CHARTING THE ROLE OF THE ONLINE TEACHER IN HIGHER EDUCATION: WINDS OF CHANGE

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Abstract

The purpose of this paper is to examine the role of the online teacher at the University of Southern Queensland, Australia. In this paper, it is intended to identify the issues and dilemmas facing those who are navigating the online teaching environment, to elaborate on the issues/dilemmas, and to offer some ways of addressing these issues by referring to the responses of experienced practitioners, online students, to the literature and to data collected for an Australian Government-funded educational evaluation project. Much of the data presented in this paper relates to an online course, Designing Instruction for Flexible Learning, which is part of the totally online initiative, launched at USQ in 1997. The authors of this paper have been involved in both teaching and instructional design of online courses for several years and have identified a significant shift in the role of the online teacher.

Introduction

The growth of commercial providers of education and training worldwide has led to a questioning of the role of universities as 'lighthouses' of learning. Student cohorts have made demands on universities for greater flexibility in the way they access programs and services. The constant pace of change and the growth of information mean that people can no longer rely on their initial educational preparation to see them through their working lives. Because there is an ongoing need for education and training, institutions are faced with a variety of learners requiring access to flexible education. The University of Southern Queensland (USQ), Australia has attempted to meet this challenge by expanding its provision of flexible learning opportunities and introducing online education in 1997. Currently, USQ's online initiative, USQ*Online* enables the delivery of multiple courses via the Internet, to students worldwide, twenty-four hours a day. USQ entered into a commercial partnership with NextEd Pty Ltd, and uses the BlackBoard platform to deliver the online courses.

The authors have been designing for, and teaching online for some years. They have worked collaboratively on the design and teaching of an online course *Designing Instruction for Flexible Learning*, a postgraduate course offered by the Faculty of Education, USQ. This work has enabled the authors to reflect on the design strategies implemented by referring to student feedback, personal teaching experience, and current literature in the field. In addition, the authors have recently been involved in a major research project (EIP - Evaluations and Investigation Program) funded by the Australian Government organisation of DEST (Department of Education, Science and Training). The EIP project has been used to report on quantitative and qualitative data that were collected to develop an understanding of the nature and extent of key issues affecting the adoption of totally online approaches at USQ. A

qualitative analysis of staff and student surveys and a quantitative analysis of the course statistics available through the BlackBoard platform have been conducted and critical issues and dilemmas identified. In addition, an analysis of the responses to questionnaires sent to experienced online users has been performed.

The Identification of Critical Issues and Dilemmas

The authors have reflected on their experiences of teaching in a digital environment. This experience, learner feedback, statistical analyses and a reading of the current literature has revealed a number of critical issues relating to the online teacher. In this paper, those issues are elaborated upon and some means of addressing these issues are discussed.

Charting a Course for Online Teaching

Tertiary institutions today have access to information and communication technologies, creating new learning and teaching opportunities, and challenges to existing practice. Laurillard (2002) argues that universities must adapt to this change and become leaders in the application of technologies as learning tools and adopt strategies that facilitate active learning. This challenges the conventional approach where the teacher has the role of an expert delivering knowledge to the learner. As noted by a survey respondent in the EIP research project into online teaching and learning:

> Course leaders have the opportunity with the online environment to adapt, modify and change whole sections of the course, or ways previously planned to proceed, to engage with content, to assess – according to the students' needs, interests, expectations, contexts and prior learnings, so long as the Course Specification (objectives, etc.) continue to be met. Online means being able to truly take account of what students want, re-shaping the environment to make the most of students' collective experience and expertise, mobilising them to construct knowledge for their own purposes.

Education Versus Commercialism
Within the data collected for the EIP project, a number of staff respondents to the survey indicated that pedagogical imperatives for online teaching and learning might be taken off the agenda if commercial interests took control. They suggested that attempts to capture market share might see teaching assume a relatively minor role in the delivery of online education. In 1998, McCann et al. proposed that Internet delivery would allow Australian universities to compete cost effectively in the world market, thus enhancing Australia's world leadership status in terms of innovation in distance education. The study (1998, p. vi) noted that:

> the use of information technology can mean significant savings in resources with a shift from physical to virtual resources (lecture halls and libraries to online services) and with a shift in the relative allocation of resources for course development and for teaching.

In addition, in a previous EIP report, King (2001, p. 48) refers to a comment made by Michael Dolence who envisages educators becoming managers of educational delivery. This suggestion heralds extreme change to existing practices. Dolence suggests that:

> A significant number of our academic staff should stop teaching and marking, and become managers of educational delivery, including the training and supervision of sub-contracted staff, perhaps from other countries who can do these things - that is an absolutely essential component of any scaleable approach to e-business in universities. Academics should authenticate the content of courses and manage quality assurance processes but not be responsible for delivering those courses intended for mass overseas markets.

However, leading scholars in the field of online learning challenge the commercial approach to education. Laurillard (2002, p. 22) argues for the idea of a "conversational framework" for learning which she believes captures the essence of university teaching as an "iterative dialogue between teacher and student(s)". She proposes that technology can be used to engage students by exploiting "the

communicative, interactive, and adaptive capabilities of the technology" to facilitate this iterative dialogue.

One solution to reducing the variable costs of online delivery is offered by Taylor (2002, p. 10) who suggests the use of "academic productivity tools such as…reusable learning objects' databases and associated automated response systems". Other options are also being explored and trialled by online teaching staff at USQ including models based on the work of McKendree et al.'s (1998) vicarious learner project; and the "Virtual Participant" project of the Knowledge Media Institute (KMi) of the Open University in the United Kingdom. The KMi project, the result of several years' research, involves "intelligent agents" that autonomously participate in electronic conference and discussion group activities. The Virtual Participant helps to gather ideas that appear and reappear over several semesters' discussion activities. It can be likened to telling stories from the past, stories it has learnt from other people, and using these stories to support current activity. As Masterton (1998, p. 265) notes, "the VP is intended as a tutor's assistant. There are a number of tasks that tutors do that could be augmented or even automated by such a system". Currently, joint research by USQ teaching staff and members of KMi is being conducted to assess the suitability of this software to the USQ context.

A differentiated staffing model may also provide some solution to the issue of balancing high quality online learning interactions with sustainable teaching workloads. This model is used at USQ for online "classes" of more than twenty-five students and has the content "expert" leading a course and "managing" a number of tutors who maintain facilitation and mentoring roles within the course.

Teaching Philosophy and Theoretical Underpinnings
Technology gives learners fingertip access to vast stores of information, and educators, researchers and entrepreneurs are investigating how this information becomes knowledge. How the differences between information and knowledge are addressed is a concern for educators, and debate is evident in the literature (Buckingham Shum, 1999; Laurillard, 2002; Jonassen, 2002). There is a concern that information may be slickly packaged and delivered by using the latest technology, and that the "packaged information" will be viewed as knowledge.

The "packaged information" approach would leave education locked into the "transmission" mode, with "experts" preparing and delivering information, and the "novice" learners as passive receivers of the information. Advocates of the constructivist approach to education (Jonassen 2002) question the effectiveness of the transmission approach to teaching. The constructivist literature suggests that learners construct their own meaning from information and that one way of effectively constructing that knowledge is through joint construction with other learners (social constructivism), such as activity that is encouraged and facilitated in USQ online discussion forums.

Collaborative Learning Versus Flexibility?
Constructivist features are commonly used in the design of online teaching/learning environments at USQ. One of these features is the use of communication technology such as discussion groups, email, and virtual chats to facilitate interactive and collaborative activity. The opportunity for interaction impacts on the design of course material and has caused a significant shift from "stand alone" distance education courses that are often far-more "self-paced".

The implementation of a constructivist approach to learning and teaching that emphasises the "social" construction of knowledge causes some problems for both the online learner and online teacher. Some learners may prefer to work independently so group projects, or the requirement to participate in online discussion forums at a particular period of time in a course may not suit all approaches to learning. Further research is required into students' preferred learning patterns and learning preferences in order to design online courses to meet these requirements.

Learner-centred or Learning Centred?
Mayes (2001, p. 17) considers the current literature and observes that never before has there been so much agreement about the pedagogical fundamentals of teaching and learning. He observes that:

> the shared theoretical assumptions are those of constructivism, and they result from two distinct shifts of emphasis - shift from a representational view of learning to a constructivist or

constructionist view where learning is primarily developed through activity…Second shift is away from the focus on the individual, towards a new emphasis on social contexts for learning.

Instructional methods that use a constructivist approach to teaching and learning focus on dialogue, learning partnerships, and the joint construction of knowledge. This approach is used for the design of many of the online courses at USQ, and is particularly evident in the use of discussion forums to facilitate online interaction. Authentic assessment is another of the constructivist strategies used at USQ. Several courses require learners to contribute to online discussion forums, as well as submit a major project, based on their own professional context. The teacher is able to gauge the level of the contributions of individual students through their discussion posting during the semester. This ensures that the final major item of assessment is the work of that student.

The fact that online education brings with it increased opportunities for interaction implies increased levels of participation on the parts of both the teacher and learner. This raises the issue of workloads and sustainability, and ultimately the cost effectiveness of online education. The data collected for the EIP project indicated that for the course under review in this paper, the teacher accessed the discussion board 485 times, posted 485 messages, sent 104 emails (through the BlackBoard system, others were not logged) posted 62 announcements, created/modified a group 9 times, accessed the Gradebook 35 times and the Digital DropBox 202 times. This gave a total of over one thousand hits by the teacher on the BlackBoard platform over the semester. Emails responding to personal (direct) student emails have not been logged on the Blackboard system. This level of interaction raises the question, is the level of teacher participation sustainable? Does "more" necessarily mean "better"? What might need to be done to ensure that teachers can cope in this environment? What is a suitable workload for an online teacher? Is there an "ideal" ratio for interaction? As an example, Table 1 indicates levels of student engagement with elements of the course *Designing Instruction for Flexible Learning* during one semester. The amount of learner access to each component of the course indicates a high level of contact to the communication areas of the course. Data gathered across the eight online courses revealed that approximately 80% of the learner engagement was with the communication features, while approximately 20% of the interaction was with the course content. This engagement ratio indicates the practice of the "conversational framework" for learning suggested Laurillard (2002, p. 22), where she proposes that technology can be used to engage students by exploiting "the communicative, interactive, and adaptive capabilities of the technology" to facilitate this iterative dialogue. The level of learner engagement with communication features is both a reflection of the design of the online course, and the ability of teachers to engage the learners in dialogue. It indicates that online interaction between course participants is a critical feature of online teaching in these particular courses.

Student	Gender	Country of birth	Discussion Board	Post Message	Study Materials	Total interaction (hits)
3	F	Qld	140	23	39	339
4	F	Japan	187	20	29	371
9	F	UAE	260	20	70	610
11	F	Oman	65	18	44	263
24	F	USA	79	16	25	192
32	F	Vic	486	52	61	979
35	F	PNG	124	15	27	307
39	F	NSW	100	23	37	371
43	F	Malaysia	152	24	70	558
53	F	UAE	235	39	59	531
13	M	NSW	60	17	20	207
34	M	UAE	171	47	17	391
37	M	UAE	180	40	29	474
57	M	Qld	96	19	71	284
1	F	NSW	16	8	21	102
10	F	Qld	32	4	50	213
22	F	Vic	25	6	25	107
27	F	Qld	30	5	32	141
41	F	Qld	28	1	19	87
48	F	Tas	26	5	38	161
50	F	NSW	21	3	19	77

51	F	Qld	39	2	40	161
54	F	Qld	31	4	26	104
7	M	Canada	52	3	42	268
16	M	Qld	16	3	24	104
25	M	SA	43	6	26	185
38	M	St Korea	23	7	71	221
40	M	Qld	37	4	30	198
47	M	H/ Kong	15	1	73	218
2	F	NSW	33	6	18	101
6	F	UAE	148	10	19	310
8	F	Barbados	45	11	37	148
12	F	ACT	56	10	47	242
14	F	NSW	40	10	46	252
15	F	Qld	81	5	77	336
18	F	Vic	39	8	56	347
19	F	NSW	95	10	45	290
20	F	USA	154	9	45	493
23	F	Qld	77	6	82	425
28	F	NSW	65	12	32	277
30	F	Vic	49	6	34	205
42	F	Scotland	47	14	14	129
44	F	Malaysia	147	10	57	482
45	F	Qld	91	6	29	268
46	F	Qld	95	6	52	283
52	F	NSW	29	18	21	133
5	M	Qld	44	10	23	190
17	M	Sa	55	12	33	171
21	M	WA	115	8	63	576
26	M	Qld	174	11	69	568
29	M	WA	75	10	44	256
31	M	Qld	56	9	38	381
33	M	Canada	97	7	22	322
36	M	Mexico	99	11	40	274
49	M	Japan	61	5	9	142
55	M	USA	60	14	8	119
56	M	Fiji	48	8	33	198
Total			4944	697	2227	16142
Average			86.74	12.23	39.07	283.19
Average (M)			75.10	12.00	37.38	273.67
Average (F)			93.53	12.36	40.06	288.75

Table 1: Student Engagement with all Elements of the Learning Management System for Designing Instruction for Flexible Learning During One Semester (Adapted from Postle et al. (in press) Appendix C, Table C8, pp. 9-10.)

Interaction in the Online Environment

In the EIP project, respondents to the staff survey stated that the adoption of online approaches to teaching and learning provides a number of advantages over traditional distance education. One of the most significant points is the increased opportunity for interaction, particularly between teacher and student, and between students, both synchronously and asynchronously.

The synchronous and asynchronous tools (discussion groups, email, and virtual chats) provide environments for collaborative group learning, where learners can actively exchange ideas and co-construct their knowledge within the context of an online learning community (Wegner, 1998). The emphasis placed on social interaction in a constructivist context and the opportunities for interaction provided by technology support the importance of collaboration and group knowledge construction in an online context.

This perceived knowledge generation capacity of online forums is one of the assumptions about the nature of learning and the learning process that are implicit in instructional design decisions for the online courses at USQ. Palloff and Pratt (1999, p. 15) note that "in the online classroom, it is the relationships and interactions among people through which knowledge is primarily generated". A respondent to the staff survey supports this statement:

> I also like the thoughtfulness that is possible in a-synchronous discussion forums. There is time to reflect and make reasoned comments — both for students and lecturers.

Disinhibition (Suler, 2002) is one of the more frequently mentioned effects of online learning. It is sometimes described as the increased likelihood that a shy student will speak up, for example, or that students will be more forthright. A survey respondent suggests there are gender and equity benefits arising from the use of online interaction:

> Operating in the online environment means that bodily differences and social values attached to visible differences are invisible and irrelevant - teachers and learners online construct themselves through text in the discussion forums, for example (distinctions of gender, ethnicity, body shape or impairment, accent or speech styles 'don't matter' – visual cues of difference are missing) and the challenge is to know more about online sociality and the 'special circumstances' of learners.

The use of asynchronous communication raises several issues, such as the management of the discussion, how to facilitate the discussion, when to intervene, how to build a learning community for a diverse group of learners, and how to manage a proliferation of text generated with large classes.

Moderation of Online Interaction
Alexander & Boud (2001, p. 9) argue that the learning that results from a computer conference depends much more on the skills of the moderator rather than, as is often implied, on the number of features present in the particular conferencing software tool in use. Many authors (Mason, 1991; Salmon, 2000; Harasim et al., 1995) have emphasised the critical role of the *e-moderator* in organising the conferences and in affording online socialisation and networking amongst conference participants, at the same time as they maintain their critical intellectual role.

Berge and Collins (1995) have been teaching and researching computer-mediated communication for nearly a decade and host a web site "The Moderators homepage", which links from their home page at www.emoderators.com. The site provides a wealth of information on CMC, the role of the online facilitator, and netiquette, as well as providing a discussion forum for online moderators.

Students can also moderate discussion groups. The teacher or student can trigger a discussion topic, but a nominated student facilitates the interaction, while the teacher monitors and can participate if required. The moderation role should be rotated around the group members. A balance of student and teacher participation should be maintained, as students will expect some guidance and input from the teacher.

Managing Online Groups
It is clear that with larger groups of students working with one teacher, different strategies are required to take advantage of the communication opportunities provided by the Internet. Student expectations need to be carefully managed and parameters defined at the beginning of each teaching period. Experience has shown that many students will not participate in online discussion unless there are grades awarded. Using grades to reward participation requires careful thought, as meaningless postings do not equate to quality learning outcomes. Clearly defined expectations in terms of levels of participation and assessment requirements are essential.

Coping with Cultural Diversity
USQ has a culturally diverse student population representing sixty countries throughout the world. The institution recognises that it has a diverse student body and makes mention of this fact in its mission statement, in its attributes for a USQ graduate, in staff development seminars, access and equity policy, and media releases. The student cohorts in most of the USQ online courses are comprised of around 60% of people from countries located beyond Australian shores. Debates about online teaching and learning in

diverse higher education settings have focused on a need to accommodate cultural diversity (Joo, 1999; Duarte & Synder, 1999).

Hints and Tips

At USQ, a *Manual for Course Examiners/Tutors of Online Studies* (Reushle et al., 2002) has been developed drawing on the experience of practitioners teaching online at USQ and ideas presented in the literature. The *Manual* provides guidelines for suggested group sizes and strategies for facilitating online discussion. Experience at USQ suggests that an intensive discussion group should have a ratio of ten students to one moderator, while one teacher could successfully manage a less interactive group of 25-30 students. It is also suggested that students stay within one group for the whole semester, rather than rotate through groups and tutors. Various combinations of group structures are being trialled in the different courses.

As the online discussion forum becomes widely accepted as a useful teaching strategy, numerous discussion groups, literature and web sites are becoming available to provide information and support for educators. One web site developed by Suler (2002) called the "Psychology of Cyberspace" (http://www.rider.edu/users/suler/psycyber/psycyber.html) provides discussion on group dynamics in cyberspace. Tobin (2001) offers some advice in terms of appropriate policies to enact before problems in the online "classroom" arise, some of the signs that can indicate student and faculty problems in the online classroom, and some administrative responses that address both the institution's right to offer quality online learning and the individual's right to self-expression. The challenge of working with inappropriate online behaviour (e.g. misuse of the discussion forums) has become evident in both the experiences of the online teachers, and in the literature.

When managing online groups, the discipline area of the course, the student level (under/postgraduate) and teaching philosophy are important considerations. Beaudin's (1999) online paper, "Keeping Online Asynchronous Discussions on Topic" provides useful guidelines. The results of Beaudin's study showed that online instructors rated the following as the top four techniques for keeping asynchronous online discussion on topic:

- carefully design questions that specifically elicit on-topic discussion,
- provide guidelines to help online learners prepare on-topic responses,
- reword the original question when responses are going in the wrong direction, and
- provide discussion summary on a regular basis.

Responding to Learner Expectations

In online courses offered by USQ, there is an emphasis on the use of asynchronous communication enabling students to log on at any time and read and post messages to the discussion forum. This continuous access has created changing demands on teacher time. Respondents to the teacher survey expressed concern that student access has became linked to demands for courses to be "serviced" seven days a week, 24 hours a day. The issues surrounding "student expectations" raise some complex questions that link to the concepts of "power and control" in online environments. The increased levels and quality of interaction have meant students have the potential to access staff and other students any time of the day, and at any point in the course. The concern regarding demand on teacher time is also reported in the literature.

The USQ *Manual for Course Examiners/Tutors of Online Studies* has guidelines for the amount of times teacher/tutors are expected to access their online courses, the expected response time for replying to student inquiries and the requirement of regular contact with learners. This provides guidelines for time management, and also quality assurance procedures for the offer of online programs.

A respondent to the staff survey mentions,

> at the moment I am trying to discover strategies that will enable me to work with much larger groups of online students as there does not seem to be any quota imposed on online enrolments, numbers for my course are growing each semester (83 in semester 1 2002), availability of tutors with the necessary knowledge, expertise and skill to teach are not easily forthcoming, and I recognize I need to find other ways of addressing this issue of response to student interaction. This

may mean I will need to adapt my own teaching philosophy to accommodate the restrictions imposed by larger numbers of learners. This may mean less personal contact and less interaction.

Training and Development
With the move to online education, USQ has recognised the need to assist university staff in the transition to the world of electronic teaching and learning. It is evident from experience and a growing body of literature that well-designed support and resources are required in order to guide teachers through technological and pedagogical change. Several programs and resources have been developed to meet the needs of staff moving into the world of online teaching and learning. They include:

- a web site, the Staff Development Gateway (http://www.usq.edu.au/StaffDevGateway/) which offers details of professional development opportunities for staff at USQ, and links to other online programs and resources, particularly those developed by other universities.
- an online education and training program for teachers. The program aims to provide learners (in this case, the academic staff) with first-hand experience of their roles and responsibilities as online teachers and administrators by immersing them in the teaching/learning environment. Each module of the course has sections on how to use the system, related theoretical underpinnings, and recommended resources, and is supported by introductory face-to-face sessions. The course addresses administering, communicating and assessing in an online environment. It also provides pedagogical exemplars across all discipline areas. This site undergoes cyclical evaluation and revision.
- staff development papers, available both electronically and in print copy. The papers elaborate on concepts introduced in face-to-face sessions and within the electronic sites (such as, "Using Discussion Forums Effectively").

In addition to these initiatives, an "online users" group meets regularly and has membership from teaching and administrative areas. This group has an active mailing list where issues under discussion are collated and presented at appropriate senior management committee meetings.

PreparingTeachers for the Online Environment
Much of the debate surrounding the introduction of online teaching and learning at USQ has focused on how it compares with face-to-face teaching. However, it is evident from the literature and the views of other respondents to survey questions, that it would be far more productive to focus on the identification of teaching skills and approaches that would capitalise on the potential of online education. Twigg (2001, p. 4) suggests that we need new approaches that go beyond producing "no significant difference". Rather than comparing online learning with traditional higher education, Twigg (2001) asks, how can we identify new models and talk about what is better rather than what is "as good as"?

Oliver (1999) argues that to gain the full potential from the new technologies and online teaching and learning, participants need to alter their roles. He says that teachers of online learning become quite different to their contemporaries in terms of their roles and responsibilities. The differences appear in how they interact with their learners and how they manage and implement their learning settings. He discusses the roles of coach where the teacher is no longer the sage on the stage, but instead provides the learners with access to a variety of independent learning experiences; the teacher as learning designer who plays a vital role in designing the learning activities; the teacher teaching for learning outcomes (what is important is what learners can do when they have finished learning); and the teacher who focuses on assessment.

Rewards and Incentives
As an incentive for staff having to do the extra work involved, in the early stages of the online initiative at USQ, staff were offered monetary reward and incentives. They were offered one percent of the income of their course as a monetary share of the profits. Money was also given to the faculties to support the resourcing and development of online course offers. The question is, what are suitable rewards and incentives to encourage the degree of creativity and commitment required to develop sound online learning environments, and then continue to maintain and improve them?

Ethical Behaviour

Interaction in online learning environments is often based on authentic workplace situations, so policies outlining access to course material needs to be clearly articulated and monitored. Consideration needs to be given to the access allowed to online courses by those not directly involved in those courses.

The *Manual for Course Examiners/Tutors* contains a section on "Ethics for Students and Staff" that directs readers to university policy documents which focus on these issues. These documents outline appropriate ethical conduct for both students and staff and address concerns that might arise from project work or from access to confidential online material such as discussion forum discourse. Another section in the *Manual* addresses the matter of netiquette (or online etiquette).

Conclusion

The adoption of online technologies at USQ has meant that teachers are experiencing change in terms of their teaching philosophies, their relationships with learners, and their work patterns and activities. The physical space defined by a classroom has been replaced by a virtual space defined by a learning management system. Teachers at USQ have developed considerable insights into how to use online technologies in order to strengthen the concept of a learning community. These teachers' roles have changed from being the "experts" in their field to being facilitators of learning. They are reasonably comfortable with the notion that they combine this role with another one that defines them as learning partners. This is a situation that not only allows but also encourages other members of the group to assume leadership by enabling participants opportunities to change the course direction, share resources or assist the group by proposing initiatives. Much progress is being made in getting the best out of the online environment. Nevertheless, it is pointed out that many of the difficulties that online teachers continue to raise focus on the tensions between teaching philosophies, learner expectations and traditional organisational mindsets. While the experienced teachers are well aware of the importance of shared understandings, there is also the acknowledgement that the rapid pace of change in the information and communication technologies require a great deal of flexibility and adaptability by both teachers and learners.

References

Alexander, S. & Boud, D. T. (2001). Learners still learn from experience when online. In J. Stephenson (Ed.), Teaching & Learning Online: Pedagogies for New Technologies. London: Kogan Page.

Beaudin, B.P. (1999). Keeping online asynchronous discussions on topic. [Online]. Available: http://www.aln.org/alnweb/journal/Vol3_issue2/beaudin.htm) [26th June 2002].

Berge, Z. & Collins, M. (1995). Computer Mediated Communication and the Online Classroom: Vol 11, Higher Education. NJ: Hampton Press.

Buckingham Shum, S. (1999). 'Knowledge technologies,' Unit 11, B823, Managing Knowledge. Business School. Milton Keynes: The Open University.

Dolence, M. & Norris, D. (1995). Transforming Higher Education: A Vision for Learning in the 21st Century. Arbor: Society for College and University Planning.

Duarte, D., & Snyder, N. (1999). Crossing cultural boundaries. In Mastering Virtual Teams. (pp. 54-71). San Francisco: Jossey- Bass Inc.

Jonassen, D. (2001). As the hype around e-learning continues, we get down to basics with Professor David Jonassen. [Online]. Available: http://www.elearningpost.com/elthemes/jonassen.asp [6th June 2002].

Joo, J-E. (1999). Cultural issues of the Internet in classrooms. British Journal of Educational Technology, 30(3), 245-50.

King, B. (2001). Moving online at UniSA: Yesterday, today and tomorrow. In Online Learning in a Borderless Market Conference. Evaluations and Investigations Programme. Canberra: Higher Education Division of DETYA.

Laurillard, D. (2002). Rethinking University Teaching: A Conversational Framework for the Effective Use of Learning Technologies, (2nd edn). London: Routledge Falmer.

Laurillard, D. (2002a). Rethinking Teaching for the Knowledge Society, Educause, January/February. [Online]. Available: http://www.educause.edu/ir/library/pdf/erm0201.pdf [6th June 2002].

Lave, J. & Wegner, E. 1991, Situated Learning: Legitimate Peripheral Participation, Cambridge University Press, UK.

Masterton, S. (1998). The Virtual Participant: A tutor's assistant for electronic conferencing. In M. Eisenstadt & T. Vincent (Eds.), The Knowledge Web: Learning and Collaborating on the Net. London: Kogan Page.

Mayes, T. (2001). Learning technology and learning relationships. In J. Stephenson (Ed.), Teaching & Learning Online: Pedagogies for New Technologies. London: Kogan Page.

McKendree, J., Stenning, K., Mayes, T., Lee, J. & Cox, R. (1997). Why observing a dialogue may benefit learning: The vicarious learner. Proceedings of PEG '97, May 1997. Bulgaria: Sozopol.

McCann, D., Christmass, J., Nicholoson, P. & Stuparich, J. (1998). Educational Technology in Higher Education, Department of Employment, Education, Training and Youth Affairs. Australia: Canberra.

Oliver, R. (1999). On-line teaching and learning: The new roles for the participants, Internationalisation. Flexible Learning and Technology, Monash University, September 27-19, [Online]. Available: http://www.monash.edu.au/groups/flt/1999/online.html [24th June 2002].

Palloff, R. & Pratt, K. (1999). Building Learning Communities in Cyberspace. San Francisco: Jossey-Bass.

Petrie, M., Carswell, L., Price, B. & Thomas, O. (1998). Innovations in large-scale supported distance teaching: transformation for the Internet, not just translation. In M. Eisenstadt & T. Vincent (Eds.), The Knowledge Web: Learning and Collaborating on the Net. London: Kogan Page.

Postle, G., Carmichael, A., Mangabhai, F., McDonald, J., Reushle, R., Sturman, A., & Vickery, B. (in press). Online Teaching and Learning in Higher Education: A Case Study, Evaluations and Investigation Program, Commonwealth Department of Education, Science and Training, Canberra, Australia.

Reushle, S.E., Mangubhai, L. & Cronk, P. (2002). Manual for Course Examiners/Tutors of Online Studies. Toowoomba, Queensland: USQ, Faculty of Education.

Salmon, G. (2000). E-moderating: The Key to Teaching and Learning Online. London: Kogan Page.

Suler, J. (2002). The Online Disinhibition Effect. [Online]. Available: http://www.rider.edu/users/suler/psycyber/disinhibit.html [6th June 2002].

Taylor, J.C. (2002). Teaching and learning online: The workers, the lurkers and the shirkers. Paper presented at CRIDALA Conference, Hong Kong.

Tobin, T.J. (2001). Dealing with Problem Students and Faculty. [Online]. Available: http://www.westga.edu/~distance/ojdla/fall43/tobin43.html [20th June 2002].

Twigg, C.A. (2001) Innovations in Online Learning: Moving Beyond No Significant Difference. The Pew Learning and Technology Program. New York: Center for Academic Transformation at Rensselaer Polytechnic Institute.

Wegner, E. (1998). Communities of Practice: Learning, Meaning, and Identity. Cambridge: Cambridge University Press.