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"New" Literacies: Research and Social Practice

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THE CONCEPT OF "NEW" LITERACIES

Talk of "new" literacies is usually associated with textual practices mediated by new computing and communications technologies (CCTs) (Asselin, 2004a; Smolin & Lawless, 2003). We think it is important, however, to resist defining new literacies *exclusively* in terms of CCTs. To do so marginalizes a diverse range of recently emerged and evolving textual practices that have integral places in the ways that many people negotiate their *contemporary* everyday lives but that are not (necessarily) mediated by new technologies. Defining new literacies exclusively in terms of new technologies may deflect researchers' attention from some highly contemporary text-mediated social practices and delegitimize their significance as objects of literacy research that looks to the future as well as to the present. Consequently, in this chapter we discuss examples of both types.

At the same time, however, the examples we have chosen of new literacies that do not necessarily presuppose CCTs are ones that, nevertheless, have been greatly augmented, facilitated, and proliferated by new technologies. While it is important not to marginalize new practices that do not necessarily involve CCTs, it is equally important to acknowledge and validate the massive and growing significance of CCTs within contemporary "literacyscapes" (Leander, 2003).

Following Street (1984), we conceive literacy as "social practices and conceptions of reading and writing" (p. 1). From this perspective there are *many* literacies, construed as identifiable *forms* that reading and writing take within varying social contexts and under varying social conditions. Such forms vary according to the people involved, their purposes, circumstances, cultural ways, available tools, and so on. Literacies come and go as changes occur regularly and from place to place within the constitutive conditions of doing textual work. The idea of new literacies is associated with such changes.

Consequently, ascriptions of *new* literacies are relative and contestable. There is always some place from which to question particular identifications or ascriptions of new literacies (cf. Lea, 2000). We take an uncomplicated and open approach to new literacies, and think of them as identifiable forms of textual practices that occur on a scale and with a degree of social significance that both invite recognition and are more or less chronologically recent. Within this broad frame we distinguish between (new) literacies that might be regarded as "ontologically" new and literacies that, while being chronologically recent, are *not* necessarily ontologically new.

Ontologically new literacies constitute or are constituted by a new kind of "stuff." They constitute a new *kind* of phenomenon (Lankshear & Knobel, 2003), such as when the laborious production of texts by hand, one by one changed to include the mass production of texts following the invention of the printing press. In our own times, this order of change is associated with

emergence of "post typographic" forms of text production, distribution, and reception using digital electronic media.

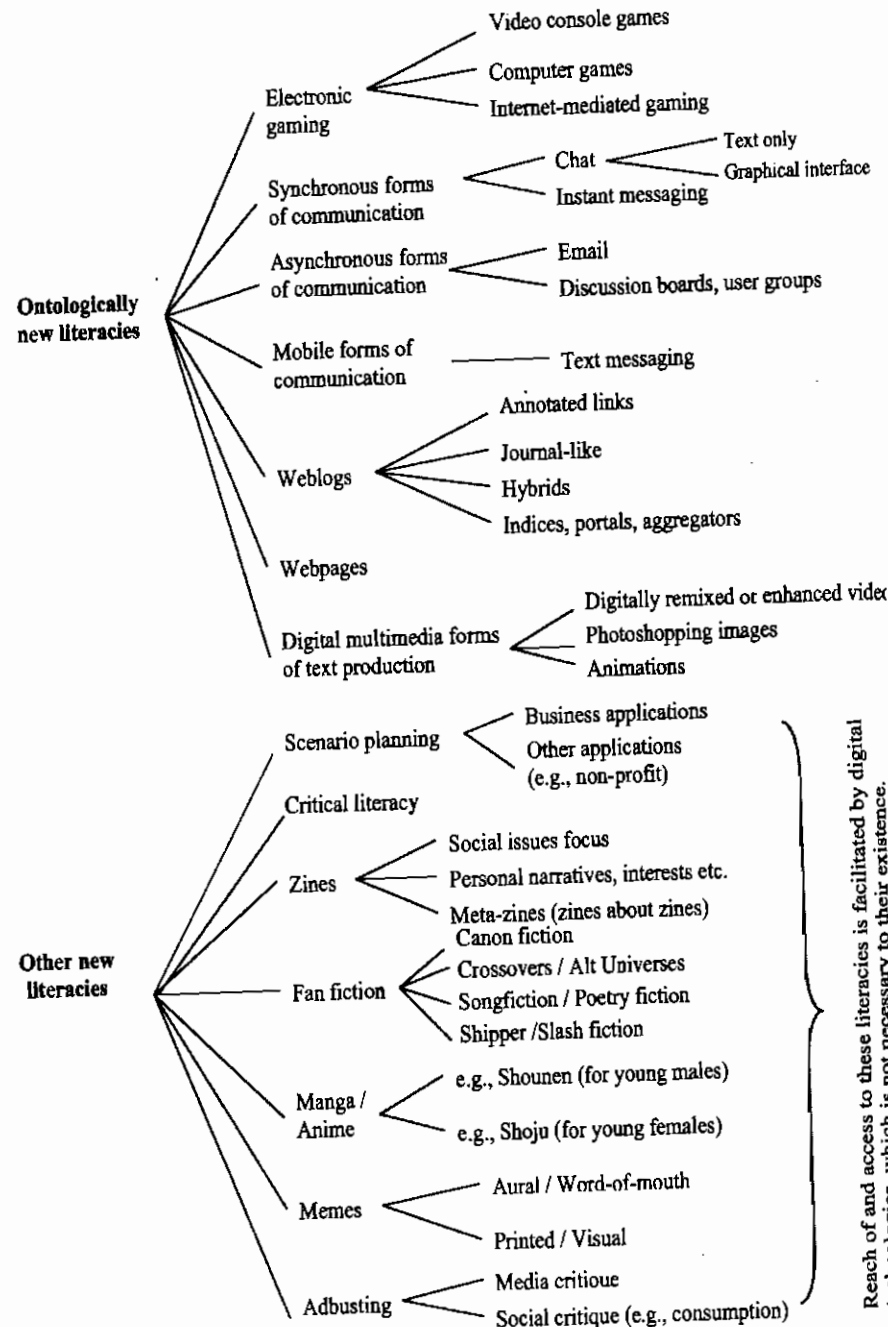
Different levels of change have accompanied the explosion of digital electronic media. At one level, reading and writing involve new *operations*, such as constructing and following hyperlinks between documents and/or images, sounds, movies; using semiotic languages (such as those used by the characters in the online episodic game Banja, or emoticons used in email, online chat space or in instant messaging); or manipulating a mouse to move around within a text; or interpreting file extensions and identifying what software will read each file. On this level, changes may occur quite rapidly. For example, in the early 1990s reading online involved operations, such as the ability to navigate a text-only interface, use keyboard-based commands to follow hyperlinks, master a set of programming language commands that would download document files to one's computer, and so on. Today, however, reading online using a graphical interface like Internet Explorer or Safari requires different operations. These include reading the different elements of a webpage—the various buttons, menus and go-to bars of an Internet browser; distinguishing between internal and external hyperlinks; understanding cursor-initiated behaviors on-screen; knowing how and when to launch or use different media within a given online space (e.g., play a video, download an audiofile, copy an image); and being able to troubleshoot "broken" hyperlinks, and so forth.

When we focus on the operational and/or technological aspects of new (post-typographic) literacies as in the preceding paragraph, we only get part of the picture. We find that reading involves new kinds of operations. The larger point, however, is that new kinds of social *practices* emerge as well. People begin to develop and to participate in text-mediated practices that simply *did not exist before* because they *could not*. These are practices such as rating news report texts in (close to) real time, disseminating "reputation" information globally about a buyer or seller, weblogging alternative versions of events to those published in official media reports, warchalking, and so on. For us, literacies such as warchalking and weblogging are quintessential examples of *ontologically* new literacies. That is, they are chronologically recent literacies that are *new in kind*.

Not all chronologically recent literacies are new in this ontological sense, however. There exist, for example, literacies that are chronologically recent but that have emerged independently of digital electronic media. Notable examples include fan fiction (fanfic), manga comics and zines. In Figure 1 we present a range of what we regard as significant new literacies and categorize them according to whether or not they are ontologically new in the sense described above.

In the remainder of this paper we will discuss fan fiction, manga, online chat, and weblogs; provide short "state of the art" research statements for each of them; and briefly describe and illustrate some leading edge ways in which online chat and weblogs can be integrated into processes for researching new literacies. Before turning to our four selected new literacies, however, we think it is useful to clarify our own orientation toward new literacies research. This orientation shapes what we do and do not say and how we do or do not say it in this paper.

Figure 1 Short classification of some new literacies



Reach of and access to these literacies is facilitated by digital technologies, which is not necessary to their existence.

RESEARCHING NEW LITERACIES

While we think of ourselves first and foremost as educators, we are wary of the extent to which a great deal of literacy research is driven by "applied" concerns. That is, educational researchers are encouraged to investigate, say, (new) literacy practices with an eye toward arriving at findings intended to inform classroom curriculum and pedagogy more or less directly. Although there is certainly a valid and important place for such "applied" orientations to literacy research, we are often personally dismayed by the results of applied research. By the time it ends up as off-the-shelf teaching and learning packages, or as highly functional statements, the original practices have been leached of much of their richness and vitality in the attempt to "deliver" useful and relevant applications and strategies for teachers who, for whatever reasons, believe they need them.

In contrast to this functional, applied orientation, we believe it is important with respect to so-called new literacies to emphasize research that seeks to understand contemporary practices in their own right, on their own terms and, so far as possible, from the perspectives of insiders to those practices that, to a large extent, entails researchers becoming insiders/practitioners themselves. Based on reflections of our own and other colleagues' experiences as users of new literacies research, we think the most important contribution research in this area can make to enhancing teaching and learning is *indirect*. Research that provides rich accounts of new social practices mediated by new technologies and multimodal texts can help inform teachers and others involved in education about what the world, beyond the school gates that is mediated by these technologies and texts, is like. The more such knowledge and understanding educators have the better position they are in to judge how best to integrate (or not) new technologies into school work.

During the 1990s we read everything we could locate that offered insider accounts of cybercultures. These were mainly *not* texts written by academics or by people who would regard themselves as (highbrow) researchers of technoliteracies. They were accessible, "down home" descriptions of people's experiences in MUDs and MOOs, in Silicon Valley start up companies, of hackers and great hacks, of inventors and innovators, of programmers and sysops and bulletin board hosts, of geeks, and so on. We lost ourselves in the wonder, mystery, and sheer magic of how strings of 0s and 1s could produce sound, color and movement in conjunction with magnets and lasers. We read it simply because it was interesting, and in the process we learned things we regard as among the most important and valuable things we have ever learned. And we read almost *none* of it with a view to thinking about how we could directly apply it in our lives. We were moved by a sense of wonderment and wanted to know.

Every day, in diverse ways, this knowledge helps us in our work and in wider aspects of our lives. This is rarely, however, in direct, functional, or *applied* ways. Instead, it provides us with concepts and examples developed by insiders that help us make sense of things we see and read about or that provide clues about what to look out for in the way of trends and changes and where to go to find out what is going on. We still have to do the interpretive work and "nut out" specific applications. But, we have a worldview and a bit of a knowledge base from which to do so.

We think that this is how research can work best to contribute to classroom practice: to make available rich examples and useful concepts to educators that they can draw on in working out how

ro "do" good pedagogy. Speaking personally, we would like to see a moratorium on research that delivers activities and modules and professional development "tricks" designed for classroom application. In place of such material, we would prefer to see research that provides rich and theorized accounts of cultural practices that enable and encourage educators to experience them from the inside, as participants. Teachers are then in an optimal position to make productive connections between learners' prior knowledge and experiences, the potential of new technologies to expand student learning, their own knowledge and theory relevant to teaching and learning, and the learning goals and outcomes to which they are committed.

The brief accounts of some new literacies that follow have been written in this spirit. They are intended to provide introductions to fanfic, manga, chat and weblogs to colleagues, who may not be knowledgeable about them, from the standpoint of two researchers who believe educators should be informed about such social practices. We are not advocating that teachers try to import them (directly) into classroom practice. Rather, we think that having some knowledge of such practices may be useful for teachers in a way analogous to how being informed about learners' funds of knowledge can be useful in reflecting upon how to go about one's pedagogical work.

FAN FICTION WRITING

In fan fiction, or "fanfic" to aficionados, "devotees of a TV show, movie, or (less often) book write stories about its characters" (Plotz, 2000, p. 1). These stories chronicle alternative adventures, mishaps, or even alternate histories/futures for main characters, relocate main characters from a series or movie to a new universe altogether, create "prequels" for shows or movies, fill in plot holes, or realize relationships between characters that were only hinted at, if that, on screen.

Today's fanfic writers innovate on myriad screen and book texts. Besides the various Star Trek series, television shows currently attracting large numbers of fanfic writers include *Scarecrow and Mrs. King*, *Andromeda*, *Angel*, *JAG*, *Lizzie McGuire*, and *Xena: Warrior Princess*. Popular movies include *Star Wars*, *Moulin Rouge*, *X-Men* and *Pirates of the Caribbean*, and books include *Les Miserables*, *Phantom of the Opera*, *A Series of Unfortunate Events*, and the Bible.

The origins of fanfic are generally dated to the late 1960s. The Star Trek television series, which first aired in 1966 and rapidly gained a cult following, is credited with helping to establish fan fiction as a distinct genre. From the first episode fans wrote their own stories set within the Star Trek universe and using key Star Trek characters. They would then mimeograph and bind their stories into handmade books or magazines (precursors to today's zines) and distribute them at Star Trek fan conventions. Since then, fanfic has become an established genre and the subject of academic study (see, for example, Jenkins, 1992; Somogyi, 2002). Women make up the majority of fanfic writers, and their stories tend to pay relatively little attention to developing the plotline in comparison to developing dialogue and carefully crafting a range of relationships among characters. These relationships may be heterosexual or same-sex, particularly romantic relationships between males (Gillilan, 1999; Rehak, 2003; Trainor, 2003). This emphasis on relationships is a well-defined sub-category of fan fiction, known to aficionados as "Relationshipper" (or "Shipper") stories. The following is a reasonably typical sample of popular fanfic writing. (All texts are copied verbatim from websites.)

Author: quicksilver2402004

Xena: The Tale of a Murder

Disclaimer: The creators characters in no way belongs to me except Kyra, Astella, Linden, Thainlen and other characters that I created. If anyone finds any errors in this story or your confused about something you can let me know by emailing me at [email address deleted] and I will be happy to fix or explain it.

Introduction:

Rain fell through the black sky and hit against the trees and bushes. Rain fell into puddles creating a splashing sound. A pale light shone through the forest as a wagon with one horse trotted through the path. Sitting on top, sat two people who both had a hooded cloak on. The horse that was pulling the wagon was a dark grey color with green eyes and a white mane. The horse who could see and hear better than the humans looked left and right making sure it wouldn't fall over any debris the storm had left a few hours before. The horse stopped suddenly making the two people grab the wagon's bar that was in front of them. The horse neighed turning its head looking at the cloaked figures. One of the cloaked figures climbed over the seat and walked towards the horse. The horse neighed again as if telling the stranger something was wrong.

"What is it Selena???" said the male voice.

The horse neighed motioning its head toward the left. The man removed the hood revealing a handsome face with dark blue eyes and short black hair. Rain droplets slid down his face. He turned looking at the other cloaked figure that was walking towards him. "Selena senses something over there," said the man to the cloaked figure. The cloaked figure removed their hood revealing a young woman with purple eyes and long brown hair.

"Astella should we look?" asked the man. "Yes".

The man pulled his sword out of his scabbard making a sound of metal being sharpened which revealed a 18 inch silver Wakizashi Sword which had a leather hilt. Lighting flashed and thunder rumbled as he and Astella walked into the direction the horse had pointed out to them. They walked through wet trees and stopped. A sound was heard.

"Did you hear that Linden? It sounded like crying." Asked Astella. "Yes. It came from over there." Whispered Linden motioning towards a group of giant pine trees. Lighting flashed revealing a hole below one of the trees. Astella and Linden crept towards the tree looking around to make sure it wasn't a trap. Thunder mixed in with the crying as they walked towards the tree. A loud bang of thunder sounded off making Astella and Linden jump. Linden and Astella walked to the hole and knelt in front of it. Lighting flashed showing what was inside. It was a baby. It was lying on its back wrapped up in blankets. The baby cried and moved its little arms back and forth. Linden and Astella exchanged surprise looks. Astella reached for the baby and held it in her arms. (www.fanfiction.net/s/2013938/1/; accessed Feb 5, 2005)

In many ways, fanfic is a contrived communal practice of reading and writing (Plotz, 2000). Prior to the Internet becoming a mass medium, fanfic was circulated person to person among relatively small circles of aficionados and subjected to sustained critique. Authors received peer

comments and suggestions for improving their stories. Today, however, fanfic narratives in the tens of thousands are posted in open public forums on the Internet to be read and reviewed online by anyone who cares to do so.

FANFIC RESEARCH

Most research on fan fiction to date has been undertaken within English literary studies, cultural studies (including women's studies) and media studies. Perhaps the best known study is Henry Jenkins' (1992) ethnography of media fan sub-cultures, *Textual Poachers: Television Fans and Participatory Culture* (see also, Jenkins, 1988). Drawing on de Certeau (1984), Jenkins explored how fans take resources from commercial culture and rework them to serve alternative purposes. Rather than seeing them as cultural dupes, thoughtless consumers, or social misfits, Jenkins portrayed fans as active producers and skillful manipulators of content from commercial programs, nomadic poachers, and *bricoleurs* constructing their own culture from borrowed materials. Subsequent studies have focused on fan fiction as a sub-culture or as an element of "alternative" culture, drawing on survey-based demographic profiles of fan fiction groups, participant observation of fan fiction gatherings, and interviews with fans and fan fiction writers (cf., Gillilan, 1999).

Fan fiction has also been studied from the standpoint of copyright issues, as a sidebar in larger text-based studies of feminist resistance and/or critique (e.g., Westcott 2003), and as text or genre. The latter involves analyzing fanfic productions and the original artifacts to which they respond in terms of content, narrative styles and strategies, rhetorical moves, cultural capital, cultural production, and so on (e.g., Jancovich, 2002; Vrooman, 2000). Recent research has extended to studies focusing on fans writing about computer or video game characters, like Lara Croft from *Tomb Raider* (e.g., Rehak, 2003).

Most fan fiction studies published in the past 5 years use Internet-based fanfic writing archives and fan fiction discussion boards as their database (e.g., Pearson, 2003; Pereira de Sá, 2002; Trainor, 2003). This research suggests that the emergence of Internet-based fanfic archive and review sites on a large scale is attracting a visible new stratum of pre-teen writers who did not exist in the era of fan fiction conventions, when adults dominated the ranks of fanfic authors (Rehak, 2003).

Few published studies of fan fiction as a *literacy practice* exist (cf., Black, 2004; Chandler-Olcott & Mahar, 2003a, 2003b; Trainor, 2003). Indeed, fan fiction writing has attracted negligible attention in the field of education research, notwithstanding the growing research interest in adolescent writing. And despite the fact that the incorporation of themes and motifs from popular culture within the texts of very young children is often encouraged and quite well-documented (e.g., Dyson, 1997; Marsh, 2005), investigation of fan fiction writing within classrooms beyond the early years is conspicuous by its absence. Indeed, within upper grades of elementary schooling, narrative writing grounded in reworking television series or movie plotlines tends to be cast as "poor writing," lacking in imagination and creativity. It is rarely considered in terms of

intertextuality, "media mixing" and the like, despite the importance attached to such literary techniques within high school English classes in relation to "the canon" (cf., Lankshear & Knobel, 2002).

An example of student fan fiction encountered in the course of our own research and writing provides a supporting illustration for our orientation to new literacies research as described above. This example comes from work produced by a thirteen-year-old, non English-speaking migrant student (Tony) in his final year of elementary school. Tony had emigrated from Taiwan to Australia with his parents six years previously. He was the only ESL learner in the case. His teacher was conscientious by any standards. She expressed concern about the absence of support for ESL learners in the school and worried about having Tony in her class, perceiving his English as inadequate for school learning and believing she did not know how to help him. To illustrate her concerns she pulled a fat wad of A4-sized paper, covered in handwriting and stapled in one corner out of a drawer. She dropped it on the desk, sighed, and asked rhetorically, "What do you do with that? It doesn't even make sense!"

Tony had been working on this text, an adventure narrative, for more than a month by the time he handed it in. The learning context involved a genre-based language syllabus, and the class was working on narrative. His teacher said by the time she saw it as a draft it was far too long for her to conference properly (i.e., to give him feedback about his text, identify its strengths, and suggest how to improve it as a basis for subsequent work in class). She had filed it in his assessment portfolio and said she was not going to grade it because it was too long and it was now too close to the end of the year to find time for marking it and giving feedback. She felt she simply did not have time to correct his English and explain what was wrong with his turn of phrase.

The following excerpt, which typifies the character of the text as a whole, comprises the orientation to his narrative: orientation, conflict, resolution, and coda being the four structural features of narrative as defined in the syllabus.

Author: Tony (Taiwanese mandarin speaker)

Doom: Part 1

In the dark Ages, Europe was broke into many different countries.

In the Kingdom of Khimmur, King Little, the ruler of Khimmur, gave a mission to one of the brave warriors, Jake Simpson.

His missions was to defeat Shang-Tsung. Shang-Tsung was an evil person. He tried to rule the whole china, but he never did it, so he went to Europe. Now he is planning to take over the whole Europe. And he has three warriors.

Kung-Lao, before he was a dragon, then Shang-Tsung made him ^{into a} human Raiden, God of Thunder.

Gora, a 2000 year old giant with four hands.

Shang-Tsung also took control of lots of things. He has a vas number of soldiers.

Snow Wurch, Lizard King and Baron Sukumvir were also Shang-Tsung's helpers, because Shang-Tsung promised to Share the power with them.

And the Warlock of Firetop Mountain, was guard for Shang-Tsung's Rich.

"So I will send you to attack Shang-Tsung" said King Little.

"Isn't there anyone going with me?" asked Jim.

"Oh, I neatly forgot to tell you about this" said King Little "There will be two Martial Arts Master from the great Empire of Han, Chung-Hi-San-Wu and Lee-Quan-Lin will go with you. They were send by the Emperor of China".

This excerpt from Tony's narrative reveals a most unfortunate teaching and learning situation. Tony's teacher's refusal to engage with his text can be seen as uninformed and misguided both in terms of the official purposes of the curriculum and her own serious endeavor to develop a pedagogical approach equal to those purposes (Lankshear & Knobel, 2002). The excerpt above reveals much about Tony's literacy proficiency that actually directly contradicts his teacher's appraisal of it. At a surface level, it is evident that he has a competent grasp of a range of important writing conventions. These include compiling lists, paragraphing, direct speech conventions, punctuation, and controlling the genre structure of a narrative. His use of \ / marks show that he has mastered the convention for inserting text into a sentence already handwritten. Likewise, a word he was not sure how to spell is underlined, another "school" writing practice. His vocabulary negates our interpretation of his teacher's assessment of his command of English; namely, that Tony had minimal command of English in his writing. His text contains some systematic errors in tense, with plurals, and with some prepositions. By the same token, our investigation of the class as a whole suggested that, in terms of conventional print literacy indicators, Tony's literacy competence was considerably greater than several of his native English-speaking classmates (see *ibid.*).

Even a cursory glance at Tony's text reveals to anyone with relevant insider knowledge that he has produced a complex intertextual narrative: in effect, a fanfic text that builds on his insider status within video gaming and pen and paper based role-play simulations Discourses. For example, the characters, "Shang-Tsung," "Raiden," and "Kung Lao," are all characters in Mortal Kombat, an adventure game from the early 1990s originally produced by Nintendo (and now available as a computer game as well). Kung Lao is described on the Mortal Kombat official website as "a troubled young warrior from the Order of Light Temple. He is a skilled Mortal Kombat fighter with incomparable focus and strength. Kung Lao was raised alongside other children from the temple and trained from birth to fight in the Mortal Kombat wars..." (see www.mortalkombat.com). Similarly, the character "Gora-Gora" can be found in the Nintendo game, *The Ultimate Evil*. Subsequent references in Tony's narrative to a skeleton army (and not appearing in the excerpt above) echoes a range of skeleron armies found in different Nintendo games, including *Dungeon Keeper II*. Later, characters from the video and computer game DOOM appear in Tony's adventure, such as Demon Queen and the Barons of Hell. The Warlock of Firetop Mountain makes an early appearance in the narrative as a character, and the character's name is actually the title of the first Fighting Fantasy Gamebook produced in the 1980s by Steve Jackson and Ian Livingstone. The reference to Snow Witch in the excerpt above echoes another Fighting Fantasy Gamebook by Ian Livingstone (1984) entitled *Caverns of the Snow Witch*. Lizard King and

Baron Sukumvit, other characters making an early appearance in Tony's text, are also from the Fighting Fantasy Gamebook series. This series of books—60 in all—were enormously popular "quest" games that came with dice and maps and required role-playing and a large amount of reading to plot and navigate the adventures written into them.

This case provides an example of how awareness of cultural forms, such as fanfic and the cultural artifacts that beget them, could potentially provide teachers alternative perceptions of who learners are and what they can do. The world of school is awash with perceptual frames born of stereotypes, ascribed deficits, convenient "throwaway" lines, and pop-explanations (e.g., "there is no language in the home," "s/he is not ready for learning") that can readily distort how teachers see learners. Similarly, a relatively confined range of classroom literacies can easily limit understandings of the concrete forms that abstract constructs such as "narrative" assume in the world and of their relative power and significance in the various dimensions of everyday life. Research designed to provide rich, theorized, concrete accounts of new literacies in their own right and on their own terms are potentially useful antidotes to perceptual biases as well as potentially fruitful sources of understandings, pointing toward spaces where classroom literacy activity can meet learners on productive pedagogical ground.

MANGA

Manga is a graphic narrative genre that is most easily described as "Japanese comics." Manga, in its current form, has its origins in the stylized and often humorous outline drawings by sixth century Shinroist monks to illustrate calendar scrolls (Sanchez, 2003). The term "manga" itself (which translates roughly into "whimsical pictures" in English) was first used to describe a particular style of illustration in the late seventeenth century developed by a Japanese artist, Hokusai, who rebelled against traditional woodblock style Japanese printmaking, working with French and Dutch art and art theory to develop a style of drawing that comprised finely detailed, free-flowing characters and landscapes (i.e., "man," meaning undisciplined and free form, and "ga," meaning drawing or image; Wiedeman, 2004, p. i). Hokusai's chief goal for his new drawing style was to create meaningful *and* entertaining art pieces (*ibid.*). Manga really came into its own, however, in the late 1940s and early 1950s. Comic strips were popular in Japan soon after they first began appearing in U.S. newspapers early in the 20th century; however, the growing worldwide popularity of Disney animations, cinema techniques, and the ready availability of Marvel and DC comics in Japan after World War II helped to shape manga into a distinct and highly popular graphic-and-text genre.

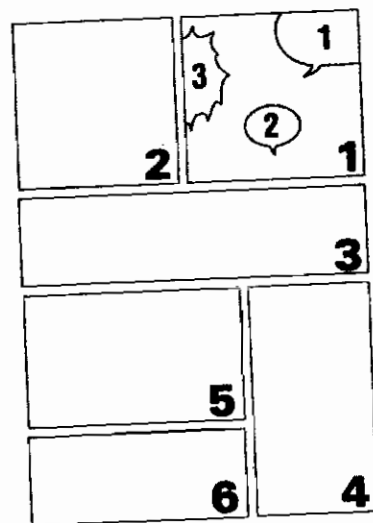
Most manga are published in serial form and are produced in black and white. Early manga tended to focus on action-packed adventure or sci-fi stories for boys (i.e., shounen manga) or romance stories for girls (i.e., shoujo manga) (Allen & Ingelsrud, 2003). In the 1970s, manga aimed at adult Japanese readers began to be produced and included violent or taboo themes and a wide range of anti-heroes, along with sometimes sharp social critique (Allen & Ingelsrud, 2003). New categories of manga began to appear during this period, including pornographic manga and homoerotic manga, as well as much more prosaic instruction manual manga and textbook manga.

Manga began to be translated into English during the late 1980s and quickly gained popularity among young people (e.g., especially the *Yu-Gi-Oh!* and *Dragon Ball Z* graphic novels, and the *Shonen Jump* serial collections). In English speaking countries, manga fans (known as *otaku*) tend to be adolescents and young adults, with females comprising a sizeable proportion of readers (Lent, 2004). The largest market for manga outside Japan is the U.S., where young people spent approximately \$100 million on manga in 2002 (Lent, 2004).

Many parents and educators in English-speaking countries have denounced manga as being too violent for young people to read, and as responsible for "dulling readers' minds" (Lent 2004, p. 39). On the contrary, manga are highly complex texts. They require English-language readers to learn to read comic frames from right-to-left (see Figure 2) and to operate a range of challenging meaning conventions like recognizing the "signification" of different sized-frames. For example, a narrow, page length frame can denote time passing or direction in a journey, while a two-page single frame can signal something momentous is about to happen. The illustrator can also shift the reader's point of view from that of "outsider, looking in" to "viewing the scene from the perspective of the different characters in the story," and the reader needs to be able to recognize, make sense of, and keep up with rapid changes in point of view (see Figures 2 and 3) (Allen & Ingulsrud, 2003, p. 679).

The widespread popularity of commercial manga has generated a sub-culture of "amateur manga"—manga drawn by fans that adds to or produces new versions of existing manga—and which, in Japan and the U.S. at least, are distributed at manga markets or comics conventions.

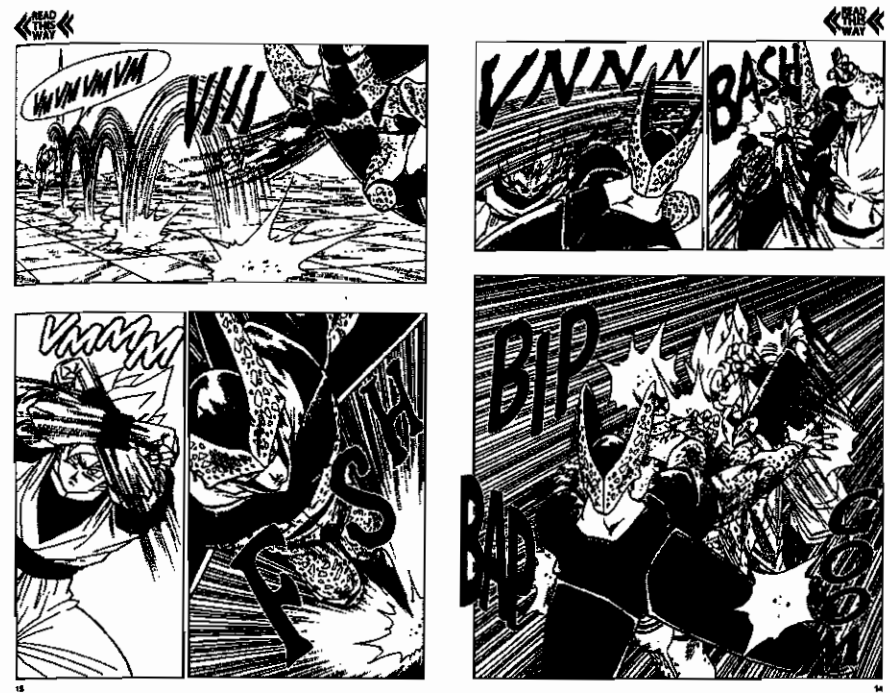
Figure 2 A diagram showing the typical 'reading path' for manga texts (courtesy of SHONEN JUMP Magazine, © VIZ Media, LLC)



These markets and conventions have also become an important source of peer feedback on manga aficionados' narrative plot development and their drawing techniques (e.g., tips on fine-tuning perspective, on capturing a range of facial expressions, on adding realistic shine to hair). Amateur manga writers are particularly serious about their artwork and regularly form social networks or "circles" devoted to constructively critiquing each other's manga drawings. Most highly prized within these circles are original drawings, rather than copies of existing manga artwork (which is often what manga fans—*otaku*—usually begin with).

The development of graphic interfaces for online browser software has seen a significant change in the original face-to-face nature of otaku circles as they have moved online and have become more widely distributed. Otaku use the Internet to exchange their artwork and feedback

Figure 3 Two pages from *Dragon Ball Z* (Vol. 18, pp. 14-15).



Dragon Ball Z
DRAGON BALL © 1984 by BIRD STUDIO/SHUEISHA Inc.

via discussion boards or email discussion lists. Chandler-Olcott and Mahar (2003a) provide excellent examples of the kind of art-focused critique that takes place between manga fans in their case study of Eileen, a 13-year-old aspiring manga artist. Eileen scans and posts an original drawing to an email discussion list and received the following feedback:

The background is kinda simple, which is actually a pretty good idea. You might want to add something towards the borrom of the picture to balance all the items you have floating around at the rop.... Also, his ches is either really small, or really smushed. Either way, ir's not a good look with large biceps (those are the ones on the top of the arms, right? I get confused sometimes). Not to be crude, but he needs more shading in the crotch area. It seems there's nothing there from knee to knee. Otherwise I love the expression, specially the grin. It rotally sets the mood to scare some people. Or freak them our, whatever. And like usual, nice shiney hair, Very pretty. (Mailing list posting, December 7, 2001) (p. 360).

Research on Manga

To date, research on manga has focused mainly on content analyses of manga texts, stylistic analyses of artistic techniques employed in manga drawing, and the examination of manga texts as

leisure reading choices. This research corpus can be organized around several categories of interest. Key manga research categories include: (a) studies of artwork and art style, including the cinematic qualities of manga drawings (e.g., Adams, 1999; Darling, 2001; Toku, 2001); (b) work that investigates manga as an historical barometer (e.g., Gilson, 1998; Morris-Suzuki & Rimmer, 2002; Nakar, 2003); (c) studies that address manga in relation to gender, identity and/or sexuality (e.g., Fujimoto, 1991; Ito, 1994, 2002; Perper & Cornog, 2002); (d) investigations of manga in terms of or in relation to ideology and propaganda (e.g., Kinsella, 1999); (e) studies of manga as popular culture artifacts (e.g., Grigsby, 1998); (f) studies of manga as reading material and learning resources (e.g., Allen & Ingulsrud, 2003; Frey & Fisher, 2004; Nagata, 1999); and (g) amateur manga production as a social practice (e.g., Black, 2004; Chandler-Olcott and Mahar, 2003a).

Much of the existing research corpus on manga focuses on *adult* manga readers and writers (e.g., Allen & Ingulsrud, 2003; Ito, 1994, 2002). This is slowly changing. Researchers are increasingly studying online amateur manga writing/drawing sites, as well as young people's engagement with animated manga or *animé* (cf., Black, 2004; Chandler-Olcott & Mahar, 2003b). Few studies, however, address amateur manga production from the standpoint of manga involving processes that pay careful attention to art and entertainment. Moreover, there is a notable lack of research that focuses on young people's engagement with manga as readers and writers/artists, and their manga-related practices in relation to their other media engagement and social relations. Increasingly, these networks and practices tend to blur boundaries between physical space and cyberspace boundaries. They offer rich potential for understanding how young people present themselves as readers, writers, and reviewers in their everyday lives (cf., Chandler-Olcott and Mahar, 2003a, 2003b; Livingstone & Bober, 2001). A further noteworthy silence in the research literature is around studies that explore both the complexity of manga texts and their enduring popularity as leisure reading texts, even among young people who struggle with reading at school.

The research corpus that *does* exist indicates that reading, writing and drawing manga are closely bound up with identity and popular culture. One key contribution of current manga studies is a greater understanding of the role women are playing in shaping the content and direction of what has traditionally been a male-oriented genre. On the other hand, most studies to date tend to treat manga as relatively static popular culture artifacts, rather than as integral dynamic aspects of social practice and identity. This, too, seems to be changing. Some of the most recent ethnographic-type studies of young people's engagement with manga underscore the importance of paying attention to the *fluidity* of their manga (and animé) production and discussion that spans paper-based, television, video game and Internet media (Ito, 2001; Chandler-Olcott & Mahar, 2003b; Thompson, 2004).

POST – TYPOGRAPHIC EXTENSIONS OF MANGA AND FANFIC

Studying new literacies is a complex undertaking, made the more so by the transition of fan-based practices like manga and fanfic into virtual domains through the uptake of electronic media that greatly extend the reach of these practices across time and space.

As a distributed and collaborative social practice, fanfic has expanded exponentially with the development of graphic interfaces for Internet browser software, the increased availability of low-cost, large-bandwidth, and high-speed Internet access services, availability of free or close-to-free discussion board hosting, and the development of a range of multimedia capable communication applications online (e.g., Instant Messenger software that enables users to exchange large files) (cf., Brooker, 1999; Hamming, 2001; Jones, 2000).

Ethnographies of young people engaging in fan-based activities such as manga drawing and fanfic writing show participants employing a wide range of electronic and analog technologies in a multimodal network of communication and interaction (cf., Ito, 2001, in press; Chandler-Olcott and Mahar, 2003a, 2003b). Thomas' (2005) ongoing study of adolescents' new literacy practices shows how collaborative fan fiction writing may be accompanied by role-playing that is "enacted" via Instant Messaging or on discussion forums during the development of new chapters in an ongoing narrative. Similarly, blog posts are written from the perspective of key characters in a narrative, and story-related conversations take place between authors using voice chat applications. Youthful fanfic authors create multimedia story "trailers," soundbites and "teasers" to "advertise" new narrative episodes as they test and develop new story lines, characters, and experiences for their characters (Thomas personal communication, February 8, 2005; cf., anyaka.blogspot.com and personal.edfac.usyd.edu.au/staff/thomasa).

Similarly, amateur manga artists/writers and otaku have used the Internet to complement interactions and exchanges in the physical space of conventions and circles. Manga Internet sites like the *Online Manga Webring* (j.webring.com/hub?ring=onlinemanga) index the websites of individual manga author/artists-fans. These sites showcase their owners' comics, galleries, reviews, etc., and provide quick links to online discussion and feedback forums, as well as online tutorials for learners. The identity implications generated by the complex dynamics surrounding the mediation by the Internet of social practices like manga and fanfic are diverse and interesting. One notable trend is toward young people, regardless of their cultural heritage, taking on Japanese aliases and manga-style avatars for their online identities and interactions.

Such examples, which are growing rapidly in virtual spaces of adolescent popular culture, inform ever-expanding understandings of new electronic technologies as *relationship and communication technologies* more than *information technologies* (cf., Rheingold, 2003). This insight is important because schools (over)emphasize the "information" dimension of new technologies at the expense of their communication and relationship potentials. Moreover, as will become apparent in the following section, the ontological and chronological newness of contemporary literacy practices are writ large in online communication and, particularly, in *synchronous* online communication.

SYNCHRONOUS ONLINE COMMUNICATION

Synchronous online communication is a catch-all term used to describe a range of Internet-based software interfaces and services that enable people to communicate directly and more or less immediately with each other in real time, even if geographically separated. Internet Relay Chat

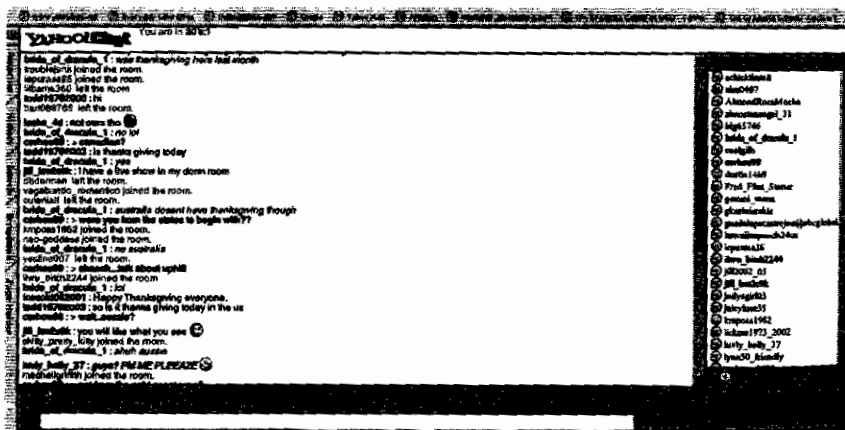
(Chat) is the longest running and probably the best-known synchronous communication application. It involves dedicated web spaces and purpose-built interfaces that enable "chatters" to register with a chat service and converse with each other by keying texts into the chat software system (see Figure 4).

Examples of Synchronous Online Communication: From Chat to Palace to ActiveWorlds

Continually evolving online interaction services and interfaces are rapidly displacing text-based chat as a preferred communication medium. Foremost among these is instant messaging (IM). IM combines the direct communication and file sharing elements of email with the immediacy of chat. IM interfaces enable users to see when friends or colleagues are online and to converse with them via text in real time. Popular IM services include AOL's Instant Messenger, Yahoo!'s Messenger, and MSN Messenger. A user subscribes to one or more IM services and creates an alias that can be added to other people's "buddy lists" as part of a private communication network. IM service settings allow users to make their IM alias available *publicly*, so that anyone can locate them and send them a message or *privately*, where only those to whom a user has given their alias can contact them. The speed of IM means that messages tend to be short and peppered with abbreviations and acronyms and to contain homophonic text (mixes of letters and numerals to make words) and emoticons (small icons for signaling emotions).

Instant messaging lends itself to diverse purposes. In our own academic work we find it useful for developing arguments and ideas through instantaneous exchange of fragments that build a plan for writing or produce draft passages that can be copied and pasted into a final document, and so on. This process is typically accompanied by instantaneous file transfers of relevant materials that we are reading as part of the process of "working up" the idea in question. At the other

Figure 4 A screen shot of the 30s chat group on Yahoo!. Retrieved November 28, 2004, from chat.yahoo.com.

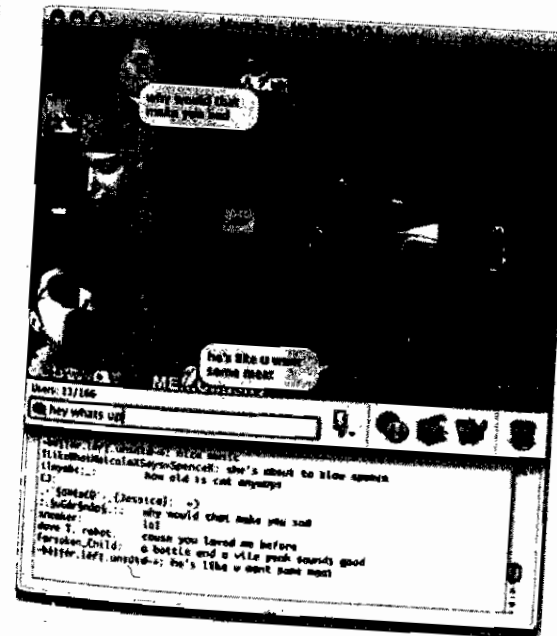


extreme, instant messaging is simply keeping in touch, a routine social exchange with an intimate (e.g., describing what's going on, what I am doing now, how I felt about X, etc.). Very often, instant messaging is just one ingredient in a multitasking mix. The program runs in the background and is updated when an alert from the task bar signals a new incoming message. The following interview excerpts illustrate how youth engage in such multitasking.

(L)et me tell you what my friends and I seem to be doing a lot lately when we're on [the computer] after school. Especially my friend Sarah, she was the first [real life] friend that came to my talker, so she and I have been doing this together for a few years now. Well, Sarah and I go home, and she calls me on the phone when she's ready to log on later. We keep the phone conversations going while we log on and decide where to go. We're always on my talker, but sometimes we go idle there to visit other places [online]. I keep telling dad I need a bigger monitor, because I end up with so many windows open that I can't always follow what's going on in each one. Then we do about six different things at the same time.

We'll have my talker open, our icq on [IM], we have the role-playing MOO we've just joined open, we have our homework open (which I am pleased to report, we both get done at the end of the night, and its sooooo much more fun doing it this way!), we have the palace open [a virtual world chat space], we have our own private conversation windows open for different friends, and we have our phone conversation going on at the same time. And that is not to mention

Figure 5 A sample screen shot from The Palace (source: unknown)



having conversations with mom or dad, popping out for drinks and nibbles, and having my music on in the background. Then, depending what's going on, we have hysterics over the phone together as we manage the activities going on in each window. (Thomas, 2004)

Graphic interfaces for chat exchanges are genetically related to text-based MUDs (multi-user domains) and MOOs (multi-object oriented domains), which are virtual environments comprising "rooms," objects, character descriptions and real-time character interactions carried out by typing conversations

into a chat-like pane on the screen. Graphic interface chat exchanges linear text entries in the chat pane for two-dimensional images (although text-based chat can be enabled as well). These images are used in two ways: for signifying specific rooms or areas within a space or virtual environment (e.g., a backyard pool scene, a haunted mansion), and as "stand ins" or "avatars" that represent each chatter within a given space. These avatars are often customizable. Participating in graphic interface chat spaces usually requires downloading client software that will run the interface on the user's computer while remaining connected to a server that hosts interactions among participants. Popular graphical interface chat services include Palace (thepalace.com) and Microsoft Chat (char.msn.com/ns.msnw).

Three-dimensional virtual worlds are another take on real time chat and graphical interface chat environments. Using a 3D programming language (e.g., VRML), 3D virtual worlds enable users to create and manipulate their avatars within a given landscape (that has depth and often obeys the laws of physical spaces; e.g., users have to "climb" ladders, slide down slopes, etc.) and to interact with other users' avatars in real time. Perhaps the most well-known virtual world is ActiveWorlds.com, which also lets users create their own 3D world where others can meet and interact. Other popular virtual chat worlds include TheSimsOnline.com, Worlds.com, Moove.com, and Cybertown.com.

Synchronous Online Communication Research Foci

Research tends to focus on the following areas: (a) online synchronous communication and gender (e.g., Bowker & Lieu, 2001; Calvert et al., 2003; Constantin et al., 2002; Herring, 1993; Lee, 2003; Witmer & Katzman, 1997); (b) the language of synchronous communications, especially abbreviations, emoticons and phonetic dialects or linguistic features of interactions (e.g., Greenfield & Subrahmanyam, 2003; Grinter & Palen, 2002; Walther & D'Addario, 2001; Witmer & Katzman, 1997); (c) roles and relationships and the social conventions of language use in online synchronous spaces/discourse analysis (e.g., Herring, 1993, 2004a, 2004b; Herring and Martinson, 2004; Jones, 2001, 2004; Panyametheekul & Herring, 2003; Vallis, 1999, 2001, 2002); (d) foreign or second language learning (e.g., Belz & Kinginger, 2003; von der Emde, 2002); (e) collaborative learning, including self-reflection (especially in relation to MOOs and MUDs) (e.g., Anderson, DeMeulle, & Johnston, 1997; Murfin, 2001); (f) user statistics (e.g., Shiu & Lenhart, 2004); (g) identity and/or subjectivity (e.g., Bechar-Israeli, 1995; Thomas, 2004; Unsworth et al 2005); and (h) interpersonal interactions and relationships or community (e.g., Grinter & Palen, 2002; Hu et al., 2003; Jacobson, 1999; Tidwell & Walther, 2002).

WEBLOGS AND WEBLOGGING

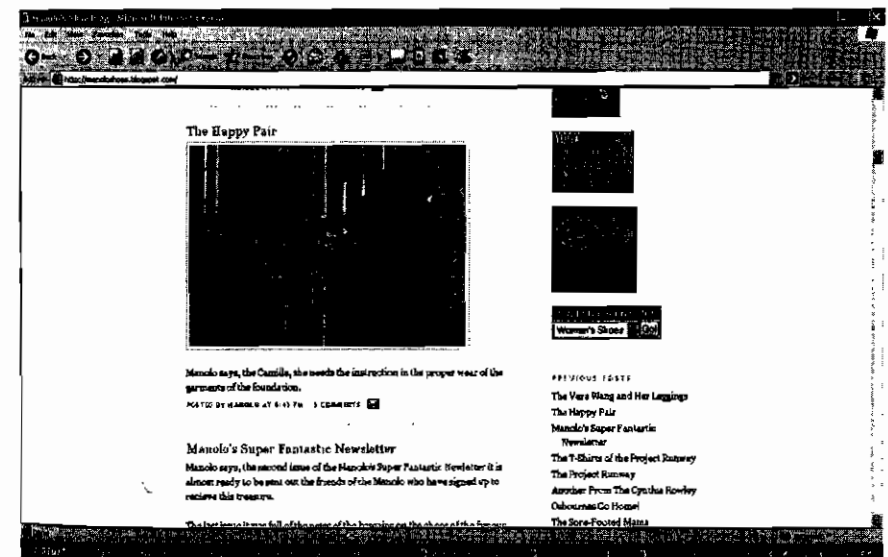
A weblog, or "blog" for short, can be defined as "a website that is updated frequently, with new material posted at the top of the page" (Blood, 2002a, p. 12). Blogs began back in the early 1990s as websites that listed annotated hyperlinks to other websites containing interesting, curious,

hilarious and/or generally newsworthy content located by the publisher of the weblog. Early blog publishers, "bloggers," tended to be computing "insiders," partly because some knowledge of webpage and hyperlink coding was needed for posting material to the Internet.

In 1999, however, weblog publishing tools and web hosting became available on a large scale through Pitas.com and Blogger.com. This made it relatively easy for Internet users who were less familiar, or not comfortable, with using hypertext markup language and the principles of web design for coding and designing their own weblogs, and spawned a new mass generation of bloggers. This new generation was much more diverse than the original blogging generation. Many began using weblogs as a medium more like regularly updated journals than indices of hyperlinks, and postings could document anything and everything from what the blogger had for lunch that day, movie and music reviews, descriptions of shopping trips, the latest illustrations completed by the blogger for offline texts, and the like. Posts can combine photographs and other graphics along with text and hypertext.

Today, many weblogs are hybrids of both journal entries and annotations or indices of links or some mix of musings or anecdotes with embedded hyperlinks to related websites (see Figure 6). Blood describes this new use of weblogs as being concerned with creating "social alliances" (Blood, 2002b, p. 7). In other words, weblogs are largely interest-driven and intended to attract readers who have (or would like to have) similar, if not the same, interests and affinities. Individual weblog entries ("posts") are accompanied by the date (and sometimes the time) they were posted in order to alert readers to the "currency" or "timeliness" of the log. Some bloggers choose to update several times a day, while others may update every few days or once a week or so.

Figure 6 Screen shot of Manolo's Shoe Blog. Retrieved February 11, 2005, from shoeblogs.com.



Most weblog front pages contain at least two columns. One houses weblog postings ordered chronologically from the most recent entry to the least recent entry. Entries are archived after a given period (e.g., a few days, a week, a month). Blog posts are usually quite short, often no more than a few lines to each post. The second column acts as an index of hyperlinks to other weblogs or to websites that the blogger likes, recommends, or otherwise sees as related in some pertinent way to their own blog. This index is usually divided into subcategories and generally runs along lines of interest. Some bloggers include advertising on their sites, as graphic ads or as hyperlinks to commercial sites. (See Figure 6.)

There are two basic types of posts: those that include hyperlinks to other blogs or websites, and those that don't. Posts that include hyperlinks may begin with a link followed by a brief commentary beneath it in a form very similar to an annotated bibliographic entry. Hyperlinked posts may also include quotes from the information or text to which they are linking in the manner of a "sound bite" in order to give readers a sense of what they will find when they follow the link.

Blogs are created and maintained for very diverse purposes. These include, but are far from exhausted by, (combinations of) the following: to publish personal diaries/journals; to provide alternative accounts of events and other phenomena to those of mainstream media; to teach and learn media, to sell products, to provide information on current news events, to critique mainstream broadcasting of news events, to distribute corporate news and updates, to parody other blogs and other media, to express personal opinion, to archive memories (e.g., photo blogs, audio blogs, video blogs), to augment fanfiction writing or drawing, to archive or index profession-related materials (e.g., hyperlinks to relevant policy documents and news reports etc.), to augment hobbies and pastimes (e.g., collecting items, techno-gadgetry, genealogy studies, sport), to notify fans of popular culture events and information (like band tour dates, author readings and book events, art and design world developments), to create fictional characters or lives (e.g., found photo albums are used to invent a fictitious life, hoax blogs that deliberately mislead readers), and so on.

A good sense of the nature and range of weblogging at its most sophisticated can be gleaned from a quick tour of blogs like Stevenberlinjohnson.com (a blog of annotated links and commentary), BoingBoing.net (a collective blog offering "a directory of wonderful things") and Littleyellowdifferent.com (a journalesque blog).

Stevenberlinjohnson.com

Steven Johnson is a leading Internet commentator and author who co-founded and edited the legendary online magazine *Feed.com* in the late 1990s. He might best be described as an Internet public intellectual. A semiotics major from Brown University and author of books on interface culture and brain theory, Johnson's weblog (Stevenberlinjohnson.com) began on November 11, 2002 and has become a popular source of opinion on matters relating to Internet culture, politics, brain theory, urban development in New York, hi tech news, landscape architecture, and design in general.

Carefully archived back to its inception, Johnson's blog emphasizes economy and clarity in its design, is rich in hyperlinks on topics covered in his regular posts (currently 2-3 per week), and

keeps Johnson's work and personal profile strongly in the foreground. At the time of writing, the right hand column featured a small color photo of Johnson, a brief descriptive promotional statement for his latest book, a short list of links to some of his recent published essays, a list of topics covered in his recent postings, small cover photos of his first two books with hyperlinks to their listings on Amazon.com, a calendar of his appearances in U.S. towns to promote his latest book, a list of sites and publications (with hyperlinks) he has written for, a relatively short (18 items) list of links to other people's blogs, a search tool for trawling Johnson's blog, and hyperlinks to his blog archives.

After even a short time exploring Johnson's blog a savvy reader will have a good sense of:

1. How Johnson wants to be seen publicly; the blog does important identity construction and presentation work.
2. Why Johnson operates a blog; reasons range from self promotion and advertising to enhancing his presence in the money and attention economies (in his inaugural blog posting in November 2002 Johnson referred to blogs as vanity sites), to taking a position on current issues he sees as important.
3. Some potentially powerful "affinity maps;" e.g., constellations of influential people in the blogosphere who take center/center right/right wing positions on global political issues (and by default one can generate maps of bloggers—famous bloggers—who advocate left of centre views on global political issues).
4. A particular perspective on a range of technological innovations.

BoingBoing.net

BoingBoing.net is jointly authored by four previously well-established writers. It was overall winner of the 2004 Bloggies contest, an annual, peer-reviewed awards event that recognizes outstanding weblogs or elements of weblogs. At the time of researching this blog (February, 2005), BoingBoing.net was ranked as the most popular weblog on Technorati.com's ranking system, registering 17,810 direct links to its content from other websites. BoingBoing prides itself on showcasing the weird and wonderful. Content is eclectic, and includes annotated links to: (a) images of portraits made entirely from used bubblegum; (b) a website where you can print out full-colour patterns and instructions for assembling paper-based, miniature vintage video game machines; (c) news of recent developments in the digital art world (e.g., hypertext artworks etc.); (d) company plans to print advertising text on individual Pringle's potato chips; (e) a new low-carbohydrate potato developed for dieters; and (f) a webpage featuring news items about and pictures and video clips of people falling down.

BoingBoing also alerts readers to new technogadgets, particularly artifacts associated with wireless computing and entertainment. Its focus on gadgetry, the weird, and the wonderful is complemented by serious and astute commentary on and predictions about popular technologies and social networking. All four authors are likewise committed to social critique and community development projects. At the time of writing, recent posts include: (a) a summary account from

Cory Doctorow of proceedings and developments at the International Broadcast Treaty negotiations meetings at the United Nations building in Geneva; (b) commentary on e-voting; (c) endorsement of critiques of the Federal Communications Commission rulings in the U.S.; (d) developments in creative commons laws concerning free noncommercial use of archived media materials; (e) comments on the importance of free wireless access for mobile computer users; and (f) summaries of wi-fi projects in developing countries.

BoingBoing's authors clearly are committed to keeping readers abreast of actual and anticipated developments within technology, art, and communication access fields. They provide links to diverse types of posts on other blogs about such developments and also provide their own firsthand accounts whenever possible. Consequently, BoingBoing becomes the first port of call for many readers who want to stay in touch with techno-trends, technology-mediated projects in developing countries, digital art developments, and related themes. As well-reputed commentators on technology and communications-related news and with their extensive social network of colleagues in journalism and areas of technology development, BoingBoing's authors can also provide readers with authoritative accounts of topics that might otherwise go unnoticed in mainstream media venues, such as national and international policy negotiations and agreements and heavy-handed copyright actions on the part of giant corporations.

Littleyellowdifferent.com

The weblog *Little Yellow Different* (littleyellowdifferent.com) won the overall Bloggies award for excellence in 2003. It began in June 2000 and is authored by Ernie Hsiung, a 28-year-old, self-described overweight, short, gay, Chinese American web designer and developer who works for Yahoo!. *Little Yellow Different* is a regularly updated, journal-like space that Hsiung uses to inform his readers about such things as renovations he is making to a recently purchased apartment, events going on in his life (e.g., buying his apartment, appearing on a television game show, making a trip to Disney World, subscribing to cable television, starting his new job with Yahoo!), aspects of his relationships and interactions with his parents and relatives, and his ideas and views on elements of popular culture. Although many journal-type weblogs, which tend to be heavy on accounts drawn from the author's life and light on annotated hyperlinks, have been criticized on the grounds of being somewhat banal celebrations of mediocrity and the microinformation of everyday life, *Little Yellow Different* has attracted a strong following of readers who are keen to read Hsiung's semi-regular, often hilarious—but often serious and “pointful” fun, accounts of what has been happening to him lately.

Reading this blog over even a short period of days is enough to reveal important recurring themes in the posts. These include: (a) different challenges and benefits to be had from growing up Chinese American; (b) contrasts between Hsiung's own experiences growing up Chinese American and media representations of Chinese Americans (including Chinese American representations of Chinese American culture); (c) gay cultural practices (including spoofing his own gay identity by confessing certain musical tastes, romantic attractions, interior decorating motifs and, so on); (d) comments on popular culture trends and events; (e) finding the humor

in almost everything that happens to him; and (f) keen-eyed observations on a range of social relationships, including those he has with work colleagues, friends, family and relatives, and so on.

Hsiung's accounts of navigating American and Chinese cultures are often deeply ironic (and infinitely patient) and regularly offer insights into what it means to be on the receiving end of the American mainstream's tendency to homogenize “Asians.” His practice of recounting word-for-word dialogue in his blog posts becomes the perfect medium for both unveiling cultural ignorance on the part of others and for making pointed social commentary without resorting to blunt-edged, heavy-handed criticism. For example, he recounts an exchange at work as follows:

Engineering lead: We don't have a lot of time to finish this project. It's a good thing another country has implemented an avatar system already.

Ernie: (looks through code) Uhm, this is a lot of code. And these javascript comments are in Korean.

Engineer: But aren't—

Ernie: ...I'm Chinese.

Engineer: Oh. This project is still due next Tuesday.

Little Yellow Different is less overtly political and global than blogs such as Steven Johnson's and less openly concerned with intellectual freedom and rights as blogs such as BoingBoing.net. Nonetheless, it is common for Hsiung's posts to attract 30 or more comments from readers. Comparisons across weblogs show that this is a high level of traffic per post.

Weblog-related Research

To date there has been relatively little formal academic research undertaken on weblogs, although a torrent of studies seems imminent, many of which seem likely to focus on the use of weblogs in schools. Some of the more readily identifiable areas of current weblog research include: (a) success within the blogosphere and blog networks (Kumar et al., 2003; Shirky, 2003); (b) genre analysis of blogs (Herring, et al., 2004); (c) blogging and gender (Huffaker, 2004; Huffaker & Calvert, in press); (d) blogging as a research tool (Mortenson & Walker, 2002); (e) blogs and communities (Asyikin, 2003; Carl, 2003); and (f) institutional uses of blogs (Asselin, 2004b; Lamshed, Berry, & Armstrong, 2002; Schroeder, 2003).

Detailed case studies of bloggers themselves and their decisions about what to blog and why, how their blogs should look, and what role their blogs play in their everyday lives comprise a notable absence within the corpus of blog-related research to date. Some initial forays in this direction have been made using survey research designs (Carl, 2003). Nevertheless, detailed, ethnographic case studies would provide useful windows on the social role blogs play in people's online and offline lives. The need for this kind of research will increase as more people move to mobile blogging (or moblogging), using wireless multimedia communication devices such as mobile phones, personal digital assistants (PDAs), and mobile computing devices. In this context blogging is becoming a widespread mobile information/communication/social practice. As with so much new literacies research in other areas, notoriously absent in the current corpus is a focus on

young people from low socioeconomic status families and/or marginal cultural groups and their weblog uses and productions.

USING WEBLOBS AND CHAT TO RESEARCH NEW LITERACIES

Many Internet applications, weblogs and chat in particular, have an interesting reflexivity for researchers of new literacies, because they can be used as instruments and other kinds of resources within the very process of researching new literacies (and anything else for that matter). Work currently being done by Thomas (2004) in Australia, who is investigating ways in which children construct their identities in multimodal digital worlds, is an excellent example of how weblogs and chat spaces, among other online media, can be used as research tools. For the past four years, she has been studying young people aged 10 to 16 from the U.S., Canada, Australia, the UK, Holland, Finland, and Germany. The range of multimodal worlds in which the young people participate includes websites and weblogs, MUDs and chat services (e.g., IM, chat, and what are referred to generically by participants as "talkers" or "palaces"), video games and graphic virtual worlds or "palaces" made possible by interactive software such as *The Palace*. Themes under investigation include the ways online literacy practices shape identity, children's reports about embodiment as it occurs in digital worlds, the ways children exercise power and control in such environments, the development of relationships with others within digital space, the type of capital associated with existing in digital worlds, and the gender differences in online discursive and social practices. The study aims to illuminate ways in which children's online lives are intimately connected to their sense of self and their developing identities as subjects of the new media age.

Thomas employs a variety of online data collection techniques in which uses of chat and weblogs figure prominently. For example, she does a lot of synchronous electronic interviewing using chat (text-based as well as palace), and says, "I like doing synchronous interviews on the palace because I can take a line of questioning and pursue it a little to get depth, and also see their behavior with avatars, movement, body placement, off screen influences and so on" (Angela Thomas, personal communication, November 12, 2004). This method, however, has limitations, some of which are overcome by using her weblog as a space for participants to record their responses: "Sometimes the blog posts [being asynchronous] give them more time to reflect and consider a question and the response can be astonishingly brilliant and open up a whole new line of thought for me." In an interesting adaptation, Thomas uses blog posts to "check out" "her theorizing" against her participants' thoughts and experiences:

Sometimes when I am reading theory, I try and write up a kid-friendly question that relates directly to that theory on the blog to try and stimulate the kids to engage with it a bit. Sometimes it works, other times it doesn't. Other times I deliberately disclose something personal in an attempt to inspire a deeper level of response from them about their 'self.' (Thomas, personal communication, November 12, 2004)

Besides collecting synchronous and asynchronous responses to questions and prompts she has devised herself, Thomas also engages in virtual participation by logging group conversation

online, which provides her with transcripts. She makes screenshots and movie screen captures of her participants' activity on the Palace (see Figure 5 earlier), records asynchronous discussions in which participants are involved in their role playing game forums and copies role playing posts they make in these forums, and collects artifacts in the form of avatars, quotes, and signature files.

Thomas's weblog, *E-selves: Cyberkids, literacy and identity ... and other commentary about literature, pop culture, education and amusing Internet myths* (anyaka.blogspot.com), is a dynamic working site that has been carefully customized to meet her research purposes, as well as to enact and communicate other dimensions of her identity. The posts column is used to record and report data collected in the ongoing e-selves project, as well as to provide information and point of view on a range of personal interest topics. In addition to housing the links to archives, the right hand column provides information about Thomas's published work, work in progress, her research keywords, links to other sites of personal interest, links to courses she teaches, and a tag board that is used by her research participants (and anyone else who wishes to) for communicating in real time (or to be picked up later if no one else is "there" at the time).

Among the many features of the use of chat and weblog by Thomas and other online researchers that merit comment, one stands out in particular. This is the quality of data that can be obtained when these online applications are used well. We will conclude by citing at length an example of a synchronous interview response that provides rich insights into how young "insiders" understand what they are doing as they enact identities in multimodal worlds.

The funny thing was that the way I talk-write in cyber started flowing over into my social life. I've found myself writing notes to people in real life with stuff like "brb" and "irl" in them! *smile*. I tried all sorts of talk-write styles until I found what I was comfortable with. The way it looked on the screen was very important to me. I am sure it has changed over the years, depending on new invented ways of playing with ASCII, being able to use icons and images and so on. It also changes of course from one cyberworld to the other, but I really worked hard to present the real 'me' in text/icon/ascii for the first talkers I lived in.

Maybe I should explain to you why I just said 'of course' when I was talking about how I talk-write changes from one cyberworld to the other. My teachers tell me that those words are <puts on a teacher voice> 'no substitute for a well constructed argument young lady!' Typical. I suppose they're right, so here goes. What I mean is this. In my own talker for example, I want to present myself as the 'me' that I imagine myself to be. My words have to look *just so*, I use certain non-conversation words and icons to portray the way I might behave, like *giggles* or <rolls eyes> and those sorts of expressions. Its an aesthetic thing, my words and actions, the images, music, web design - they all have to look a particular way to reflect how the inner me is. My friends at school who also log into my talker tell me that I am much more open and expressive in cyber. I think that's because you just have to type a lot to let people know you.

...
I need to make a confession right now, I am talking to you but at the same time I am talking to this cool guy Matt who I know from school, and trying to do some homework - an essay, for which I am hunting some info on the web - you

know, throw in some jazzy pics from the web and teachers go wild about your 'technological literacy' skills. Big deal. If they ever saw me at my desk tight now, ME, the queen of multi-tasking, they'd have no clue what was happening (from interview with 'Violetta'. "I am Violetta today, I am feeling bright yellow and somewhat creative").

LIMITATIONS AND AGENDA: FINAL WORDS

This paper barely scratches the surface of the terrain of actual and potential new literacies research. At the very least, so far as an educationally useful mapping is concerned, we would ideally look at research that covers information, communication, and leisure/recreation/entertainment dimensions of new social practices and conceptions of reading and writing. Such scope is well beyond us here. The most we can do is gesture toward the need for a comprehensive mapping that can provide an overview of the current state of the art, and to note that at least one such project is in process (Leu, et al., forthcoming).

We conclude by making a call for further research into new literacies, and suggest that so far as possible this should be research undertaken in the first instance simply for the purposes of knowing more about trends of genuine interest and significance. In the not-so-short run this will be the research that has most to offer teachers and learners who believe that their vocation is to educate in the present with an eye to tomorrow and to the decades ahead.

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Pattern Recognition: Learning from the Technoliteracy Research

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A few months ago, I read William Gibson's (2003) most recent book, *Pattern Recognition*. It is a novel about a world mediated by the use of new technologies: surveillance, information, games, chatrooms, and much more. If you have not read anything by Gibson, try him: you are in for a treat.

Why not Google him and see what you come up with? His official website has a blog and information about his projects, old and new. One that has always intrigued me is *AGRIPPA, A Book of the Dead*. This is a longish poem written in 1992 which included a floppy-disk that displayed the text only once, then became unreadable. Perhaps the tale of the self-destructive disk was just one of the many apocryphal stories that have grown up around Gibson, but it certainly was a provocative concept in a world notable for its capacity to produce an infinite number of copies.

In the blog Gibson refutes another apocryphal story—that he writes with a manual typewriter. As the tale goes, Gibson shuns the use of the technologies that are central to his fiction, including the Internet. However, Gibson states unequivocally in his blog that since the coming of the Web in the mid 1990s, he has and continues to enjoy long sessions on the Internet.

It is Gibson's capacity to create new words and to invest old ones with new meaning to which I draw your attention. He has named some of the cultural touchstones of the techno-society in which we now live. In *Neuromancer*, published in 1986, he coined the words *cyberspace* and *the matrix*, both introduced on the second page:

A year [in Japan] and he still dreamed of cyberspace, hope fading nightly. All the speed he took, all the turns he'd taken, and the corners he'd cut in Night City, and still he'd see the matrix in his sleep, bright lattices of logic unfolding across the colorless void. (pp. 10-11)

Neuromancer is about the human-machine interface created by the growing use of computers and computer networks. It is set in the near future in decayed city landscapes like those portrayed in the film *Blade Runner*. At the heart of *Neuromancer* is the urban rage of cyberpunk subculture.

Some critics dismissed *Neuromancer* as deriving from William S. Burroughs' novels, such as *Nova Express*, and Raymond Chandler's *The Big Sleep*. But I would argue that *Neuromancer* is historically significant. Gibson's allusions to contemporary technology set a new standard and his vision of a nightmare world marked by urban decay, rampant crime, and corruption everywhere helped create a new genre of fiction: cyberpunk.

His terminology continues to pop up everywhere; there was a computer virus called *Screaming Fist*, and the Internet is sometimes referred to as *The Matrix*. More commonly, however,