Distance Education, On-Campus Learning, and E-Learning Convergences: An Australian Exploration

CAMERON RICHARDS

The use of web-based resources and internet communications for online teaching and learning is seen by many to provide a 'flexible' and 'blended' learning' focus for extending on-campus learning as well as commercial training in terms of distance education methods (e.g. Daniel 1996; Rosenberg, 2001). This paper argues that various concepts of e-learning convergence between different modes and contexts need to be understood and explained in terms of a distinction between mere 'add-on' and more integrated models of learning with and through new Information and Communication Technologies (ICTs). In contrast to traditional 'transmission' models of teaching, learning technologies are often characterized as student-centered or constructivist in educational implication (Duffy & Cunningham, 1996) Yet, e-learning is often referred to as educational 'delivery' and thus more likely to be practiced in terms of a traditional 'transmission' view of learning. A distinction between mere 'add-on' and more integrated approaches to e-learning will be discussed here in relation to an Australian educational context which has a strong tradition of both distance education and progressive models of student-centered learning. The two case studies will provide a focus for discussing the challenges and possibilities involved when attempting to develop both distance education and on-campus 'online courses' in a more integrated way.

DISTANCE EDUCATION, 'PROGRESSIVE' MODELS OF LEARNING, AND AN AUSTRALIAN CONTEXT FOR EXPLORING CONVERGENT NOTIONS OF E-LEARNING

As a term for electronic learning making particular use of the Internet or online computer networking as well as the methods of distance education, 'e-learning' is contested in terms of two distinct but overlapping contexts: (a) corporate (especially commercial) imperatives of online training and 'knowledge management' (Rosenberg, 2001); and (b) new models or 'generations' of a more academic tradition of distance education which emphasize the 'delivery' of educational content by one or more assisting technologies in terms of learning "removed from the teacher in both time and space" (Bates, 1995; Daniel, 1996). In contrast to this, post-industrial projections about how the Internet revolution in information and communications is transforming education varies widely. It ranges from the

CAMERON RICHARDS, HONG KONG INSTITUTE OF EDUCATION, HONG KONG
E-MAIL: richards@ied.edu.hk

formal delivery strategy of telelearning (Betty Collis) and the electronic platforms of cyber-schools or virtual classrooms (Starr Roxeanne Hiltz), to the ubiquitous mixture of informal and commercial possibilities outside the classroom – referred to by Lewis Perelman as hyperlearning.

E-learning in the commercial sector is associated with both formal and informal learning mediated by customized websites, incorporating resource links, procedural tutorials and associated communication programs (Horton, 2001). In the academic community, the term is increasingly synonymous with the use of commercial programs such as Blackboard and WebCT. In this way, various aspects of 'online learning' are incorporated into a convergent 'platform' or 'portal' (Freeman, 1997; Paloff & Pratt, 2001). Both the commercial (Jones, 1998; European E-learning Summit 2001) and the academic (Hazemi, Hailes & Wilbur, 1998; Farrell, 2001) models of e-learning are thus interested in the Internet in terms of: (a) information access and resource provision, b) the challenge of course design for a new medium; and c) the use of Internet communications to promote effective learning, critical discourse and learning communities.

Cutting across this *commercial-academic* tension is a more fundamental conflict. It is between those who see education primarily as a teacher-centered or 'transmission' process of providing access to authoritative information on one hand. On the other hand there are those who take a more student-centered or 'constructivist' view of the learner as an active agent of knowledge. Common to both the third-generation distance education model and the contemporary challenge of integrating ICTs in conventional 'classroom' or 'on-campus' education are the related questions: a) is the *detachment* of the teacher from the learner in time and space – and the packaging of educational content or information – necessarily an arbitrary and permanent 'substitution' for face-to-face teaching and learning (Keegan 1986; Paloff & Pratt, 2001)? And, b) are the various communication possibilities of the Internet and related hypermedia sufficient to compensate for the challenges and limitations of mediated learning? In short, a distinction must be made between what may be referred to as an add-on model of e-learning and a more integrated approach which goes beyond a mere transmission or delivery of content to promote more interactive and effective learning.

Australia has an extensive, innovative and decentered tradition in distance education and an associated use of 'learning technologies' (Castro, Livingstone & Northcott, 1985, p. 2). Regional *open learning*-cum-ICT centers have provided a focus in recent decades for higher education provision in country towns and rural areas. This follows the model of how children in the outback have long connected to a regional *school of the air* by radio as well as by conventional correspondence. Regional Australian universities – such as the University of Southern Queensland, University of New England, and Curtain University – have adopted distance education methods for, initially, a domestic market of higher education and adult learning. They have since refined and extended in recent years to cater for foreign markets of fee-paying students from the Middle East, Asia and elsewhere (King, 1999). Similarly, other Australian universities have followed the example of Deakin University's innovative development of *dual mode* delivery (Moran 1990; Moran & Myringer, 1999). They have increasingly adopted the strategy of not only supplementing existing on-campus courses with online delivery approaches, but also offer courses in distance education and on-campus modes of online provision where possible.

The models of student-centered, lifelong and flexible learning often used to justify, theorize and prescribe the integration of ICT in education have been influential in an Australian context. This is perhaps because they resonate with progressive and critical theories of learning, long embraced in theory if not in practice in the local context (Walshe, 1984). If many Australian teachers and educators initially took the lead in the 1970s from innovative English and American models of personal growth, creative expression, and collaborative learning, they arguably embraced the principles of such models or approaches on a wider and more comprehensive basis. This is especially the case in states like Queensland, where the school systems moved away from the concept of a fixed curriculum and a definitive final examination. Likewise, many Australian teachers and educators in the 1980s embraced critical theories of reading, knowledge and pedagogy on one hand, and *across the curriculum* principles of generic learning skills, core or basic competencies and information literacy on the other (Education Queensland, 1999). Such movements – or 'fads,' as many teachers saw them, – mainly took place in schools. However, there was a significant connection with higher education theory and practice to the extent that it encouraged critical dialogue and focus in Australian higher education, as well as schools in many other countries.

The two e-learning case studies discussed here represent the imperatives of a conducive Australian educational context. They also reflect particular action research inquiries into convergent

notions and possibilities for e-learning within both on-campus and distance education modes of higher educational courses. Both studies involve courses coordinated and developed by the author – with assistance from designated teaching teams – from 1996 to 2000 in the Queensland University of Technology's Faculty of Education. The first study focuses on a distance education course which was developed to make extensive use of online access and interaction - *LAN625: New Literacies and Technologies*. The second study reflects on the reconstruction of a foundation undergraduate course to include partial online interaction as well as on-campus lectures, tutorials and workshops - *LAB341: Language, Technology and Education*. The first study will focus on the transitional dilemmas of going from print to online distance education modes, with particular reference to the question of what constitutes an online learning community. The second study emphasizes the challenge of integrating online activities in large on-campus foundation courses. It makes particular reference to constructivist theories of learning emphasize hands-on activity and reflective practice, rather than the mere transmission of information or skills as a key to effective learning.

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CASE STUDY #1: THE RELEVANCE OF A CORE LEARNING COMMUNITY (AND THE EFFECTIVE DESIGN OF LEARNING ENVIRONMENTS OR CONTEXTS) IN ONLINE DISTANCE EDUCATION

At the center of debates about new and changing models of distance education in the Internet Age (Lockwood, 1995), there is a fundamental conflict of perspectives. Some use the term to refer to an institutional packaging of content or information for delivery on one hand (Hawkridge, 1995; Rosenberg, 2001). Others strive to retain an educational design connection to some notion of a pedagogical process behind this or a constructivist model of learning on the other (Moore, 1993a; Daniel, 1996). Similarly, some people interpret the educational implications of the Internet in terms of its informational functions as a potentially infinite database. Others focus on its communicative potential for new modes of interaction and community.

The main challenge faced in developing the *LAN625* course as a distance education mode course was that a correspondence version, in print format, was required to be developed and mailed to participants. There was a transitional dilemma of going from a print to online mode of provision. The initial version of this unit followed the typical correspondence model of providing sets of notes about the relevant course topics. Although there was some effort to direct and engage participants with focus questions and activities, these exercises were not directly assessed. The assignment requirements, initially, were two large essays that needed to relate to two of the topics covered in the four modules of this unit. In other words, participants were expected to interact with presented course content and related concepts, and on this basis, demonstrate knowledge in a written essay of understanding and application. The course was typically undertaken part-time by full-time teachers, and also by other educators wanting to upgrade themselves professionally. Half the participants lived locally, though they preferred distance education mode, for various reasons. The others came from regional areas, inter-state and overseas.

As the course was about the educational implications of new technologies and literacies – with modules on Internet communication, hypermedia, information literacy and digital literacy – we felt that this model did not encourage the kind of basic ICT literacy and hands-on application required to effectively connect theory and practice. So over several years, the unit was further developed as a functional website or online location and as a set of resources, on one hand. On the other, it was developed as a series of activities, related topic reflections and online discussions built into the assessment in terms of the requirement of a web-page portfolio final assignment. In addition, students were required to write one short essay to explore a chosen topic in more depth. The activities and associated exercises ranged from being based around initial familiarization exercises in generic ICT skills – electronic information literacy, hypermedia design and Internet communications – to reflections, responses and discussion about selected critical issue topics – such as debates about the relevance of ICT in education or the various meanings of *technological literacy.* Course activities also included the crucial assessment criterion of critical reflection (as a graded course), as

well as requiring a more hands-on use of ICTs as part of the process of learning and assessment. This approach assured that participants engaged with the main topics of the course and linked this with the required demonstration of a basic practical ICT *literacy* as distinct from a discrete set of skills learned in a vacuum.

There are various aspects of the experimentation, development and refinement of this course over a number of years as web-based teaching and learning that might be discussed in more depth. However, for our purposes, the focus will be on how the course functioned as a virtual classroom and learning community attempting to promote an educational process of dialogue and support effective learning. The original version of the unit adopted a modular approach – a team of lecturers were involved in writing up the initial versions of separate modules – as well as a correspondence model of delivery. In other words, students could read the notes of any module in whatever sequence and whenever they liked, as long as they came up with two long essays by the end of the semester. In attempting to encourage hands-on connections with the content of the course, several points soon became clear. There needed to be some kind of progressive sequence to the course in terms of teacher-learner and learner-learner dialogues as well as the progression of activities. The four modules lent themselves to further reconstruction along these lines. Yet, a degree of flexibility and personal or self-pace customization was needed about this. It became clear that very few of the participants could sustain a regular weekly online interaction. Thus, we developed a core schedule which needed to be followed but ultimately allowed participants a convergent range of options about the regularity, extent and even the mode of their participation and completion of required activities and reflections.

In this way, the course developed a core learning community in which most participants interacted and contributed on a regular basis, with opportunities for both teacher-learner and learner-learner interaction. In addition to the regular use of a course e-mail list for information purposes and the use of *webforums* for reflections and discussions, there were two general options that helped to promote this. In the first week of the semester, participants had the option of attending an on-campus workshop that would give them grounding in ICT skills relevant to the course and the online mode of interactions. Those who could not attend this workshop could negotiate a time for an individual session with the coordinator. The other option was a regular, weekly, synchronous session in the online course chat room at a negotiated time. This was initiated as a programmed online debate activity in the early part of the course. Most participants attended this session, and those who could not were able to do an alternative activity.

The weekly chat sessions helped promote a core learning community, especially in terms of how the social function of these sessions overlapped with educational (and other) purposes. Initially, I would use these sessions to provide an overview of upcoming topics or modules and field any questions about those or the course requirements in general. Those who could not attend could read an archived copy of the discussion normally posted the next day. I would e-mail the group to inform them which weeks I would introduce new modules in the course, discuss new topics, or be available to answer queries. After these semi-formal information sessions – and also in the weeks when I was not present – course participants would continue the discussion informally. In particular, the informal sessions when I was absent were not just social events, but also a focus for peer discussion, support and information-sharing about relevant topics of the course by nearly half the course participants. As I discovered in follow-up feedback at the end of the course, most students participated in these sessions from time to time, in addition to a core group of regulars. One informal incident provided insight into the potential power of informal and social purposes to promote the development of an online learning community. I unexpectedly dropped into my office to pick up some material for a Monday lecture late Saturday night, switched on my computer and found five of the *LAN 625* course participants chatting with the program ICQ – one of the options promoted in the course.

Discussion

From both the corporate and academic spheres, much focus has been made of how learners undertaking e-learning or distance education courses without face-to-face interaction with teachers and other learners often struggle to stay motivated and avoid dropping-out (Henri & Kaye, 1993; Osberg, 2001). Yet, other research has shown how online interaction can encourage the involvement of those typically intimidated in face-to-face contexts of learning (Pemberton & Zenhausern, 1995). The concept of an online community has preoccupied many educators interested in e-learning or the social implications of the Internet (Hazemi, Hailes, & Wilbur, 1998). Indeed, as Jones (1995) and others have discussed, the concept of a virtual community – generated out of online interaction – is meaningful as an emergent process and focus of shared

dialogue, as distinct from a merely abstract and idealized focus of identification or organization.

As Moore (1993b) has identified, the essential distance education elements of structure, learner autonomy and dialogue represent a potential *triangle of interaction* that might be promoted by an online medium. As the example of *LAN625* demonstrates in terms that correspond with Moore's model, performative activity and participation in a community of practice (Barab, 2000) may be a convergent and complementary relation. This runs counter to the depictions by both psychological and sociological models of constructivist learning (Richards, 2001b) that performative activity and participation in a community of practice is an oppositional relation. Just as stages of dialogue represent the emergence of social knowledge linked to learning community contexts, so too corresponding and related stages of individual *reflective practice* inform more effective learning interactions with the implicit pedagogical designs of *structured content.* The concept of social knowledge presupposes a distinction between the dissemination of ideas as mere talk and the participatory context of a community of practice. Similarly, a related distinction between meaningful performative action and the ad hoc purposes of either "doing without thinking" or "thinking without doing" is made in terms of reflective practice grounded in individual performance (Schon, 1987). My own experiences with *LAN625* support the notion that the promotion and encouragement of an online learning community helps also to establish social contexts or environments for more effective learning in terms of *individual performance* as well as a process of shared knowledge.

CASE STUDY #2: THE DESIGN OF EFFECTIVE LEARNING ACTIVITIES IN ON-CAMPUS E-LEARNING

The focus of on-campus e-learning tends to be about the issue of ICT integration in teaching and learning (Daniel 1996; Knapp & Glenn, 1996). Underlying this is a continuum ranging from a fully online delivery to a supplementary use of the Web as an information resource and asynchronous communications for discussion or reflection purposes. A key challenge for on-campus e-learning is to harness the educational potential of the Web's vast information resources (Cunningham & Rivett, 2000) through effective learning activities that *supplement* rather than *substitute* for classroom and face-to-face interaction.

Where the underlying transmission model of Industrial Age education emphasized the teacher as authority and transmitter of knowledge, the *knowledge worker* model of electronic-age learners (G. Jones, 1995, p. xxi) as active seekers, transformers and constructors of information into knowledge has been more problematic. The obvious relevance of constructivist theory for integrating ICT in education does not necessarily translate in practice. In other words, without some kind of hands-on connection, constructivism may remain mere theory, social talk or even a kind of learning relativism (Duffy & Cunningham, 1996). Also, just as the Internet and ICT offer facility for plagiarism and other kinds of electronic cheating, sophisticated templates and advanced programs provide paths to polished finished products that do not necessarily demonstrate and promote effective learning or knowledge. Learning activities and environments that encourage constructive processes of knowledge work provide an antidote to these temptations. Yet, ICT tools and processes for learning must somehow be grounded in the strategy of assessment also to avoid being a mere add-on. Thus, the foundation course *LAB341* was progressively reconstructed in terms of a progressive and interdependent relation between resources, pedagogy and curriculum, and learning and assessment (Richards & Nason, 1999). This reconstruction was performed to overcome traditional binaries such as theory vs. practice, content vs. process, and formative vs. summative assessment.

As an existing course shared with two other departments, *LAB341*'s reconstruction process did not take place overnight or without resistance. Previous versions of this course involved some basic learning of ICT skills such as e-mailing, but this was not extensive nor directly connected to the assessment program. The main assessment item was a research project that had to be about – but did not need to involve – the use of new technologies in education. At the initial stage of reconstruction – when taking over as coordinator – suggestions were made that the course might aim to do away with tutorials and workshops and focus mainly on mass lecture provision supplemented with online resource access and asynchronous online interaction. This was resisted because of the foundational nature of the course. Moreover, a plan was developed in the opposite direction to take a more hands-on and dialogical approach, with weekly tutorials and computer laboratory workshops. Likewise, lectures were programmed when relevant, with an emphasis on introductions to new topics, overall course connections and practical demonstrations – rather than the mere presentation of content. Online resources and Internet communications supplemented these face-to-face interactions where appropriate. Requirements to share reflections on e-mail lists and contribute to

online discussion forums were also designed to support and reinforce face-to-face tutorial and seminar discussions. In addition to a process focus that dominated the first two-thirds of the course, the last part of this course unit consisted of tutorial discussion seminars. They concentrated on critical issues about ICT in education, and the practical challenge of achieving a balanced perspective about this.

A crucial objective of this course was to introduce and promote educational technology in a teacher-training context. Thus, we faced a dilemma: enrolled students – typically about 500 students every second semester – ranged from having few ICT skills or awareness through to those who specialized in computer education, as well as others who were ICT-savvy. In other words, the course had to function, to some extent, as an introductory ICT skills course, but also had to cater to those who were already ICT competent. Also, we had to contend with how students were generally ambivalent about ICT in education – reflecting on how public and academic debates tend to be polarized between naïve enthusiasm and cynical resistance. Just as naïve enthusiasm could lead to failure and disillusionment, so too was cynical resistance often a self-fulfilling prophecy of learner *technophobia* (Richards, 2001a). To complicate matters, the course was meant to somehow be a literacy foundation as well as an ICT in education foundation.

A cornerstone of the efforts to reconstruct the unit was the knowledge that effective learning with new information and communication technology is initially and inherently frustrating. Like the mastering of a new skill and program, or the overcoming of any minor technical problem, the achievement of basic ICT literacy requires the overcoming of a provisional threshold of frustration. Otherwise, no further progress is possible, and *technophobia* remains (Richards & Bhattacharya, 2001). In other words, we observed that, unlike content subjects – where some new information is acquired – courses that specialize in or attempt to integrate ICT effectively can be counter-productive and traumatize some students if not done well. In short, an environment of support was critical to the reconstruction of this unit. We came up with an integrated strategy of extra help sessions, modeling by tutors and workshop handouts. In particular, the help sessions and additional personal guarantee that assistance was provided for the technophobic students to suspend their fears.

It became our strategy to view these previously described dilemmas as an opportunity to focus on the across-the-curriculum challenge of new processes of literacy in the Internet Age. The focus of learning revolved around familiarization activities that introduced a range of ICT skills in useful contexts of application, as well as a focus for reflecting on related issues and making relevant theoretical connections. For instance, we taught a range of information literacy skills around the requirement that students develop the online education resource of a set of annotated links about a selected topic. Such skills that students learned were: making bookmark folders, using search engines, developing search strategies for the Internet, and evaluating quality information.

Discussion

The course interpreted the learning stages of ICT knowledge acquisition as an *activity-reflection cycle.* This leads to cognitive connections between thinking and doing and transformative jumps to overcome the 'missing links' between theory and practice – as well as other top-down and bottom-up imperatives. Such an interpretation contrasts with a traditional, linear conception of skill acquisition and a hierarchical one of information acquisition. The progression of the course and the design of weekly workshop activities were built around the concept that the most effective way to learn ICT skills as applied knowledge was in the context of a three-fold process: initial familiarization (naïve/activity phase); procedural or theoretical explanation (critical/ reflective phase); and specific application (dialogical/transformative phase). The course's pivotal assessment exercise was the students' design of their own web-based learning activity in relation to a selected topic and target audience. In the manner of the model above, students engaged with and analyzed examples such as the Webquest model **(http://edweb.sdsu.edu/webquest/webquest.html)** before devising their own application.

The learning and assessment activities that comprised the course functioned as a guided but open-ended 'journey' to engage and overcome the initial and inherent thresholds of temporary frustration. The transformative stages further imply a theory of activity that lends itself to ICT integration as well as more effective learning links between content and process, thinking and doing, and formal education and social context.

The notion of *learning activity* conceived here avoids an oppositional view of the relation between *social knowledge* and *individual performance* in terms of: (a) reflecting a dialogical process and set of learning stages concretely and initially grounded in time rather than a notion abstractly conceived in either physical or symbolic space; (b) a specific and grounded methodology, and not just a vague prescription or general approach; and (c)

as a link between the introductory purposes of initial interests, the developing skills and knowledge of 'hands-on' processes and tasks, and the 'authentic' contexts of specific application. It thus contrasts with the constructivist model of *activity theory* (Jonassen, 2000) and the concept of *rich tasks* (Education Queensland, 1999), which also strive to overcome the gap between theory or content and actual contexts of practice in terms of a focus on ICT integration. In short, learning activities represent ideas which function as a *convergent* hub or focus for skill and information acquisition or applications, a continuum of learning stages and elements, and reflective practice in general.

The organizing learning and assessment strategy developed to frame the course learning activities and associated reflection exercises was a web-based portfolio – an activity-reflection e-portfolio (Richards, 2002). It also functioned as a project-based learning imperative and context, to the extent that such a portfolio was required to represent an overall educational resource in relation to a chosen topic. It provided the framework for the guided journey towards the course's aim of promoting applied ICT literacy for teacher educators, as well as a repository for progressive activities and reflections. In this way, the course emphasized that the process of learning is just as important as the product or outcome. One way it served this function was to reconcile the competency and higher-order or applied elements of ICT literacy. Many of the ICT familiarization exercises, such as web-page design, were open to questions of subjective taste, as well as promoting a general competency or literacy. However, the assessment framework could fairly recognize and reward innovation, effort and quality by being linked to associated reflection exercises or developed as applications and rubrics that could be graded in terms of the given criteria.

Similar to related distance education print models, an add-on model of e-learning views the Internet as a technological means of delivering content or information, with a token use of Internet communications for educational purposes

The course involved a particular focus on integrating ICT as a literacy and not just a discrete set of skills or information. Because of this, it provided an exemplary context for further exploring the possibilities of online learning in both distance mode and for other courses across the curriculum in partial e-learning mode. Indeed, this course was eventually required to run in dual mode and adapted to a fully online mode in 2000, reflecting similar imperatives in many universities. Perhaps such a course should have retained an on-campus mode of face-to-face interaction because of its particular purposes or objectives. Nonetheless, the *activity-reflection* learning approach of the on-campus version still translated reasonably well into the distance education version. In this way, the constructivist possibilities and potentials of ICT for education were harnessed and framed. This was so in terms of: a) further accounting for how learning with technology involves *missing links* and transformative or cognitive *jumps*; and b) reflecting effective connections between practice and theory, doing and thinking, and various top-down and bottom-up imperatives.

TOWARDS AN INTEGRATED RATHER THAN AN ADD-ON MODEL OF E-LEARNING CONVERGENCE

Similar to related distance-education print models, an *add-on* model of e-learning views the Internet as a technological means of delivering content or information, with a token use of Internet communications for educational purposes. The distinction between *web courses* (any course with a web presence), *web-enhanced courses* (on-campus with online aspects) and *web-centric'* or fully online courses with an interactive focus (Paloff & Pratt 2001, p.67) may be interpreted to represent increasing degrees of online integration. However, it also represents a tension between mere transmission and interactive or dialogical approaches to learning. An integrated model of e-learning is perhaps one which supplements rather than substitutes for either face-to-face learning or distance education, as indicated in the case studies. This is so in terms of the transformative interplay of an effectively designed learning *environment* – which may include a sense of learning *community* – and *activities* which promote a dialogical notion of knowledge based on or connected to a practical understanding, as well as reflective explanation.

Recent academic models of e-learning often refer to both commercial examples and corporate contexts on one hand, and the concepts of constructivist theory on the other, such as collaborative and independent or student-centred learning (Rosenberg, 2001; Horton 2001). Rosenberg (2001, pp.117-148), for instance, discusses the common learning architecture which applies to both the academic and corporate models of online distance education and web-based learning. In this way, he outlines a general

imperative of blended e-learning. Rosenberg's further distinction between e-learning as *online training* and *knowledge management*' reinforces a view of learning as a transmission of skills or delivery of information. His related concept of e-learning objects thus refers to reducible and discrete 'chunks' of instruction and information (p. 170). It ignores or underestimates the inherently transformational way in which the elements of course 'design' are ever constructed in relation to different contexts of application, interpretation and knowledge or performance – even in online modes. This is similar to how some hypermedia theorists merely reduce the graphic user interface to a textual play of discrete signs. They tend to ignore or underestimate the possibilities and implications of human-computer interaction as a transformational convergence of visual and verbal literacies (Kress, 1997).

A 'lower order' notion of learning is extended to include or rationalize *higher-order* theorizing independently of specific contexts of meaning and relevance. This is similar to the use of the instructional design paradigm as a defining model of educational technology (Lee & Owens, 2000). In contrast, an integrated approach reconciles practical and conceptual notions of knowledge in terms of complementary stages of applied and dialogical contexts of learning.

Another convergent term for distance education and on-campus use of Internet as a media or resource for learning – *flexible learning* – epitomizes a third phase. It goes beyond an initial stage of *distance education* and a second stage of *open learning*, with its focus on providing greater access to higher education (Tapsell & Ryan, 1999). At issue here is how to interpret and distinguish different understandings of the e-learning catch-cry of *anytime, anywhere learning* and related notions of *just-in-time education* and *flexible delivery.* This imperative is often governed by institutional pressures for *more access, less cost* in mass higher education, as Daniel (1996, p. 61) points out. At the same time, e-learning is bureaucratically and often uncritically lauded as more effective (Van Dusen, 2000, p.87) – rather than carefully discriminating how and when various aspects of online provision might enhance student learning. On a similar basis, asynchronous collaborative learning systems on the Web have been proposed as a means of reinventing universities in terms of a *management* rather than *teaching* imperative of new learning (Hazemi, Hailes, & Wilbur, 1998). Likewise, the kind of worldwide education revolution of online learning envisaged by Jones (1995, p. 45) tends to be projected in terms of convenience, access and entrepreneurial initiative. It reduces learning to a matter of delivering education to the living room. Such administrative and commercial imperatives are sometimes justified in terms of student-centered, progressive and constructivist notions of learning. Yet, perhaps they still reinforce an Industrial Age model of learning when assuming that knowledge can be wholly objectified, then merely transmitted and delivered.

Keegan's (1986) influential assumption that the institution can and does replace the teacher in distance education also seems to inform many academic and commercial models of e-learning. As Paloff and Pratt (2001, p. 94) discuss in online courses taught by those who did not develop them, "The focus is on content rather than on pedagogical process." Thus, the push for converting on-campus courses into a fully online or e-learning mode is typically undertaken by teams with discrete roles but little sense of a convergent pedagogical purpose. Queensland University of Technology, for instance, has *flying squads* designated to assist academics in going online (Ryan, 2001). This is typically done in terms of simply converting course content into a web-based format – generally with little negotiation about pedagogical possibilities appropriate to that content. Orthodox distance education theory goes further and assumes that content becomes autonomous 'didactic materials' that are administered to learners by institutions (Henri & Kaye, 1993, p. 29).

Moore's theory of transactional distance in distance education challenges this assumption by implicitly retaining the function of dialogue in distance education. This is so despite the fact that an instructor who developed course materials may not be directly involved in the process. Thus, it exemplifies a communicative view of learning that includes *learner-content interaction* and *learner-learner interaction* as well as *instructor-learner interaction* (Moore, 1993b). In this way, Moore developed a model that recognizes that notions of dialogue, structure and autonomy may be implicit in the design of 'content' for distance education.

As Marland and Store (1993, p. 137) state so well, course designers as teachers in distance education are or should be "concerned with indirect methods of interacting with learners." Such a model reflects the assumptions of a dialogical model of textual reception. Take, for example, the model developed by Paul Ricoeur and Hans Jauss. The author of a book – which corresponds here to a designer of online learning activities, environments, and courses generally – is treated as a rhetorical or 'virtual' presence. A reader or a learner engages him as a process of provisional rather than arbitrary distancing.

Reflecting a *hermeneutic arch* between acts of

appropriation and *distanciation*, the interactive process of reading or learning provides a connection between a *mediated* content and the *immediate* contexts of reception. This, in turn, initiates an open-ended and related dialogue between the *social knowledge* of the text and the *individual performance* (or cognitive transformation) of the reader or learner (Ricoeur, 1991). This dialogical view of the process of *mediated learning*, thus, has particular application for recognizing a convergent relation between: (a) fully online distance education modes of e-learning; and (b) the supplementary use of web-based resources and Internet communication in partial e-learning modes integrated into on-campus contexts of formal education. Such a convergent relation provides a basis for distinguishing between add-on and a more integrated approach to e-learning.

The Internet represents a unique convergence between *immediate* and *mediated* interaction in the history of human communications (Levinson, 1990). Theorists such as Jay Bolter refer to this as hypermediacy. While speakingwriting, asynchronous interaction conversely precedes synchronous interaction in Internet communications. By attempting to reproduce the elements of face-to-face *immediacy* and print *mediacy* – as Daniel (1996, p. 60) suggests – both the asynchronous and synchronous traditions of distance education, and now e-learning, fail to harness the convergent interactive possibilities of the new 'knowledge media' represented by the internet (i.e. remain 'add-on' strategies). Likewise, communications technology may be used to promote the kind of two-way communication that aids effective learning, as Laurillard (1993) has recognized. Her dialogical model of teaching has great relevance for an integrated view of e-learning, with its emphasis on the *design* of learning to encourage reflection, dialogue and understanding. This might be enhanced by the design of appropriate learning activities and environments in terms of connecting *social knowledge* with *individual performance* in a manner consistent with but beyond constructivist theory. This point has been indicated in the earlier case study discussions

The hypermedia interface of the Internet has been influentially criticized for lacking learning depth (Sven Birkits), for encouraging a tendency for *infomania* (Michael Heim) and as a means of inevitably superficial communications (Clifford Stoll). Such criticisms may be appropriate for add-on uses that reflect Industrial Age or machine-like perceptions of online information and communications media. However, other critics take a more balanced appreciation of the potential of the Internet to encourage the productive transformation of education and society (Apple, 1997). The Internet can be an indirect foundation or springboard for a new educational paradigm that would encourage the kind of 'knowledge worker' able to innovatively produce new designs and concepts. As Knapp and Glenn (1996, p.9) point out with reference to new technology as a basis for educational change: the function of the Internet as a potentially infinite database is a key reason why "a knowledge of facts is no longer as essential as the ability to creatively solve problems and continue learning throughout life."

CONCLUSION

This article has attempted to explore and outline, in an Australian context, an *integrated* rather than *add-on* model of e-learning convergences that: (a) applies to both distance education and on-campus online courses; (b) reflects the use of ICT as an extended new literacy rather than discrete set of skills or information in a vacuum; and (c) represents a new educational paradigm that builds upon, but goes beyond, a constructivist perspective in the academic and commercial sphere. An add-on model of e-learning is typically the use of a website portal or online platform for depositing mere content, with a generally token use of asynchronous Internet communications. The case studies of a distance education course and on-campus online course have provided a related focus for discussing requirements for a more integrated approach. This approach is designed in terms of appropriate and effective learning environments and activities on one hand, and the interplay of *social knowledge* and *individual performance* grounded in specific and concrete contexts on the other. The crucial insight required to undertake this strategy is this: mere educational content need not be seen – even in distance education or fully online mode – as arbitrarily separate to and distanced from the 'dialogical' process of either explicit communication or implicit designs for interactive, collaborative and independent learning. In other words, the add-on effect of mere technology as deliverer or transmitter of content may be distinguished from the integrated strategy and convergent effects of relevant learning activities and environments.

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