Researching New Literacies:
Web 2.0 Practices and Insider Perspectives

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Abstract

This paper advocates an orientation toward new literacies research that privileges “insider” perspectives and current developments within social spaces of the internet. It advances a conceptual definition of new literacies based on a “practice”-oriented account of “literacies” and three key distinctions

- A distinction between two mindsets that compete in the current conjuncture
- A distinction between Web 1.0 and Web 2.0 conceptions and practices of social participation and digital interconnectivity
- A distinction between “new technical stuff” and “new ethos stuff”

Illustrative cases of new literacies are identified and their “researchable” dimensions tapped with a view to generating guidelines for a productive and expansive new literacies research agenda.

Introduction

This paper explores our belief that the concept “new literacies” is a useful way of recognizing and understanding the extent to which changes in the current conjuncture are extending social practices of using codes for making and exchanging meanings in directions that warrant serious rethinking of how and why we research literacies.

Drawing on arguments developed at length in recent work (Lankshear and Knobel 2006a), we begin with a conceptual definition of “literacies” that highlights four elements. This is followed by a brief statement about the historical span of “new” as it applies to “new literacies” in the sense we advocate. We then ask what is substantively “new” about new literacies, and argue that new literacies are new by virtue of comprising “new technical stuff” and “new ethos stuff.”

 Whereas “new technical stuff” is reasonably well recognized, although not necessarily well understood, the “new ethos stuff” is often sidelined. We think this is partly a result of an over-preoccupation in literacy studies with linguistic and norm-oriented aspects of meaning-making and exchange. To redress a balance we foreground the idea of an ascending mindset in our conception of new literacies, together with an account of Web 2.0 as a material manifestation of that ascending mindset. The resulting account of “new literacies” provides what we think is a fruitful framework for contemplating new literacies research agendas.

Defining “literacies”

We 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)” (Lankshear and Knobel 2006a: 64). The key ideas to
be explicated in this definition are, respectively, “socially recognized ways”, “meaningful content”, “encoded texts” and “participation in Discourses.”

Seeing literacies as involving socially recognized ways of doing things is an implication of a social practice view of literacies. Silvia Scribner and Michael Cole (1981: 236) claim that “social practice” always refers “to socially developed and patterned ways of using technology and knowledge to accomplish tasks.” They describe literacy in terms of “socially organized practices [that] make use of a symbol system and a technology for producing and disseminating it” (1981, 236). Literacy, then, is not a matter of knowing how to read and write a particular kind of script. Rather, it is a matter of “applying this knowledge for specific purposes in specific contexts of use” (ibid.). This means that literacy is really like a family of practices—literacies—that includes such “socially evolved and patterned activities” as letter writing, keeping records and inventories, keeping a diary, writing memos, posting announcements, and so on (ibid.).

Literacies call us to generate and communicate meanings and to invite others to make meaning from our texts in turn. This, however, can only be done by having something to make meaning from—namely, a kind of content that is carried as “potential” by the text and that is actualized through interaction with the text by its recipients. If there is no text there is no literacy, and every text, by definition, bears content (cf. Kress 2003: 37-38 for a version of this point based on alphabetic writing). Our idea of “meaningful content” that is generated and negotiated within literacy practices is, however, wider and looser than many literacy scholars might accept. We think Gee’s (1997) Discourse approach to literacies draws attention to the complexity and richness of the relationship between literacies and “ways of being together in the world” (Gee 1997: xv). So, for example, when we look at somebody’s weblog we might well find that much of the meaning to be made 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 much more relational than literal. It might be more about expressing solidarity or affinity with particular people. Our idea of “meaningful content” is intended to be sufficiently elastic to accommodate these possibilities.

This is an important point when it comes to understanding the internet, online practices and online “content.” Almost anything available online becomes a resource for diverse kinds of meaning making. In many cases the meanings that are made will not be intelligible to people at large or, in some cases, to many people at all. Some might be shared only by “insiders” of quite small interest groups or cliques. Consider, for example, the way that eBay has been used to spoof a range of social conventions and to generate diverse kinds of quirky and “nutty” activity. A man auctioned his soul in 2006 and received a cash payment that came with the condition that he would spend 50 hours in church. In another case an individual auctioned a ten year old toasted cheese sandwich the owner said had an imprint of the Virgin Mary on it, and that the sandwich had not gone mouldy or disintegrated since it was made in 1994. Moreover, she said it had brought her luck at a casino. An internet casino purchased the sandwich for $28,000 and planned to take it on tour to raise money for charity. Other sellers responded with Virgin Mary toasted sandwich makers, T-shirts, spoof eBay auctions, etc. (see: news.bbc.co.uk/2/hi/americas/4034787.stm). On 5 May 2006, Yahoo! sports pages reported a
Kansas City Royals baseball fan of 25 years finally giving up on the club and auctioning his loyalty. The meaning of such actions have little to do with established practices of auctioning, 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,” and thereby signal their insiderness with the practice, express solidarity with the seller, or, even, to try and save a soul.

By defining literacies in relation to “encoded texts” we mean texts that have been rendered in some 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.” Encoded texts give (semi) permanence, transcendence, and transportability to language that is not available in the immediacy of speech, hand signs, and the like. They can “travel” without requiring particular people to transport them. They can be replicated independently of needing other human beings to host the replication. 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. Someone who “freezes” language as a digitally encoded passage of speech and uploads it to the internet as a podcast is engaging in literacy.

Finally, the point that we always engage in literacy practices as members of some Discourse or other takes us back to Gee’s account of literacies outlined above. Humans “do life” as individuals and as members of social and cultural groups—always as what Gee calls “situated selves”—in and through Discourses. A person rushing an email message to head office as they hand their boarding pass to the airline attendant at the entrance to the aircraft boarding ramp is recognizable (to others and themselves) as a particular kind of person. In this moment she is part of a coordination that includes as its elements such things as the person herself, some way of thinking and feeling (maximizing time to get more done), rules (the phone must be switched off after leaving the gate), institutions (airports and air travel, the company they work for), tools (a phone, a network), accessories (a briefcase and compact travel bag), clothes (a suit, perhaps), language (facility with emailing concisely and accurately), and so on. These various elements all get and are got “in sync” (Gee 1997). The various elements simultaneously coordinate the others and are coordinated by them (institutional requirements and timetables prompt the particular use of the phone during the last seconds before boarding; the email message makes a demand back on someone in the company; the meeting ahead has influenced choice of clothes—smart but comfortable; etc.). This “in sync-ness” tells us who and what that person is (like, a business executive in the middle of a three city day). As Gee puts it: “Within such coordinations we humans become recognizable to ourselves and to others and recognize ourselves, other people, and things as meaningful in distinctive ways” (1997: xiv).

As constitutive elements of participation in or membership of a Discourse, literacies always involve much more than simply producing and negotiating texts per se. They are contexts and pretexts for enacting and refining memberships of Discourses that include such dimensions as feeding back, providing support, sharing knowledge and expertise, explaining rules, sharing jokes, commiserating, doing one’s job, expressing opinions, showing solidarity, enacting an
affinity (Gee 2004) and so on. Hence, our claim that literacies are “socially recognized ways of generating, communicating and negotiating meaningful content through the medium of encoded texts within contexts of participating in Discourses (or, as members of Discourses)” (Lankshear and Knobel 2006a: 64). As such, blogging, fanfic writing, manga producing, meme-ing, photoshopping, animé music video (AMV) practices, podcasting, vodcasting, and gaming are literacies, along with letter writing, keeping a diary, maintaining records, running a paper-based zine, reading literary novels and wordless picture books, reading graphic novels and comics, note-making during conference presentations or lectures, and reading bus timetables.

“New” literacies

We see “new literacies” as a useful construct when it is understood from an historical rather than a temporal perspective. Under conditions where time is increasingly calculated in nanoseconds and, as the saying goes, five minutes is a long time in cyberspace, there is little to be gained from speaking of new literacies in temporal terms. As soon as Instant Messaging appears, email seems like an “old” literacy. There is no future in hitching a research agenda to anything as fleeting as that.

We are clearly at an important historical conjuncture; a transition between eras. On one dimension we are witnessing a succession of the mechanical age by electronics and, especially, digital electronics. Mechanical devices are not disappearing, however. They are being accompanied and augmented by diverse electronic devices and, in many cases, “spliced” with them to yield transcendent technologies and processes that bear imprints of the paradigms that respectively constitute them.

We see much the same kind of thing happening at social, economic and cultural levels as well. Various “posts” that have been circulating for some decades now—like “post-industrialism”, “postmodernism” and “post-capitalism”—reflect perceptions of this. Since the 18th century, and particularly since the Industrial Revolution, Western industrialized countries have developed along a broad trajectory in conjunction with a characteristic way of thinking about the world and responding to it. We can refer to this general way of thinking about the world as a mindset. Part of this trajectory and its associated mindset included the development of certain kinds and qualities of literacy practices and ways of thinking about literacy. Recently, however, some important technological changes have occurred that are referred to as “the information technology revolution” and the rise of a new, post-industrial, “informational” mode of development (Castells 1996, 2000). These changes have been accompanied by the emergence of different (new) ways of thinking about the world and responding to it. A new kind of mindset has begun to emerge and, together with this, some new kinds of literacies have begun to evolve. While these “new” literacies share features in common with the established conventional forms of literacy that developed throughout the modern era, they also differ from conventional literacies in some very important ways.

When are literacies “new”? 

We think of new literacies having what we call new “technical stuff” and new “ethos stuff.” What is central to new literacies is not the fact that we can now “look up information online” or
write essays using a word processor rather than a pen or typewriter, or even that we can mix
music with sophisticated software that works on run of the mill computers but, rather, that they
mobilize very different kinds of values and priorities and sensibilities than the literacies we are
familiar with. The significance of the new technical stuff has mainly to do with how it enables
people to build and participate in literacy practices that involve different kinds of values,
sensibilities, norms and procedures and so on from those that characterize conventional
literacies. These values, sensibilities and the like comprise what we call “new ethos stuff.”

New “technical stuff”

Much of what is germane to “new technical stuff” is summarised in Mary Kalantzis’ idea that
source code that is stored as binary code (combinations of 0s and 1s) which 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 in next
to no time and at next to no cost. The text could be a photoshopped image posted to Flickr.com.
It could be an animated Valentine’s Day card sent to an intimate friend. It could be a short
animated film sequence using toys and objects found at home, complete with an original music
soundtrack, attached to a blog post. It could be a slide presentation of images of some event with
narrated commentary, or remixed clips from a video game that spoof some aspect of popular
culture or that retell some obscure literary work in cartoon animations.

Relatively unsophisticated desktop publishing software can generate text and image effects that
the best printers often could not manage under typographic conditions, and “publishing” now is
no longer limited to print or images on paper, but can include additional media such as voice
recordings, music files, 2D and 3D animation, video, paintshopped images, scanned images of
paper-based artworks, etc., as well. Even the concept of “text” as understood in conventional
print terms becomes a hazy concept when considering the enormous array of expressive media
now available to everyday folk. Diverse practices of “remixing”—where a range of original
materials are copied, 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. “Machinima” refers to the
process by which fans use video game animation “engines” (the code that “drives” or generates
all the images in a given video game) and computer-generated imagery (CGI) to render new
animated texts on their desktop computers. Until recently such productions required expensive,
high-end 3D graphics and animation engines that were usually the preserve of professional
animators. Creating machinima involves using tools found within the game engine, like camera
angle options, script editors, level editors, and the like, along with resources, such as
backgrounds, themes, characters, settings etc. available in the game (see: en.wikipedia.org/wiki/Machinima).

Similarly, music can be sampled and remixed using desktop computers and audio editing software. The term “remix” grew out of the DJ sampling, scratching and mixing scene that began in the late 1970s and early 1980s (although music remixing itself has a long history as a practice; cf., blues music, ska music from Jamaica). Music remixing no longer requires extensive and eclectic vinyl record collections, multiple turntables and bulky and expensive mixing and amplification equipment as it did in the 1970s. 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 and 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.

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. They can be employed to do in new ways “the same kinds of things we have previously known.” Equally, however, they can be integrated into literacy practices (and other kinds of social practices) that in some significant sense represent new phenomena. The extent to which they are 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.

**New “ethos stuff”**

The idea that new literacies involve different “ethos stuff” from that which is typically associated with conventional literacies means that new literacies are more “participatory,” “collaborative,” and “distributed” in nature than conventional literacies. That is, they are less “published,” “individuated,” and “author-centric” than conventional literacies. They are also less “expert-dominated” than conventional literacies. The rules and norms that govern them are more fluid and less abiding than those we typically associate with established literacies. 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 (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. The “ethos stuff” of new literacies reflects the second mindset. Much of this ethos is encapsulated in talk around the concept of Web 2.0.
**Mindsets**

The first mindset assumes that the contemporary world is essentially the way it has been throughout the modern-industrial period, only now it has been technologized in a new and very sophisticated way. To all intents and purposes, however, the world on which these new technologies are brought to bear is more or less the same economic, cultural, social world that has evolved throughout the modern era, where things got done by means of routines that were predicated on longstanding assumptions about bodies, materials, property and forms of ownership, industrial techniques and principles, physical texts, face to face dealings (and physical proxies for them), and so on.

The second mindset assumes the contemporary world is different in important ways from how it was even 30 years ago, and that this difference is growing. Much of this change is related to the development of new internetworked technologies and new ways of doing things and new ways of being that are enabled by these technologies. More and more the world is being changed as a result of people exploring hunches and “visions” of what might be possible given the potential of digital technologies and electronic networks. The world is being changed in some quite fundamental ways as a result of people imagining and exploring new ways of doing things and new ways of being that are made possible by new tools and techniques, rather than using new technologies to do familiar things in more “technologized” ways (first mindset).

Some important differences between the mindsets can be dimensionalized along lines presented in Table 1 below. This is a heuristic device that somewhat polarizes the mindsets. Things are obviously more complex than a simple table can capture, and other people are likely to emphasise alternative dimensions of difference than the ones highlighted here—some of which we will discuss in the remainder of this section.

<table>
<thead>
<tr>
<th>Mindset 1</th>
<th>Mindset 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>The world basically operates on physical/material and industrial principles and logics. The world is “centered” and hierarchical.</td>
<td>The world increasingly operates on non-material (e.g., cyberspatial) and post-industrial principles and logics. The world is “decentered” and “flat.”</td>
</tr>
<tr>
<td>• Value is a function of scarcity</td>
<td>• Value is a function of dispersion</td>
</tr>
<tr>
<td>• Production is based on an “industrial” model</td>
<td>• A “post-industrial” view of production</td>
</tr>
<tr>
<td>o Products are material artefacts and commodities</td>
<td>o Products as enabling services.</td>
</tr>
<tr>
<td>o Production is based on infrastructure and production units and centers (e.g., a firm or company)</td>
<td>o A focus on leverage and non finite participation</td>
</tr>
<tr>
<td>o Tools are mainly production tools</td>
<td>o Tools are increasingly tools of mediation and relationship technologies</td>
</tr>
<tr>
<td>• The individual person is the unit of production, competence, intelligence</td>
<td>• The focus is increasingly on “collectives” as the unit of production, competence, intelligence</td>
</tr>
</tbody>
</table>
Expertise and authority are “located” in individuals and institutions

Space is enclosed and purpose specific

Social relations of “boor space” prevail; a stable “textual order”

Expertise and authority are distributed and collective; hybrid experts

Space is open, continuous and fluid

Social relations of emerging “digital media space” are increasingly visible; texts in change

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**Table 1: Some dimensions of variation between the mindsets**

(Lankshear and Knobel 2006a: 38)

Early in the development of the internet as a mass phenomenon John Perry Barlow (in interview with Tunbridge 1995) distinguished between different paradigms of **value** operating in physical space and cyberspace respectively. In physical space controlled economics increases value by regulating scarcity. The value of diamonds, for example, is a function of the fact that a single corporation owns most of them and can regulate or control their scarcity. Within this paradigm, scarcity has value. Schools, for example, have traditionally operated to regulate scarcity of credentialed achievement, including allocations of literacy “success.” This has maintained scarce “supply” and, to that extent, high value for those achievements that are suitably credentialed. In the economy of cyberspace, however, the opposite holds. Barlow argues that with information it is familiarity, not scarcity that has value. With information, however,

> it’s dispersion that has the value, and [information’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 (in Tunbridge 1995: 5).

This entails that people who bring a scarcity model of value with them to cyberspace will act in ways that diminish rather than expand its potential. Applying certain kinds of copyright and permissions restrictions to the use of information may constrain the dispersal of that information in ways that undermine its capacity to provide a basis for **relationship** and for working as a catalyst to generate creative and productive conversations, develop fruitful ideas, foment effective networks, and so on (cf. Lessig 2004). The kind of value Barlow sees as appropriate to cyberspace has to do with maximizing relationships, conversations, networks and dispersal.

The emphasis on relationship and its connection to information—indeed, the **significance** of information in terms of relationship—is further developed by Michael Schrage’s (2001) argument that it makes more sense in the current conjuncture to talk of a relationship revolution than an information revolution. Schrage argues that the internet and other digital technologies have certainly “transformed the world of information into readily manipulable bits and bytes” (ibid.). At the same time, “the genuine significance of these technologies isn’t rooted in the information they process and store.” Rather, the greatest impact they have had and will continue to have, “is on relationships between people and between organizations.” Schrage argues,

> The so-called “information revolution” itself is actually, and more accurately, a “relationship revolution.” Anyone trying to get a handle on the dazzling
technologies of today and the impact they’ll have tomorrow, would be well advised to re-orient their worldview around relationships (2001: no page; original emphasis).

These points translate into elements of an ethos associated with the second mindset and that can be seen “writ large” in diverse emerging online literacies. Two aspects stand out in particular. One might be described as the “will” of information to be “free,” in the sense of “free” elucidated by Lawrence Lessig (2004) in his book, Free Culture. This is the idea that cultural creation requires the freedom and capacity of ordinary people to draw on elements of prior cultural production to use as raw materials for further creative work. This does not mean pirating, and it does not mean copying without citation. It means that people should be free to take (with appropriate recognition) “bits” of cultural production that are in circulation and use them to create new ideas, concepts, artefacts and statements, without having to seek permission to re-use, or to be hit with a writ for using particular animation or music sequences as components in “remixes” (Lankshear and Knobel 2006a: Ch. 4) that make something significantly new out of the remixed components.

The contemporary explosion of remix practices in fanfiction, Anime-Music-Video production, music, cosplay, photoshopping images and the like, bespeaks mass popular participation in the expressing this will of information to be free. Lessig (2005) argues that at a general level all of culture is remix, and all of culture is fundamentally dependent on information being free in the relevant sense.

Second, it is important to recognize the extent to which and ways in which information is mobilized for, or made into the medium of, relatedness through participation in online affinity spaces (Gee 2004, Black 2005, Davies 2006, Stone in press). Much of the point behind remix practices, for example, is to be and feel connected to other people and to celebrate a fandom: to participate in an affinity, to make shared meanings, to brighten the day, share a laugh, share one’s passion for a product or a character, and so on. Conventional practices analogous to cultural remix, such as academic research and scholarship, include such values and orientations at their best, but typically embrace “higher callings” like pursuit of truth, advancement of knowledge, contribution to modernist progress, and furthering the field.

In such ways we can begin to relate the “newness” of new literacies to a distinctive kind of “ethos stuff” that is reaching a scale hitherto unprecedented, and turning the consumption of popular culture into active production: the production of consumption (cf., Squire forthcoming, Steinkuehler forthcoming). Beyond this, of course, we can recognize diverse “new” literacies built around mobilizing information creation and exchange for relatedness purposes: chat, IM, multiplayer online gaming of all kinds from role playing to first person shooter, blogging, photo sharing, among many others.

We can see a little more of the ethos of the second mindset by reference to some educationally relevant facets of space. The dominance of the book as the text paradigm, social relations of control associated with “bookspace,” and a discernible textual “order” is integral to the first mindset. During the age of print the book comprised the text paradigm. It shaped conceptions of layout, it was the pinnacle of textual authority, and it played a central role in organizing practices
and routines in major social institutions. The book mediated social relations of control and power, as between author and readers, authorial voice as the voice of expert and authority, teacher/expert and student/learner, priest/minister and congregation, and so on. Textual forms and formats were relatively stable and were “policing” to ensure conformity. Certain genres of texts were privileged over others and seen as appropriate within particular institutional settings—e.g., school classrooms—whereas others were regarded as more marginal and inappropriate. Books exerted great influence on institutional space, architecture and furniture, as well as on norms for conduct within particular spaces.

The book in no way comprises the text paradigm in the emerging digital media space. Indeed, there is no text paradigm. Text types are subject to wholesale experimentation, hybridization, and rule breaking. Conventional social relations associated with roles of author/authority and expert have broken down radically under the move from “publishing” to participation, from centralized authority to mass collaboration, and so on. The organization of space, architecture and furniture, and control of movement associated with bookspace has become a curious aberration under the sign of new media. While people who grew up under the hegemony of the book and a stable “generic order” may ponder whether it is “proper” to write this kind of way in a blog, or to focus on this kind of theme, digital insiders seem much less preoccupied by such concerns. This is not to say there are no norms in the new space, for there are. They are, however, less fixed, more fluid, and less policed, controlled and defined by “centralized” authorities and experts. The sheer proliferation of textual types and spaces means there is always somewhere to “go” where one’s “ways” will be acceptable, where there will be freedom to engage them, and where traditional emphases on “credibility” are utterly subordinated to the pursuit of relationships and the celebration of sociality.

A quite different ethos is equally evident within the second mindset in relation to conceiving, negotiating, and enacting workspace. From the standpoint of the first mindset, space is typically thought of as enclosed, as having borders. In the educational context, learning space is bordered by the classroom walls, lesson space by the hour or 40 minute time signal, and curriculum and timetable space by the grid of subjects to be covered and the time and physical space allocations assigned to them. Tasks tend to be singular and defined or assessed at a given point in time, and learners are expected to be on task, which often means all students working on the same task at the same time. Being not “on task” is seen as being disengaged from learning.

Learners who have grown up on the inside of a cyberspatial mindset often see things very differently, and approach them very differently. The presumption that one will be working on one task at a time or in one “place” at a time when engaged in learning (or, for that matter, in entertainment or recreation) is foreign to many who approach and respond to their world from the second mindset. Multitasking has become ubiquitous among digital youth. Moreover, the multitasking mode is not seen simply as some casual kind of modus operandi confined to interactions with one’s closest friends—as when chatting, roleplaying, updating a weblog, IM-ing, etc. simultaneously (Thomas in press; Lankshear and Knobel 2006a: Ch. 2). Rather, it is widely seen as a way of operating that applies generally everyday life at home, at school and at play.
Kevin Leander and colleagues (Leander and Frank 2006, Leander and Lovvorn 2006, Leander in press) observed students who were in wireless classrooms spending considerable time engaged simultaneously in multiple “self-selected purposes” during lessons. These included gaming, shopping, and downloading music, as well as more to be expected activities like emailing, chatting, instant messaging, and browsing and updating weblogs. They did this while staying in touch with what was going on in class. Some of the students who engaged most in pursuing self-selected purposes during class time did not believe they were learning less than they otherwise would as a result of this. Even when they were “drifting” on their screens they demonstrably participated as much if not more in class discussions than their “on task” peers. Two of the students observed by Leander and colleagues claimed that being able to go to other places during time in class when they already knew about the matters under discussion alleviated boredom. Their capacity for multitasking seemingly allowed them to maintain one eye on the class task while going about other business.

This is not to imply that people operating from the second mindset cannot and do not compartmentalize time and space and/or dedicate long stretches of time within a particular space to a single task or purpose—for clearly they do. It is, however, to say that a lot of contemporary literacy activity is conceived and undertaken “on the fly” and simultaneously with other practices. New literacies spaces are often fluid, continuous and open. Online and offline lives and “literacyscapes” (Leander 2003) merge and augment, and researchers are constantly seeking new methods and means for “traveling” with these traveling literacies (Leander in press).

**Web 2.0**

Much of what we regard as the new kind of “ethos stuff” that characterizes “new” literacies 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.

<table>
<thead>
<tr>
<th>Web 1.0</th>
<th>Web 2.0</th>
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</thead>
<tbody>
<tr>
<td>Ofoto</td>
<td>Flickr</td>
</tr>
<tr>
<td>Britannica Online</td>
<td>Wikipedia</td>
</tr>
<tr>
<td>Personal websites</td>
<td>Blogging</td>
</tr>
<tr>
<td>Publishing</td>
<td>Participation</td>
</tr>
<tr>
<td>Content management systems</td>
<td>Wikis</td>
</tr>
<tr>
<td>Directories (taxonomy)</td>
<td>Tagging (&quot;folksonomy&quot;)</td>
</tr>
<tr>
<td>Netscape</td>
<td>Google</td>
</tr>
</tbody>
</table>

*Figure 1: Examples of Web 1.0 or Web 2.0 internet applications and approaches* (adapted from O’Reilly 2005: no page)
O’Reilly observes that examples in the Web 1.0 column comprise products, artefacts or commodities produced from a source and made available to internet users. Britannica Online is an internet product subscribers can access for a fee. Ofoto began as a front for Kodak to sell digital photo processing online to users who could also post digital photos on the Ofoto server to share with friends. Ofoto’s gallery space was an enticement to buy a product rendered by a supplier. O’Reilly notes that even the free web browser offered by Netscape was an artefact—a “piece” of software in the form of a desktop application – released from time to time as updated versions to be downloaded and installed on one’s computer. It was the centerpiece of Netscape’s strategy to create a “webtop” that would “push” information from various providers at consumers, and, in doing so, to “use their dominance in the browser market to establish a market [among information providers] for high-priced server products” (O’Reilly 2005: no page).

The point here is not about commercial product delivery so much as the fact that what users receive are readymade artefacts or commodities. O’Reilly speaks here of “packaged software.” In Web 1.0 the “webtop” as a platform or user interface still largely emulates the desktop, with producers and consumers engaged in creating and consuming applications and informational artefacts. Users are not positioned as controllers of their own data. What one “gets” on a website is what web publishers put there. The logic is of use rather than participation; of reception and/or consumption rather than interactivity and agency. Directories and the taxonomies they are based upon or “enact” are developed at a “centre” and are made available for users in the form that their creators have designed. They get used because they are presumed to be “authoritative” and to reflect “expertise” and “experience” and “wisdom” possessed by their designers.

While this oversimplifies things somewhat, there is enough here that is familiar to readers for making a link to the first mindset. 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 labour, 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 workteams 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 all of the Web for input, through limitless participation, rather than the more traditional belief that expertise is limited and scarce, and that the right to speak truths is conferred on 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 decentres authorship. In terms of ethos it celebrates inclusion (everyone in), mass participation, distributed expertise, valid and rewardable roles for all who pitch in. It reaches out to all the web, regardless of distinction.

Other literacy practices—like fanfiction, fan manga and anime, and 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, in press, Lankshear and Knobel 1996a: Ch. 3) describe how participants in various online affinity spaces 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 literacies like blogging, writing fanfiction and collaborating in Wikipedia celebrate free support and advice, building the practice, collective benefit, cooperation before competition, everyone a winner rather than a zero-sum game, and transparent rules and procedures.

A further illustrative aspect of the ethos we associate with the second mindset, and that defines for us the heart of new literacies, is the practice of user annotations to help categorise and manage information within a field of endeavour. Tagging has generated a “bottom up” approach to providing metadata for classifying online content to enable searching, popularly known as “folksonomy.” The principle involved is simple. Flickr is a service that allows people to post photographs to the web after they have signed up for an account. For each photograph or set of photographs account holders upload to their site they can add a number of “tags.” These are words they think describe their photo—such as, “Mexico,” “hamburger,” or “spooky”—and that would lead other people who key the word(s) into the Flickr search engine to their photos (and there are a range of options that determine who a person permits to view their photos). Contacts can then add tags to photos, subject to the editing rights of account holders who have accepted them as contacts. Millions of photos publicly available on Flickr become a searchable database
of photos. Tags provide a basis for patterns of user interests to emerge in ways that enable communities of interest to build and for relationships to develop among members who share common interests, tastes, etc. They have enabled different interest groups to coalesce around shared image projects (e.g., the Tell a Story in Five Frames group, the Secret Life of Toys group).

The concept of “folksonomy” was developed in juxtaposition to “taxonomy.” Taxonomies are centralized, official, expert-based or top-down classification management systems. The operating principle of taxonomies is that people who presume—or are presumed—to understand a domain of phenomena determine how the individual components of that domain shall be organized in order to make a shared sense or meaning of the domain. The Dewey library classification system is a taxonomy of types of texts, according to which a given book is assigned a number on the basis of the kind of book it is deemed to be and where it fits into the system. By contrast, a folksonomy is a “popular,” non-expert, bottom-up classification management system, developed on the basis of how “authors” (e.g., of photos) decide they want their works to be described or “catalogued.” Interestingly, O’Reilly (2005: no page) notes how Amazon.com’s use of user annotations and other user inputs has led to it becoming the pre-eminent source of bibliographic data, outstripping (even) Bowker’s *Books in Print*—previously the pre-eminent source and, indeed, the source for Amazon’s original database.

One interesting consequence of folksonomic organization is that the tags people choose say something about them as well as about the tagged object. When a user finds a photo they would not have expected to fall under a particular tag they might think the tagger’s approach to classification is sufficiently interesting to delve further into it; for example, as a pursuit of “the idiosyncratic,” or the “quirky,” or of “someone who might think a bit like me.” The scope for participants to speak their own meanings, find collaborators who share these meanings, and build relationships based on shared perspectives opens up possibilities that are foreclosed by centralized and authoritative regimes that circumscribe norms of correctness, legitimacy or propriety.

**New literacies**

In summary, we believe the more a literacy practice can be seen to reflect the characteristics of the insider mindset and, in particular, those qualities addressed here currently being associated with the concept of Web 2.0, the more it is entitled to be regarded as a new literacy. The more a literacy practice privileges participation over publishing, distributed expertise over centralized expertise, collective intelligence over individual possessive intelligence, collaboration over individuated authorship, dispersion over scarcity, sharing over ownership, experimentation over “normalization,” innovation and evolution over stability and fixity, creative-innovative rule breaking over generic purity and policing, relationship over information broadcast, and so on, the more we should regard it as a “new” literacy. New technologies enable and enhance these practices, often in ways that are stunning in their sophistication and breathtaking in their scale.
Scoping some terrain for new literacies research from a sociocultural perspective

The ideas presented above suggest a matrix with which to conceptualize diverse yet “organizable” (programmatic) research possibilities for a field of sociocultural studies of new literacies. It is only one of many possible ways of framing up a field, but it is one we are finding useful for our own thinking. It comprises our definition of literacy—which in turn “houses” four inter-connected concepts/constructs: “recognized ways”, “meaningful content”, “encodification” and “discourse membership”—the ideas of new “ethos stuff” and new “technical stuff, and relevant elements of theory and research methodology.

Specific studies of “new literacies” can locate themselves at all kinds of points and interstices among these co-ordinates of a field. For example, how is particular “new technical stuff” recruited within the development of some particular new “way” of creating meanings “collaboratively”, and how (far) can this study best draw upon available theory and methods and contribute to their further development, and how far does it call for trying to push toward productive innovations in theory and methodology?

A study could be as specific as looking at a particular “realization” of a tool or a resource within a practice, from learning to work with it, to refining and elaborating it, to mashing it up. The “toy” presented at http://pandoralicious.googlepages.com (a mash up of Pandora, Di.icio.us and the Grazr feed aggregator), for instance, could be researched as an in depth case study of “leverage” of classic Web 2.0 proportions. Indeed, such a study might well instantiate a growing belief among new literacies researchers that those working in the field need to pay attention to limitations in traditional research methodologies and look toward developing more hybrid yet coherent designs and methods that do justice to online and offline practices (e.g., Buckingham 2006, Bury 2005, Burn forthcoming, Jenkins 2006, Leander 2003, Leander and McKim 2003). The same applies to theory.

As educationists interested in new literacies we are aware that researchers in this area often sense an expectation that their research should try to make some active and more or less direct contribution toward enhancing teaching and learning within formal education settings. While this is a valuable research outcome we think it is important to acknowledge that the very “newness” of the phenomena under investigation, plus the fact that to a considerable extent literacy studies needs to re-invent itself in order to address the changes going on around us, caution against adopting unduly goal-directed and functional/applied orientations at the outset. We envisage a number of legitimate orientations toward the study of new literacies, three of which we will distinguish briefly here.

“Let’s see” research

Research that draws on this matrix of possibilities may include studies conducted for their own sake, that aim primarily at understanding in depth a “new” social practice and the literacies associated with or mobilized within this practice. Such research would not set out with the explicit goal of developing classroom applications from study findings. Rather, it adopts a “let’s see” attitude that encourages the researcher to get as close as possible to viewing a new practice from the mindset of an “insider.” The differences between the two mindsets evident among
parties to educational engagements should alert researchers to the importance of attending to how “insiders” engage with new literacies on their own terms (cf., Jenkins 2006): to attend seriously to how meaningful content, and socially recognized ways of interacting, using expressive resources and conveying meanings are engaged, monitored, “realized” or thought about by those who are fully insiders to the practice being studied.

The growing field of game studies comprises many good examples of this orientation towards new literacies research (e.g., Squire forthcoming). New forms of social expression like anime music videos and machinima (short films made with the help of digital game content and game play engines) similarly provide rich ground for a “let’s see” approach, which could also focus on examining how norms of participation and interaction are established, challenged, and evolve within a meaning making practice and community (e.g., how the mores of effective participation in a given virtual world are established, transmitted and adhered to; how players learn to participate effectively within a dedicated gaming discussion forum or chat channel). This would be done in order to better understand what might be entailed, for example, in participating in Discourses that include “new” forms of social interaction, identity presentation, and meaning making resources.

“Try on” research

Research possibilities also include studies that “try on” different theories, or, better yet, develop new theories for explaining what’s “new.” This is not to say that “old” theories have passed their use-by date. Rather, the point here is that the convergences we see between Web 2.0, new technical and ethos stuff, and the second mindset are to some extent proportionately related to new convergences in discipline-based theories and methods. For example, second language acquisition theory can be brought together with post-colonial and postmodern identity theories in an analysis of a young man’s online fansite dedicated to a popular Japanese band (Lam 2000). Researching and theorizing multimodality is being extended by researchers like Andrew Burn (forthcoming) beyond the social semiotics of texts per se to include also insights into the accomplishment of meaning making gleaned from interview data provided by text producers and consumers. Narrative theory and game theory are being applied to collaborative, real time narrative construction in live role playing contexts in order to better understand layers of narrative construction and agency (cf., Hammer in press). Concepts from human geography and space theory are being applied to studies of young people’s literacy practices to better understand the dimensionality of these practices (e.g., Leander and Sheehy 2004). Sociolinguistic analysis, discourse analysis, and conversation analysis techniques are brought to bear variously on transcripts of instant messaging conversations or other interactive online texts to explore distributed project collaboration or collaborative writing processes (cf., Black 2005). Further possibilities include using Actor Network Theory to analyze participation in virtual worlds; literary analysis to examine new forms of narrative emerging in and across fictional blogs, wikis, and video diaries accessed via video hosting services like Youtube.com etc. (e.g., real blogs written by fictional authors; fiction narratives told using the medium of blogs; wikis dedicated to documenting fictional worlds); or social network analysis theory or network systems theory to examine collaborative online spaces (e.g., Myspace.com, Flickr.com, the blogosphere), among others.
**Applied research**

A third research orientation focuses more directly and self-consciously on pursuing findings that can be applied to better understanding or enabling learning in school and other formal learning spaces or, perhaps, to applying ideas and findings from extant studies to formal learning settings. For example, studies like those of Chandler-Olcott and Maher (2003) and Black (2005), which address the nature, role and efficacy of reviewer feedback in honing young people’s artistic craft and standard English written narrative expression, respectively, might be trawled for clues about how to mobilize effective features of reviewer feedback for school learning purposes. Other examples might include cases studies of participants who are working collaboratively with others on projects requiring them to learn through participation. Foci might include examining and documenting self-directed or do-it-yourself learning in participants’ everyday lives, such as learning a range of highly-valued, sophisticated digital processes and/or language-related practices, such as specific programming languages, photoshopping techniques, or learning how to use sophisticated software (e.g., Leander and Mills forthcoming; Thomas in press).

**A research program orientation**

Before presenting some brief indicative cases of new literacies research that can be seen as developments out of the matrix we have described we think one further general point is worth making. This simply involves endorsing the idea of adopting a *research program* approach to developing the field when appropriate opportunities exist. Without in any way wanting to under-estimate the value of individual researchers conducting single studies independently, or of virtual networks of individual researchers sharing and interacting, we nonetheless see considerable potential benefits deriving from substantial programs emanating out of Centers. The GAPPs program developed by Jim Gee and colleagues at Wisconsin and the research center and programs developed by David Buckingham and colleagues at London, among numerous others that could be mentioned, attest to the kind of advances that can be made in building components of a field when critical masses and economies of scale are achieved.

**Some brief indicative cases of new literacies research**

(i) *Researching participation as a Web 2.0 ideal*

The values of participation and collaboration feature prominently in accounts of the current shift toward Web 2.0 applications and services. Critics decry talk of Web 2.0 as so much “hype.” Advocates celebrate the expansive scope the living Web provides for participatory and collaborative practices within online social networks. What, however, is to be made *empirically* of participation (or collaboration, collective intelligence, collective and distributed expertise, etc.) within characteristically Web 2.0 spaces and practices? How are participatory practices and relationships built and maintained? How are they mediated by Web 2.0 “tools”? How do concepts and theories of participation developed in and for conventional face to face/physical settings fare in cases of social practices mediated by relationship technologies?

Initiatives within the blogosphere present interesting opportunities for investigating the scope, quality and character of participation as a Web 2.0 ideal. In recent work we have sketched some
preliminary contours for a study of blogging as participation based on the Blogging Project Runway weblog (bloggingprojectrunway.blogspot.com) that grew at a phenomenal rate from the most inauspicious beginnings in June 2005 (see Lankshear and Knobel 2006a: 168-172; also 162-165).

The phenomenon

BravoTV’s Project Runway is a “reality” television show in the broad genre of shows like American Idol and Survivor. It runs as a serialized competition with a focus on fashion design. For each episode the participating designers are given a fashion design challenge and their resulting creations are modelled by their chosen model (who is also up for elimination should “her” designer not make the next round) and judged by a panel comprising a supermodel (Heidi Klum), a highly regarded fashion magazine editor (Nina Garcia), a well known American designer (Michael Kors), and a guest judge who changes each week.

In early June, 2005, Laura K—a self-confessed super fan and addict of Project Runway—began a new blog called Blogging Project Runway (hosted by the free provider, Blogger.com) with a modest initial posting. The first season of the show was finished and Laura K was missing it. She wondered whether there were other people out there who shared her passion for the show and whether the blog could provide an interactive medium for others like her. There was relatively little “action” during the first 5 months, but when the second season of the show arrived the blog positively exploded.

Tools for participation

Rebecca Blood describes blogs as all about creating “social alliances” (Blood 2002: x). This social dimension of blogs has been facilitated greatly by specialized search engines that enable people to search for blogs of interest (e.g., Technorati.com). Social networks have also been shored up by the development of syndication capabilities and online aggregators that enable people to subscribe to blogs that interest them in some way, so that they are notified when new content is posted to their “watched” blogs (e.g., Squeet.com, Bloglines.com). The comments function means readers can comment on a post by signaling agreement, or disagreement, or suggesting additional relevant resources and the like, linking the blog through their posts to larger conversations and to additional affinity spaces. Trackback features built into many blog interfaces mean that readers can click on a hyperlink to find other blogs linking to a given post. This feature makes it possible to find other bloggers who share similar interests and perspectives as the original blog poster, or whose key interests and alliances run counter to the blogger to whom they are linking (Lankshear and Knobel 2006b). This new “technical stuff” of blogs enables users to engage with all kinds of interest groups and to access all kinds of affinity spaces online.

In the case of BPR some very interesting things occurred with respect to participation around the take up of tools. For example, Tim Gunn’s role in the televised show crossed over into cyberspace when he began podcasting via BravoTVs website. Transcripts of his podcasts were posted to BPR for fans unfamiliar with accessing and listening to podcasts. Clips from the show uploaded to YouTube.com by fans—many of them active participants in BPR as well—were also
linked to in this blog. As the momentum around *BloggingProjectRunway* exploded, the blog became a “place” viewers went to when each weekly show was airing. The comments function on the blog ran hotter than a chat line—and greatly resembled one—during the show. Care had to be taken that blog content did not “spoil things” for west coast viewers in the U.S. who were running hours behind the viewing and blogging action on the east coast. The introduction of photo images in December 2005 coincided with a turning point in the blog, and by February 2006 the multimediated character of the site was highly developed and integral.

**Concepts and theories of participation**

“Participation” has been a key concept within sociocultural theories of *learning* (cf. legitimate peripheral participation, participation in communities of practice/communities of learners). Considerable attention has been paid to how participation enables learning, with a view to identifying potential implications for learning in formal contexts. Moreover, the concept of participation defined in relation to a “community” may differ significantly from how it might be construed in relation to an “affinity space” (Gee 2004). Researching participation in the context of *BPR* might contract interesting relationships to the ways participation is defined and theorized in other areas of sociocultural studies (cf. Jenkins 2006). There may be interesting overlaps; there may be grounds for some departures. What are the “loci” of participation in cases like *BPR*? What, exactly, are different people participating *in* and how does/might this vary from person to person? What useful work can participation *do* in describing, understanding, and explaining a phenomenon like *BPR*? Can our understanding of participation in *BPR* be usefully informed by studies and theorizations of participation from the standpoint, say, of organization theory, cultural flows, or theories of political engagement?

**Forms, qualities, degrees and relations of participation**

Participation means involvement in some kind of shared purpose or activity—taking part in some kind of endeavor in which others are involved. The kinds of activities one might participate in may be things that are already more or less established, with more or less recognized norms and criteria. Alternatively, they might be things that are evolving and being developed, such that one’s participation becomes part of building a practice or an affinity or community that may continue to evolve. Or again, they might be things that suddenly emerge and around which people mobilize. The mobilization might just be for a short time, and participation could be over before there is really even time for a practice to take shape.

What is to be said about “participation” on *BPR*? This question constitutes a research goldmine, and patterns are likely to change between periods when each new season of *Project Runway* is running and the periods in between. A preliminary survey we have made of the blog posts and comments from June 2006 to the end of February 2006 suggested some questions that may be worth asking. These include:

- Who abides over time?
- In the case of individuals who make comments and who abide over time and make significant numbers of comments, to what extent does their participation reflect continuity or change? If there is change, what kind of change?
What categories of participants can be identified? For example, those at home, people from the TV show, the designers, high profile bloggers, the main contributors, people who comment once and not again, people who comment on different kinds of issues, people who set up blogs of their own about the show (do they link to this one and participate visibly in it?"

Can we identify patterns of interaction between participants? Who seems to be talking to who?

Which participants seem to get noticed, or otherwise seem to bear significant power? Which ones do not?

What categories of posts and comments can be identified? e.g., by theme, quality, uptake or other traces of significance?

Do comments get taken up in subsequent posts? Which, if any? Whose? What about?

What kinds of artefacts are generated via the posts? What might be done with them, by whom? How are they being taken up by participants? (e.g., there are embedded videos, audiofiles, transcripts of interviews or show segments, links to files stored on Youtube.com, etc.)

Does the blog go through “identity” changes and, if so, do these changes seem to be associated with changes in participation?

What might be said about Laura K (the blog founder) as participant? For example, to what extent and in what ways does the Laura K of June 2005 resemble the Laura K of February 2006 or (projecting ahead from the time of writing) in December 2006?

To what extent can the participants be identified as fans: of the show, of particular designers, of fashion in general, of the blog? How is their participation related to their identity as fan?

(ii) Researching collaborative online game development as a new literacy

Within the context of a larger research project (SYNchrony) being conducted by a team, Kevin Leander (Leander 2005, Leander and Mills 2006) investigated retrospectively aspects of a collaborative endeavour to design and develop an online game. Leander’s account indicates very clearly how real time study of the kind of phenomenon he captured retrospectively would constitute a paradigm case of new literacies research.

The phenomenon

Leander’s informant (Steven) recounted his experiences over an 18 month period—which began when Steven was 13 years old—of collaborating online to design and build a massively multiplayer game. Teaming with Jake (then aged 9), a British friend he’d met online, they recruited others from the U.S., England and Australia to form a core of 4 game builders and a peripheral crew of three additional designers and builders, along with free access to an experienced programming consultant. Their game, “Perathnia”, was modeled on successful online roleplaying games like Runescape. The project was based on members’ enjoyment of games like Runescape—with their rich imaginaries or game universes of characters and foes—as well as on particular limitations of these games (e.g., characters couldn’t jump or fly in Runescape) they hoped to transcend by building their own, and on the possibility of making good money in the event of hatching a successful subscription-based game. The project ended
prematurely, at which time the group had created a number of parts for the game, including 3D models for most of the player character types, different clothing models and skin textures, “designs for 50 different weapons …, designs for a few game structures, parts of the game landscape, a number of animations, and some preliminary testing of the game program or ‘engine’ ” itself (Leander and Mills forthcoming).

**Discourse and discourse membership**

The participants could have been studied in “real time” as members of both games playing communities and as members of a games design/development/production discourse. This dimension could have been opened out into a focus on identity, for example, which could well constitute a study in its own right. Equally, an approach that looked at how the discourse coordinates its members and how its members get various elements of the discourse in sync, could provide another orientation. Leander got some interview-based clues on this, especially with respect to the development of Steven’s identity as a game developer, but a full blown real time ethnography could capture insider perspectives and understandings about what was going on at different “levels” of engagement within the discourse and at the interfaces between membership of one discourse and membership of others, and so on.

**Tools, techniques—new “technical stuff”**

Building the game components involved accessing and becoming proficient with a range of technical tools and processes. This included, for example, obtaining copies of useful software via social networks or online stores, by having their game consultant create a small program to solve a tricky file-sharing problem. It also included learning how to use a range of software to render objects in three dimensions (e.g., 3D Studio Max) and which involved referring to manuals and other guide texts in the process, how to animate 3D objects, how to create and add textures to objects (e.g., skin textures, sword surface textures), and how to divide tasks up in ways that best matched people’s areas of digital expertise.

The technical dimension of game development also involved the group in working out ways to work collaboratively across time and space, to troubleshoot coding snags, in object development, to deal with bandwidth and data transfer issues, to work effectively in a context where not everyone had the same suite of tools and software, and so on. For example, Steven was responsible for all the 3D object development, and Sid, a 21-year-old graphic artist in England, was responsible for creating textures for different objects. Steven gives a sense of how they collaborated across software applications (Photoshop and 3D Studio Max), geographical distance, and game developer roles in solving an object development and file-sharing issue.

STEVEN: See, I just send him this little thing [referring to a “face” file that can be created inside 3D Studio Max], cause that's easy to send, and he uses Photoshop on it and sends it back to me. And I take this little bitmap [sent by Sid], and I apply it in 3-D Studio Max, and it shows up on the [character] model. And then I see where it looks a little bit weird, and then I say, "It looks weird on the nose," and he didn't know what I was talking about, so I took screen shots, and I drew little arrows and showed him (Leander and Mills forthcoming).
Encoding meanings

In fact, Steven’s explanation of the group’s game development process also gestures toward discursive aspects of what is involved in encoding meanings successfully. The audience would not entertain a character’s skin looking “weird on the nose.” Moreover, the meanings to be encoded were such as to call for a specialist on “texture.” The conceptual and material division of labour involved in encoding meaningful content in this example is interesting, and may differ in significant ways from everyday literacies in earlier times. Division of encoding labour under conditions of “new technical stuff” may be worth investigating as a theme in its own right.

Theory choices

Leander uses elements of space theory (cf., Leander and Sheehy 2004), and Appadurai’s theory of flows in making sense of his data. He argues that hitherto literacy research has been overly situated in terms of the scope and contextualization of the practices being studied (see also Leander and McKim 2003): “[w]e have … held literacy too far apart from the flows of materials, bodies and embodied practices [and] privileged a reading of their world as being organized by literacy” (in Leander and Mills forthcoming). Leander argues for a conception of literacy practices that includes distributed systems and the movement of ideas, resources, media, money, knowledge, and people around the world. The case of Steven is all the richer for this conceptual framing around “flows.” Not content to focus simply on the “textual” design of the game itself, Leander identifies three digital flows that played significant roles in shaping, enabling and constraining Steven’s project:

Realizing the project required at least three forms of digital flow: digital knowledge (skills and programming code), digital resources (programs, servers, networks) and design for data flow (economizing on digital file size so that the game will be kept mobile).

Focusing on the team members’ identities as game developers, on the goal of their project, and the knowledges on which they draw affords a powerful and overdue critique of text-centric concepts of “design.”

We want to push the notion that in a distributed, digital project such as this, the challenge for team members was not simply to acquire skills, tools, and resources for design, as has been imagined in multi-modal design (e.g., New London Group, 1996); rather, their challenge was to make knowledge, resources, and data move across national borders (Leander and Mills forthcoming).

New “ethos stuff”

Developing the game also involved attention to new “ethos” stuff. This included the importance of choice within a game, which effectively backgrounded narrative plotlines. Foregrounded were
opportunities for players to develop their own in-game goals (cf., Gee 2003) and to take multiple paths through the game.

Design for data flow offers another angle on “new ethos stuff.” Design involved paying attention to file sizes, internet bandwidth, baseline hardware requirements for users, ease of use, finding a compromise between detail and speed of online action, and the like.

The look of the game was a compromise between the artistic abilities of the team, their desire to improve on the graphics of Runescape, the limited resources of the kind of server and bandwidth that could be run by their start-up company, and the computational load that the game would place on prospective subscriber’s computers. A leaner, simpler game would be easier to serve and easier for subscribers to run. The beauty of Perathnia had to be achieved in a compromise with its mobility (Leander and Mills forthcoming).

Leander’s work shows clearly and powerfully how fruitful new ways of conceptualizing literacy can be. By paying attention to how a group of young people in various countries used and shared ideas, resources, and expertise, the study demonstrates how understanding new literacies may call for “new” theorizing and conceptualizing. Other theoretical and conceptual framings that may well prove fruitful for understanding new literacies include—among many others—Actor Network Theory (e.g., Latour 2005), activity theory (e.g., Engeström, Miettinen and Punamäki 1999, Kaptelinin and Nardi 2006), Gee’s principles of effective learning and his concept of affinity spaces (Gee 2003, 2004), ludology or the study of gaming and play activities (cf. Gonzalo 2003, Squire forthcoming), approaches to multimodality that are more “user” and less “text” focused (e.g., Burn 2006, forthcoming), along with theories from business studies, economics, the sociology of work, etc., that discuss leverage, collaboration, networks, as well as attention economics (Goldhaber 1999), theories underlying software, hardware and network development, and the like, and coherent combinations and hybridizations of these and other options.

A range of research questions arise out of work that “tries on” new theories and new ways of thinking about literacy practices. Another set of questions also arises out of a focus on young people’s new technology production. These include:

- What can we learn about literacy from the ways in which young people take up and use digital tools and skills to work on a collaborative projects? In what ways do social networks assist with the technical dimensions of achieving one’s design and product development aims and goals?
- What can we learn from the strategies young people employ to troubleshoot design and programming problems encountered in building a digital game?
- What new forms of collaboration are being enacted by young people involved in distributed game design? How are distributed groups formed and sustained over time? How are new collaborators recruited to the group and non-contributing collaborators ejected from the project? What effects does this seem to have on the project itself?
- What design practices are being developed in collaborative project spaces online and what might this mean for education?
• In what ways do literacy learning pathways developed by young people in non-school settings challenge established assumptions about effective classroom learning?
• What are some of the powerful literacies to be found in Web 2.0 practices?

(iii) Analysing writing and identity online

Fan fiction (“fanfic”) involves devotees of some media or literary phenomenon, like a TV show, movie, video game, anime series, or book, writing “alternative” stories based on its characters or plotlines (Black 2005, Jenkins 1992, 2006). Stories relate alternative adventures, mishaps, histories/futures, and locations for main characters, create “prequels” for shows or movies, or realize previously non-existent relationships between characters. Fanfic predates the internet and considerable fanfic activity continues outside online environments. Nonetheless, the internet has enabled almost infinitely more people to actively participate in contributing and reviewing fanfic than was previously possible.

Fanfic research is gaining visibility within literacy studies (cf. Black 2005, Chandler-Olcott and Mahar 20003, Thomas in press, Trainor 2003). Rebecca Black’s research into a popular online fanfiction archive and review forum, Fanfiction.net, provides a perspective on how studies of affinity spaces might be framed and implemented as a substantive focus within new literacies research.

Fanfic, Meanings and Discourse membership

Black examines the practices of posting and reviewing fanfictions on Fanfiction.net, emphasizing the discursive nature of being fanfic writers and reviewers and how this is integral to doing meaning work in that space. Fan narratives must establish their authors as people with close knowledge of the original sources sparking their narratives, and a strong sense of what can be done within parameters set by borrowed characters, plotlines and settings (cf., Black in press, Lankshear and Knobel 2006a). Reviewers must likewise demonstrate knowledge of the original sources for fics they are reviewing by commenting on, say, how “well” (or otherwise) the author has changed or enhanced a familiar set of characters or added to an established storyline. In short, fan affiliations shape how things are written and read.

While any popular text is “fair game” for being re-written in some way, it is not the case that anything goes in the re-writing. Authors are expected to stay close to the narrative “design” they have chosen: for example, “in canon,” where the author remains true to the nature, characters, foci and settings of a media text while adding new storylines or exploring relationships between characters; an alternative universe design; a cross-over fic, where characters and plots from two different original sources appear in the same story (e.g., Star Wars mixed with Lord of the Rings; cf. Thomas in press); and so on. Authors are expected to signal how their work builds formally on the work of others (typically with an opening disclaimer acknowledging who “owns” which characters and settings). Reviewers almost uniformly know to position themselves as supportive and collegial in their feedback, balancing expressions of pleasure in the story with gentle, constructive suggestions for further improving the narrative (Black in press).
There is a discursive expectation that authors will aim to write well-crafted stories that attend to standard grammar, spelling and punctuation conventions, and authors have a plethora of “writing advice” sites that spell out “socially recognized ways” of producing good quality fanfic available to support them. These advise how to avoid creating non-credible “Mary Sue” characters (Black 2005), and how to provide a good balance of dialogue and description, develop a plotline that isn’t too hackneyed, ensure that characters or problems are introduced with sufficient explanation or foreshadowing, that character names are managed in ways that avoid reader confusion, etc.

Identity analysis

Black emphasizes the importance of identity and “presentation of self” within fanfiction writing (Black 2005, Black in press) and is especially interested in studying ways in which “adolescents with limited English proficiency construct identities in online English and text-dominated spaces” (Black 2006: 170). Identity is “the ability to be recognized as a ‘kind of person,’ such as an anime fan, within a given context” (Black forthcoming). From among diverse available options Black uses discourse analysis techniques drawn from Gee to investigate how fanfic writers engage in (multiple) identity work in their narratives and profile pages within Fanfiction.net.

Black analyses the “author notes”—notes to readers that come before the start of each story or chapter within a story—and reviewer comments in the body of fanfic produced by a young ESL migrant to Canada writing under the pen name of Tanaka Nanako. The analysis represents Nanako’s growing proficiency with English and narrative writing and her developing sense of self as an accomplished writer. In her earliest fics (at age 14) these notes comprise apologies for English spelling and grammatical errors. Later, they begin eliciting reviewer feedback on English grammar and plot development. Black’s analysis of Nanako’s author notes portray her as having developed a culturally hybrid writing identity spanning the anime fanfic she writes based on the popular television series Card Captor Sakura, her pre-migration insider knowledge of Chinese culture, her Canadian immigrant identity, and the development of a carefully contrived linguistic hybridity within her narratives. She blends Japanese terms that have high social cache within anime fanfiction and Chinese Mandarin dialogue for her Chinese characters into her English medium fics. Her ability to draw on resources from three languages is highly regarded by her readers (Black 2005: 123).

New ethos stuff, “post-genre” writing and classrooms

Fan fiction writing offers young authors a space in which to develop dimensions of writing that are valued in school. Black describes Fanfiction.net as an “affinity space” within which “members are using digital literacy skills to discover, discuss, and solve writing and reading-related problems, while at the same time pursuing the goals of developing social networks and affiliating with other fans” (in press). As described earlier in this paper, affinity spaces are places or sets of places where people can affiliate with others based primarily on shared activities, interests, and goals (Gee 2004). Participants in affinity spaces can access archived resources, dispersed and shared knowledge, collaborative help and expert advice, in forms ranging from FAQs, “walkthroughs” and “guides”, to one-on-one conversations and feedback. Educational
researchers and theorists working in games studies, cyberculture studies, as well as in the study of fanfiction and other forms of collaborative writing, are increasingly pondering the extent to which principles and procedures organic to affinity spaces might be appropriable within formal learning settings with a view to enhancing teaching and learning there.

Narrative writing grounded in collaborative reworkings of television series or movie plotlines is often dismissed by teachers as “poor writing” and lacking in imagination and creativity. It is rarely considered in relation to larger social practices of intertextuality and “media mixing”, which afford growing kudos in work and leisure contexts beyond the school and, in the case of intertextual sophistication, within formal education itself (Jenkins 2004, Lankshear and Knobel 2002). Fanfiction research may usefully inform the work of educators in multiple ways. These include helping teachers to better understand and respond to students’ classroom narratives, providing insights into mass participation forms of popular culture that increasingly engage the energies of people across the social spectrum in their out of school and post school lives, and drawing attention to the extent to which conventional genre boundaries (e.g., narrative) and norms for expertise are under challenge from “new literacies” (Lankshear and Knobel 2006a).

The collaborative nature of fanfic writing and reviewing, the importance of identity, affinity spaces and intertextuality in most fanfic, the post-genre narrative forms of fanfic, and so on make fanfic practices a rich field of study for researchers interested in applying insights from fanfic practices to classrooms. Indeed, fan practices in general are fruitful foci for further research. Examples of worthwhile areas for research include:

- Examining a range of fan practices, such as game walkthroughs, Lego models of an online a game event, fan wikis, and critiquing the limitations of the genres currently taught and valued in schools as media of expression and meaning-making.
- Asking how might traditional narrative analysis be extended or reworked to better accommodate an analysis of writing practices, networks and affinities.
- Asking how might one go about “researching” a particular affinity space.
- Examining the “goodness of fit” between Goldhaber’s theory of stars and fans and fanfic affinity spaces (see Goldhaber 1997).
- Asking what can successful instances of positive collaboration between companies and fanfic writers tell us about how to best navigate copyright issues and fanfiction writing.
- Asking in what ways might classrooms better accommodate collaborative writing and linguistic hybridity.

Conclusion

New literacies are a substantial and far-reaching historical phenomenon whose challenging presence to conventional literacies has set in train a dialectic that will play out during the decades ahead. The outcome of this dialectic will be some kind of resolution that transcends the contending categories of practice, not a simple displacement of one by the other. Meanwhile, it is human beings as the *enactors* of literacies who carry this dialectic. It is through them at the level of individuals, members of groups (of interests and affinities), and bearers of institutional roles engaging in literacies as social practices that this literacy dialectic plays out.
This phenomenon begs deep and rich understanding. It is worthy of understanding in its own right as a social-historical process of major significance—indeed, of significance on an epochal scale. As a Time-Warner executive once remarked to us: “This is as good as Gutenberg”. It is also worthy of understanding as a means for enabling people and institutions to work toward humanizing this dialectic as far as possible, to push it in directions of progressive resolution. Such understandings call for sustained research and theoretical work, notably within education and at interfaces between education and social practices within settings and institutions beyond schools and universities. A key component of this research and theoretical development will focus on new literacies: as more or less discrete practices and in relation to established literacies. This paper has advanced a basis from which to envisage a research agenda for sociocultural studies of new literacies and offered some examples of research along lines we believe have promise.

References


