

Mapping postmodern literacies: A preliminary chart

Colin Lankshear and Michele Knobel

Note: This article is to appear in M. Ylä-Kotola, J. Suoranta, and M. Kangas (Eds.) (2000). *The Integrated Media Machine*, Vol. 2. Hämeenlinna: Edita (forthcoming). It is published here with the kind permission of the editors.

Introduction

This paper discusses new literacies and the New Literacy Studies within the context of postmodern times. The postmodern “incredulity toward metanarratives” (Lyotard 1984: xxii), signals a need to re-evaluate the definitions and practices of literacy that have long dominated education. In postmodern times, text production and consumption can no longer be represented as enterprises concerned with promoting incontrovertible truths or with asserting and sustaining singular, fixed realities. We think that useful work in literacy at interfaces among community, workplaces and schools must, under contemporary conditions, include serious engagement with a range of distinctively *new* literacies: literacies that are new chronologically and/or that will be new to formal studies of literacy. Hence, this paper addresses the emergence of “new literacies” in everyday lives and attempts to interpret these literacies and the practices that generate them (and vice versa) in relation to education. The argument provides a base for beginning to map what might usefully be thought of as characteristically postmodern literacies, and for interrogating literacy education by means of juxtapositions and bricolages of these literacies.

Concepts of new literacies

We are mainly interested here in two broad ideas of new literacies. The first is well known, even if it is often not well-defined or understood—viz., literacies associated with new communications and information technologies or, more widely, the digital electronic apparatus. The second is a less obvious, less “tight”, and somewhat *ad hoc* idea. It straddles literacies that are comparatively new in chronological terms *and* literacies that are new to the formal study of literacy—that are new to being recognized as literacies. These latter may include examples that have little or nothing to do with use of (new) digital electronic technologies, although they may well comprise new technologies in their own right (and in a meaningful sense of “technologies”). Since the latter is the less intuitive and less clear category, let us briefly sketch some examples of what we have in mind.

(i) *Scenario planning*

Scenario planning has emerged during the past 40 to 50 years as a generic technique to stimulate thinking about the future in the context of strategic planning (Cowan et al 1998). It was initially used in military planning, and was subsequently adapted for use in business environments (Wack 1985 a and b; Schwartz 1991; van der Heijden 1996) and, most recently, for planning political futures in such countries as post apartheid South Africa, Colombia, Japan, Canada and Cyprus (Cowan et al. 1998).

Scenarios are succinct narratives that describe possible futures and alternative paths toward the future, based on plausible hypotheses and assumptions. The idea behind scenarios is to start thinking about the future now in order to be better prepared for what comes later. Proponents of scenario planning make it very clear that scenarios are not predictions. Rather, they aim to perceive futures in the present. In Rowan and Bigum’s words (1997: 73), they are

a means for rehearsing a number of possible futures. Building scenarios is a way of asking important “what if” questions: a means of helping groups of people change the way they think about a problem. In other words, they are a means of learning.

Scenario planning is very much about challenging the kinds of mindsets that underwrite certainty and assuredness. It is about “reperceiving the world” (ibid: 76) and promoting more open, flexible, proactive stances toward the future. As Cowan et al. (1998: 8) put it, the process and activity of scenario planning is designed to facilitate conversation

about what is going on and what might occur in the world around us, so that we might “make better decisions about what we ought to do or avoid doing”. Developing scenarios that perceive possible futures in the present can help us “avoid situations in which events take us by surprise”. They encourage us to question “conventional predictions of the future”, as well as helping us to recognize “signs of change” when they occur, and establish “standards” for evaluating “continued use of different strategies under different conditions” (ibid). Very importantly, they provide a means of organizing our knowledge and understanding of future environments within which decisions we take to day will have to be played out (Rowan and Bigum 1998: 76).

Within typical approaches to scenario planning a key goal is to aim for making policies and decisions *now* that are likely to prove sufficiently robust if played out across several possible futures. Rather than predicting the future, a range of possible futures are entertained, and policies and decisions in the “now” are framed that will optimize options and outcomes whichever of the anticipated futures eventually pans out (most approximately).

Scenarios must narrate particular and credible worlds given forces and influences currently evident and known to us which are likely to steer the future in one direction or another. A popular way of doing this is to bring together participants to the present policy or decision making exercise and have them frame a focusing question or theme within the area they are concerned with. If, for instance, our concern is with designing current courses in literacy education and technology for inservice teachers in training, we might frame the question of what learning and teaching of literacy and technology might look like within educational settings for elementary school age children 15 years hence. Once the question is framed, participants try to identify “driving forces” they see as operating and as being important in terms of their question or theme. When these have been thought through participants identify those forces or influences that seem more or less “pre-determined”: that will play out in more or less known ways. Participants then identify less predictable influences, or uncertainties: key variables in shaping the future which could be influenced or influence others in quite different ways, but where we genuinely can’t be confident about how they will play out. From this latter set, one or two are selected as “critical uncertainties” (Rowan and Bigum 1997: 81). These are forces or influences that seem especially important in terms of the focusing question or theme but which are genuinely “up for grabs” and unpredictable. The “critical uncertainties” are then dimensionalised by plotting credible poles: between possibilities that, at one pole are not too unimaginative and, at the other, not too far fetched as to be completely impossible. These become raw materials for building scenarios: stories about which we can think in ways that suggest decisions and policy directions *now*.

Classic examples of scenario planning successes abound. An early one (from the 1970s) concerns the Shell Oil petroleum company whose scenario planning built in as a possibility a change in the price of oil—this occurred prior to the oil shocks of the mid 70s. At that time an oil price change, whilst possible, was practically unthinkable. Other companies certainly had not factored it into their way of thinking about the future. The company in question improved its business position among oil companies astronomically after oil prices increased.

This is not to suggest that scenario planning is good only for business and profiteering activity. We think the kind of work that goes into scenario planning is exactly the kind of work that should be built into learning activities in schools, communities and workplaces. Since it is a form of reading and writing the world, it seems to us to qualify nicely as a new literacy: one which is comparatively new chronologically, and one that would most certainly be new to prevailing mindsets within formal literacy studies.

(ii) *Zines*

The significance of this category has a lot to do with a central motif in this paper—the matter of mindsets, which will be raised in some detail below. The rapidity and extent of change during the past 20 years has left a lot of people who are still comparatively young in chronological terms quite out of touch with the tenor of the times. This manifests itself in all sorts of ways. One we find especially interesting and unfortunate concerns the extent to which some political progressives of middle age vintage are quick to write off a range of cultural forms as apolitical—even regressive—because they fall outside what progressives of an earlier age regard as political. Conventional political “radicals” tend either to simply ignore popular forms of cultural expression as peripheral to serious analysis and critique, or else actively dismiss them.

“Zines”, whether conventional print zines or electronic zines (ezines) are a case in point. These are the grunge frontier of publishing. They are typically hand-crafted, using found papers, card stock, typed texts, drawn or photocopied images, stickers, and so on. Zines are photocopied in small print runs and passed around mostly by word of mouth, and generally don’t cost more than one or two US dollars (or equivalent in the form of postage stamps or a “trade”—someone else’s zine in exchange). They are typically “defiantly personal” texts “which confidently explore their maker’s passions no matter how obscure they may seem” (Bail 1997: 44). Most zines are couched in a strong, counter-mainstream political theme or social activist project (cf. Vale 1996, 1997). Mainstream discourses and values are subverted and pilloried in ways that often are absolutely breath-taking in their serious playfulness. In the “Space and Technology” issue of *Mavis McKenzie*

Mavis writes letters to Hewlett Packard asking for advice about her ancient computer. She writes to a glass company about replacing the windows in her house with Windows 95. (They write back kindly advising her that Windows 95 is a software program.) She gets tickets to *The Price is Right* [one of those afternoon TV game shows]. Mavis has far too much time on her hands (ibid).

Can the institution of McJobs be more effectively critiqued and resisted than in the manner of Dishwasher Pete?

I’m addicted to that felling of quitting; walking out the door, yelling “Hurrah!” and running through the streets. Maybe I need to have jobs in order to appreciate my free leisure time or just life in general. ... Nowadays, I can’t believe how *personally* employers take it when I quit. I think, “What did you expect? Did you expect me to grow old and die here in your restaurant?” There seems to be a growing obsession with job security, a feeling that if you have a job you’d better stick with it and “count your blessings” (Dishwasher Pete in conversation with Vale 1997: 5, 6; see also Duncombe 1997).

And what *are* we to say of Generation X trade-offs around the economics and politics of talent, passion and community? Bail again:

Zines are cheap and fast. Yet their makers often struggle to pay for photocopying, stamps, even paper. I was showing a zine to a friend and coincidentally its producer was employed in her office mailroom. She’d always thought he was too talented for the job but suddenly realised why he stayed there Zines are not easy to come by: producers [often] swap their publications with each other ... Basically, you need to be in the loop to get the good stuff. It’s give and take—those who contribute to the culture get the most from it ... Nice to find a place with a generosity of spirit among peers ... and to find a culture that hasn’t been censored, sanitised and target-marketed. (ibid)

Zines are a medium for young people’s opinions, thoughts, creativity, and for demonstrating they clearly are not passive culture consumers, but active culture makers.

We believe there is a case for serious consideration of zines within progressive studies of (new) literacies, not entirely divorced from the way historians of literacy interested in critique have shown scholarly interest in progressive resistant textual productions of earlier times—particularly the working class underground press in the early industrial age. While we may not necessarily agree with the detailed substance of positions advanced in some zines, the “genre” as a whole may provide useful clues about some of the different ways young people understand and practise politics—often involving a blend of the anarchic, the edge-dweller, the intensely personal, the do-it-yourself ethic, dressed to spoof, critique and subvert mainstream culture and constructions of publishing—and, to that extent ideas about how they understand the nature and role of literacies in political practices.

The Study of New Technoliteracies

There is now a plethora of people with literacy research credentials investigating and writing about all manner of themes concerning new communications and information technologies. Our problem is that much of it we don’t find very helpful.

We are not greatly interested in literature that *begins* from schools and classrooms as “baseline” and deals with new technologies and forms of text production mediated by new technologies around characteristic school agendas. Likewise, we find little of use in school-centered accounts of visual literacy/viewing/imagistic literacy, or in much of what passes for “media literacy”, or in accounts of current fads like literary hypertext. The problem we have here is that it is difficult or impossible to get at anything substantially “new” from these accounts.

Elsewhere (Lankshear and Bigum 2000; Goodson, Knobel, Lankshear and Mangan 2000), we have identified several recurring features of new technology-mediated literacy practices in classrooms:

- “old wine in new bottles”. Routine school literacies with new technologies added here and there. The same old values and priorities (neatness, etc.)
- distinctively “school like” or “schoolish”. The use of presentation software such as Microsoft’s PowerPoint for retelling stories or marking-up web pages on Olympic athletes are entirely predictable.
- typically “odd” applications of the new technologies (retelling “The Three Little Pigs” as literacy pedagogy for new migrant English as a Second Language juniors), using email to share cryptic clues and their interpretations amongst participating schools in an email competition that requires students to track down a “criminal”. Which is yet another instance of the fact that “schools don’t merely separate learning from participation in ‘mature’ Discourses ... They render the connection entirely mysterious” (Gee, Hull and Lankshear 1997: 15).
- Almost entirely one dimensional—catering to the “operational”/technical dimension of technology practices at the expense of “socio-cognitive”/cultural and “critical” practices (which are valued highly outside school contexts).

Of course, it is important to approach description and critique of classroom constructions of technological literacy and technology-mediated pedagogy *not* as critique of individual teacher adequacy and performance. Instead, we see the situation in terms of highly regular forms of discursive production intimately linked to aspects of the “deep grammar” of schooling, as well as to aspects of policy development and imposition, resourcing trends, professional preparation and development, and so on. Unfortunately, this doesn’t alter the case that schools/classrooms are about the last place we should be looking for “new literacies”. The idea of the deep grammar of school makes it clear why this is so.

The “deep grammar” of school constructs learning as teacher-directed and “curricular”.

- Schooling operates on the presumption of the teacher as ultimate authority on matters of knowledge and learning. Hence, whatever is addressed and done in the classroom must fall within the teacher’s competence parameters, since s/he is to *direct* learning.
- Learning as “curricular” means that classroom learning proceeds in accordance with a formally imposed/officially sanctioned sequenced curriculum which is founded on texts as information sources. Seymour Papert (1993: 9) observes the long-standing pervasive tendency in the education literature “to assume that reading is the principal access route to knowledge for students”. The world, in other words, is accessed via texts (books; school is bookspace). This imposes a pressing and profoundly instrumental value and significance on the capacity to *read*. It also promotes and encourages a view of (school) literacy as *operational* in the first instance (which, unfortunately, is often the last instance as well): that is, reading as a matter of competence with *techniques* of decoding and encoding.

Current policies to technologise learning intersect, for example, with a teaching workforce that is largely un(der)prepared for the challenge of *directing* computer-mediated learning in the role of teacher as authority. In a climate of shortage, schools value almost any computer skills in teachers. In practice, this means that low-level operational or technical skills and knowledge predominate (Bigum 1997: 250). Not surprisingly, teachers look for ways of fitting new technologies into classroom “business as usual”. Since educational ends are directed by curriculum, and technologies are “mere” tools, the task of integrating new technologies into learning is often realized by adapting them to familiar routines. One corollary of this is that making learners “technologically literate” is largely reduced to teaching them how to “drive” the new technologies. The emphasis is very much on technical or operational aspects: how to add sound, insert a graphic, open and save files, create a HyperCard stack, and so on.

This logic can be seen as a specific instance of a much larger phenomenon: the systematic separation of (school) learning from participation in “mature” (insider) versions of Discourses which are part of our life trajectories (Knobel 1999). School learning is learning for school; school as it always has been. The burgeoning take up of new technologies simply gives us our latest “fix” on this phenomenon. It is the “truth” that underpins many current claims that school learning is at odds with authentic ways of learning to be in the world, and with social practice beyond the school gates. The reason why many school appropriations of new technologies appear “odd” in relation to “real world” practices—with which children are often familiar and comfortable—has to do with this very logic. It is precisely this “deep grammar” of schooling that cuts schools off from the new (technological) literacies and associated subjectivities that Bill Green and Chris Bigum (1992) say educators are compelled to attend to. To put it another way, new literacies and social practices associated with new technologies “are being invented on the streets” (Richard Smith, personal communication). These are the new literacies and practices that will (many of them) gradually become embedded in everyday social practice: the literacies against which the validity of school education will be assessed. But the “deep grammar” of school is in tension here with its quest for legitimation in a high tech world—which is potentially highly problematic for schools.

Some ingredients for addressing such concerns

We lay out here in a loose and unintegrated way, some ingredients we think might help take us forward in studying new technoliteracies in relation to community, workplace, home and school settings.

a. Mindsets

In recent work, Lankshear and Bigum (2000; see also Bigum et al. 2000) have addressed some of the issues involved here by reference to a fruitful distinction made by John Perry Barlow (in Tunbridge 1995), between “immigrant” and “native” mind-sets bearing on the space of new technologies. (Note: Lankshear and Bigum employ a distinction between ‘insiders’ and ‘newcomers’ in place of Barlow’s more contentious terminology). Barlow distinguishes between those who have, as it were, “been born and grown up” in the space of “the Internet, virtual concepts and the IT world generally”, whom he calls “natives”, and those who have, as it were, migrated to this space. The former (natives/insiders) understand this space; the latter (immigrants/newcomers) do not. Barlow’s distinction is between mind-sets which relate to how this space is constructed and controlled in terms of values, morals, knowledge, competence, and the like. Since ‘newcomers’ lack the experience, history, and resources available to them that the ‘insiders’ have, they cannot—to that extent—understand the new space the way insiders do. On fundamental points and principles of cyber/information/virtual-space, says Barlow, newcomers “just don’t get it” (ibid). Barlow illustrates differences between the mind-sets by reference to their respective understandings of cyberspace economics and the issues of pornography on the Net.

Barlow’s first distinction is between paradigms of value operating in “physical” space and “information/cyber” space respectively. In physical space, says Barlow, controlled economics increases value by regulating scarcity. To take the case of diamonds, the value of diamonds is not a function of their degree of rarity or actual *scarceness* but, rather, of the fact that a single corporation *owns* most of them—hence, can regulate or control scarcity. On this paradigm, scarcity has value. We might note here how schools have traditionally operated to regulate scarcity of credentialled achievement—including literacies. This has maintained scarce “supply” and, to that extent, high value for those achievements that are suitably credentialled.

In the economy of cyberspace, however, the opposite holds. Barlow argues that with information it is familiarity, not scarcity, that has value. With information,

it’s dispersion that has the value, and it’s not a commodity, it’s a relationship and as in any relationship, the more that’s going back and forth the higher the value of the relationship. People don’t get this if they’re coming from the industrial-era model. (Barlow in Tunbridge, 1995)

The point here is that if we approach the new “space” in old ways we will miss out on options that are there to be had which, in some instances might mean missing out or *losing* altogether in the long run. What is at issue here are different spaces and different mind sets, and where schools stand in relation to these.

Barlow sees the native/insider-immigrant/newcomer distinction falling very much along age lines:

generally speaking, if you're over 25, you're an immigrant. If you're under 25 you're closer to being a native, in terms of understanding what it [i.e., the Internet, virtual concepts and the IT world generally] is and having a real basic sense it. (Barlow in Tunbridge, 1995).

Notwithstanding potential dangers inherent in Barlow's terminology (which may justly be seen as offensive by some social groupings), we may use "newcomers" ("immigrants") and "insiders" ("natives") as markers for two competing mind-sets. One affirms the world as the same as before, only more technologised; the other affirms the world as radically different, precisely because of the operation of new technologies (Lankshear and Bigum 2000: 11). Of course, these distinctions are not the only way of "carving up" the world, but we find them useful when talking about new technologies and education.

The "deep grammar" of school—embedded in its administrative systems, policy development, curriculum and syllabus development, systemic planning, etc., as well as in its daily enactment within classroom routines and relations—institutionalizes the privileging of the immigrant mind-set over the native mind-set. Those constructions of technological literacy addressed here are classic instantiations of immigrant understandings of literacy grounded in the familiar physical world (book space) being imported into cyber/virtual/information space, where they operate to control and construct that space within curricular learning. This generates familiar tensions for schools: tensions which may, however, be seen as choice points—where choice about mind-sets is in principle open and up for grabs.

For example, schools already face sizable cohorts of "insiders" largely indifferent to and bemused by the quaint practices of schooling. This is a cohort that is in tune and largely at ease with the dizzy pace of change, with the development of new technologies, and with social and economic shifts that cause pain to many immigrants (Lankshear and Bigum 2000: 14). A further tension/choice point relates to the grounds for deciding when and how to employ new technologies in learning. Joseph Weizenbaum (1976/1984) has written eloquently of the dangers of allowing computers to do things solely on the basis that they *can be done* using a computer. He distinguishes between computing "cans" and computing "oughts". From his perspective, applying a computer to a task should be approached very much as a *moral* issue; one not to be determined solely on efficiency grounds. To "newcomers", workability is almost entirely a matter of efficiency. To "insiders", however, it is a much more: including a sense of elegance, beauty (Gelernter, 1998), appropriateness, and other criteria which we, as newcomers, still perceive but dimly. Across the two broad mind-sets, we have two very different perceptions of workability.

For learning, then, the "application test" is arguably not so much whether the computer does the job but, rather, a matter of the extent to which the practice is inclusive of the sensibilities of insiders. This is no easy matter, and is always confounded by the dominant views that teachers, schools, parents and systems "know what is best". For perhaps the first time in human history, however, new technologies have amplified the capacities and skills of the young to such an extent that many conventional assumptions about curriculum seem to have become inappropriate (Lankshear and Bigum 2000: 13).

As seemingly endless examples attest, however, this is not the way schools and school systems are thinking about the matter (Berge and Collins 1997a, 1997b, 1997c, Warschauer 1996, Palloff and Pratt 1999, Robyler 1999). Hence, we see pressing need for some innovative orientations, perspectives and agendas.

b. Some typical sketches of "the new"

This section will serve as a kind of "operational definition" of how we see some of the territory of new literacies. It comprises a loose assemblage of accounts we find illuminating. Where space works against doing justice to the material we have simply inserted references and brief notes.

Michael Doneman: Multimediating

Michael Doneman, and his wife, Ludmila Doneman, are performance artists—or animateurs—who work with digital technologies, disadvantaged young people and Indigenous people around Australia and elsewhere. In the

following extract from a national technology and learning project conducted in Australia a few years ago (see Lankshear, Bigum et al. 1997, Lankshear and Snyder 2000) Michael emphasises cultural production over consumption, and in so doing, identifies a key principle of new literacies. Consequently, he is worth quoting at length (Doneman 1997: 133).

Multimediating

In matters of definition, why spend so much time on *multimedia* as a noun when we could be looking at *multimediating* as a verb? I can have almost any number of windows open – let's say I open a chat window (or I-phone or video chat), the Web, an ftp file transfer, a usenet news reader, a telnet MUD session, a low-end graphics app, a simple word processor, net radio or streamed video and e-mail. Let's say I am mixing-and-matching my time in each environment, communicating in different ways among different communities, cutting and pasting, sending and receiving simultaneously, producing and consuming simultaneously, role playing, documenting and archiving, selecting, discarding, maintaining, filtering, reciprocating, researching, criticising, responding, arguing, judging, broadcasting ...

How is this multimediating constructing my world and my response to the world? How is it constructing and responding to *community*? How is it fitting me to operate effectively in the world?

Let's also say that I am doing this on-line activity from a workstation in the telecentre of a place like GRUNT, where there might be a rehearsal, music, informal chat, meetings and office work going on in *meatspace*. Other environments, other roles. Is the negotiation of these roles *on the fly* enabling or distracting me?

Digitarts: Grrrowing

Digitarts (<http://digitarts.va.com.au>) is an online multimedia project space originally constructed by young women for young women, exploring alternative perspectives on style, food, everyday life and commodities, and expressing different conceptions and constructions of female identity through poems, narratives, journal pages, "how-to-do" texts, and digital images. To begin with, the project was "dedicated to providing young women who are emerging artists and/or cultural workers with access to the knowledge and equipment necessary for the development of their arts and cultural practices in the area of new technologies" (see Welcome page). It aimed at challenging "the 'boys toys' stigma often associated with electronic equipment," and to "provide young women with access to information technology in a non-threatening "girls own" space, to encourage involvement in technology based artforms." Although the brief of *Digitarts* has changed—possibly for funding reasons—and now includes socially and culturally disadvantaged young people of all genders, *Digitarts* still remains a venue for emerging multimedia artists to showcase their work, a place for young people to display their burgeoning computer skills, and still seeks to attract young, traditionally disadvantaged people to new technologies by providing 6 to 8 week "web-development" courses for beginners. Other training provisions in the women-oriented days have included a 12 week advanced web-development course, and a 12 week digital animation course. The collaborative production of GRRROWL by young women around Australia (what the digitarts refer to as a "semi-regular ezine" <<http://digitarts.va.com.au/grrrowl.html>>) continues, still with its emphasis on women's experiences and skills. GRRROWL is available in at least "six flavours" or issues: #1 machines, #2 fashion, #3 action, #3.5 party, #4 simply lifeless, #5 circle/cycle.

Two projects are typical of the early *Digitarts*. *Girls in Space* (<http://digitarts.va.com.au/gis/>) was prompted by the low visibility of young women in public spaces, and the lack of research in Australia about women's recreational and public space needs. It gathered information from young women who made use of public spaces and those who didn't, and made this information available to public policy makers. The information was also used to generate models of service/activity delivery designed to increase young women's participation in a range of public sites (e.g., recreation and public parks, sporting venues), and to promote collaboration between local government and community organizations. Spin-offs include an on-line gallery of poster art inspired in part by some *Girls in Space* participants' reflections on women and public spaces (see: <http://digitarts.va.com.au/masses/gallery.html>), and

an online “pajama party” (reported in GRRROWL at <http://digitarts.va.com.au/grrrowl3.5>) which explores real and virtual spaces in participants’ lives.

A second project involves the ezine GRRROWL (<http://digitarts.va.com.au/grrrowl/>). This is an ongoing, collaborative publishing endeavor. One of its early issues focused on grrrls and machines. Each contributor constructed a page that is either a personal introduction—much like a conversation between newly-met friends—or contains poems or anecdotes about women and technology. Hotlinks to similar web sites on the Internet also define each writer’s self, and her self as connected with other selves. Issues of GRRROWL provide alternative readings of fashion trends and body image, perspectives of contemporary culture and everyday life and the like.

GRRROWL #4 (<http://digitarts.va.com.au/grrrowl4/>) investigates the theme, “Simply Lifeless”. It documents online the everyday lives of young women in Darwin and Brisbane. Its thesis is: “Our culture informs our everyday activity. Our everyday activity informs our culture.” The issue celebrates the “everyperson” (cf. Duncombe 1997; cf. de Certeau 1984), with eight young women, ranging in age from 12 years to 25 years, broadcasting by means of web pages “snapshots” of their lives—including digital videos of key elements (composing music on a much-loved guitar, a daughter feeding a pet chicken, etc.), or hypertext journals that span a day or a week of her life and that also include, personal digital images (family album snaps, etc.), hand-drawn graphics, digital artwork, and so on (see, especially, 12-year-old Gabriell’s page: <http://digitarts.va.com.au/grrrowl4/gabriell/typicalday.html>). By documenting the “banal” and “everyday”, this issue of GRRROWL aims at “increasing the range of criteria by which our cultures as measured and defined” (<http://digitarts.va.com.au/grrrowl4/>).

Each *Digitart* project engages its participants in developing a range of “operational” technology and literacy skills needed to produce effective web pages (e.g., becoming fluent in web page design skills, HTML and VRML, scanning images, hyperlinking files, digital photography and image manipulation, developing electronic postcards and “mail to:” forms online, embedding digital video clips in web pages). Items in the *Digitarts* portfolio are steeped in cultural analyses of everyday life, as well as in processes that properly blur the relationship between effective web page construction in cyberspace and meaningful social practices in “meat space.” This includes broadcast publishing of online magazine-type commentaries, the use of the Internet to establish and nurture interactive networks of relations between like-minded people, and the exploration and presentation of cultural and community membership and self identity through writing, images, and hyperlinks. *Digitarts’* work has an overt critical dimension in virtue of its keen-edged critique of “mainstream” Australian society. For instance, the editorial in the third issue of GRRROWL explains how to over-ride/subvert the default settings on readers’ Internet browser software, and encourages young women to over-ride/subvert other socially-constructed “default settings” that may be operating in their lives. It challenges social scripts which allocate various speaking and acting roles for young women that cast them as passive social objects or as victims (e.g., “This is not about framing women as victims—mass media vehicles already do a pretty good job of that” *Girls in Space*), and that write certain types of girls (or grrrls) out of the picture altogether (cf. Duncombe 1997: 65-70, Vale 1996: 50-73). *Digitarts* offers a coherent alternative to the commodification of youth culture—i.e., youth as a market category—by making space for young women, and now young men, to become *producers*, and not merely consumers, of culture in the way it privileges the personal over the commercial (cf., Doneman 1997, p.139; Duncombe 1997, pp. 68, 70).

Allucquère Rosanne Stone: Surfing at Wellsprings Systems

Stone (1996) describes her work as discourse surfing. She surfs a range of discourses at the interface of desire and technology. These range from phone sex to electronic games production, via virtual cross dressing and routine activities in cyberlabs, to the games people play around identities and subjectivities on the internet. In the process she experiments with new research literacies.

In the penultimate chapter, “Cyberdämmerung at Wellspring Systems,” she provides a stunning account of life inside an electronic games production sweatshop. Among other things, this chapter disrupts concepts like “symbolic analysis,” presents a new take on what lies behind the text, and takes a not so playful look at the theme of gender and power in the world of new technologies.

David Bennahum: Meme-ing

----- Information from the mail header -----

Sender: Meme -- Information on Cyberspace <MEME@MAELSTROM.STJOHNS.EDU>

Poster: "David S. Bennahum" <davidsol@PANIX.COM>

Subject: MEME 5.01

meme: (pron. "meem") A contagious idea that replicates like a virus, passed on from mind to mind. Memes function the same way genes and viruses do, propagating through communication networks and face-to-face contact between people. Root of the word "memetics," a field of study which postulates that the meme is the basic unit of cultural evolution. Examples of memes include melodies, icons, fashion statements and phrases.

David Bennahum is the author of *Extra Life: Coming of Age in Cyberspace* (1998), which we refer to later in this text. We learned about his book through his MEME newsletter which he publishes regularly. (cf., MEME website, including back issues: <http://memex.org/>)

MEME-ing is a powerful meta level literacy; an enactive project of trying to project into cultural evolution by imitating the behavioral logic—replication—of genes and viruses. It involves at least two necessary conditions: susceptibility (for contagion) and conditions for replication to occur. Susceptibility is tackled by way of “hooks” and “catches”— something that is likely to catch on, that gets behind early warning systems and immunity (even well developed critical consciousnesses can get infiltrated by the Nike icon or the Coca-Cola white swirl on red). Electronic networks provide ideal contexts for replication.

Postmodern literacies can learn a lot from the practice of MEME-ing. If we don't like *their* contagious ideas (“basics”, “accountability”, cost-benefits”, “user pays”, “self-managing schools”, “effective schools”, “magnets”, etc.), then we may need to get some of our *own*. MEMEs are good for “growing a business”...

Global Business Network: Planning

The Global Business network (GBN) is, among other things, an originating force behind the practice of scenario planning. Its “home” is at <http://www.gbn.org>. Founded in 1987, GBN is a network of organizations and individuals “committed to re-perceiving the present in order to anticipate the future and better manage strategic response” (Rowan and Bigum 1997: 76). In some ways the organization approximates to an actor network. Its services include a “WorldView program” where members are brought together via meetings, publications, and online conferences, and a training service—Learning Journeys—which introduces members and the public to the use of scenarios within their own organizations and contexts (GBN <http://www.gbn.org>).

The GBN site contains a Scenario Planning section which how scenarios are crafted and used, together with reports several projects and examples of the kind of thinking scenarios promote and demand. Its “map rap” page by Peter Schwartz (n.d.)—and originally one of the sites earlier “front pages”—captures the basis of what we have identified in this chapter as a new literacy.

“If you were an explorer in the early 1700s this map, by cartographer Herman Moll, might well have guided your explorations of North America. It is, for the most part, recognizable to modern eyes, except for one thing—it shows California as an island” (map also from this web page)

This error was the result of good Cartesian reasoning: Spanish explorers coming from the south had encountered the tip of the Baja Peninsula; voyaging further north they sailed into the Straits of Juan de Fuca. When they connected the first point to the second they created the Gulf of California (ibid.).

As Schwartz puts it, this would be merely a historical curiosity were it not for the missionaries sent from Spain to convert the heathens in New Mexico. After landing in California, they prepared to cross the Gulf as their maps instructed: they packed up their boats and carried them up over the Sierra Nevada and down the other side, and found...not sea, but the longest, driest beach they'd ever seen.

When they wrote back, protesting that there was no Gulf of California, the mapmakers replied: "Well, the map is right, so you must be in the wrong place" (or words to that effect). This misunderstanding persisted for 50 years until one of the missionaries rose high enough in the Church to be able to persuade the King of Spain to issue a decree to change the maps.

As Schwartz reminds us, once you come to believe in a map, it's very difficult to change it, and, if your facts are wrong, then you'll be relying on a map that's wrong too. One aim of the Global Business Network is to "challenge 'mental maps'" (ibid.) that blind people to the lay of the land rather than helping them get to where they want to go. Thus, "[t]hrough the process of scenario planning and strategic conversation, GBN can help decision makers develop more subtle, flexible maps that enable people to navigate the uncharted territory of the future" (ibid.).

Adbusters: Culture Jamming

At Adbusters Culture Jamming Headquarters—at <http://www.adbusters.org/>—a series of slickly designed and polished pages present information about the organization and its purposes, describe an array of culture jamming campaigns, describe the adbusters paper-based magazine, and target worthy media events and advertising, cultural practices, and overblasted corporate globalisation with knife-sharp critiques in the form of parodies exposés of corporate wheelings and dealings, and/or online information tours focussing on social issues. By turning media images in upon themselves, or by writing texts that critique the effects of transnational companies, the adbusters "culture jamming" campaigns scribe new literacy practices for all people. An early image from a critique of a past trend to claim an "equality" ethic in the fashion world shows how combining familiar images and tweaking texts can produce biting honest social commentaries that everyone everywhere is able to read—a kind of global literacy.

Eco-logy, Communications guerrillas

Again, and drawing on Michael Doneman's work, another emerging postmodern literacy is digital "hacking". Originally, as with journal hacks who would churn out texts to deadlines, hacking meant nothing more than writing a computer program. Over time, however, "hacking" has become associated in the popular mind as the practice of breaking into computer networks in order to read or tweak data on machines to which one has no authorised access. Doneman (1997: 139) draws on Umberto Eco's concept of "communications guerillas" to describe an "emerging opposition to the pervasive and coercive use of information imagery by powerful groups". According to Doneman, communications guerillas are committed to urging people to read media and other messages in ways that open onto a critical—and multiple—analyses and interpretations of these messages and, hence, multiple active responses generated by the readers and not by the message writers. Doneman (ibid.) explains:

"[t]hese guerrillas are not always young people or outlaws, but often enough they are—often enough for us to consider much of the following list (downloaded from the Net) as aspects of emerging youth cultures:

Hacking - the infiltration and manipulation of systems.

Subvertising - the production and dissemination of anti-ads [cf., the Adbusters in the previous section].

Sniping - late night raids on public places (as in the work of Australia's own BUGA UP [Billboard Utilising Graffitiists Against Unhealthy promotions <http://www.buga-up.org/>]).

Media hoaxing - the hoodwinking of journalists [Dishwasher Pete once sent a friend in to be interviewed in his place on the David Letterman Show. The behind-the-scenes people twigged that Pete's friend was not Pete, but the show was about to go to air and there was nothing they could do. See Vale 1997: 18 for a detailed account]

Audio agitprop - the deconstructing of pop music and challenging of copyright laws [song lyrics websites are a good example of this]

Academy hacking - cultural studies conducted outside university walls by insurgent intellectuals [e.g., zinesters]

Subcultural bricolage - the refunction, by societal "outsiders", of symbols associated with the dominant culture (as in the "voguing" of poor, black, urban drag queens).

Slashing - the renewing of tales told for mass consumption (as in the pornographic and often homoerotic Kirk/Spock stories published by male and female Trekkies in Star Trek fanzines [and ezines]).

Transmission jamming [e.g., adbusters]

Pirate radio and TV broadcasting

Neo-situationist demonstrations (as in late-night dancing in ATM lobbies).

Camcorder counter-surveillance (as in the celebrated tape of the police bashing of Rodney King).

All of these activities, and others, have been labelled 'culture jamming'—the introduction of *noise* to the signal in order to 'restore a critical dimension to passive reception'. All are examples of the potential power, for good or ill, of the notion of *interactivity*" (Doneman 1997: 139).

For Doneman, as for us, postmodern literacies include the manipulation of images and meanings; "processes associated with the arts and the construction of culture, and also with social revolution" (ibid.).

c. Multi-faceted studies of new literacies

The preceding chapter suggests that postmodern literacies are complex and diverse. Within education research contexts we need to find ways of researching these literacies that do them justice, that do not water them down, or leach the colour from them. We think that to be useful, the investigation and interpretation of new literacies should undertake at least descriptive, analytic, critical and evaluative kinds of accounts.

- Descriptive

The field needs rich descriptive "sociological" accounts of new literacies, ideally produced by insiders who tell it like it is practised, as opposed to getting tripped up on self-conscious allocations to categories as "official" proponents of literacy studies often do. This might mean that for people like ourselves more of our work might assume a kind of "brokerage" role—sifting through what is already available and working to find ways of projecting this work into literacy education and research spaces.

Several years ago, Douglas Rushkoff published his first book, *Cyberia* (1994). Admittedly, this has a degree of analysis and comment running through it, but it is first and foremost an attempt to describe a world. It differs considerably as a description from, say, the kind of account Stephen Duncombe (an academic) provides of zines (1997). Duncombe's is a splendid account and we would want to see this kind of work done in abundance for a range of new literacies. At the same time, we learned a vast amount from Rushkoff's book that falls into our category of the kinds of things we think educators and educationists interested in literacies need to be aware of.

This learning included insights into Discourses that are increasingly central to the lives of young people. It also included insights into aspects of subjectivity, identity formation, existential significance, worldviews, etc. as seen from the perspective of participants. This kind of material speaks directly to the sorts of issues raised by educationists who are concerned about things like the presence of aliens in our classrooms (Green and Bigum 1993). Generation X books, such as those written by Douglas Coupland (1991, 1995, 1996, 2000), also provide the kind of verit³/₄ descriptions educators can learn much from.

Briefly, our point is that—notwithstanding the niceties of descriptions always inescapably involving analyses and interpretations at some level—we welcome the growing body of work by insiders to “new literacies” and see much value in bringing this work into the gamut of study of new literacies as an important “data base” for dealing with educational issues at the interfaces of work, community, schools and homes.

- Analytic

All manner of analytic work is relevant to the field of studying new literacies. In terms with which we are familiar, analytic tools from formal academic and scholarly work might be applied to the kinds of descriptive studies noted immediately above. This might involve taking the descriptions as a kind of “secondary data” and making further “senses” of it. At one kind of level this might entail identifying the Discourse and discourse aspects of a set of social practices (i.e., the ways of speaking, acting, believing, thinking, etc. that signal one is a member of a particular Discourse, along with the “language bits” of this Discourse; Gee 1996). At another level, however, it might involve engaging in sociological imagination work (Mills 1959)—in the sense of relating issues of subjectivity and identity to participation in Discourses/forms of life/language games. It would certainly have to include efforts to see how practices of new literacies hook onto the world.

As an example of the latter, we recently read David Bennahum’s book, *Extra Life: Coming of Age in Cyberspace* (1998)—nicely described by Douglas Rushkoff as a *Catcher in the Rye* for the Atari Generation. Among the many ways in which we reflected on Bennahum’s biography of growing up, one was in terms of the book providing an interesting account of a specific social construction of a symbolic analyst or knowledge worker (i.e., Bennahum himself). It is a timely reminder of how there are all manner of routes to becoming new kinds of workers within a changing world of income generation. When the links to Bennahum’s “Meme” list and his home page are factored in, we arrive at interesting insights into how a stratum of the Atari generation build networks, employ marketing strategies, maintain support systems and so on. For us, and referring back to Barlow’s conceptions of Natives/Insiders and Immigrants/Newcomers in relation to new technologies, Bennahum can be read from two related angles: (a) a kind of “Insiders do it different” perspective, and (b) a “but how different is it *really* and does it matter?” position.

- Critical

What does it mean to critique a new literacy and the language game or form of life to which it belongs? Can insiders and newcomers talk across experiences and mindsets? What are the educational possibilities here?

We think the issue of what counts as critique with respect to new literacies is important and requires serious consideration. On one hand, there is a good deal in the educational literature of what we would see as straightforward dismissal from an “Immigrant” perspective on new practices. On the other, as Stone (1996), among many others, makes clear, there is a lot in and around new literacies that begs careful assessment from ethical and social perspectives.

How this is to be done is a complex question—it is, in a sense, the question of how those of us steeped in modernity negotiate our ways within postmodernity. How do we negotiate among mindsets and maintain ethical, social and political integrity? (For an early and modest attempt at a research intervention in this area, see Bigum et al. 2000).

Of course, so far as educational practice and directions at present are concerned, the matter of critique is often sidestepped completely so far as new literacies are concerned. “Newcomer” dispositions simply impose themselves on educational spaces. Students of new literacies must be at the forefront in opposing such impositions.

- Evaluative

In the final analysis, if literacy education—that is, what we educate others in with respect to what count as literacies—is to have a solid and justified basis, we need to be able to answer with respect to *any* literacy taught compulsorily: what is the efficacy of this literacy—postmodern or otherwise?

To turn this round the other way, we need to take up again the questions: “under what conditions are literacies powerful or efficacious?; are there any such things as powerful literacies, and if so what are they?” And we need to be able to tackle these questions from the standpoint of both conventional and new literacies, and of the relationships between them. In this regard we see the wider set of ideas advanced in this paper as pointing to inherent elements of what any well-informed evaluative focus will need to take into account.

Some potential implications

The ideas mobilized in this chapter have a range of potential implications—some of them in tension with others. We would like to think the paper has some obvious implications for education research agendas: in terms of adding some new emphases to literacy investigations, and suggesting some new ways of thinking about how educational issues about literacy might be reframed and repoliticised.

We are unclear about what direct implications, if any, our paper has for *schools*. In optimistic moments we are inclined to argue that the proper literacy business of schools should be to take full and proper account of any new literacy that is demonstrably efficacious. From this perspective, the role of people involved in studying and interpreting new literacies would be to continue politicising literacy education—to become perpetual gnats on the arse of performativity, and to undergird this role with high quality research along the sorts of lines and with respect to the kinds of themes we have sketched above.

The optimistic stance would argue for schools to “lighten up” and encourage rich opportunities for “multimediated” engagement—opportunities that would extend into community and work spaces as required for the practices to be authentic. The classroom would not necessarily be the best place to engage in scenario planning, and it’s anyone’s guess what zines and culture jamming might become under classroom conditions.

Mostly, regretfully, we are pessimistic about what schools might usefully contribute to development and enculturation in the area of new literacies. Perhaps schools should do what schools can do well and what is legitimate (which does not include perpetuating school literacies that mediate life chances along lines we know all too much about already). *Maybe* teachers should just teach elementary basic skills for a very few hours each day and stay out of the business of unwittingly making practices into characteristically “schoolish” routines that bear little resemblance to how new technologies are used in mature versions of social practice in the wider world. In the course of our research in schools we have seen many graphic examples of mystifying appropriations of new technologies. This has led us to question whether it might be better for students not to use computers in classrooms than to *mislearn* computer-mediated practices. The case of a student who understood emailing as being a practice solely of writing to other people to obtain information for projects and regarded conventional letter writing as the only proper mode for communicating over distance with friends, is a good example. She would subsequently have to *unlearn* her entire conception and practice of emailing.

As usual, it is the places and spaces in between these poles that seem most likely (cf. de Certeau 1984). The key implication we see emerging from our paper is to mobilise for forms of teacher education and recruitment that emphasise familiarity with authentic practices of new literacies, and to militate for these to have a proper place in the formal educational experience of young people. It is noteworthy that David Bennahum builds the central chapters of his account of coming to age in cyberspace around the learning opportunities provided by a computer studies teacher. This teacher drew on his understanding of authentic cultures of computing and authentic practices of literacies like programming to build learning opportunities that defied the logic of school walls and did away with mandated, “mind-messing” curricula. Good practice is learned in the company of experts within settings that privilege authentic tasks and purposes. This is a sufficiently clear and straightforward principle to enact in education, given the political will.

References:

- Bail, K. (1997). Deskbottom publishing. *The Australian Magazine*. May 3-4. 44.
- Bennahum, D. (1998). *Extra Life: Coming of Age in Cyberspace*. New York: Basic Books.
- Berge, Z. and Collins, M. (Eds.), (1997a). *Wired Together: The Online Classroom in K-12: Perspectives and Instructional Design*. Vol. 1. Cresskill, NJ: Hampton Press.
- Berge, Z. and Collins, M. (Eds.), (1997b). *Wired Together: The Online Classroom in K-12: Case Studies*. Vol. 2. Cresskill, NJ: Hampton Press.
- Berge, Z. and Collins, M. (Eds.), (1997c). *Wired Together: The Online Classroom in K-12: Teacher Education and Professional Development*. Vol. 3. Cresskill, NJ: Hampton Press.
- Bigum, C. (1997). Teachers and computers: in control or being controlled? *Australian Journal of Education*, 41(3), 247-261.
- Bigum, C., Rowan, L., Knobel, M., Lankshear, C. and Doneman, M. (2000). Confronting disadvantage in literacy education: New technologies, classroom pedagogy, and networks of practice. Belconnen: Language Australia (forthcoming).
- Coupland, D. (1991). *Generation X: Tales for an Accelerated Culture*. New York: St Martin's Press.
- Coupland, D. (1995). *Microserfs*. New York: HarperCollins.
- Coupland, D. (1996). *Polaroids from the Dead*. New York: HarperCollins.
- Coupland, D. (2000). *Miss Wyoming*. New York: Pantheon.
- Cowan, J. et al. (1998). Destino Colombia: A scenario process for the new millenium. *Deeper News*. 9(1): 7-31.
- de Certeau, M. (1984). *The Practice of Everyday Life*. Berkeley: University of California Press.
- Department of Education, Queensland (DEQ) (1997). *Schooling 2001*. Brisbane: DEQ.
- Department of Education, Queensland (DEQ) (1998). *Teacher Computing Competencies*. Brisbane: DEQ.
- Doneman, M. (1997). Multimediating. In C. Lankshear, C. Bigum, et al. (investigators). *Digital Rhetorics: Literacies and Technologies in Education - Current Practices and Future Directions*. Vol. 3. Project Report. Children's Literacy National Projects. Brisbane: QUT/DEETYA. 131-148.
- Duncombe, S. (1997). *Notes From Underground: Zines and the Politics of Alternative Culture*. London: Verso.
- Fatouros, C. and Walters-Moore, C. (1997). *Using Software in English*. Newtown, NSW: Primary English Teaching Association.
- Gee, J. (1996). *Social Linguistics and Literacies: Ideology in Discourses*. 2nd edn. London: Falmer Press.
- Gee, J., Hull, G. and Lankshear, C. (1996). *New Work Order*. Sydney: Allen and Unwin.

- Gelernter, D. (1998). *Machine Beauty. Elegance and the Heart of Technology*. New York: Basic Books.
- Goodson, I., Knobel, M., Lankshear, C. and Mangan, M. (2000). *Social Technologies and Learning Cultures*. Book manuscript in preparation under contract to St Martins Press.
- Green, B. and Bigum, C. (1993). Aliens in the classroom. *Australian Journal of Education*. 37(2): 119-141.
- Knobel, M. (1999). *Everyday Literacies: Students, Discourses and Social Practice*. New York: Peter Lang.
- Lankshear, C. and Bigum, C. (2000). Literacies and new technologies in school settings. *Curriculum Studies*. 7 (3). Special issue on Literacy (ed. E. Millard).
- Lankshear, C., Bigum, C. et al. *Digital Rhetorics: Literacies and Technologies in Classrooms - Current Practices and Future Directions*. Canberra: Department of Employment, Education, Training and Youth Affairs, 1997.
- Lyotard, J-F. (1984). *The Postmodern Condition: A Report on Knowledge*. Translated by Geoff Bennington and Brian Massumi. Foreword by Fredric Jameson. Minneapolis: University of Minnesota Press.
- Mills, C. Wright (1959). *The Sociological Imagination*. London: Oxford University Press.
- Palloff, R. and Pratt, K. (1999). *Building Learning Communities in Cyberspace : Effective Strategies for the Online Classroom*. San Francisco: Jossey-Bass.
- Papert, S. (1993). *The Children's Machine: Rethinking School in the Age of the Computer*. New York: Basic Books.
- Pirihi, J. (1996). *Computer Learning Centre Activities: Stage 2 Word processing Activities*. Whangarei: Tai Tokerau Education Centre.
- Roblyer, M. (1999). *Integrating Educational Technology into Teaching*. New Jersey: Prentice Hall.
- Rowan, L. and Bigum, C. (1998). The future of technology and literacy teaching in primary learning situations and contexts. In Lankshear, C., Bigum, C. et al. (investigators) *Digital Rhetorics: Literacies and Technologies in Education— Current Practices and Future Directions*. Vol. 3. Project Report. Children's Literacy National Projects. Brisbane: QUT/DEETYA.
- Rushkoff, D. (1994). *Cyberia. Life in the Trenches of Hyperspace*. San Francisco: HarperSanFrancisco.
- Schwartz, P. (n.d.) Origins: The Map Rap. Downloaded Thursday, 17 August, 2000.
<<http://www.gbn.org/public/gbnstory/origins/maprap.htm>>
- Schwartz, P. (1991) *The Art of the Long View*. New York: Doubleday.
- Stone, A. (1996). *The War of Desire and Technology at the Close of the Mechanical Age*. Cambridge: MIT Press.
- Tunbridge, N. with Barlow, J. (1995). The Cyberspace Cowboy. *Australian Personal Computer*. September.
- Vale, V. (Ed.), (1996). *Zines!* Vol. 1. San Francisco: V/Search.
- Vale, V. (Ed.), (1997). *Zines!* Vol. 2. San Francisco: V/Search.
- Wack, P. (1985a). The gentle art of re-perceiving. *Harvard Business Review*. September-October, pp. 73-89.

Wack, P. (1985b). Scenarios: Shooting the rapids. *Harvard Business Review*. November-December. 139-150.

Warschauer, M. (Comp.), (1996). *Virtual Connections*. Hawai'i: University of Hawai'i Press.

Weizenbaum, J. (1984). *Computer Power and Human reason. From Judgement to Calculation*. Harmondsworth, Middlesex: Penguin.

van der Heijden, K. (1996). *Scenarios: The Art of Strategic Conversation*. Chichester: Wiley