The "Stuff" of New Literacies

Crafted with care for the Mary Lou Fulton Symposium by

©☺1¡∩   £@∩k$ℏ3@®

James Cook University and McGill University
April 24 2007

Introduction

I want to argue that the "*stuff*" of new literacies provides a useful focus for thinking about literacy in relation to learning, education, and research under current and foreseeable conditions.

Strictly speaking, "stuff" is not a technical term, but I want to try to use it to do some more or less technical and theoretical work, without drilling too deeply into philosophical issues about different kinds of phenomena and different categories of being. Briefly, the idea that new literacies are constituted of different "stuff" from conventional or familiar literacies is how I try to move beyond merely *chronological* – or temporal – and *technology-based* senses of new literacies toward an *ontological* account which, I believe, reveals what is most significant about current trends and changes in social practices of meaning-making (Lankshear and Knobel 2006; Knobel and Lankshear 2007).

When "new" literacies are construed simply as "recent arrivals" associated with computers and other digital technologies it is all *too* easy to make light of the idea by saying things like: "Well there are always newer ones coming along, so that MOO-ing is already an 'old' new literacy ….." This kind of remark suggests that new literacies have a similar kind of life trajectory to a new Ford or Toyota car: new in 2006, semi new in 2007, and old hat by 2008.

Against this kind of nanosecond or "that's so yesterday" perspective, I believe that 'new literacies' are best understood in relation to an historical period of social, cultural, institutional, economic, intellectual and technological change that is likely to span several decades – some of which are already behind us. We associate new literacies with an historical conjuncture and a "rising" mindset that have resulted in literacies being *constituted* in significantly different ways from how we have known them until recently. Some of the changes in this constitution contrast and, indeed, conflict, dramatically with conventional educational values and routines, and are generating a host of deep issues about which relatively little thinking has been done to date.

To get to what I think is important about new literacies I will briefly address "literacies" and "new" in turn.

A. Literacies

In the new edition of *New Literacies* (Lankshear and Knobel 2006), Michele and I define literacies as "**socially recognized ways of generating, communicating and negotiating meaningful content through the medium of encoded texts within contexts of participation in Discourses** (or, as members of Discourses)."

- *Socially recognized ways*

By "socially recognized ways" I mean something close to the concept of "practice" as it was developed by Scribner and Cole (1981) in relation to literacy. They defined practices as "socially developed and patterned ways of using technology and knowledge to accomplish tasks." That is, when people participate in tasks that direct them "to socially recognized goals and make use of a shared technology and knowledge system, they are engaged in a social practice" (Scribner and Cole 1981: 236). This involves co-ordinated sets of actions (anticipating Gee's idea of Discourses co-ordinating us and comprising co-ordinations among human and non-human elements), which Scribner and Cole refer to as "skills." Practices, then, comprise technology, knowledge and skills organized in *ways* that participants recognize, follow, and modify as changes emerge in tasks and purposes as well as technology and knowledge.

This is what we see going on everywhere, and graphically, in today's literacy scene. New socially recognized ways of pursuing familiar and novel tasks are emerging and evolving apace – and with a good deal of consciousness on the part of people who are building and evolving them as this is going on. Interestingly, much of this conscious building and refining is being done by "tech savvy" people – who are often young. And this is why we have appealed to Scribner and Cole's account of practice, rather than some of the more recent ones within literacy studies. Scribner and Cole put technology right in the foreground of their account of "practice." This visibility often slipped subsequently into the background as conceptions of literacy practices increasingly centered on *texts*, and their linguistic-semiotic dimensions. We want to put the technology dimension squarely back in the frame.

- *Meaningful content*

Generating and communicating meanings, inviting others to make meaning from our texts, and doing so with others in turn, can only be done by having something to make meaning *from* – namely, a kind of content that is constituted as "potential" by the text and that is actualized as *meaningful* content through interaction with the text by its recipients. If there is no text there is no literacy. Gunther Kress (2003: 37-38) talks of readers doing "semiotic work" when they read texts. This is "the work of filling [signs] with content:" the work of making meaning from the [signs] in the text. Meaning involves work from two sides. One side involves *articulation*, performed in the production of "the outwardly made sign" (e.g., writing). From the other the work is *interpretation*, which involves producing "the inwardly made sign" in reading (see also Gee 2004: Ch. 6).

Ideas of "meaningful content" can be wider or narrower, looser or tighter, depending on how close one stays to "literality," and to text as "self-contained." In our own work we take a looser

approach than many other literacy students take. This approach puts much weight on the complexity and richness of the relationship between (new) literacies and "ways of being together in the world" (or, "Discourses." See Gee 1997: xv). So, for example, if we look at somebody's weblog we might well find that much of the meaning we make from the content has to do with who we think the blog writer *is*: what they are like, how they want to think of themselves, and how they want us to think of them. Likewise, a particular text that someone produces might well be best understood as an expression of wanting to feel "connected" or "related" right now. The meaning carried by the content might be far less literal than relational. It might be more about expressing solidarity or affinity with certain other people. Our idea of "meaningful content" is intended to be sufficiently elastic to accommodate these possibilities.

For example, in May 2006 Yahoo Sports reported a Kansas City Royals baseball fan of 25 years finally giving up on the club and auctioning his loyalty on eBay.com. The meaning of such actions have little to do with established practices of auctioneering, and the interpretation of texts describing the items have little or nothing to do with the literal words *per se*. People may be prepared to spend money just to be in solidarity with the spoof: to say "I get it", thereby signaling their insiderness with the practice, expressing solidarity with the seller, enacting an "affinity."

- ### *Encoded texts*

By "encoded texts" we mean texts that have been rendered in a form that allows them to be retrieved, worked with, and made available independently of the physical presence of another person. "Encoded texts" are texts that have been "frozen" or "captured" in ways that free them from their immediate context of production so that they are "transportable." The particular kinds of codes employed in literacy practices are varied and contingent. Literacies can involve *any* kind of codification system that "captures" language in the sense we have described. Literacy includes "letteracy" (i.e., within the English language, recognition and manipulation of alphabetic symbols), but in our view goes far beyond this, which puts us at odds with scholars like Kress, who tie literacy to *reading* and *writing*. In out view, someone who "freezes" language as a digitally encoded passage of speech and uploads it to the internet as a podcast is engaging in literacy. So, equally, is someone who photoshops an image – whether or not it includes a written text component.

- ### *Participation in Discourses*

Discourse can be seen as the underlying principle of meaning and meaningfulness. We "do life" as individuals and as members of social and cultural groups – always as what Gee calls "situated selves" – in and through Discourses, which can be understood as meaningful co-ordinations of human and non-human elements. Besides people themselves, the human elements of co-ordinations include people's ways of thinking, acting, feeling, moving, dressing, speaking, gesturing, believing, and valuing. Non-human elements of co-ordinations include such things as tools, objects, institutions, networks, places, vehicles, machines, physical spaces, buildings. "Within such co-ordinations we humans become recognizable to ourselves and to others and recognize ourselves, other people, and things as meaningful in distinctive ways" (Gee 1997: xiv).

Literacies can be seen both as elements of co-ordinations, and as themselves co-ordinations that are parts of Discourses. Meaning-making draws on knowledge of Discourses; insider perspectives – these often go beyond the literal; beyond what is "literally" in the sign. Part of the importance of defining literacies explicitly in relation to Discourses, then, is that it speaks to the meanings that insiders and outsiders to particular practices can and cannot make respectively. It reminds us that texts evoke interpretation on all kinds of levels that may only partially be "tappable" or "accessible" *linguistically*.

B. The "New"

For the purposes of talking about literacies in relation to learning and education under contemporary and foreseeable conditions "the new" can usefully be understood in terms of what I will call "new technical stuff" and "new ethos stuff" (Lankshear and Knobel 2006).

- *New "technical stuff"*

Much of what is germane to "new technical stuff" is summarized in Mary Kalantizis' idea that "You click for 'A' and you click for 'red'" (Cope et al. 2005: 200). Basically, programmers write source code that is stored as binary code (combinations of 0s and 1s) that drives different kinds of applications (for text, sound, image, animation, communications functions, etc.) on digital-electronic apparatuses (computers, games hardware, CD and mp3 players, etc.). Someone with access to a fairly standard computer and internet connection, and who has fairly elementary knowledge of standard software applications can create a diverse range of meaningful artefacts using a strictly finite set of physical operations or techniques (keying, clicking, cropping, dragging), in a tiny space, with just one or two (albeit complex) "tools." They can, for example, create a multimodal text and send it to a person, a group, or an entire internet community of global reach in next to no time and at next to no cost.

Diverse practices of "remixing"—where a range of found, and in some cases, original materials are cut, spliced, edited, reworked, and mixed into a new creation—have become highly popular in part because of the quality of product it is possible for "ordinary people" to achieve.

Machinima animations are a good example of what we mean here. Until recently such productions required expensive, high-end 3D graphics and animation engines that were usually the preserve of professional animators. Currently, a laptop computer, a $30.00 dollar game (e.g., The *Neverwinter Nights* Diamond Pack), video and audio editing software (often part of the software bundle that comes with a new computer), and some free video recording software (e.g., Fraps) provide ample resources for creating polished animated movies.

Music remix practices are another good example of hobbyists being able to produce high-quality artifacts, this time in the form of audio files. Software that comes bundled with most computers allows users to convert music files from a CD into an editable format (e.g., *.wav), edit and splice sections of different songs together, to convert the final music files back into a highly portable format (e.g., *.mp3) and upload them to the internet for others to access or, alternatively, use them as background soundtracks in larger do-it-yourself multimedia projects.

Anime Music Video (AMV) remixes, similarly, have become enormously popular among young people and are readily available on Youtube.com and sites like Animemusicvideo.org. In AMV practices, for example, participants digitize or find online a series of anime cartoons and then video edit these to synchronize them with selected music tracks (see, for example, Animemusicvideos.org; Lankshear and Knobel 2006: 80, 135-136).

These are some typical examples of the kinds of technological trends and developments we think of as comprising new technical stuff. They represent a quantum shift beyond typographic means of text production as well as beyond analogue forms of sound and image production. New technical stuff can be employed to do in new ways "the same kinds of things we have previously known and done." Equally, however, this new technical stuff can be integrated into literacy practices (and other kinds of social practices) that in some significant sense represent *new* phenomena. The extent to which new technical stuff is integrated into literacy practices that can be seen as being "new" in a *significant* sense will reflect the extent to which these literacy practices involve different kinds of values, emphases, priorities, perspectives, orientations and sensibilities from those that typify conventional literacy practices that became established during the era of print and analogue forms of representation and, in some cases, even earlier. I take this up shortly in terms of the new ethos stuff of new literacies. Before that, however, I want to refer to a sting in the tail of the new technical stuff.

The sting in the tail of digitality is a consequence of proprietary ways of thinking, doing and being. In short, this is a major issue associated with digitally encoded material available on the internet that introduces something profoundly new. The point in question is made by Lawrence Lessig (2004: 141–3). It has to do with copyright and the institution of "intellectual property," and a fundamental difference between physical space (or what Lessig calls "real space") and cyberspace.

Lessig shows how copyright law in physical space distinguished three categories of use of copyrighted material: unregulated, regulated and fair use. For example, there are various uses of a book that are not subject to copyright law and permissions because they do not involve making a copy of the text (unregulated), or because they involve only copying an amount of the book (whether by photocopying, reproducing in a citation, or whatever) or having a purpose (e.g., scholarly review and critique) that is deemed to fall within the limits of "fair use." So A can lend a book to B to read, and B to C and so on, without falling foul of copyright – since no copy of the text is made. A can even resell the book. These fall within the category of unregulated uses, because to borrow and read a book or to sell it does not involve making a copy.

But the "ontology" of material available on the internet – "a distributed digital network" (ibid.: 143) – is different in a fundamental respect from material available in physical space. On the internet "every use of a copyrighted work produces a copy" (ibid.) – without exception. This "single arbitrary feature of a digital network" carries massive implications: Uses that before were presumptively unregulated are now presumptively regulated. No longer is there a set of presumptively unregulated uses that define a freedom associated with a copyrighted work. Instead, each use is now subject to the copyright, because each use also makes a copy – category

1 (unregulated) gets sucked into category 2 (regulated). This imposes massive constraints on contemporary cultural practices like remix, and has resulted in some highly punitive legal actions.

- *New "ethos stuff"*

The idea that many contemporary social practices involve new "*ethos* stuff" from that which often characterized earlier ways of doing things refers to the intensely "participatory," "collaborative," and "distributed" nature of many current and emerging practices within formal and non-formal spheres of everyday engagements. We understand this difference in "ethos" between conventional and new literacies in terms of a much larger historical and social phenomenon that involves the emergence of a new kind of mindset associated with substantive changes – extant and inchoate or as *enactive projects* – going on in the physical world and in the so-called virtual worlds of cyberspace (Lankshear and Bigum 1999: 457).

The idea of the emergence and evolution of a new mindset is evident in the difference between people who approach the contemporary world through what we call a "physical-industrial" mindset, on the one hand, and those who approach it through a "cyberspatial-postindustrial" mindset, on the other. New "ethos stuff" broadly reflects the second mindset, as depicted in the following table (see Table 1). (It should be noted that the second mindset does not repudiate all aspects of the first, but of necessity accommodates aspects of it and the "reality" it bespeaks in the manner of a mature "post" perspective. That is, people operating from the second mindset acknowledge multiple "spaces," rendering to each as they deem appropriate. Increasingly, however, they are remaking hybrid spaces that travel across physical and cyberspaces according to principles of collaboration, leverage and participation.)

Mindset 1	Mindset 2
The world basically operates on physical/material and industrial principles and logics. The world is "centered" and hierarchical.	The world increasingly operates on non-material (e.g., cyberspatial) and post-industrial principles and logics. The world is "decentered" and "flat."
• Value is a function of scarcity	• Value is a function of dispersion
• Production is based on an "industrial" model	• A "post-industrial" view of production
o Products are material artefacts and commodities	o Products as enabling services.
o Production is based on infrastructure and production units and centers (e.g., a firm or company)	o A focus on leverage and non finite participation

o Tools are mainly production tools	o Tools are increasingly tools of mediation and relationship technologies
• The individual person is the unit of production, competence, intelligence	• The focus is increasingly on "collectives" as the unit of production, competence, intelligence
• Expertise and authority are "located" in individuals and institutions	• Expertise and authority are distributed and collective; hybrid experts
• Space is enclosed and purpose specific	• Space is open, continuous and fluid
• Social relations of "bookspace" prevail; a stable "textual order"	• Social relations of emerging "digital media space" are increasingly visible; texts in change

Table 1: Two mindsets
(Lankshear and Knobel 2006: 38)

Much of what might be regarded as new "ethos stuff" in contemporary practices is crystallized in current talk of "Web 1.0" and "Web 2.0" as different sets of design patterns and business models in software development, and in concrete examples of how the distinction plays out in real life cases and practices mediated by the internet (see figure 1 below).

Web 1.0	**Web 2.0**
Ofoto	Flickr
Britannica Online	Wikipedia
Personal websites	Blogging
Publishing	Participation
Content management systems	Wikis
Directories (taxonomy)	Tagging ("folksonomy")
Netscape	Google

Figure 1: Web 1.0 and Web 2.0 (adapted from O'Reilly 2005: no page)

The first generation of the Web has much in common with an "industrial" approach to material productive activity. Companies and developers worked to produce artefacts for consumption. There was a strong divide between producer and consumer. Products were developed by finite experts whose reputed credibility and expertise underpinned the take up of their products. *Britannica Online* stacked up the same authority and expertise – individuals reputed to be experts on their topic and recruited by the company on that basis – as the paper version of yore. Netscape browser development proceeded along similar lines to those of Microsoft, even though the browser constituted free software. Production drew on company infrastructure and labor, albeit highly dispersed rather than bound to a single physical site.

The picture is very different with Web 2.0. Part of the difference concerns *the kind of products* characteristic of Web 2.0. Unlike the "industrial" artefactual nature of Web 1.0 products, Web 2.0 is defined by a "post-industrial" worldview focused much more on "services" and "enabling" than on production and sale of material artefacts for private consumption. Production is based on "leverage," "collective participation," "collaboration" and distributed expertise and intelligence, much more than on manufacture of finished commodities by designated individuals and work teams operating in official production zones and/or drawing on concentrated expertise and intelligence within a shared physical setting.

The free, collaboratively produced online encyclopedia, Wikipedia.org, provides a good example of collaborative writing that leverages collective intelligence for knowledge production in the public domain. Whereas an "official" encyclopedia is produced on the principle of recognized experts being contracted to write entries on designated topics, and the collected entries being formally published by a company, Wikipedia entries are written by anyone who wants to contribute their knowledge and understanding and are edited by anyone else who thinks they can improve on what is already there. Wikipedia provides a short policy statement and a minimal set of guidelines to guide participants in their writing and editing. It is, then, an encyclopedia created by *participation* rather than via publishing; it "embraces the power of the web to harness collective intelligence" (O'Reilly 2005: no page).

The ethos is to reach out to the entire Web for input, through limitless participation, rather than the more traditional belief that expertise is necessarily scarce, and that the right to speak truths is conferred on only the "properly credentialed." The idea is *not* that anyone's opinion is as good as anybody else's but, rather, that anyone's opinion may stand until it is overwritten by someone who believes they have a better line, and that the right to exercise this belief is not constrained. This, then, is collaborative writing supported by the "technical stuff" of a "wiki" platform or some other kind of collaborative writing software like Writely.com (or similar). It builds on distributed expertise and decenters authorship. In terms of ethos it celebrates inclusion (everyone in), mass participation, distributed expertise, valid and reward-able roles for all who pitch in. It reaches out to all-of-the Web, regardless of distinction.

Many popular literacy practices – like fanfiction, fan manga and anime works, and multiplayer online gaming – reflect Wikipedia's commitment to inclusion, collaboration, and participation, while going somewhat further in explicating what counts as successful performance and providing guidelines for participants. Gee (2004) and others (e.g., Black 2005, 2006, 2007; Lankshear and Knobel 2006: Ch. 3) describe how participants in various online affinity spaces

(Gee 2004) share their expertise, make as explicit as possible the norms and criteria for success in the enterprise, and actively provide online real time support for novices and, indeed, participants at all levels of proficiency. These range from statements about how to develop plausible characters and plots in fanfiction, to elaborate walkthroughs for games produced for the sheer love of the practice and shared with all online. The practice is marked by generosity and a sense that the more who participate the richer the experience will be. In terms of "ethos," the ontology of practices like blogging, writing fanfiction and collaborating in Wikipedia celebrate free support and advice, building the practice, collective benefit, co-operation before competition, everyone a winner rather than a zero-sum game, and transparent rules and procedures.

New literacies on the ground

Broad "species" of new literacies of potential interest to educators include video gaming (Gee 2003, 2007; Shaffer 2006), remix practices like AMV, machinima, photoshopping, and fanfiction (Black 2007; Lankshear and Knobel 2006: Ch 4), and various forms of collaborative writing like blogging, wikis, and collaborative role playing narration (Blood 2002; Mortensen 2007; Thomas 2007). I will refer briefly here to examples of machinima, AMV and photoshopping.

- *Machinima*

"Machinima" (machine cinema) is the term used to describe the process by which fans use video game animation "engines" (i.e., the core software providing the various "functionalities" needed in a game, like rendering graphics, scripting, animation, sound, collision detecting, networking, a scene graph, etc.) and computer-generated imagery (CGI) to render new animated texts on their desktop computers. (In the recent past this kind of text production demanded extremely expensive, high-end 3D graphics and animation engines and was found mostly within the realm of professional animators). Creating machinima involves using tools found within the game engine such as camera angle options, script editors, level editors, and the like, along with resources, such as backgrounds, themes, characters, settings etc. available in the game (en.wikipedia.org/wiki/Machinima ; en.wikipedia.org/wiki/Game_engine). Variants are now going beyond video games per se to use options like filming avatars acting out in Second Life.

Machinima.com, a popular how-to website and archive of machinima animations, claims you

> don't need any special equipment to make Machinima movies. In fact, if
> you've got a computer capable of playing Half-Life 2, Unreal Tournament
> 2004 or even Quake [all three are popular video games], you've already got
> virtually everything you need to set up your own movie studio inside your
> PC. You can produce films on your own, or you can hook up with a bunch
> of friends to act out your scripts live over a network. And once you're done,
> you can upload the films to this site and a potential audience of millions
> (2006: 1).

The term – machinima – is also used to describe the genre of animation generated by this process. These animations may be fanfics and extend a game narrative in some way, or the game may simply provide tools and resources for producing an entirely unrelated text. Machinima need not

be amateurish in quality, either. Animations like *Hardly Workin'* and *Red vs Blue* have won film festival awards around the world (ibid.). It is now possible to download open source software kits designed expressly for designing and editing one's own machinima using content from any video games. Those new to the machinima creation process can also now access online tutorials and interviews with renowned machinima makers for insider tips on how to create one's own high-quality animations. The popularity of this kind of animation remixing has seen the launch of games that directly and openly encourage remixing, such as Lionhead Studios' "The Movies" (themoviesgame.com).

Sites like Machinima.com are what Gee (2004) calls an *affinity space* (for machinima fans). It has a community space for open discussion and matters of interest to participants at large, a wide range of forums dedicated to specific aspects of machinima, as well as articles and other material intended to support machinima production. One of the most popular resources on the site is an online tutorial provided by Hugh Hancock (machinima.com/article.php?article=438), which takes learners through a step by step process at the end of which they will have re-created a 30 second movie clip based on the battle scene near the end of *Lord of the Rings: The Fellowship of the Ring*, using the *Neverwinter Nights* role playing game engine. Given access to two copies of *Neverwinter Nights* and two networked PCs (and a friend to drive the second machine), the tutorial takes beginners to the point where they can decide whether the pursuit is for them. (Some knowledge of the game itself as well as some basic computing savvy is necessary for understanding elements of the production process and for making decisions about such things as what audio to add.)

- *Anime-Music-Video (AMV)*

Apart from visiting YouTube.com the easiest entrée to AMV is via portals like newgrounds.com and animemusicvideo.org. The Newgrounds portal for AMV contains material like Chuck Gaffney's mash-up of clips from several anime shows like Inuyusha, Dragon Ball-Z, and Sailor Moon, among others, to the chorus of Alphaville's song "Big in Japan" (newgrounds.com/portal/view/136982); and Brandon Blackburn's "A Place for my Head", set to Linkin Park's song of the same name and featuring what looks like original anime (newgrounds.com/portal/view/34620). This site requires no subscription or registered membership and is a quick way to get a sense of AMV fanwork. Sites like animemusicvideos.org and animesuki.com require membership, which is free, but donations and pledges are welcomed. They provide very high quality AMV fare along with an impressive array of discussion forums and member services. As previously mentioned, the ubiquitous YouTube.com has become a major AMV showcasing space. The creation used in the presentation of this paper, *Konoha Memory Book*, was produced by a 17 year old, Matt (youtube.com/user/maguma), and posted multiple times by different AMV aficionados on YouTube. To date it has been viewed around 500,000 times across its various postings (e.g., youtube.com/watch?v=zQfC5qkXDuc).

- *Photoshopping*

Adobe's brand name *Photoshop* serves to denote diverse practices of image editing, including various kinds of remix. At the level of technique, affordable image editing software makes photoshopping relatively simple to master to a level that meets the "average eye." This, in

conjunction with enhanced online storage capacities and image friendly website interfaces and hosting services mean that photoshopping is rapidly becoming a popular online pursuit, engaging a wide range of contributors and levels of artistic and technical proficiency.

Image remixing takes numerous forms: e.g., adding text to images, creating photo montages (like prankster remixes that place famous heads on nude bodies), and modifying image properties (e.g., colors or image focus, shading, or brightness levels). Popular purposes for image remixing include for fun (including hoaxes), for expressing solidarity or affinity, and for making political points. The resulting images are often propagated as "memes" (Knobel and Lankshear 2007b).

Some typical issues for learning and education

To the extent that educators want to pursue the educational significance of new literacies, the very stuff of new literacies generates a host of issues. Typical examples, which are closely inter-related, include:

- The need for an "online life" and a related "pedagogical praxis"
- IP/Copyright and the need to build a commons
- Knowledge as *production*
- Distributed/collaborative assessment
- Education and risk
- The need to address mindsets

These issues demand much closer attention than can be given here. A sense of what they involve can, however, be sketched quickly enough.

As games scholars like Suzanne de Castell and Jennifer Jenson (in press), Constance Steinkuehler (2007), James Gee (2003, 2007), David Shaffer (2006), and Kurt Squire (2006) note, attending educationally to "the new" is not a matter of simply importing games into classrooms. Rather, it is a matter of understanding the "good learning principles" that are actualized in effective games designs and translating these into bona fide *educational* terms. This involves such things as experiencing how to think and act like *(co)designers*, locating, participating in and growing *affinity spaces*, experiencing and harnessing the "pull" of *strong identities* to build engagement in learning, developing a capacity for *system thinking* and so on. In the case of games, this presupposes "becoming a gamer" in a serious sense, and reflecting upon this practice and its experiences. In other words, the first impediment to understanding the educational potential that gaming might unleash is not being a gaming insider. There are, of course, many impediments to becoming a gamer in the first place, some of which pertain to the bad press gaming often receives, as well as to received "wisdom" that serious learning is radically unlike playing games and experiencing pleasure (Gee 2007). Other reasons include, notoriously, the sheer question of time: time spent gaming is seen as time away from one's professional life. (That this is not necessarily so is one of the most important messages to be taken from the work of leading edge educationists who have mastered games, analyzed their experiences, and interpreted their findings for educational purposes.)

Other new literacies share notable parallels with the case of gaming. Web 2.0 environments are widely seen as safety and security hazards. The internet is seen as providing invitations and boundless opportunities to plagiarize. Online information is widely viewed as being less reliable than "properly published sources." And so on.

As with gaming, cutting through the distortions and mysteries, and identifying genuine snares where they exist and learning how to get around them, begins with building serious online lives, and getting involved in being active producing participants in pursuits that one experiences as genuinely engaging. From there, a pedagogical praxis along the lines modelled by games scholars can be opened up: reflecting on one's productions – which will almost inevitably be collaborative to some extent (whether a blog, fan fiction creations, a remix, etc.) – in the light of sound learning principles and one's evolving educational philosophy. Active participation will bring one face to face with the sheer constraints of PR and Copyright arrangements, and of how to negotiate one's way legally around them whilst participating in the necessary talk of contributing to building a robust "creative commons" (creativecommons.org) that provides open access rights to appropriate, remix and "pass it on" (Lessig 2004). At the same time one will learn how to practice being as safe and secure as possible online. Adventures and, perhaps, the occasional misadventure, along the way will open us up to experiences that confirm Gert Biesta's (2006) claim that education necessarily entails some degree of risk and that without risk there can be no *education* in any worthy sense of the term. Reflection on experiences of collaboration will prompt one to explore the extent to which knowledge production as collaboration requires some degree of collaborative evaluation and assessment that factors seriously into learner portfolios along with individual-based measures. Above all, the experience of immersion in spaces that brings us face to face, in situated ways, with the play between mindsets will sharpen our sense of the extent to which there can be no serious educational engagement with new literacies without insider experience of them and the mindset and ethos that largely constitutes them.

Such is the stuff of new literacies.

An afterthought

Thinking about some of the differences between *wikipedia* and conventional encyclopedias, and between "reference works" and "conversations across perspectives" may suggest some aspects of what is involved in making *educational* responses to new literacies as conceived here.

I see wikipedia working on a kind of market model of information, where successive editings will (hopefully) bleach out "ideologies" and "excesses", and give a reasonable approximation to "truth" -- but truth as a level playing field (or shake down) effect of competition between perspectives. Of course, conventional encyclopedia entries often don't do this but, rather, present "expert" accounts that may well be written out of single paradigms, or otherwise favour a particular perspective. This is because being, for example, and expert historian typically means being a *particular kind* of expert historian, and it does not follow from this that such an expert will be well acquainted with alternative orientations to history or, even if they are, inclined to discuss different approaches to the historical phenomenon they are writing an entry for.

By contrast, education has sometimes been seen (although much less frequently practiced) as initiation into appreciation of varying points of view, such that learners/educatees become capable of identifying various of them, and of knowing them for what they are, and of designing a basis for developing their own points of view on matters of significance through *conversation* with such perspectives.

From this standpoint, an educational engagement with new literacies would involve, among other things, trying to understand and leverage them in relation to this educational calling. This kind of engagement, however, has not been common in school-based education for well known reasons – such as the fact that teachers often have content knowledge and lack "structures of knowledge", (of the kind that mastering a discipline and being a theoretically and methodologically informed researcher can confer), and the fact that the possibility of introducing serious conversations between paradigms and perspectives at levels that bite is difficult and abstract when the pedagogical orientation toward knowledge and knowing is one of *consuming* rather than (or more than) *producing* knowledge. What is at stake among different paradigms is likely to best become apparent within *situated* and "authentic" task-oriented practices.

Acknowledgment

References

Biesta, G. (2006). *Beyond Learning: Democratic Education for a Human Future*. Boulder & London: Paradigm Publishers.

Black, R. (2005). Access and affiliation: The literacy and composition practices of English language learners in an online fanfiction community. *Journal of Adolescent & Adult Literacy*. 49 (2): 118-128.

Black, R. (2006). Language, Culture, and Identity in Online Fanfiction. *e-Learning*. 3(2): 170-184.

Black, R. (2007). Digital Design: English Language Learners and Reader Reviews in Online Fiction. In M. Knobel and C. Lankshear (Eds), *A New Literacies Sampler*. New York: Peter Lang, 115-136.

Blood, R. (2002b). Weblogs: A history and perspective. In Editors of Perseus Publishing (Eds.). *We've Got Blog: How Weblogs are Changing Culture*. Cambridge, MA: Perseus Publishing. 7-16.

Cope, B., Kalantzis, M. and Lankshear, C.(2005). A contemporary project: An interview. *E-Learning* 2, 2: 192-207. At: http://www.wwwords.co.uk/elea/content/pdfs/2/issue2_2.asp#7

de Castell, S. and Jensen, J. (forthcoming). *Changing Views: Worlds in Play*. New York: Peter Lang.

Gee, J. (1997). Foreword: A discourse approach to language and literacy. In C. Lankshear, *Changing Literacies*. Buckingham: Open University Press. xiii – xix.

Gee, J. (2003). *What Video Games Have To Teach Us About Learning and Literacy*. New York: Palgrave.

Gee, J. (2004). *Situated Language and Learning: A Critique of Traditional Schooling.* London: Routledge.

Gee, J. (2007). Good Video Games + Good Learning: Collected Essays on Video Games, Learning and Literacy. New York: Peter Lang.

Hancock, H. (nd). "Neverwinter Nights Machinima Tutorial" at http://www.machinima.com/article.php?article=438

Knobel, M. and Lankshear, C. (eds.) (2007a). *A New Literacies Sampler*. New York: Peter Lang.

Knobel, M. and Lankshear, C. (2007b). Online memes, affinities and cultural production. In their (eds.) *A New Literacies Sampler*. New York: Peter Lang, 199-227.

Kress, G. (2003). *Literacy in the New Media Age*. London: Routledge.

Lankshear, C. and Bigum, C. (1999). Literacies and new technologies in school settings. *Pedagogy, Culture and Society*, 7(3): 445-65.

Lankshear, C. and Knobel, M. (2006). *New Literacies: Everyday Practices and Classroom Learning*. 2nd edn. Maidenhead & New York: Open University Press.

Lessig, L. (2004). *Free Culture: How Big Media Uses Technology and the Law to Lock Down Culture and Control Creativity*. New York: Penguin.

Mortensen, T. (2007/in press). Of a divided mind: Weblog literacy. J. Coiro, M. Knobel, C. Lankshear and In D. Leu, (eds.). *A Handbook of New Literacies Research*. Mahwah, NJ: Erlbaum.

O'Reilly, T. (2005). What is web 2.0?: Design patterns and business models for the next generation of software. At: oreillynet.com/pub/a/oreilly/tim/news/2005/09/30/what-is-web-20.html (accessed 4 April, 2007).

Scribner, S. and Cole, M. (1981). *The Psychology of Literacy*. Cambridge, MA: Harvard University Press.

Shaffer, D. (2006). *How Video Games Help Children Learn*. New York: Palgrave Macmillan.

Squire, K. (2006). From content to context: Video games as designed experience. *Educational Researcher* 35, 8: 19-29.

Steinkuehler, C. (2007/in press). Cognition and literacy in massively multiplayer online games. In J. Coiro, M. Knobel, C. Lankshear and In D. Leu (eds.), *The Handbook of Research in New Literacies*. London and New York: Routledge-Erlbaum.

Thomas, A. (2007). Blurring and breaking through the boundaries of narrative, literacy, and identity in adolescent fan fiction. In M. Knobel and C. Lankshear (Eds), *A New Literacies Sampler*. New York: Peter Lang, 137-165.