ESL Teaching in the Global Hypermedia Environment

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ESL teachers work in a social, institutional and teaching environment of which technology has always been an inseparable part. As a result of the ubiquitous use of the newest technology, computers, we live in an emerging hypermedia environment. This paper explores the teaching of ESL in this hypermedia environment.

The first three sections of the paper present an environmental scan of the social, institutional and teaching environment of the late 20th Century. The last section considers the implications for ESL teachers as individuals and for the ESL field itself of the emerging hypermedia environment.

The Social Environment

New technologies

My favourite definition of technology is "anything that wasn't around when I was a kid". This is a meant to be a joke, but it points to an important aspect of technology - the extent to which we see it as natural, or, to put it another way, the extent to which we don't "see" it all. When we use the word *environment* we are usually using it in the sense of The Environment, the natural features and conditions, the land sea and air, in which we live. We tend to contrast this with technology, which is seen as additional, contrived, applied, and therefore by implication, not "natural". However, if we use environment in its sense of the conditions and circumstances affecting people's lives, the distinction no longer holds. Our established technologies are part of our environment. New technologies, like personal computers, are "technology" because we still see them. To our kids they're not technology - they're a part of the environment.

There are many terms used to describe the "..single, integrated *web* of digital-electronic-telecommunications" (Deibert 1997:114) that make up the late 20th Century environment. Following Deibert I will use the term *hypermedia*, a term which .."not only captures the convergence of discrete technologies, it also suggests the massive penetration and ubiquity of electronic media characteristic of the new communications environment" (ibid 114-5).

One of the most influential commentators on the effects of this new environment is Sherry Turkle. Turkle sees us as living in "that historical moment when the old has begun to die and the new has not yet arrived" (McCorduck 1996). Turkle sees a broad change in the culture of computing over the past thirty years from a "modernist culture of calculation" (the computer as calculator, controlled by strings of commands entered by the user) to a "postmodernist culture of simulation" (1995:20), in which the user manipulates a vast range of virtual symbols. As language and literacy teachers we can chart a corresponding change in views of "computer literacy" over this period. It used to be seen as a matter of control over the machine, perhaps through learning to program. Now it's a matter of control over the multiple texts types, both old and new, that are emerging online (Corbel 1997).

Turkle charts the changing relationship between people and computers. In her most recent book, Life on the Screen, she deals with the two most recent and significant change in personal computing - graphic interfaces and networks. She discusses our new capacity to have multiple texts open in multiple windows at the same time. This has great significance for her. Turkle sees it as part of "the life practice of .. a *decentred self* that exists in many worlds and plays many roles at the same time" (1995:14). This idea might be more familiar than we think. These multiple selves may well be dealing with in the *multiple literacies* that we now think of instead of simply one monolithic "literacy".

Turkle's main focus is networks in which people adopt one or many different roles and genders as they interact with each other online. Life in these new virtual communities calls for new ways of being in which people juggle multiple selves in a fluid and ever-changing simulated environment. This is can be quite a cognitive load, and it calls for a state of mind quite the opposite of what those of use from an earlier generation are familiar with. As Turkle puts it:

"Every era constructs its own metaphors for psychological well-being. Not so long ago stability was socially valued and culturally reinforced. Rigid gender roles, repetitive labour, the expectation of being in one kind of job or remaining in one town over a lifetime, all of these made consistency central to definitions of health. In our time, health is defined in terms of fluidity rather than stability. What matters now is the ability to adapt and change - to new jobs, new career directions, new gender roles, new technologies" (255).

As we see below, these are very much like the demands of the new workplace as well.

New companies

In the fifty years from the mid to the late twentieth century capitalism has changed in very important ways, though not at the level of its core values. The changes can be summarised as follows (based on Richard Reich's The Work of Nations)

At mid century, success, and therefore profit, came from	**At late century, success, and therefore profit comes from**
national companies	global companies
based on hierarchies	based on "webs"
selling standardised	selling customised
goods or services	blendings of goods and services
at high volume	at high value
to mass markets	to niche markets
using "organisation men" and neck down workers	using "empowered" teams
used to consistency and stability	used to continual change

A company like NIKE is generally seen to typify the new, fast capitalism, with its huge range, and its careful attention to image. As an example of the power of the heavy investment in symbol manipulation that makes up the cost of NIKE products, it was suggested somewhere that the NIKE swish (the tick logo) is so well-known it could be replaced by an empty space on the product and the viewer would still "see" the swish. Also typical is NIKE's actual production, a very small part of its costs, in countries with cheap labour.

In an example closer to home, teachers in the AMEP will have noticed a similar tendency in the changes in curriculum over the past over the same period, from the standardised mass-market Situational English, to the learner-centred, needs-based approach of the eighties, to the modularised packaged, niche marketing (right down to the individual level) of the nineties. Teachers in TAFE will see the same tendencies at work in the new Training Packages.

The new capitalism flourishes in the emerging hypermedia environment. Deibert (1997) analyses the hypermedia environment in terms of two broad types of effect. One of these, changes in social beliefs and values, we have considered earlier in the work of Sherry Turkle. The other, distributional effects, refers to changes in power relationships facilitated by the new environment.

"…the hypermedia environment favours the complex distribution of production across territorial/political boundaries by facilitating multilocational flexibility, transnational joint ventures, and both global localization and "local" globalization"(204,5) (An example of the former is McDonalds; of the latter, any small Web-based business). The

global financial markets, trading in symbols rather than goods, are able to thrive in such an environment.

New work types

We're used to thinking of jobs like "manager, or "secretary" or "teacher", and we're used to thinking about status categories like "professionals", "white-collar", "blue collar". But existing job categories, based on the mid-century, high-volume, standardised production, are increasingly unhelpful in understanding the nature of work. Instead, Reich identifies three new "functional categories" of work.

Routine productions services involve repetitive tasks, not necessarily manual, since they could be low to mid level managerial. Payment is typically based on hours worked. The work is guided by standard procedures and codified rules. Cardinal virtues of workers in this category are reliability, loyalty and capacity to take direction. (the "attend to" and "adherence" of the first job description we saw earlier.) The work may involve computers, including such work as data entry, and building circuit boards.

At midcentury workers in this category benefited from the role of organised labour on their behalf. As a reward for ensuring the smooth running of the high-volume, mass produced products, they benefited financially. Now in the face global of competition they are becoming relatively worse off in the US, and probably here as well. They represented 1/4 of the workforce in 1990, and are a declining sector of US, and probably most advance Western economies.

In person services are similar to routine production work, with an important difference. "In person servers are in direct contact with the ultimate beneficiaries of their work". They need a pleasant demeanour, typical of a McJob. Their computer use not is stated by Reich, but is likely to be simple, such as at McDonalds again, where they simply punch product names on a keyboard.

In person workers do not directly face global competition but are affected indirectly, according to the fortunes of the next category, the symbolic analysts. They represent 30% of the workforce in the US in 1990 and are growing rapidly. Like routine production workers their income is falling relative to the following group.

Symbolic-analytic services involves "problem-solving, problem identifying and strategic brokering activities" (177). Symbolic analysts solve, identify and broker problems by managing symbols. They rarely have direct contact with beneficiaries. Incomes vary, but tend not to depend on time on task, but on quality cleverness or speed of outcomes. Careers are not linear or hierarchical. They may work alone or in small teams. This calls for the flexibility, adaptability, teamwork, cooperation, and so on of the second job description, and many other sets of competencies.

Computing is integral to their work: "When not conversing with their team-mates, symbolic analysts sit before computer terminals - examining words and numbers, moving them, altering them, trying out new words and numbers, formulating and testing

hypotheses, designing or strategising" (179). Indeed, much of their life, more so than people in other categories, is on the screen.

The nature of teachers' work

Where do teachers fit into these categories? For Reich, they are not in any of them.

"These three functional categories cover more than three out of four American jobs. Among the remainder are farmers, miners and other extractors of natural resources, who together comprise less than 5% of American workers. The rest are mainly government employees (including public school teachers) … almost all of whom are also sheltered from global competition" (180).

The problem with Reich's analysis is that it overlooks the fact that education is increasingly defined as an industry, and teachers are no longer necessarily "government employees" who are protected from global competition. This redefinition is happening faster in some sectors than others, and adult language and literacy teachers in Australia are in one of the leading sectors of this change.

If education is seen as an industry, then teachers must be in one (or more) of the categories. Which one will depend on the relationship between the three main elements of any formal learning arrangement, the learners, the teacher, and the resources used. Teachers *traditionally* add value by mediating in some way between resources and learners. Resources are developed informally by the teacher or formally by a publisher, and the two types were clearly differentiated, with different types and amounts of value being added. As we will see below, this arrangement is becoming less clearcut.

Are teachers symbolic analysts? Teachers have traditionally argued the case for themselves as *professionals*. Does this mean that they are therefore automatically symbolic analysts? Reich notes that some traditional job categories overlap more than one category. However, classification ("professional" or "managerial") "likewise has little bearing upon the function its occupant actually performs in the world economy. Not all professionals, that is, are symbolic analysts. …Nor are all symbolic analysts professionals" (181).

Being a professional means having mastered a body of knowledge, and receiving formal recognition of that mastery. "But in the new economy - replete with unidentified problems, unknown solutions, and untried means of putting them together - mastery of old domains of knowledge isn't nearly enough to guarantee a good income. Nor, importantly, is it even necessary" (182). Therefore, if teachers' work is of the symbolic analytic kind, then it is not their "profession" that makes it so. It will be the extent to which they identify problems, create solutions, and broker the process, just as it is for non-teachers. When teachers undertake needs analysis and develop courses and resources specifically for a certain group of learners, then their work is of this kind.

Are teachers in-person workers? Clearly, teachers provide an in-person service of a kind. It is also probably true that to the extent that they are in this category they are protected from the direct effects of global influences. However, in a more indirect way the changes in the fortunes of symbolic analysts in other countries will have an indirect effect on

language teachers. Symbolic analysts are increasingly flexible and able to move to where conditions are most conducive, including (if they are allowed) across national boundaries. If, for example, software developers in Thailand are doing well, they may choose to send their children to Australia to study English. If they are not doing well, they may seek entry to Australia as an immigrant. Both have effects on language teachers. The present situation of various Asian economies is likely to have a very direct effect on in-person services of all kinds in Australia, including teaching.

Surely one thing we can be sure of is that teachers are not routine production workers. Yet there are aspects of teachers' conditions that hark back very strongly to a mid-century mass production approach, and belie their professional status. Teaching hours may be closely monitored, teachers' locations may be controlled and supervised, and there may be a complex system of standards applied to procedures and content. These, ironically, are what teachers have struggled for for many years, as have other routine production workers with whom many teachers as unionists have aligned themselves. Indeed, the conditions that employers now seek to impose are precisely those that have typified professional (and symbolic analytic) work for some time. Unfortunately they are also those typical of in person work as well.

The Institutional Environment

In this section we look at the ways in which three of the key stakeholders in education, government, funding agencies, and providers, are responding to the new hypermedia environment. Each has an area of responsibility - setting directions, setting standards and achieving outcomes.

Setting Directions - Government

Governments attempt to influence the environment through policies, strategies, and programs. An understanding of the current policy and program context allows individuals and organizations to focus their efforts onto areas currently in favour, and to influence the policy development process and hence program funding. (For more details of the following, see Corbel 1998)

Policy

ESL providers are subject to both state and Commonwealth initiatives. Providers need to be aware of policy initiatives at state level and their relationship to Commonwealth policies and strategies. Governments and educational agencies are attempting to steer these changes in particular directions. Four main types of document are used - reviews and research studies, policy documents, strategy documents, and implementation plans and guidelines. The following are some examples.

Research such as Converging Technology, Work and Learning (NBEET 1995), Education and Technology Convergence (NBEET 1996)New Learning Technologies: a Planning Model for Innovation (OTFE 1997) presents the implications for the emerging hypermedia environment on the workplace.

Policy documents present governments' visions and objectives for the use of new technologies. Although they may not address the education sector directly, they tend to see the sector as a natural area of application of the technologies. Creative Nation, a policy introduced in 1994, aims to support the develop of an Australian multimedia industry, and thus has indirect implications for all government programs. Although there is no detailed statement concerning IT issues in relation to the AMEP, the Coalition Immigration Policy (9 February 1996) states:

"We will ensure that the operations and eligibility criteria of the Adult Migrant English Program (AMEP) are sufficiently liberal and flexible to better utilise resources to achieve more effective and long lasting benefits for non-English speaking migrants."

The policy reflects an understanding of the specific needs of the AMEP's two main groups of participants, refugees and other immigrants.

"A Coalition Government will ensure that refugee and humanitarian migrants are not ignored or forgotten by government policies and programs. We recognise their special needs. We will direct resources to overcome their pressing disadvantages and hardships so they can fully participate in our society as equals."

"The 1996/97 and 1997/98 Migration Programs have been rebalanced towards skilled entry, with:

- increases in business skills and independent components
- an increase in the skill requirements that Australian Skills linked (formerly concessional family) members must satisfy; and
- a stronger emphasis on English language ability." (D. Doherty Director NCELTR Forum 1997)

Given these requirements we might expect higher levels of computer skill and expectations for members of the migration program than for the refugee program.

Some state governments have developed policies in relation to multimedia. In Victoria, for example, the Government's Interactive Multimedia policy focuses on developing new markets for multimedia content, which again has indirect implications for AMEP providers, who represent potential users of multimedia educational products. Queensland and South Australia are taking similar initiatives.

Strategies

Strategy documents translate objectives into specific goals, and outline the processes for achieving them, as well as the areas of responsibility. They are typically associated with an educational sector. An example at Commonwealth level is The New Literacy: A report on convergent technologies in Adult and Community Education (Oct 1996)

This project investigated the implications of convergent technologies for the Adult and Community Education Sector. In setting out goals and strategies for the sector it notes that planning applies at three levels in ACE; national (general guidance, funding and

policy), state/territory (administration), local (implementation and delivery). The local level is particularly in need of strategic planning.

The report suggests goals in five areas

1. Planning goals involve preparing a vision statement through in person and online consultation, and preparing provider plans using a training kit and pilot studies.

76911408. Infrastructure goals involve ensuring provision of equipment through alliances and joint ventures, technical support using facilitators and mentors, funding through performance agreements and specific budget items, and facilities through specific planning.

76911496. Skills and knowledge goals involve increasing sector knowledge through conferences and networks, developing operational skills through training, and developing teaching skills through self-assessment, planning guides and professional development programs.

76911584. Information goals involve distributing curriculum through a range of mechanisms, providing management information online, and developing standards via a national working party

76911672. Access goals involve improving participation by funding innovation and documenting best practice.

In Victoria the Office of Technical and Further Education produced a Communications and Multimedia Strategy for the State Training System (OTFE 1996). It states :

"The prime rationale for the use of technology in vocational education and training is to increase the capacity of the State Training System to provide accessible, client-focused education and training and support effective teaching and learning."(5).

The strategy reflects state and Commonwealth policies and the strategic directions of the State Training system. It establishes three broad goals - infrastructure development, content development and a State Training system leadership role. For each of these goals three key strategies are identified as well as supporting strategies in resource allocation, staff development, research and continuous improvement.

This was followed with A TAFE Online 2001 Strategy in 1998, which sets out training scenarios for the near future. Documents such as this are also important as indicators of the vision driving the funding decisions made by government funding agencies.

Plans and guidelines

Plans and guidelines tend to be sector specific. They assist in the implementation of the strategies identified in strategy documents. Examples include:

- Getting Wired: Using the New Convergent Technologies in Adult and Community Education (Undated Final Draft). This is a planning kit for ACE providers in Victoria, based on the strategy document mentioned above. It presents a ten-stage process for local providers to achieve their IT goals.

- Learning Technologies Planning Guide for Schools: An Overview for School Management (Undated draft). This is a planning guide for schools. It provides an overview of learning technologies, techniques for their use, planning their introduction, installing a network and using the Internet.
- New Learning Technology Implementation Plan for Adult and Community Education 1997-9 (ACFE 1997). This plan draws on Converging Technology, Work and Learning and the Communications and Multimedia Strategy mentioned earlier, as well as the sector's overall triennial plan.

Setting benchmarks - Funding agencies

Funding agencies have the responsibility of translating policy into outcomes. These agencies have become purchasers rather than providers of the services needed to carry out the programs based on the policies. These agencies have therefore had to take on an important new role - the establishing and maintaining of standards or benchmarks against which the efficiency and effectiveness with which outcomes are achieved can be judged. Agencies need to send a clear message about their expectations to the providers of the services they purchase.

An example of a funding agency moving towards setting benchmarks in this way is the Instructional Technology Strategy for the Adult Migrant English Program (Corbel 1998), commissioned by the Commonwealth Department of Immigration and Multicultural Affairs (DIMA) in 1997. This document sets out the needs and goals for the AMEP as it moves into a hypermedia environment. It identifies a need to address six main areas - research, standards, skills, training, resources, and information. In effect, this implies six strategies, one for each area.

The following is based on the AMEP strategies, with modifications to suit a wider range of programs. The six areas covered are broadly relevant to all ESL sectors, and could be the basis of negotiation with funding agencies towards an approach to provision that meets both the agencies' and the providers' needs.

Resources

There is a need for timely, flexible, curriculum-oriented resources for teachers and learners. However, although all providers want more resources, this area is perhaps the most problematic. The development of multimedia resources calls for a complex, potentially time-consuming and expensive team effort. The capacity to produce such resources is beyond individual providers. Providers are increasingly members of consortiums with complicated commercial interests to consider, much as is the case with the tendering arrangements in general. At the same time, providers expect resources supported by funding agencies to be widely available.

Not all resources need to be complex multimedia products. The experience of the Interactive Videodisk projects during the 1980's, The Aussie Barbie, Hello Australia, and Communicating, are instructive. These represented a substantial investment in time and money. (Peppard 1986, Field 1988, Anderson and Field 1988). However, despite the

perceived potential (Flynn and Murray 1990) they have not become established in the mainstream of teachers' work. Some possible reasons for the lack of uptake are provided in Instructional Technology and the Mainstream: The Risks of Success (Geoghegan 1996). This paper presents some useful insights into the type of instructional technology likely to be taken up and the rate at which certain technologies are taken up.

Geoghegan draws on the field of diffusion studies to account for the rate and extent of uptake of different computer-mediated instructional technologies. He notes the well-known diffusion of innovation model in a standard distribution curve, with the innovators and early adopters followed by the mainstream (early and late majority) and the later adopters. However, in order to account for the failure of some technologies to reach the mainstream he posits a gap, or a "chasm" as he calls it, between early adopters and the mainstream , a chasm that many innovations fail to cross. Diffusion studies can also account for the ones that do, such as email and the World Wide Web, and the ones that don't.

"Rogers (1995) pointed out five characteristics of innovations that influence their *rate* of adoption as well as their eventual success or failure in a community. These include:

- The *relative advantage* off the innovation over what it replaces or supplements In time, cost, effectiveness, quality of results, etc.)
- The innovation's *compatibility* with existing practices, values, needs, "culture", etc, or, conversely its disruptiveness to existing practices, values and other "cultural" factors.
- The *complexity* of the innovation: how difficult it is to learn, to understand, and to use effectively
- The innovation's *trialability*: how easy is it to experiment with the new way of doing things before making an adoption decision, and
- The *observability* or visibility to other potential adopters of the results achieved by using the innovation.

An innovation that performs well on these attributes - with good relative advantage, excellent compatibility with existing practices and norms, a low level of complexity, ease of use on a trial basis, easily observed results - would be susceptible to rapid adoption; while another innovation, one that does poorly on some or all of these characteristics, would be adopted much more slowly, or would fail to achieve any significant penetration into the community (Geoghegan 1996:8-9) Using Geoghegan's analysis we can account for the failure of the IVD to enter mainstream use. Although its relative advantage was high, a point constantly made in the literature, it is weak in the other four areas - compatibility (with other hardware as well as practices), complexity, trialability and observability.

One of the problems with such products is that they may be less amenable to modification once they are completed than disk or Web-based products. One solution is shell products, which provide a template into which teachers can insert their own content. In fact, many of the text-based products already in use have such a capacity, but,

according to an earlier survey (Corbel 1996) it is little used. This may be because teachers do not see that existing print-based programs do the kind of thing they would like programs to do, and which they see multimedia products doing, that is, provide a rich, complex learning environment. However, the reality is that the more complex the program the more complex its modification. Such modification may be beyond all but the most dedicated enthusiast. There is no reason to believe that the development from the ground up of a new shell program would satisfy needs that the wide range of existing shells cannot. At the same time, changing provider/teacher relationships make the expectation of extensive additional work by teachers unrealistic.

Research

Among languae teachers there is certainly more concern for the clients than there is for the technology, even among the most enthusiastic CALL supporters. Some teachers assume homogeneity among the client group, others see differences. This needs further investigation. DIMA itself acknowledges two main groups, refugee and humanitarian and migrant, with differential funding reflecting their different needs. The CALL research literature rarely deals with groups such as these.

The issue of *access* comes up many times among teachers. More information is needed about this before commitments can be made to more computer-mediated approaches, particularly the Internet. Client *attitudes* are not always clear. Is computer use seen as useful or threatening? Do different groups have different attitudes? Are there connections to retention and withdrawal rates? Client *skills* are significant in successful computer use. What assumptions can be made about learner skill levels? Does computer use demand unrealistic learner autonomy?

There is very little knowledge even among CALL users about the research on CALL in general. Where research has been carried out, it is usually with different groups, and, in common with much method comparison research, is inconclusive. Nevertheless, it would be useful for teachers to have an overview of this research, particularly if it was applied to the AMEP. There was not widespread knowledge about existing software that may already meet AMEP needs.

Most teachers see themselves as integral to the computer-mediated learning environment, yet some of the general discourse of educational computing relegates the teacher to learner or facilitator role. It is increasingly hard in some circles to argue for a strong teaching presence while learners are using computers - the need must be shown, not simply asserted. Fortunately, this is acknowledged in some significant mainstream project, of which the TAFE Virtual Campus in Victoria is a good example.

Standards

All government departments now buy rather than provide services. They have a responsibility to ensure that its increasing range of providers are providing a quality service. This should be built in to the tendering process, which in effect will be establishing standards for the use of IT in delivery for the contract period. While allowing

for commercial sensitivities, it would be valuable to extend the field's established culture of collaboration to IT use.

There is a need to establish a set of best practice standards in delivery and infrastructure based on the research and current funder/provider relationships. This could be done by documenting and describing best practice in IT use in the AMEP by benchmarking between providers and with outside organisations, and using best practice benchmarks as part of future tendering processes, including minimum skill levels of staff.

It should be noted that while this does not commit funding agencies to provision of infrastructure, it does imply recognition of the costs that a provider incurs through a commitment to best practice.

Skills

There is a need to establish a set of computing competencies relating to IT that reflect the needs of the program, providers and staff. This strategy is similar to the previous one in that it is about setting standards, but in this case it goes further by making them explicit and compulsory. The standards could be established by identifying roles and tasks carried out by generalist and specialist staff in the best practice settings identified in the previous strategy, and by identifying the skills and knowledge necessary to carry out the roles and tasks. These competencies must recognise the larger context within which teachers work, and be linked to other generic competencies

Training

To operationalise the previous strategy there is a need to ensure provision of a coherent set of training options based on computing competencies, utilising a range of delivery mechanisms that reflect teacher needs and reflect best practice. There are four aspects to this strategy: identify a developmental pathway based on the competencies that can be the basis for training programs, which should also lead to some form of credential; investigate the applicability of existing IT courses for use in the AMEP, customised if necessary; ensure the availability of training that develops the competencies and matches the pathways and credentialing requirements if any; and ensure the delivery of training that offers a mix of in-person, on paper and online activities and resources.

Information

The Web is now established as both a delivery mechanism and as a communication mechanism. Most stakeholders have their own Web sites. Individuals interested in the AMEP will find information about it at each of these sites, but there is no central reference point for the AMEP itself. In the past the AMEP was distinguished by the intercollegiality of its national providers, but an increase in the number of small providers and tightening of funds means that the old mechanisms may no longer be able to exist as they have done in the past. The need for information and communication, however, remains. There is a need to establish and maintain a Web site that reflects the needs of all stakeholders. We return to this issue at the end of this paper.

Achieving outcomes - Providers

The other major stakeholder in the education technology area, and the one with which the teacher comes into most contact, is the provider. The changing social, workplace, policy and program environment have led to changes here as well. There are more providers of education and training, and many are not the traditional ones that many teachers are familiar with.

Needs

An indication of the changed needs of providers comes from the following job descriptions, both from AMES Victoria in 1997.

Key selection criteria

1. **Mandatory**
   4 years trained teacher status with the DoE together with an approved TESOL training qualification such as a Graduate Certificate or Diploma of TESOL or approved equivalent TESOL studies as detailed in the Primary and Secondary Schedules published in the Schools Bulletin dated 28 January 1992.

76911860. Demonstrated successful experience teaching adult ESL

76911948. Demonstrated ability and commitment to attend to centre responsibilities and adherence to a quality system.

76912036. Demonstrated commitment to AMES values.

Other

Demonstrated expertise in specific program or activities

Key Selection Criteria

Mandatory

1. 4 years trained teacher status with the DoE together with an approved TESOL training qualification such as a Graduate Certificate or Diploma of TESOL or approved equivalent TESOL studies as detailed in the Primary and Secondary Schedules published in the Schools Bulletin dated 28 January 1992.

Desirable

1. Competency; professional skills

76912124. Competency: customer service focus

76912212. Competency: flexibility/adaptability

76912300. Competency: teamwork and cooperation

76912388. Competency: organisational and commercial awareness

76912476. Competency: learning orientation

The first is dated May 1997, the second, July 97. But in content they could be years rather than months apart. The second document, and the interviews that went with it, was a shock for teachers who suddenly found themselves having to account for their activities and performance in unexpected new ways. They were not being asked about their performance *inside* the classroom, the traditional arena of professional status and curriculum focus, but on their performance *outside* the classroom, (though the qualities could have been demonstrated in the classroom as well). Suddenly they were being asked to give examples of how they identified and solved problems, of how they ensured customer satisfaction, of how well they operated in a team, of how they used technology.

This is not to say that things are better now than in the fifties and sixties, just that they are *different*. Capitalism is reinventing itself, using many of the tools and terms of its erstwhile left-wing critics. The difficulty for most people over a certain age, (and the demographics of teaching suggest that includes most language and literacy teachers), at all levels of society, is that they still have a mid century view of things. And they still see their jobs in midcentury terms. But these have changed.

Responsibilities

Many employers are making greater demands on staff, while at the same time offering less in terms of traditional rewards such as job security in return. While a return to traditional rewards is unlikely, employers can provide an environment that allows staff to develop the new skills for the hypermedia environment. Management can show leadership in the area by demonstrating an understanding of the demands on teachers of the new forms of work. Leadership can be displayed through the establishment of an IT Strategy, which is widely promoted and adhered to. A survey of AMEP teachers (Corbel 1996) showed very little evidence of awareness of such strategies, even in the few places where they existed. Management can also be supportive by acknowledging the time demands made on teachers in learning the new skills demanded by the hypermedia environment, and allowing for these in time-tabling and professional development.

The Teaching Environment

Educational computing

Educators have always used technology as part of the learning process, and have reflected on the use of each new technology that becomes available for use.

Recently instructional technologies have undergone two major changes:

1. New technologies are increasingly computer-mediated.

76912664. Computer-mediated technologies are the goal of learning as well as a means for learning.

The development of personal computing in the early 1980's supplemented large, mainframe systems with stand-alone, desk-top systems, running primarily text-based

programs. These remained the mainstay of educational computing in the AMEP and elsewhere for ten years.

Recent advancements in hardware and software have brought about two significant areas of change, the use of multimedia and wider availability of the Internet. Texts presented on the computer screen are composed of electronic impulses or bits. This makes them materially different from texts based on paper, or audio tape, videotape or film, which are objects composed of atoms. Digital texts, such as those on CD ROM allow for the integration of media types, such as video, audio and print, which in the past have been discrete. Increasingly computers are connected rather than stand-alone. This connection may be local, global, or somewhere in between. This connectivity allows for the convergence of work and home location, as well as ways of working roles that are independent of physical location. All educational sectors and programs are having to consider the implications of these changes.

Online Learning Environments

In the late 1990's the various online applications based on the Internet have begun to converge into a new type of software. Just as separate word processors, spreadsheets applications, and database applications have converged into "suites" like Office 97, so email, browsers and other online applications are converging into complex *online learning environments*. The Victorian Office of Training and Further Education's TAFE Virtual Campus (www.tafevc.com) is a good example.

The use of online learning environments is well advanced in the private education sector, and is rapidly moving into the tertiary and TAFE sectors. The following is from a major international project, the Instructional Management System (IMS) which is setting standards and benchmarks in the field. It shows how traditional educational roles are being reconceptualised as a result of the opportunities offered in the new hypermedia environment.

"There are several stakeholders who will be affected by the IMS (Instructional Management System) project. We have identified these stakeholders in terms of the different roles involved in the process of learning: learners, teachers, coordinators, and providers. These roles are not discrete and people will often assume the activities of multiple roles. For example, a teacher may also be a learner and a content provider. A service provider may also play the role of an academic coordinator and vice-versa.

The IMS project has identified some of the characteristics of and benefits for its different constituencies:

- ***Learners** - will be able to own and customize the learning process to a degree heretofore not possible. They will be able to learn anytime, anyplace. Learners may be children, students, teachers, workers, or adults. They may have a range or mix of motivations for learning, such as education, employment, or enjoyment.*
- ***Teachers** - will be able to access and customize easily a wide range of instructional materials. They will be able to interact with learners - anytime,*

anyplace - and will have extraordinary flexibility. Teachers may be formal instructors and trainers or informal mentors and guides.

- ***Providers*** *- will be able to publish to standards that will assure them of a large market for their products and thus promote the development and distribution of instructional software. Content providers may be large publishing houses or single authors. They will both have the ability to gain broad dissemination of their work and will be assured that it will interoperate with other objects on a basic level.*
- ***Coordinators*** *- will be able to offer innovative programs and learning opportunities in both traditional and non-traditional environments. Coordinator include educational institutions, commercial education providers, technology companies, etc.*

While these stakeholders are described in traditional terms that reflect today's organizational structures and functions, availability of IMS implementations will facilitate the development of non-traditional roles and structures, thus creating a potential for the development of new groups of stakeholders."
(http://www.imsproject.org/reqv2/overview.html#stakeholders)

It is notable in this vision that teachers still have a role to play. It is also worth noting that it may now be rather different to that of the past. Interestingly, perhaps the greatest change is in the role of provider. Provider here means content provider. The present role of the educational institution has changed substantially to that of Coordinator, and there are many other organisations playing the same role.

Implications

In this final section we will consider the implications for ESL teacher and the ESL field of the emerging hypermedia environment in which their work now takes place.

ESL Teachers

Current Practice

What is the current state of play as far as ESL teachers and computing? The situation in the AMEP may be typical. The following summary is based on survey and focus group discussions (Corbel 1998:11-12).

In the use of computer technology for specific classroom purposes, we can see that a range of relatively simple, text-based instructional, informational and text manipulation programs are in widespread use, though there is little use of a major CALL trend in the nineties towards concordancing, probably because AMEP language levels are not high enough. There is more interest than use of communication-oriented programs, probably reflecting a desire for, but relatively little access to, Internet services . Business applications appear to have become part of teachers' work, and four states made explicit

mention of teaching them, suggesting that computer use is at least implicitly seen as part of settlement. These finding reflect those of earlier AMEP reports.

A new generation of instructional programs, incorporating multimedia on CD ROM, is emerging in the global CALL marketplace, but is yet to make a major impact on the AMEP. Informational programs, like those provided by Protea Software, are in widespread use, possibly due to the appropriacy of their (low) levels, and their Australian content. Text manipulation, by definition, is unlikely to be much influenced by multimedia, though a new suite of products from the developers of the well-established Storyboard, has multimedia capacity. (As their representative put it during a recent visit, “If it hasn’t got multimedia, it won’t sell in South America”). Because of their nature, computer-mediated communications programs and business programs are unlikely to be influenced by multimedia, other than in presentations.

Not surprisingly, the use of the Internet in teaching has grown since earlier surveys, with the majority of states having started to use online versions of what have previously been disk or CD ROM-based resources. The use of computer-mediated communication reflects genuinely new ways of interacting via new text types, and the growth here reflects global trends. The phenomenon is noted by Geoghegan (see above), and is accounted for by Rogers’ rate of adoption variables as being high in relative advantage, computability, simplicity, trialability and observability of results.

There has been less growth in the use of the Internet for formal professional development, although there is likely to have been informal professional growth arising from networking and online reading that has begun in some places. It is not clear whether or not this is via the NCELTR web site or via the many others available from other institutions. There was no indication of formal professional development activities online, though the responses to the Instructional category question suggests the interest is there.

Roles

We all know examples of individual teachers developing multiple lives on the screen ,as they learn hypertext markup language and create web pages. But do they present a role model? Is the work of a few highly motivated individuals something the other 90% of us can follow? Probably not. These people are typical early adopters, driven by personal interest. Other models are necessary for the bulk of teachers who will increasingly be working online.

One example of an approach that acknowledges the multitude of demands on teachers' time is the Virtual ILC (Independent learning Centre). AMES Victoria created the Virtual ILC as a kind of "Internet for the rest of us". The Virtual ILC overcomes the problems of a traditional ILC by making the realia and the task virtual. A teacher finds the realia, a Web page that exemplifies a curriculum goal, and creates a task. The task is automatically added to a database, together with its link to the Web site.

This is a classic piece of symbolic analytic work, but one which is accessible not just to the teacher’s formal class, but to all AMES, and potentially the online world. The teacher has done no more work than she would normally do, but is getting a greater result. And

because other teachers are doing this as well, she knows her students have access to a greater range of relevant tasks. The teachers all have an additional online identity. The action of every individual in response to their immediate environment builds the system in unpredictable but relevant ways.

In the case of the VILC the teacher creates a learning activity by "framing" an authentic text. A collection of these activities create a juxtaposition effect, in which the teacher co-locates pointers to disparate resources. However, in neither case does the teacher actually modify the text. A survey of teachers computing practices in the AMEP (Corbel 1996?) showed that relatively few teachers actually modified the content of the texts they worked with and those that did restricted their efforts to simple text manipulation programs.

Teacher involvement in the actual development of software is relatively uncommon, and where it does happen, will be on a collaborative basis, as a member of a team comprising programmers, instructional designers and graphic designers. Increasingly, however, opportunities do exist for this kind of work. The development of Planet English and Real English, two recent Australian ESL software products, both involved ESL teachers in various roles.

The implication is not that teachers should learn to program, or do graphic or instructional design, unless they have a specific interest in the area. The possibility of switching careers is not high, given the age and numbers of others in these fields. However, there may be opportunities to add value in a team, whether in software development or in any other aspect of educational development.

Content

We have seen that computer use as such is no indicator of functional work categories. However, the *type* of computer use may be. A complicating factor is that computers themselves are designed to allow the blurring functional categories, as one person can do a range of tasks that in the past would have been done by different people. For example, in one day a teacher might conceivably enter test scores (routine production work), chat online with students (in-person work, though not “face to face”) as well as adding content to an existing program.

However, just as the computer can “empower” the individual to do a range of tasks, so the networking of computers allows for the sharing of that power with others. Test scores could be entered by an hourly paid (not permanent) clerical staff member, not necessarily in the teacher’s organisation. More significantly, online chat could be handled the same way. Are you prepared to chat to one or more of your students at midnight? Someone in a different time zone might be. Teachers may baulk at this redefinition of *in-person* as not necessarily implying *face to face*, but it’s at the heart of flexible delivery initiatives, which are dear to administrators, and may work for some learners.

One major change is the breaking down of the traditional barrier between teacher produced and commercially produced resources. This causes concern for some:

"Once academics put their course material online, the knowledge and course design skill embodied in that material is taken out of their possession, transferred to the machinery, and placed in the hands of the administration.

Academics fear that once their course is digitised and packaged, their services can be dispensed with, that low-paid and temporary staff can be hired to service the online product, that there is much potential for censorship and control by faculty by administrations and that once academics convert courses to courseware, their services in the long run are no longer required; they literally become redundant" (Bourke 1997).

The challenge here is implied in his last line. Do academics, and teachers, become redundant in real life when they go online? I don't believe so, necessarily, though some of them *could* be. The trick will be to maintain appropriate control over the value adding activities of the multiple identities and selves involved in our real and virtual work.

ESL teachers' readiness

One problem that ESL teachers have in relation to computing is their own self perception. Under-resourced and under siege as a field, they overlook four main characteristics of ESL teachers that make them well-positioned for work in a hypermedia environment.

- ESL teachers see the centrality of language to all communication and social activity. They see texts as the manifestations of the potential of meaning systems. They are therefore able to see beyond the technology of computers to the multitude of new text types in the hypermedia environment. They can both teach their use, and use them to teach.
- The task-based methodology now taken for granted in ESL is still a new thing in many education systems. Some of the best practice in Web-based teaching uses terms and activities very familiar to ESL teachers.
- ESL teachers have an orientation towards communication. The Communicative Approach has communication at its heart. Again, many educators using the Web see it potential for communication as being more important educationally than its capacity to deliver multimedia resources.
- ESL teachers value diversity, and diversity is a very important component of the hypermedia environment, as Turkle has shown.

Corbel (1996 and 1998) found many teachers ready and willing to take up the opportunities of the hypermedia environment.

The ESL field

What should ACTA be doing in the emerging hypermedia environment? To answer this we need to look at the ways in which change happens and can be influenced in this environment. In this sections I draw strongly on the work of Ronald Deibert (1997), who examines the implications of the hypermedia environment for the field of International Relations. I will follow his approach for a similar examination of the field of ESL.

A global civil society

Deibert's work is in the tradition of medium theory, which studies the effect of communications media on society. Often dismissed as simplistically deterministic, medium theory has recently evolved into a more complex blending of social constructivist and neo-Darwinian views. Deibert summarises his approach:

"In sum, changes in modes of production have an important effect on the nature and character of society and politics. These effects vary in terms of the social and historical context in which the technology is developed. New technologies of communication do not *generate* specific social forces and/or ideas, as technological determinists would have it. Rather, they *facilitate* and *constrain* the extant social forces and ideas of a society. … In other words, social forces and ideas survive differentially according to their "fitness" or match with the new media environment - a process that is both open-ended and contingent. "(1997:36)

The implication of this view is that we are not trying to *realise the potential*, or *unleash the power* of computers in education. There is nothing in the technology itself somehow awaiting release. Nor are we following an inevitable path towards improvement or destruction, depending on your point of view. At the same time, this does not mean that computers are simply neutral "tools" to be used with a clearly predictable effect. McLuhan's famous and widely misunderstood aphorism, The Medium is the Message, captures this idea. The "message" of any medium is not the content it carries, but the social effects it allows and encourages to develop. Things do change when technologies are adopted. It's just that we can't predict what those changes will be.

However, as well as facilitating the movement of global finance noted earlier, ".. the hypermedia environment favours the diffusion of transnational social movements around the globe, leading to what has been referred to as a "global civil society" (205). Examples of transnational social movements include many environmental and rights groups, organisations with social values and goals broadly convergent with those of ACTA. Of course, the same hypermedia environment allows other groups equal access - the various neo-nazi groups and thousands of others. What all have in common is that:

"politics is not a process channeled into mutually exclusive, territorially distinct state structures…It is rather an open-ended, borderless process" (207)

We may also need to see ourselves not (only) as having relationships with the political and power structures of our state or commonwealth political structures, but also with global forces as well, what Deibert calls a *global civil society*.

"A growing global civil society concerned with issues of ecology and human rights may eventually meliorate the worst excesses of the global market system" (217)

ACTA has already established a website, and has therefore taken its first step towards participating in the global civil society. Yet many organisations have created websites, while few have a clear sense of purpose for the site, or long term strategies for how it may influence its users. What relationship is ACTA attempting to develop with its users?

Indeed, who are they? What do they want? What other groups could the site link to in order to strengthen mutual interests?

Redescriptions and multiple definitions

The emerging hypermedia environment will allow those groups whose ideas and activities best fit the environment to flourish. When technologies change, some marginal social groups and ideas are more adaptable and better able to fit the new environment than others. The values of the ESL field - tolerance, access, equity, for example - may well be ones that fit the new environment. But others, less attractive to the ESL field, may flourish as well.

Are ESL teachers ready to see the opportunities in the new environment, or are they still seeing it from a mid-century perspective? Is it still a good guys/bad guys view, or one which acknowledges the complexity of positions of all the stakeholders. Deibert suggests that one of the difficulties his field, International Relations, has with world order transformations in the new hypermedia environment is not the lack of information or theories it has, but, more fundamentally with its "way-of-seeing" the world. For his field to flourish in this environment he suggests the need for a "therapeutic redescription" of the world and our roles and purposes. Perhaps the ESL field needs to "redescribe" the world and its role and purposes as well. A way to start this process would be to address the questions at the end of the previous section.

Of course, there has already been a "redescription" of the world, undertaken by organisations which have taken terms like revolution and empowerment and redefined them in the terms of the new workplace. Many teachers naturally feel inclined to resist these changes. Yet what is it we are resisting? When Tom Peters (1995) calls for the personal empowerment of workers, how can we disagree? I think perhaps we would wish to resist three things. One might be the actual co-option of terms like empowerment so that are applied only to the individual at the expense of the social. A second is the stress and unhappiness caused by these changes, and the implications of this beyond the individual to the community and the nation. The third is that the values underlying the changes are still those that allow for greed, waste and poverty. As Peter Drucker put it “Communism collapsed, but that does not mean that capitalism and democracy triumphed” (Schwartz and Kelly1996:184).

The fall of communism reminds me of a recent article by Bill Johnston (1997) which asked whether teachers actually have careers at all. He surveyed teachers in Poland in 1995. The experience of Poland in the last decade reflects a more intense version of the mid-century to late century change I discussed earlier. He discovered that the teachers’ lives were typified by “skilful adaptation to changing circumstances rather than progression along a career path” (692), and, their accounts drew “on different discursive strategies involving a multilayered sense of identity” (706). There was a sense of accident and luck about their starting in the field, and of unplanned movements along the way, and always the possibility of leaving.

That may well resonate for many of us as well. We have been sheltered in Australian adult ESL. Mid century has lasted a long time for us, but now it’s over. But in spite of

that it may well be that we've been living multiple identities all along. Alan Williams lists a number of roles in his paper in this series. And how many language teachers see themselves, or would like to see themselves, as writers, for example? I suspect that multiple identities have always been a feature of EFL and ESL, in spite of, or more accurately, in addition to our professional role as language teachers.

We therefore need to be wary of those who would restrict teachers' identities to one stable version, or one functional category. We should be particularly careful of those who want teachers only to be in-person operatives, as only "facilitators", for example. Teachers must have multiple lives, in different functional categories, on and off the screen, if they wish to continue to share in the benefits that their professional status has brought in the past. They must resist being placed in one category only, having only one self at a time when multiple selves are necessary and valued.

It won't be easy. Identities are additional, not replacements - they involve more work, not less. An increasing number of these identities are going to be on screen. Teachers may wish to resist them being *only* on screen, but they cannot avoid the fact some of them must be.

Turkle suggests that "..the culture of simulation may help us achieve a vision of a multiple but integrated identity whose flexibility, resilience and capacity for joy comes from having access to our many selves (268)". It's a thought echoed by Reich, who says

"There is an opportunity for us, as for every society, to redefine who we are, why we have joined together, and what we owe each other and the other inhabitants of the world. The choice is ours to make. We are no more slaves to present trends that to vestiges of the past. We can, if we choose, assert that our mutual obligations as citizens extend beyond our economic usefulness to one another and act accordingly"(315).

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