige of the faculty and the university) but also recommended students look for books themselves. Students submitted their reviews to an electronic conference set up for the course, but submitted their final review articles following well-established off-campus administrative procedures within the university. We scheduled no face-to-face seminars nor did we supply a printed study guide and reader. We provided an initial guide to the course and posted further advice and general responses during the course. We also provided students with individual comments in shared sub-conferences, and through individual messages or e-mails when public feedback was inappropriate. We relied on electronic conferencing for both interaction between staff and students and for the submission of their work. Unlike Klass's experiment, there was no public access to the students' work in the
conference, although students could read each other's work and read the comments of teaching staff on fellow students' work.

The course's assessment tasks resonated with the process of communicating text through a computer keyboard. This of course meant that nuances of personal appearance, voice, and body language in face-to-face interactions were absent. Through the reviews and review articles, we hoped to teach our students two things. First, when they read and analysed three books closely they had a chance to think about how an extended argument is put together and how various people might read it. To this end, we asked them to write their reviews making judgements about the books on internal criteria; which is to say, we asked them to judge how well the books succeeded on their own terms. Second, when they read several books on the same topic and analysed them in a more thematic way for the review article, we asked them to make judgements on external criteria. None of our students found the difference between internal and external criteria, or between a book review and a review article, obvious or straightforward. The better students heeded our repeated suggestion to read book reviews and longer review articles in appropriate academic journals, or in magazines such as *The New York Review of Books*. A more general aim of our teaching was that students would acquire an intimate appreciation of genre and of writing in different ways. Since our electronic conferencing had supplanted the rapid interactions of conversation in a seminar, we hoped the regular exchanging of written messages would heighten the students' appreciation of how writing can affect readers.

Did our use of electronic conferencing offer teaching that was better than interaction in tutorials and interaction with off-campus students via the post and telephone? There is no clear answer to this question. Most of the few students who responded to an email questionnaire chose Agree
(out of Strongly Disagree, Disagree, Don't Know, Agree, or Strongly Agree) in response to the proposition: 'Compared to the usual methods of off-campus teaching, using FirstClass Conferencing software helped my studies'. But the small number of responses make the margin of error much too high. (This was also the case with survey responses among groups of students later: see endnote 2). In any case, our assessment regime also mediated the activity of teachers and students.

The electronic conferencing software was reasonably easy to use, for both staff and students, and the storing of exchanges on a university server offered considerable flexibility of access from various terminals across time and place, and made our conferences reliable. The staff stipulated the hours in each week when it suited them to log onto the conference and respond to messages. In this way, our teaching conformed to rules of good practice as stipulated by our university. We attempted to offer the same amount of time to the electronic conference as we might have offered to a face-to-face seminar. Our teaching also conformed to the academic community's expectations that we should deploy well-grounded methods because we had drawn upon the published work of Gary Klass. We asked students to write book reviews of 1000 words each because we expected that would produce assignments that could be read comfortably on screen, assuming one screen of text encompasses about 250 words. This expectation proved to be reasonable. The longer review article at the end of the semester was submitted as a hard copy assignment following established off-campus procedures. Electronic conferencing also facilitated a division of labour among the teachers. We allocated the task of commenting on students' reviews according to our areas of expertise and interest in the books they had reviewed. Moderating our grades was also facilitated by our easy access to each other's responses to the
students' reviews. The internal and external criteria for judging a book's merits could be applied reasonably well to the task of grading students' work on equal terms.

The primary shortcoming in our use of electronic conferencing was that students failed to interact with each other. Staff had to work at engaging students who were uninterested in the content of each other's work. Since they could choose to review books relevant to their own research, they often had little in common with each other. While students were uninterested in each other's reviews, they were most interested in receiving their teachers' feedback and grades on their own reviews. Even though we were teaching very good students engaged in critical reading of particular books, and even though we gave them ample opportunity to interact among themselves, the assessment regime seemed to entrench staff in the "sage on the stage" role. On reflection, it would seem that much of the problem lay not in the use of electronic conferencing but in a common failure among teachers to reflect upon how their assessment regime affects processes of discussion (Brown 1986; Stokes 1990). The process of students and staff reading each other's reviews and the comments on all of the reviews failed to counteract the traditional 'privatism' of assessment by expert researcher-teachers (McTaggart 1989). Furthermore, it seemed to reinforce the tendency for Honours students to study individually.

When a new staff member joined the faculty in 2001 and proposed a new course to be taught on-campus using the traditional seminar for on-campus student and a reader and study guide for off-campus students, the team teaching the Honours course had no hesitation in abandoning the use of electronic conferencing and book reviews. At the same time, the author began to use electronic conferencing to teach courses of political theory and practice to second and third-level students.
Experience Two: assessable discussion questions and answers

In 2000, the author published an edited collection and therefore rewrote the study materials for two linked courses in order to incorporate the collection as a textbook. The first semester course looked at political theory and the second semester course looked at political practice in several countries. No funds for teaching relief were available for the work rewriting the off-campus study materials, although some funds were available for transcribing lecture tapes. I therefore taped my on-campus lectures, had them transcribed, quickly edited the transcriptions, and sent them to the course's electronic conference within about a week. In these circumstances, an expectation to produce a tutorial programme of questions to prompt discussion about the readings, which were provided in an updated Reader, led me to wonder: why not ask the students to write discussion questions for each other? Perhaps submitting discussion questions would engage greater activity among students and reduce expectations about my online activity?

From previous experience with electronic conferencing, I knew that a discussion question would constitute a suitably brief message to read via a computer screen. The end-of-semester examination already comprised ten short-answer questions on ten topics selected from the twelve lectures delivered during the semester. It was therefore a short step to ask: why not make the submission of a discussion question and then a response to another student's question comparable to answering one question in the examination? Surely, answers to discussion questions could also be suitably short. Students would be required to submit ten questions and ten answers during the semester, just as those sitting the examination would answer ten questions.
I provided students with advice on how to write discussion questions, telling them that open-ended questions are more likely to get conversation started but that respondents might also draw on their life experience (or something they had read or seen on television) rather than any work they may have done reading the set Readings for that week. Specific questions will put people on the spot but also elicit better responses. Since the students had time to read and reflect on the written questions, I encouraged them to write specific questions. Almost immediately, students asked whether they could simply answer other students' questions rather than responding with reflections on how well the question had been formulated, which made me realise I had been too ambitious asking them to 'respond' rather than simply asking them to 'answer'.

Students also soon wondered whether they could answer their own questions. I frowned on this and that was readily accepted. It turned out that students greatly enjoyed having their questions answered by other students; this was the secret to the success of electronic conferencing in these courses. Students found the sense of dialogue fulfilling and stimulating. At the same time, they also found their exchanges frustratingly one-dimensional compared to face-to-face interaction.

For the first two semesters, 5-8 students took up the electronic conferencing alternative to the examination. In the four semesters after that first year, I warmly recommended the electronic conferencing option at the beginning of each semester, telling students how previous students had enjoyed it. 20-25 students out of a total enrolment of about 100 chose the electronic conferencing alternative to sitting the examination. With the larger numbers, I had to divide students up into three sub-groups of about 8 students, so that they could get to know each other a little and read fewer other students' contributions. It was also easier for me to monitor the exchanges within separate small groups.
In fifteen years of tertiary teaching, I have never seen any groups of students read their set readings as diligently and engage in discussion with each other as enthusiastically as I have seen students participating in these electronic conferences. Over three years, student surveys gave good results however small numbers of respondents made the margin of error very high and the results unreliable.\(^3\) Quoting from some of the students' exchanges gives a better feel for how the electronic conference worked.

In first semester, week eleven covered the potentials and pitfalls of cybercitizenship and digital democracy, as discussed in the students' textbook. In 2002, one student submitted a question about everyone's experience with FirstClass and what that might mean for free speech:

**Q wk 11-FirstClass and freedom of speech Tuesday, 28 May 2002, 10:47:06 AM**

We have all been interacting on FirstClass for the last 11 weeks. This is the first interaction I have been involved in, where I had to ask and answer questions. Has the use of FirstClass improved our interaction between each other? If we had been in a 'conventional' tutorial, would we have interacted in the same way, given it would have been verbal communication as opposed to written, and face to face as well? Would we have been so confrontational and or dismissive of others opinions at times? Has the anonymity FirstClass provides enabled us to be, more forward/passionate about our views? Therefore, does the use of computers and the internet allow for citizens to realise their right to freedom of speech, in a way that they would not have done without such technology?

In response, one male, on-campus student confessed to a tendency to be loud and overbearing in tutorials and therefore saw some value in the levelling effect of electronic conferencing:

**Firstclass vs face to face, Thursday, 30 May 2002, 09:44:10 AM**
...if we were all in a tute. I would yell at everyone and never shut up. ...I think this firstclass is a great equalizer, yu can only contribute a certain amount and have to think before you type it, and oyu can't shout anyone down. Perhaps that is the beauty of the net, shy people can go off without fear and loud bombastic people are slowed down by the medium.

Several students agreed with the sentiment of a more critical student:

re: firstclass and freedom of speech, Tuesday; 28 May 2002, 22:39:36 PM

I think our interaction would have been considerably different, as the written form does not allow for non-verbal clues, nor the personality of the person to be taken into account. It is very stifling to conversation. Also, I believe a lot of our discussions would have been more indept had we been face to face, given that many of the topics are too involved to do a mere answer/question format. A discussion is a lot more fluid and allows for more avenues than the written form.

Other off-campus students agreed that interaction via electronic conferencing is inferior to face-to-face discussion but also pointed out that it is much better than the usual isolation of off-campus education.

It is important to recall that these students were not compelled to participate in the electronic conference; they chose to pursue the electronic conferencing option as an alternative to assessment by examination. Some had used electronic conferencing in their commerce courses and felt comfortable using it in an arts course. Others, including the student who wrote the critical message on Tuesday 28 May above, used email very little and had never used anything like electronic conferencing. The students more favourably inclined to it were on-campus students who were participating in face-to-face tutorials but were keen to avoid an examination.
Remote off-campus students valued the opportunity to interact with other students at all. The critics were mostly off-campus students who had attended on-campus tutorials in the past and did not feel especially isolated from the university.

In first semester 2002, I commenced team-teaching the theory course with a new member of staff and we agreed to cease using electronic conferencing because of concerns about moderating the results of the examinations versus the electronic conference questions and answers. It worked well when a sole teacher graded all assignments of all students. When two or more teachers are grading the different modes of assessment, it is difficult to ensure that all students are treated fairly and cross-campus moderation of results had emerged as a new concern within the University. I cannot think of any solution to this problem but I have continued to use electronic conferencing in the comparative politics course, which I teach on my own. Engeström's inclusion of a division of labour in the expanded version of activity theory embedded in a context is pertinent. It has had a direct bearing on my use of electronic conferencing. As a solo teacher inclined to see merit in the use of electronic conferencing, I ironed out difficulties in the way the assessment regime articulated with electronic conferencing and found encouragement in the enthusiastic activity of some students, while recognising that others disliked electronic conferencing. In a teaching team comprising people with various mixes of scepticism and cautious interest, it is more difficult to iron out difficulties and easier to revert to more familiar face-to-face teaching techniques.

This more productive experience with electronic conferencing and an appreciation of the limits of assessable discussion questions and answers mediated, in turn, a third deployment of the technology with another Honours class. Here we can note that reflection on past use of electronic
conferencing brings a dynamic aspect into its deployment. A teacher internalises difficulties from previous semesters, tests possible solutions in the next semester with a fresh batch of students, and in a third semester externalises lessons learnt for the benefit of the next round of students. It was in this way that I built up the number of participants in the undergraduate unit and discovered both the strengths and the limits of electronic conferencing articulated with assessable exchanges between students.

**Third experience: Honours students' literature review plans.**

In 2003, I taught a cross-disciplinary Honours course that is compulsory for students from politics, international relations, history, Australian studies, Chinese, Indonesian, and Arabic. Each year, approximately 25 students at two campuses and off-campus are taught the generic skills needed to compile a review of literature that is relevant to the research for their 15-20,000 word dissertations. In 2002, I had team-taught the course, with a colleague in history teaching the seminar at one campus, while I taught the seminar at my home-campus and taught the off-campus students. In 2003, I taught all of the students on my own, travelling to the other campus for the on-campus seminar there. Drawing on my experience of electronic conferencing at both undergraduate and Honours levels in the past, I decided to make it compulsory for all off-campus students to participate in an electronic conference for the course. As with my first experience using electronic conferencing, I regarded it as reasonable to assume that all Honours students would make advanced use of networked computers for their research and could therefore be compelled to participate in an electronic conference for a course. This would guarantee the formation of a group of 8-12, which would be large enough for good discussion to take place. At the same time, my experience with on-campus students' clear preference for face-to-face tutorials
led me to bar the on-campus students from participating in the electronic conference. There would be none of the intermingling of on and off-campus students that featured in the undergraduate experience, and had complicated the moderation of results. Everyone participating in the electronic conference would face the same assessment regime under comparable degrees of isolation from the university.

The course focused on teaching students how to review literature relevant to the research for their Honours dissertations. Since it was held in first semester, some students still had only a vague idea of their research topic and so this course pushed them to specify their topic sufficiently to decide what other research they needed to review. During the first six weeks of semester, the course introduced students to practical research issues (library skills, note-taking, bibliography software, and so on), which gave students time to prepare their literature reviews for presentation in the second part of the course. Following the usual assignment-submission procedures, the on-campus students submitted a hard-copy plan and an annotated bibliography for the literature review. The annotated bibliography was simply a description of a list of books. The intention was to demonstrate to students the important difference between such a list and reviewing a literature methodically. The plan for their literature review outlined their method (by school of thought, by language, by period, and so forth) for reviewing their literature. After a mid-semester break and the return of graded plans and annotated bibliographies, two students each week gave one-hour presentations of their literature reviews. All students were expected to participate in discussion of the presenters' work. For 20 percent of their final result, each student was assessed for their presentation and their contribution to the discussion of other presenters' work. This was designed to encourage and reward active engagement in the discussions each week. How did the off-campus students in their electronic conference interact with each other
and with me, compared with the lively interactions among the on-campus students who made the most of face-to-face engagement with each other and their teacher?

For the first six weeks, the off-campus students were asked to undertake small, non-assessed tasks each week. In the introduction week, for example, they were asked to obtain their username and password and familiarise themselves with the electronic conferencing software. The students were also asked to submit a message that described their research topic, named their research supervisor, described themselves a little, and nominated a week in the second half of the semester when they would 'present' their literature review to the electronic conference. In week three, they could listen to an audio-streamed digital recording of my on-campus talk about literature reviews. They were asked to submit one message about how they might limit the literature they would review and what method they may deploy to review it. They were also asked to send questions to other students about their possible literature reviews and then respond to questions sent to them. With these specific but non-assessed requirements for weekly participation, the off-campus group soon knew quite a lot about each other's research topics. These tasks are comparable to the 'warm up' activities of students face-to-face with a tutor in a well-conducted tutorial (Stokes 1990).

For the second half of the course, two students each week submitted a full draft of their literature review. The other students were required to submit questions to the 'presenter', who in turn was required to respond to the questions. As a teacher, I too submitted questions to the presenter, but I waited until last because I was keen to avoid the "sage on the stage" role. The off-campus students' were assessed for both their presentations and their responses to fellow students'
presentations. These exchanges of messages were reasonably comparable to the conversations that took place among the on-campus students presenting talks about their literature review.

At the end of the semester, the statistically unreliable evaluations were high but in their farewells to each other, the off-campus students were particularly enthusiastic about the opportunity for interaction offered the electronic conference. According to one student:

Friday 6 June 2003, 11:16:01 AM

I must say that the use of First Class in this unit has made it one of the best units I have ever done as an external student. Critiquing others work is something I have never had to do before and something I feel I have a lot to learn about. While the feeling of isolation as a student has been part of its appeal for me (ie to develop self-discipline) the regular contact with all of you has enriched the unit immensely. In particular, it has been interesting reading about the other topics that people are researching that are so totally different to our own.

One student responded:

Friday 6 June 2003, 20:32:29 PM

I agree with your comments re 1st Class.

Sometimes when responding to others' work I felt like I was gambling a little - when the material was alien to me and I felt a bit distant. But the variety and individuality of the work made it a constant source of excitement. Thanks to everyone.

Another responded similarly

Wednesday 11 June 2003 21:39:47 PM
I hope it all goes well for you. I share your sentiments, I appreciated everyones time and comments. good luck with the following semester ;) regards

After some administrative matters, I concluded:

Thursday 12 June 2003 16:24:38 PM

I am very glad that you have found the way this unit was run so stimulating. I must say that I have enjoyed it much more than my usual classes. I learnt a lot from the various reviews, both in this off-campus FirstClass class and hi the classes at [X] and [Y].

I also feel most if not all of you have a clear and strong sense of what a literature review is, and how you can use it to argue a case for the importance of the research you want to do.

A central ambition of the course was to show (rather than instruct) students how research entails collaboration in a broad sense. Having your work assessed by colleagues and in turn assessing colleagues work is a necessary aspect of research and doing that draws students out of the illusion that they work alone, or that the teacher grading their work wields arbitrary power. It is striking that the students were thanking each other for the feedback more than they were thanking me for any feedback I had given them, or even for establishing a good context in which to learn. I regard this as a reasonably clear achievement of the ambition to be a "guide on the side". I would emphasise that this sideline role is far from passive. In my experience, it takes time and reflection to learn how to establish an assessment regime that articulates well with electronic conferencing and brings out students' active engagement in online discussion with each other.
Conclusions

The author's cycle of learning how to make effective use of electronic conferencing, as a sole teacher and as a member of a teaching team, with on and off-campus students, and with voluntary as well as with compulsory participation, went through phases of internalisation and externalisation. I internalised rules, advice from relevant literature, and problems. I externalised students' views, and experience with the articulation of assessment and electronic conferencing. As a tool, the electronic conferencing software clearly derives from a product designed for intra-corporate communication but it was easy to use, and several updates offered minor improvements without demanding much retraining. Recently the company supplying it has gone bankrupt causing the university to switch to quite different software. The commerce faculty strongly championed the old electronic conferencing software because it had been highly successful for teaching demanding students in the Masters of Business Administration. It was therefore a tool that was securely embedded within a university that continues to be well organised for off-campus students. To begin with, I was an enthusiastic proponent of electronic conferencing but I have worked with several sceptical colleagues who have been more mindful of spending too much time teaching online due to concerns about maintaining a high rate of research publication. Team-teaching exposed shortcomings in the assessment and promoted a return to techniques more familiar to everyone.

Engeström's complex model of activity theory helps to specify how the technology mediates the activity of a teacher-researcher working within the context of a university where corporate managerialism has prevailed. From this perspective, it is misleading to worry about the tail wagging the dog (Ess 2000). That is to say, it is misleading to worry about pedagogy suffering
due to a fashion for technology, or a managerial imperative to use it in order to keep up with other universities (Robins and Greenwood 1998) or perhaps improve retention rates (Prendergast 2003) among young, computer-oriented students who may be the information workers of the future. Such worries assume that the technology itself is neutral while the promoters of it are only enthusiastic because of a belief that it will bring greater enrolments and revenue. Such an assumption fails to consider the complex ways in which any teaching technology articulates with a particular assessment regime. It is arguable that quite similar processes are involved coaxing students to participate actively in a traditional tutorial (Stokes 1990) or in an electronic conference. Regardless of technology, pedagogy can suffer because the researcher-teacher is inexperienced or has not devoted enough time or effort to the little rewarded tasks of becoming a better teacher.

From my experience with small numbers of students, I would tentatively suggest that the heightened orientation towards text in electronic conferencing, combined with the possibility to think before responding asynchronously, tends to expose and delineate differences more clearly between good and poor students. Presumably, it also exposes differences among tutors and lecturers more clearly for the students as well. In a world where some students see themselves as consumers, choosing among many universities, several possible majors, and numerous electives, clearly the traditional purpose of universities to allow researcher-teachers to inspire partly impressionable and partly critical students is under threat. When electronic conferencing fails as a teaching method, the distance between isolated individual students and a remote "sage on the stage" seems to be even greater than it is when the traditional face-to-face tutorial does not go well. When it works well, electronic conferencing can counteract both the corporate rationality
of university managers and the market perspective of some students, and fulfil the traditional purpose of university teaching.

References


Endnotes

1 Dr Andrew Vandenberg is a Senior Lecturer in Politics at Deakin University, Australia. The conclusion of the research in this paper was assisted by a small grant from the Teaching and Learning Unit in the Faculty of Arts at Deakin University, led by Associate Dean Kevin O'Toole.
During that first year, Pamela Mulready, Education Developer in the Faculty of Business and Law, kindly conducted interviews with students on my behalf. They talked to her more freely than they might have to talked to the person grading their work, and she reported their comments to me without identifying who they were. She also recommended that I use the positive experience of previous students to encourage subsequent students to opt for online assessment.

The questionnaires routinely produced encouraging average results of 4.0 or more but out of approximately 100 students each semester, only 14-30 responded. For 25 respondents, the margin of error was ±2 because they used a five-point scale to grade their responses to positive propositions about the use of electronic conference. That is to say, an average response of 3.0 could reflect actual sentiments as high as 5.0 or as low as 1.0, where 0 means no response, 1 means Disagree, 2 means Mildly Disagree, 3 means Neither Agree or Disagree, 4 Mildly Agree, and 5 Agree.