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## Online Delivery Versus Online Pedagogy

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### Abstract

*This paper analyses the migration of higher education content from traditional print based modes to digital and interactive modes and stresses the need for academics to remain focused on notions online pedagogy in contrast to merely those of online delivery. The paper highlights the necessity of incorporating 'new literacies' in any move from traditional print-based teaching modes to those of a digital and interactive nature. It is argued that the development of local professional development structures are one of the most effective means of allowing staff and students to engage with forms of 'new technologies', and in so doing, facilitate new processes of meaning-making in both the teaching and learning process.*

### 1. Introduction

The technology revolution has clearly impacted across the full range of Australian publicly funded institutions. In particular, it would appear that the 'hype' related to the information super highway, and the Internet as a panacea for teaching and learning, has engulfed the consciousness of those administrating universities. The comprehensive and sustained publicity associated with 'new technologies' (usually channelled through the conduits of the media and the marketplace), has resulted in the *Information Super Highway* becoming one of the most enduring metaphors of life in universities during the latter 20<sup>th</sup> and early 21<sup>st</sup> Centuries. Indeed, it could be argued that universities contain representative examples of both the macro (university-wide) and micro (individual teaching) dilemmas that confront organisations and individuals when there is a strategic diversion of resources in the direction of information technology. This paper is not however concerned with critiquing the implications of a decision-making process which are often framed by the imperative of market-share, or by the concern of being 'left out of the race'. Rather, its focus is targeted at unpacking the impact of policy decisions

related to the move towards online education – a policy shift that has a very tangible impact across the whole university.

The major problem for Australian universities has not been to keep pace with the speed with which 'new technologies' are emerging, for often universities are at the forefront of such development. Rather, the challenge is found at the chalkface, where the dilemma is one of providing suitable and sustainable resources that enable the less IT knowledgeable academic or student to integrate new technology into their teaching and learning. The central goal of this paper is therefore to generate discussion around a range of pedagogical issues that have arisen as information technology (IT) and computer mediated communication (CMC) are increasingly integrated by non-IT specialist academics into their teaching and learning.

The paper begins with a brief review of what it means for students and staff to engage with this new medium and then moves on to examine specific policy initiatives undertaken within Queensland University of Technology (Australia). The paper focuses on both the macro and micro problems encountered as the university moves toward the delivery of content online. It is the position of this paper, that effective online pedagogy will not occur until staff and students reach minimum levels of literacy within this new medium. The point is made that, one the keys to an online pedagogical revolution is for academics to remain focused on the fact that as in all 'good teaching', interactivity remains central to effective learning. In short, academics must strive to find ways where students are still taught in instructive ways within this medium and should not fall into the trap of allowing technology to dictate that the debate revolve solely around delivery. The paper attempts to cast a somewhat different perspective on this process by examining the changing notions of literacy. It also describes several initiatives undertaken in the online teaching and learning of both large and small cohorts of students within the Faculty of Education at Queensland University of Technology. The discussion focuses on the problems encountered as the Faculty has attempted to move away from notions

of online delivery towards those that stress online pedagogy, and in particular, on staff professional development in the area of 'new literacies'.

## 2. Theorising 'new literacies' and pedagogies within the university

Given the multifaceted changes to our lives as a result of advances in information technology, it is not surprising that there are a growing number of appeals for the nature of teaching and learning to evolve in conjunction with 'new technologies'. This is an extremely controversial debate that contains widely divergent positions as to the benefits and speed of such change. At one end of the spectrum are those who claim 'new technologies', and their associated forms of literacy, are detrimental to traditional classroom learning and should therefore be prevented from being allowed entry into 'high-stakes', formalised educational programs (eg. Birkerts 1994; Stoll 1995). At the other end of the spectrum are those who openly embrace 'new technologies' claiming that it is imperative for schools to reposition their pedagogical programs by integrating new notions of literacy into their curriculum as quickly as possible (ie. Bruce 1997 and Johnson, 1997). Although the winner of the dispute has never really been in doubt, many education specialists are concerned that the move online is occurring so quickly that there is often little or no time to reflect on the pedagogical implications of utilising 'new technologies' in our teaching and learning. To adequately reflect on the appropriateness of 'new technologies', we must first understand how such technologies fundamentally change the ways we communicate and interact within our teaching and learning environments.

Formalised schooling has historically privileged a specific notion of literacy that has been the nucleus of all foundational components of education. Literacy in this sense, is the "first major function of formal education both historically in the origins of modern, institutional education and in the life history of every child or adult learner as the centre the modern education process" (Kalantzis and Cope 2000: 121). This confined understanding of literacy has for the most part being aligned with the reading and writing of text/page-based forms of the language used by the dominant cultural group within that society. Achieving the status of being literate has embodied the possession of what Kalantzis and Cope (2000) term *symbolic capital*. The use of the term 'capital' is significant, as not only has literacy signified mastery of the ability to encode and decode the dominant script-based classification, it has also been the foremost indicator of the possession of cultural sophistication and knowledge. Attaining traditional

forms of literacy have centred on becoming skilled in the manipulation of grammar-based codes specific to the target language. In the case of English for example, to effectively decode and encode such alphabetic scripts, students have customarily;

- been trained to meticulously control their eye movements, ie. left to right, top to bottom,
- been required to engage in an unspoken, sedentary activity,
- needed to remember facts over considerable periods of time,
- needed to display the ability to construct rule-bound, linear arguments and narratives (Spender 1995).

It would appear that a fundamentally altered notion of literacy is emerging as a result of 'new technologies', and in particular, the multifaceted changes which they have brought to patterns of communication (Meek 1991). The traditional and established concept of literacy is increasingly under pressure, predominantly because 'new technologies' have enabled an array of textual forms to undermine the foundations of print and chirographic literacy traditions. Kalantzis and Cope (2000: 147) portray the 'basics' of traditional literacy, as almost 'vacuous', "because the main ground has shifted from the old-fashioned page-bound written texts and the dislocated 'standards'". Not only is this transformation tied to the ability to digitalise data and subsequently use such data in the generation of new textual forms, it is also tied to the fact that such contemporary digital texts are in social and cultural terms far removed from print-based texts. This disparity extends to their form, and in particular, the manner in which people access, encode and transmit them. No longer do digital texts follow an established chirographic tradition, nor are digital texts required to possess the time-honoured linear designs of narrative construction or modes of thinking (Bolter 1991). Spender (1995, 2000) goes so far as to maintain that a new conflicting set of literacy skills has emerged which, in many cases, is directly opposite to the traditional set of skills outlined above. Although contemporary literacy, or 'new literacy', may at times draw upon a traditional foundation of print-based literacy, Spender argues that to effectively decode and encode new electronic texts, people need to be able to simultaneously apply conflicting skills such as;

- an apparent haphazard and undisciplined eye movement,
- a total disregard for traditional narrative logic when engaging with an interactive and hypertextual sequence of events,
- the ability to combine oral and visual data in the form of sound, movement and images, and reconstitute such data as an entirely new text,

- a disregard for the traditional emphasis on memory and on linear narrative development.

The transformation in the higher education sector brought about by developments in technology extends across the full continuum of university life. University administrators, by adopting university wide software packages such as Callista or SyllabusPlus, have indirectly mandated that staff and students at least begin to engage with 'new technologies', and by implication, to engage with 'new literacies'. In addition to word-processing and email (the two most exploited technologies), students and staff are increasingly required to engage with technologies tailored to increase administrative efficiency – ie. enrolling online, accessing transcripts of results etc. – and a larger 'bundle' of technologies which target web-based information resources and services aimed at promoting learning online – ie. databases, lecture notes, chat and discussion rooms and so on.

To effectively manipulate such technologies requires that staff and students possess new skills. However, 'skilling-up' staff and students is not merely a process of training them to send and receive email, or to point a web-browser at a specific URL. Rather, the training of staff and students must encompass a broad range of additional forms of expertise and knowledge that collectively constitute the notion of 'new literacy'. It is important for both students and academics alike – many of whom are teaching and learning online for the first time – to have a solid theoretical understanding of the similarities and differences between computer-mediated communication and interaction, and, the more traditional, face-to-face print-based modes which they have used in the past. In addition to an obvious set of minimum IT skill levels, there is the need for students and staff to be cognisant of the implications of 'new literacies' for pedagogy. New, or additional literacies in universities, constitute a series of social practices that vary considerably depending on the social context in which they occur. In this sense, students and academics alike, must come to terms with a process of social semiotics which is closely tied to the ways technology has changed the process of meaning making in both teaching and learning.

The notion that there are a number of 'new literacies' has also challenged conventional classifications such as 'literate' or 'illiterate'. Leu (2001) makes the case that literacy is now an ongoing endeavour that has no final destination. This, Leu maintains, is due to the need for us to constantly renew our skills as 'new technologies' emerge. This understanding of literacy – as something deviating from a single linear activity – is incorporated in the

term 'multiliteracy'. The notion of multiliteracy was first used by the New London Group – a small multi-disciplinary group of academics – who met in 1994 to discuss the multiplicity of communication channels and media, and the increasing relevance of cultural and linguistic diversity. Two primary arguments emerged from the New London group's initial work, which was subsequently published in 1996 in the *Harvard Educational Review* under the title of 'A Pedagogy of Multiliteracies: Designing Social Futures'. The first of these was associated with the "increasingly multiplicity and integration of significant modes of meaning-making, where the textual is also related to the visual, the audio, the spatial [and] the behavioural" (Cope and Kalantzis 2000: 5). Here, it was argued that meaning is increasingly being produced by the electronic hypermedia, the mass media and by multi-media in a multimodal fashion where traditional script-based text modes and patterns of linguistic meaning are blended with visual, spatial and aural modes and patterns. This is significant in terms of the current discussion, due to the relationships which 'new technologies' have to modes of Computer Mediated Communication (CMC) and the subsequent manner in which CMCs are transforming the way in which language is used in teaching and learning.

The second line of reasoning proposed by the New London Group was somewhat paradoxical in that it was argued that the English language is increasingly diverse on a local level, yet at the same time, is connected globally via technological advances such as the Internet and email. Despite English having become an unquestioned *lingua mundi* (world language) and *lingua franca* (common language used across diverse regions), traditional English – in its agreed single standard rule-governed form – was argued to have been replaced by a hybrid set of multiple Englishes and their associated patterns of communication which were no longer bounded by cultural or national borders. This is also significant within the context of this paper in that the contributions which 'new technologies' have made to modes of Computer Mediated Communication (CMC) can once again be seen to be transforming the way in which language is used in a host of teaching and learning situations. It is therefore essential for academics, attempting to improve the pedagogical 'edge' of their online material, to engage with the changing nature of what constitutes digital texts, and in so doing, move closer to understanding what their students need to decode and encode online content. If educators hope to support learning within the emerging digital environment, it is necessary for them to understand that the "*semiotic symbols* (all signs, graphics, print, visuals and messages through which

we communicate), and *the modes* in which texts are presented (electronic, sign and graphic displays, conventional print materials), may *require different processings* from each other” (Healy and Morgan 2001: 38). The work of the New London Group and particularly the notion of multiple literacies are useful starting points to explore online education, for they encapsulate many of the fundamental changes to literacy and facilitate the unpacking of contemporary digital texts, as well as multiple means by which students engage with and process them. University educators, wishing to move beyond the delivery of online content and in the direction of effective online pedagogy must consequently be responsive to a range of literacy based concerns that emerge from an analysis of digital textual forms.

### 3. University reactions to the migration of content online

While historical notions of literacy, tied to the ability to read and write alphabetic based scripts, still hold considerable currency as the fundamental prerequisite for academic advancement within universities, it is interesting to observe the inroads being made by new notions of literacy in formal academic programs. Frequently framed by the boundaries of technology and information, it is possible to see many Australian universities making strategic policy decisions that have allowed for the diversion of considerable funding directed at promoting ‘new literacies’. *The Information Literacy Framework and Syllabus* for example, developed by Queensland University of Technology (QUT), goes as far as to link such ‘new literacies’ to key competencies which are interpreted as integral to the “teaching, learning and research focus of the QUT community” (Information Literacy Framework and Syllabus, 2001: 5). Using the American Library Association’s widely acknowledged classification of Information Literacy, QUT has incorporated into its Teaching and Learning Plan new forms of information literacy (particularly those used to effectively locate, evaluate and use information effectively) as a central and critical component of a student’s ability to engage in lifelong learning.

Most Australian universities have responded to the new digital terrain by adopting policy that in some way mandates a migration from traditional print and face-to-face teaching modes towards those that are web-based in nature. Although this shift in policy, may be as much to do with market share as with sound pedagogical foundations, the following discussion is limited to how such policy has filtered down from its original macro or university wide level, to the micro level of the faculty and individual

teaching academic. While enormous amounts of time and money have been directed towards the development of software packages and web-based templates that facilitate content delivery online, it is argued that online pedagogy can only be achieved when staff reach certain levels of fluency within the new digital medium in which they are teaching. It is proposed that the key to the ultimate success of the current migration of content online, is the development of local support structures for staff who are not proficient in the areas of ‘new literacies’ and ‘new technologies’.

### 4. Macro strategies for migration

Queensland University of Technology’s (QUT) Teaching and Learning Committee has endorsed a three-tiered pyramid as a means of representing how the university would implement its online teaching program. The three levels serve as a guide to “discussion about achievable levels of service, desirable outcomes for students, and appropriate staff development”

(<http://www.qut.edu.au/ltd/qut/chan/dvc/tlc/pyr.htm>). To facilitate the move to online teaching and learning QUT has allocated funding to allow the development of a dedicated online conduit to be used by the whole university. This Website, known within the university simply as OLT – for OnLine Teaching (<https://www.olt.qut.edu.au>) has been valuable in standardising the presentation of content across faculties. Anecdotal evidence after the first semester of use by all units in the university points to the use of standardised templates as having exposed staff and students to a common and constant ‘feel’ to the material which they are manipulating, thus reducing the time needed to input or locate the information required.

The principal platform for the provision of information online is the bottom tier of the pyramid, labelled ‘Band A’. All units (semester long subjects), were required to have reached this minimum standard by Semester One (March) 2001. The main objective of this directive was to allow for standardised sets of information to be provided to all students within the university. This information comprised of;

- a link to the ‘unit outline’ (summary of unit containing learning objectives, approaches to teaching and learning, assessment and reading lists),
- a link to the Student Tutorial Allocation System (automated class allocation Website),
- timetable information
- information about or e-mail access for the coordinating lecturer and associated tutors.

It is envisaged that all units within the university will be placed within the second tier – Band B – sometime during 2002. In this band the range of options for online resources used to support student learning is increased. Interestingly the university does not have a ‘preferred’ structure for its on-line material due to the fact that technology is being interpreted as an avenue to expand “opportunities for adding newer and more innovative methods to the spoken lecture and the face-to-face seminar (QUT Policy on Flexible Delivery, <http://www.qut.edu.au/chan/odvc/flexpol.html>). It would appear however, that despite the developments and improvements made by motivated and skilled staff, the problem remains one of disseminating information and encouraging less motivated or skilled staff to engage with the online medium. It would also appear that there are clear advantages in mandating a minimum online presence to be achieved by a set date, while at the same time allowing for flexibility beyond these minimum levels. Such flexibility has allowed many staff to experiment with innovative pedagogical responses to their online material such as;

- alternative progressive assessment,
- a variety of moderated and un-moderated forums and discussion groups,
- the provision of model assignment/exam responses,
- the provision of lecture slides and notes and increasingly the streaming of lecture audio,
- links to a centrally located collection of digital library resources and to other useful online material found outside the university network,
- the provision for multiple cohorts of internal/external/distance students

The final level – Band C – is the top tier of the pyramid and represents courses and units where the online environment is relied upon extensively and where interactive learning and online assessment tasks take the place of traditional face-to-face teaching and learning. Few units or courses have reached this level and there is currently no directive mandating university-wide progress to such a point.

## 5. Micro strategies for migration

It is useful to examine how individual faculties have reacted to central university directives such as the three-tiered approach to online teaching and learning. The Faculty of Education offers an interesting window of analysis. Academic staff within this faculty could be said to possess relatively high levels of pedagogical expertise, however, not necessarily the same levels of IT ‘capital’ as staff from faculties such as Information Technology.

The aim of the final section of this paper then is to outline some of the professional development programs and support structures which have been implemented to enhance the technological skills and understandings of Education Faculty staff, and thus enable them to be better positioned for the online teaching environment.

The Faculty of Education at QUT is Australia’s largest education faculty and has an extensive range of courses within the areas of Early Childhood, Primary, Secondary and Adult and Workplace Education. The Faculty comprises five schools and five research centres, and currently has over 5500 undergraduate and postgraduate students studying in full-time, part-time and external modes. Prior to the implementation of QUT’s three-tiered pyramid, the Education Faculty had responded to requests from motivated staff for structures to be set up to allow specific units and modules to make use of the Internet to enhance and aid in the delivery of content. The end result was the development of an On-Line Unit Management System (OLUMS) – a web-based structure of templates which allowed staff to add resources, generate chat-rooms and email discussion lists. Interestingly, despite almost universal positive responses from those using the system the vast majority of staff failed to exploit this online teaching and learning facility.

With the initiation of university wide policies which mandated that all units within the university reach a minimum online presence by March 2001, there was the need for a more strategic and systematic approach to the dedication of resources, and a concerted effort to persuade staff to move their material online. The Faculty of Education was able to achieve the migration of content online easily in cases where the controlling staff were technologically ‘savvy’. However, there was a core group consisting of up to 50 percent in some schools, who clearly lacked the necessary fluency in the medium to (a) migrate pre-existing content to the central OTL Website, and (b) maintain the site and adequately utilise the medium to enhance their teaching and learning.

Due to such disparity in the ‘new literacy’ levels of staff, the Faculty was forced to develop several structures to facilitate Professional Development (PD) across the full staffing profile. The key to this PD program was the creation of two distinct support configurations. The first is web-based and takes the form of a dedicated Online Professional Development Website (<http://education.qut.edu.au/olpd/>). Here online teaching exemplary practice is showcased and a variety of hints and new ideas are provided for staff who are in the process of migrating traditional content into the new online environment. One of the most

innovative components of the site has been the creation of what is termed the 'Sandpit' where it is possible for staff to 'play' and become more accustomed to online teaching conduits – such as forums and discussion lists – in a non-threatening environment well beyond the critical eyes of students.

In addition to web-based support structures there is also a two-pronged network of support personnel. These consist of (a) the FSG (Faculty Systems Group) who are made-up of IT specialists in dedicated non-teaching positions providing technical support and advice for academics and, (b) SOTAs (School Online Teaching Advisers) who act as informal peer-level advisers. SOTAs receive funding that allows them to reduced their teaching load and are usually more technologically proficient or have a particular interest in online education. Within each school – division of the Faculty – there are additional support structures called PEGs (Professional Engagement Groups). In general, the PEG is formed as a result of demand from staff who request assistance in some aspect of online teaching and learning. It is a “model of online professional development designed to overcome problems of information overload, time management and change related stress by providing an organically forming, situated and on-demand leaning environment that rewards current exemplary practice and promotes peer communication and support” (Duncan 2000 <http://education.qut.edu.au/olpd/>).

The structure of the PEG and the SOTA have been extremely well received within the Faculty, as both are peer-based and located within the informal structure and geographical location of the workplace setting. SOTAs have been responsible for the running of many workshops for staff within their schools. It is significant that such workshops target a specific aspect or requirement of online teaching (ie. the submission of results online or the manipulation of the centralised tutorial allocation system). Interestingly, such professional development workshops, organised at the local level of the school, are much better attended than those facilitated by IT specialists and controlled by core centrally funded staff development structures. It is the position of this paper that the Faculty of Education has been able to achieve quite remarkable improvements in the 'new literacy' levels of individual teaching staff as a result of developing support structures which are first perceived to be informal in nature, and second target the direct needs of staff at key times when such needs are interpreted as relevant.

## 6. Conclusion

If the policy direction taken by university administrators in Australia is any indication, then it is

unlikely that there will be any backing away from current policy directives mandating an increased online presence in higher education. It has been argued in this paper that the move from online delivery to online pedagogy can only be achieved with a coordinated approach which not only tackles the technical/application side of shipping huge amounts of content to large cohorts of students, but also addresses the pressing need for professional development of 'new literacy' skills in staff and students. The case has been made that centrally organised seminars and support workshops are often interpreted, by less technically literate staff, as decontextualised and missing the very sorts of information they require to achieve their online teaching and learning goals. Localised professional development structures, on the other hand, have proven to offer a more sustainable form of support. This is one that can be accessed at the local level and provided by colleagues with whom rapport has already been established.

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