

*Passions, Pedagogies, and
21st Century Technologies*

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*Blinded by
the Letter*
Why Are We Using
Literacy as a
Metaphor for
Everything Else?

Anne Wysocki
Johndan Johnson-Eilola

TOO EASILY DOES "LITERACY" SLIP OFF OUR TONGUES, WE THINK, AND GET PUT next to other terms: visual literacy, computer literacy, video literacy, media literacy, multimedia literacy, television literacy, technological literacy. Too much is hidden by "literacy," we think, too much packed into those letters—too much that we are wrong to bring with us, implicitly or no.

So:

Our first question in this essay: *what are we likely to carry with us when we ask that our relationship with all technologies should be like that we have with the technology of printed words?*

Our second question: *what other possibilities might we use for expressing our relationships with and within technologies?*

F I R S T

There are two bundles we carry with us when we ask that our relationship with all technologies should be like that we

"Examining titles in the ERIC database for 1980–94, inclusive, indicates that educators felt moved to discuss almost two hundred different kinds of literacy during those fifteen years; that is, two hundred different kinds of modified literacy as opposed to plain, unmodified literacy." This is from Dianne G. Kanawati's article, "How Can I Be Literate: Counting the Ways," where the author found, among the 197 total references in the ERIC database, Cash-culture Literacy, Christian Literacy, Discipline Literacy, Risk Literacy, Somatic Literacy, Water Literacy, Competitive Literacy, and Post-Literacy.

have with printed words. There is, first, a bundle of stories we have accumulated about what literacy is and does; second, there is our regard for the object to which we relate within literacy.

1

THE BUNDLE OF STORIES

a

"Of course you can learn how to read. Do you want to try?"

—Ransom Stoddard (James Stewart) to Hallie (Vera Miles), his future wife, in *The Man Who Shot Liberty Valance*

At almost the ending of *The Man Who Shot Liberty Valance*, Ransom Stoddard and his wife Hallie are returning by train to Washington D.C. for what he says will be his last term as senator. He has recently finished recounting how he, a lawyer opposed to guns, helped bring law—and order—and statehood—and 'book learning'—to the open territory around Shinbone (an unidentified territory in the U.S. West).

Hallie looks out the train window and says to Ransom, "It was once a wilderness. Now it's a garden."

In an earlier scene in a makeshift schoolroom (with "Education is the basis of law and order" written on the blackboard at the front), Ransom asks Pompey, a man of middle years and a student in the class, to talk about "the basic law of the land." Pompey, who works for Tom Doan (John Wayne), starts to talk, with hesitant pauses in his sentences but with pride, about the Constitution; Jimmy Stewart corrects him: Pompey means the Declaration of Independence. Pompey starts again: "We hold these truths to be, uh, self-evident, that..."

He stops. Ransom finishes for him, "...all men are created equal." "I knew that, Mr. Ranse," says Pompey, "but I just plumb forgot it."

The room is disrupted by Tom entering to tell of how the cattlemen—who are fighting statehood because it will close off the free range—will bring violence down upon the townspeople and farmers who want a state. But, of course, eventually, Jimmy Stewart's gentle and learned ways help tame the area into statehood.

b

February 13, 1996

President Clinton announced today his intent to nominate Mary D. Green to the National Institute for Literacy Board...

The National Institute for Literacy was created to assist in upgrading the workforce, reducing welfare dependency, raising the standard of literacy and creating safer communities.

(<http://www.ed.gov/PressRelease/02-1996/whpr24.html>)

c

People who read, according to our reading of McLuhan, do nothing; they are helpless as the words they read pass through their eyes to shape them:

...print causes nationalism and not tribalism; and print causes price systems and markets such as cannot exist without print. (50)

... the assumption of homogeneous repeatability derived from the printed page, when extended to all the other concerns of life, led gradually to all those forms of production and social organization from which the Western world derives many satisfactions and nearly all of its characteristic traits. (144)

...the mere accustomation to repetitive, lineal patterns of the printed page strongly disposed people to transfer such approaches to all kinds of problems. (151)

And quantification means the translation of non-visual relations and realities into visual terms, a procedure inherent in the phonetic alphabet. (161)

Or, as Walter J. Ong puts it in *Orality and Literacy*, literacy fulfils our destiny:

... without writing, human consciousness cannot achieve its fuller potentials, cannot produce other beautiful and powerful creations.... Literacy.... is absolutely necessary for the development not only of science but also of history, philosophy, explicative understanding of literature and of any art, and indeed for the explanation of language (including oral speech) itself. (15)

**XXX**

It is thus a large but not unruly bundle that comes with "literacy": John Wayne, Jimmy Stewart, the taming of the U.S. west, democracy, an upgraded workforce, less welfare dependency, our forms of production and social

organization, science, and philosophy. The various descriptions and quotations above (a small selection from many possible) argue that if we acquire the basic skills of reading and writing—if we are literate—we have, or will have, all the goods the stories bundle together, no matter who or where or when we are.

"We think," writes Glenda Hull, "of reading and writing as generic, the intellectual equivalent of all-purpose flour, and we assume that, once mastered, these skills can and will be used in any context for any purpose, and that they are ideologically neutral and value-free" (34).

When we speak of "technological literacy," then, or of "computer literacy" or of "[fill-in-the-blank] literacy," we probably mean that we wish to give others some basic, neutral, context-less set of skills whose acquisition will bring the bearer economic and social goods and privileges. Aimée Dore says as much in an article titled "What Constitutes Literacy in a Culture with Diverse and Changing Means of Communication?":

... most people in education and communication are comfortable using the term "literacy" for [describing a relation to print, visual objects, television, and computer] because the various literacies have in common the image of people able to use symbol systems and the media or technologies in which they are instantiated in order to express themselves and to communicate with others, to do so effectively, and to do so in socially desirable ways. (145)

The same belief in a discrete set of basic skills shows itself in a recent White House document:

AMERICA'S TECHNOLOGY LITERACY CHALLENGE

February 15, 1996

"In our schools, every classroom in America must be connected to the information superhighway with computers and good software and well-trained teachers.... I ask Congress to support this education technology initiative so that we can make sure this national partnership succeeds."

President Clinton, State of the Union, January 23, 1996

NATIONAL MISSION TO MAKE EVERY YOUNG PERSON TECHNOLOGICALLY LITERATE: The President has launched a national mission to make all children technologically literate by the dawn of the 21st century, equipped with communication, math, science, and critical thinking skills essential to prepare them for the Information Age. He challenges the private sector, schools, teachers, parents, students, community groups, state and local governments, and the federal government, to meet this goal by building four pillars that will:

1. Provide all teachers the training and support they need to help students learn through computers and the information superhighway;
2. Develop effective and engaging software and on-line learning resources as an integral part of the school curriculum;
3. Provide access to modern computers for all teachers and students;
4. Connect every school and classroom in America to the information superhighway.

But—and (unfortunately) of course—this notion of discrete skills is only a partial view of "literacy." The bundle of meanings and implications that comes with this word is, we argue alongside many other writers, much denser and messier.

In "Arts of the Contact Zone," Mary Louise Pratt describes a 1200 page manuscript, dated 1613, discovered in Copenhagen in 1908:

Written in a mixture of Quechua and ungrammatical, expressive Spanish, the manuscript was a letter addressed by an unknown but apparently literate Andean to King Phillip III of Spain....

The second half of the epistle.... combines a description of colonial society in the Andean region with a passionate denunciation of Spanish exploitation and abuse. (34-35)

But:

No one, it appeared, had ever bothered to read it or figured out how. (34)

In *The Man Who Shot Liberty Valance*, reading and writing don't get Pompey (an African-American man) or Hallie (the white wife) or the Mexican children in Ransom's classroom or their parents the right to vote in the move towards statehood; that privilege is reserved for the white men in the movie—some of whom cannot read and write. In the non-film reality of our present time, becoming literate in English does not help a young Navajo woman feel that she has a real place in Anglo culture, as Anne DiPardo describes, nor does it help the Native Alaskans or African-Americans about whom Lisa Delpit writes feel that they really belong as students in graduate programs or as teachers in U.S. schools. Hull provides a catalogue of writers who warn that U.S. supremacy in business will be eroded by illiteracy in the workforce, but then Hull describes the experiences of two African-American women whose "failure" at a job (processing checks for a bank) was due not to their lack of literacy skills but to day care and transportation and economic problems unacknowledged by their employers.

In spite of the stories we quoted above, literacy alone—some set of basic skills—is not what improves people's lives.

Both Harvey J. Graff, in the early 1980s, and Ruth Finnegan, in the early 1990s, use "literacy myth" to name the belief that literacy will bring us everything the stories above promise; according to Finnegan,

This story has been around for a long time. It reflects popular and still widely held assumptions: that literacy is a good thing, both the sign and the cause of progress, and that without it we and others would still be in the dark ages. Although it is under attack from a number of directions, this view is still in many circles the conventional wisdom and has played a large part in the rhetoric—and to some extent, therefore—in the practice of educationalists and “development” experts. (32)

Brian Street argues that the idea of such an autonomous literacy, whose acquisition necessarily causes progress, has played a part in the practice of national and international literacy programs; using programs in Iran, Great Britain, and Mozambique as examples, he argues that such programs—which claim to bring economic growth by giving people a simple neutral skill—ignore and override and irrevocably change the lives and culture of those who are made literate: “[T]hese grandiose claims for ‘academic’ literacy,” he writes, “are merely those of a small elite attempting to maintain positions of power and influence by attributing universality and neutrality to their own cultural conventions” (224).



In *The Violence of Literacy*, Elspeth Stuckey’s words are equally strong for those who believe that literacy is or can be neutral:

In the United States we live the mythology of a classless society.... In a society bound by such a mythology, our views about literacy are our views about political economy and social opportunity.... Far from engineering freedom, our current approaches to literacy corroborate other social practices that prevent freedom and limit opportunity. (vii)

And:

We must take responsibility for the racism throughout schooling, the racism leveled most brutally and effectively in children’s earliest years of schooling by literacy whose achievements can be seen in the loss of a third or more poor students by schooling’s end. (122)

Or, as Finnegan puts it:

The myth can be seen as playing an essential ideological function for the governing social, political, or educational order, whether manifested by earlier imperial expansion or by current national or international inequalities. So, when people might want, for example, houses or jobs or economic reform, they are instead given literacy programs. (41)

When we speak then of “literacy” as though it were a basic, neutral, contextless set of skills, the word keeps us hoping—in the face of lives and arguments to the contrary—that there could be an easy cure for economic and social and political pain, that only a lack of literacy keeps people poor or oppressed.

And when we believe this—that poverty and oppression result from a lack of a simple, neutral set of skills—we have trouble understanding why everyone and anyone can’t acquire the skills: there must be something wrong with someone who can’t correctly learn what most of us acquired easily, in our early years in home or school. Delpit describes classrooms where students and teachers have cultural and grammatical differences, with the teachers then judging their students’ “actions, words, intellects, families, and communities as inadequate at best, as collections of pathologies at worst” (xiv). According to Stanley Aronowitz, Walter Lippman and John Dewey argued for the importance of education and literacy because they thought that “lacking education the ‘people’ are inherently incapable of governing themselves” (298). When people aren’t literate—when under this conception of literacy they are not economically secure or part of the culture of the rest of us—it is because of some (inherent?) failure of theirs. We ask them, by using a conception of literacy that allows us to ask them, to blame themselves. We overlook, if not forget, the economic and social and political structures that work to keep people in their places.

If “literacy” is a deceptive promise of basic skills that on their own will fix someone’s life, why do we wish to use this term when we speak of the relationship we desire for our students and others to have with newer technologies?

2

THE SECOND BUNDLE:

THE OBJECTS WE ADDRESS THROUGH THE RELATION OF LITERACY

a

The paged book became the physical embodiment, the incarnation, of the text it contained.

(Bolter 86)

b

...if, in an era of uncertain values, we want to keep alive respect for ideas and knowledge, it is important to give books a form that encourages respect.

(Levarie 306)

c**d**

Prepare a narrative of all which has held it.

Prepare a narrative of all which has held it.

Prepare a narrative of prepare a narrative of all which has held it.

Out of the whole.

Out of the whole wide world I chose it.

Out of the whole wide world I chose it.

(Stein 253)

XXXX

The other day, in *Dear Abby*, this was part of the opening letter:

An ongoing cycle of illiteracy haunts children on the edges of poverty. When teachers ask their students to bring a favorite book to class to share, these children show up with an advertisement or a coupon book because they have no books at home.

Abby, please help these children learn to love books and reading.

(*Daily Mining Gazette*, Houghton, MI, 11/19/96)

As we have argued above, we believe that "literacy" is presented as a necessary and sufficient set of skills for entree to the good life when it is really a diversion from social and political situations. We do not, however, deny that reading and writing can be a useful set of skills amongst all the skills and practices and behaviors and attributes we all need in order to flourish in our present culture...

...but why should anyone love books—the objects—in and of themselves?

In "Literacy and the Colonization of Memory," Walter D. Mignolo argues that when the Spaniards colonized the area we now call Mexico, they were so steeped in book culture that they believed the Mexica had no sense of history—because the Mexica recorded their pasts in paintings rather than in words in books—and hence that the Mexica "lacked intelligence and humanity" (96).

Constance Classen, in *Worlds of Sense: Exploring the Senses in History and Across Cultures*, describes an incident in the Spanish colonization of the Inca, whose cosmology relied on hearing:

(For a more detailed description of this meeting between the Inca and the Spanish—and more about how this incident hinging on a (the?) book can be tied to other consequences of literacy, see Diamond 68-81.)

....the Spanish priest accompanying the expedition gave a brief summary of Christian doctrine, denounced Inca religion as invented by the Devil, and demanded that Atahualpa become the vassal of the Holy Roman Emperor. While giving his address the priest held a book, either the Bible or a breviary, in one hand. Atahualpa, deeply offended by this speech, demanded of the priest by what authority he made these claims. The friar held up the book to him. Atahualpa examined it, but as it said nothing to him he dropped it to the ground. This rejection of the essence of European civilization was the excuse the Spanish needed to begin their massacre. (110)

This attachment to books as essence hasn't changed in the hundreds of years following that massacre; witness Sven Birkerts' words from *The Gutenberg Elegies: The Fate of Reading in an Electronic Age*:

I stare at the textual field on my friend's [computer] screen and I am unpersuaded. Indeed, this glimpse of the future—if it is the future—has me clinging all the more tightly to my books, the very idea of them. If I ever took them for granted, I do no longer. I now see each one as a portable enclosure, a place I can repair to release the private, unsocialized, dreaming self. A book is a solitude, privacy; it is a way of holding the self apart from the crush of the outer world. Hypertext—at least the spirit of hypertext, which I see as the spirit of the times—promises to deliver me from the "liberating domination" of the author. It promises to spring me from the univocal linearity which is precisely the constraint that fills me with a sense of possibility as I read my way across fixed acres of print. (164)

Birkerts' attachment to books is more self-conscious than the Spanish friar's, perhaps, but it nonetheless just as closed off to other forms of expression that might offer other senses of possibility. For both men, dream and value and self

and culture and world seem to be fully enclosed within literacy, objectified in—and not separable from—the book.



Birkerts' words call to our minds Habermas, who wrote that a necessary (but not sufficient) step in the development of a critical public in the 18th century was that men read to themselves: in the privacy of their reading they developed a sense of individuated self, a self that could hold a position in the public sphere (45-56). Robert Romanyshyn puts an earlier date to the book's relation to this individuation:

Linear perspective vision was a fifteenth-century artistic invention for representing three-dimensional depth on the two-dimensional canvas. It was a geometrization of vision which began as an invention and became a convention, a cultural habit of mind... At approximately the same time that Alberti's procedures [for perspective] are mapping the world as a geometric grid, laying it out in linear fashion, the book will be introduced and mass-produced. The linearity of the geometric world will find its counterpart in the linear literacy of the book, where line by line, sentence by sentence, the chronological structures of the book will mirror the sequential, ordered, linear structure of time in the sciences. In addition, the interiorization of individual subjectivity within the room of consciousness will find apt expression in the private act of reading and in silence, unlike the manuscript consciousness of the Middle Ages, where reading was done aloud. (349-351)

The exact date of this interiorization of a self is not important to our words here; rather, what we wish to call attention to is how writers like McLuhan and Ong, and Birkerts, accept that books—once they have somehow acquired the form we now take for granted, small enough for us to hold and carry about, and containing texts that encourage us to see continuity stretching like words linearly over the time of many pages—ask us to think of ourselves as selves. These writers' words are like commands—or interpellations—hailing us to see our selves and the possibilities of our world delimited between the covers of the book; Ivan Illich and Barry Sanders put it the following way in *ABC: The Alphabetization of the Popular Mind*:

The idea of a self that continues to glimmer in thought or memory, occasionally retrieved and examined in the light of day, cannot exist without the text. Where there is no alphabet, there can be neither memory conceived as a storehouse nor the "I" as its appointed watchman. With the alphabet both text

and self became possible, but only slowly, and they became the social construct on which we found all our perceptions as literate people. (72)

Here are other descriptions (several possibilities from among many) of our relationship with books, and of how that relationship is to shape us:

Ramus was entirely right in his insistence on the supremacy of the new printed book in the classroom. For only there could the homogenizing effects of the new medium be given heavy stress in young lives. Students processed by print technology in this way would be able to translate every kind of problem and experience into the new visual kind of lineal order. (McLuhan, 146)

What is written has a disembodied existence; knowledge is no longer contained within human bodies but exists separately from them. In a literate society, therefore, knowledge—and by extension, the cosmos—is devitalized, de-personalized, and reified. The literate world is a silent, still world, one in which the primary means of gaining knowledge is by looking and reflecting.... (Classen, 110)

....print is a singularly impersonal medium. Lay preachers and teachers who addressed congregations from afar [through texts] often seemed to speak with a more authoritative voice than those who could be heard and seen within a given community. (Eisenstein, 148)

To the book, then, the writers we have quoted attribute our sense of self, our memories, our possibilities, the specific linear forms of analysis we use, our attitude towards knowledge, our belief in the authority of certain kinds of knowledge, our sense of the world.

What has been encompassed by the book, then, is the second (but still not unruly) bundle we promised in our beginning. If the first bundle that comes with "literacy" is the promise of social, political, and economic improvement, it is because the second bundle is the book, which covers who we are and what we might be and the institutions in which we act. If the Spanish friar had not thought this, if he had not acted out of a notion of "literacy" so tied to the singular object of the book, there would have been no massacre.



What else might we be—or be open to—if we did not see ourselves and our world so defined in books?

Y

When we discuss "technological literacy" or "computer literacy" or "[fill in the blank] literacy," we cannot pull "literacy" away from the two bundles of meanings and implications we

have described. We may argue that we want to use "literacy" because it is a handy shortcut for covering a wide range of skills and procedures and practices; we may argue, "That's not what we meant at all; we really meant something broader, more open." But we are still using "literacy," which, unless we deny our histories, comes to us in the bundles we have just begun to unpack.

And our unpacking allows us now to offer up a response to the question that titles our work here: why are we using literacy as a metaphor for everything else? If we have unpacked "literacy" at all adequately, we hope we can now argue that "literacy" gets put behind "technological" or "computer" because "literacy" is already used to encompass everything we think worthy of our consideration: the term automatically upgrades its prefix. If "literacy" is already closely tied to our sense of how the world was colonized and settled and tamed, if "literacy" is already (deceptively) tied to political and social and economic improvement, if "literacy" already is the boundary of our sense of who we are, then why not apply the notion to newer technologies?

But. When we speak of the relationship we hope to establish—for ourselves and for our students—with newer technologies, do we want to carry forward all these particular attachments and meanings and possibilities?

Do we want to speak in the context of a set of practices and beliefs those with decision-making powers use to cultivate, to settle, to tame those without—so that those without remain without and blame themselves? When we say or write "technological literacy" how can we not expect others to hear, even if only partially, that we believe there is some minimum set of technological skills everyone should have—and that it is their own fault if they do not have them? And that it is therefore their own fault if they are not successful and mainstream? How can we not expect others to hear that this literacy constitutes not only a necessary but a sufficient condition for attaining The Good Life?

Do we want to use a word that contains within it a relation to a singular object that we use to narrow our sense of who we are and what we are capable of? Do we want to continue a relationship that is externalized, linear, private, visual, static, and authoritative? When we say, "computer literacy," for example, what part of this relationship to the book are we asking ourselves or our students to establish with, within, and through computers?

Why aren't we instead working to come up with other terms and understandings—other more complex expressions—of our relationship with and within technologies?

S E C O N D

SO: WHAT OTHER POSSIBILITIES MIGHT WE USE FOR EXPRESSING OUR RELATIONSHIPS WITH TECHNOLOGIES?

In what follows (in only visually linear form) we analyze and reconstruct new approaches to communication that prioritize ways of knowing other than those dependent on 'literacy.'

There are two bundles in our writing here as well, but they are far from neat and tidy bundles, and we must pull them together rather than unpack them. These bundles unravel even as we write and revise and as you (and you and you) read: first we will offer an interpretation of what it might mean to think of literacy under postmodernism; second, we will begin to shift terms, suggesting other ways to think of literacy that begin moving away from the baggage outlined in the bundles above. And rather than simplifying any of the issues we have unbundled in the first section of our writing, the sorts of "literacy" we are about to discuss (we will abandon the term eventually) complicate, question, challenge, and make contingent.

1

LITERACY IN SPACE

a

Chia suspected that her mother's perception of time differed from her own in radical and mysterious ways. Not just in the way that a month, to Chia's mother, was not a very long time, but in the way that her mother's 'now' was such a narrow and literal thing. News-governed, Chia believed. Cable-fed. A present honed to whatever very instant of a helicopter traffic report.

Chia's 'now' was digital, effortlessly elastic, instant recall supported by global systems she'd never have to bother comprehending.

(The requisite William Gibson quotation; 13-14)

b

Having everything on-line is fantastic. Now as soon as a transfer is completed, it's there! You can really look up what you need. If someone calls, you know exactly what's going on. Sometimes you are looking for a part of a case that someone else has. You used to have to go looking for it, and maybe you wouldn't find it. Now you can see where it is without getting up from your seat. It's all right there at my fingertips.

(Clerk in Stock and Bond Transfer Department in a recently computerized insurance underwriter, quoted in Zuboff 157-158).

c

The great obsession of the nineteenth century was, as we know, history: with its themes of development and of suspension, of crisis and cycle, themes of the ever-accumulating past, with its great preponderance of dead men and the menacing glaciation of the world. The nineteenth century found its essential mythological resources in the second principle of thermodynamics. The present epoch will perhaps

@

Begin here, in a linear flow of text that suggests a flow of time, by imagining what literacy might be if we conceived it primarily as a spatial relation to information.

Although literacy has long been bound up with spaces (consider the geopolitical stories in the bundles we discussed above/earlier, for example), literacy changes profoundly if we choose to prioritize space over time. This shift has been frequently described by others with the term 'postmodernism,' although that term has become so complex and contradictory—so rich—that we use it to gesture generally rather than to point accurately: we are not here to argue whether the "postmodern condition" is indeed the one in which we find ourselves, but rather to use the thinking of different writers identified with postmodernism to lay out some possible relations with and within communication technologies.

I believe the most striking emblem of this new mode of thinking relationships can be found in the work of Nam June Paik, whose stacked or scattered television screens, positioned at intervals within lush vegetation, or winking down at us from a ceiling of strange new video stars, recapitulate over and over again prearranged sequences or loops of images which return at dyssynchronous moments on various screens. The older aesthetic is then practiced by viewers, who, bewildered by this discontinuous variety, decided to concentrate on a single screen, as though the relatively worthless image sequence to be followed there had some organic value in its own right. The postmodernist viewer, however, is called upon to do the impossible, namely, to see all the screens at once, in their radical and random difference.... (Jameson 31).



Microsoft
Where do you want to go today?®

How is it that we are able to see all the screens at once? Prioritizing space over time—and so looking away from time and also then from history—removes origins, futures, and progress: we see "all the screens"—all the information—

be above all the epoch of space. We are in the epoch of simultaneity: we are in the epoch of juxtaposition, the epoch of the near and far, of the side-by-side, of the dispersed. We are at a moment, I believe, when our experience of the world is less that of a long life developing through time than that of a network that connects points and intersects with its own skein. One could perhaps say that certain ideological conflicts animating present-day polemics oppose the pious descendents of time and the determined inhabitants of space. (Foucault, 22)

all at once. In a spatially organized understanding of communication and knowledge, past and future can only merely be other locations in space. We are left with a sort of spread-out and flat simultaneity through which we travel.

On a flat world, it is difficult to build an argument or to move directly from one point to the next because surfaces can be very slippery. Glissage or sliding is the preferred mode of transport. (Hebdige 170)

This "simultaneity" could be a way of thinking about how we have wired our communications and our "working knowledge" to new technologies. The speed with which we can move amongst screens of information—their visual, near instantaneous presence to us all at once—suggests that it is possible to describe information not as something we send from place to place, in books or on paper, over time, but as something we move (and hence think) within. Where "intertextuality" has long been understood at a conceptual level—text citing text citing text in an unseen network of reference—we now have conditions that allow it the possibility of it being material, visible and navigable, writable and readable, on our computer screens. "Literacy"—if we describe it as some set of skills that allows us to work with the information structures of our time—then becomes the ability to move in the new-technology spaces of information, the ability to make the instantaneous connections between informational objects that allow us to see them all at once.

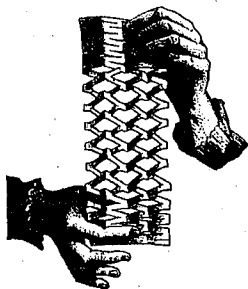
As long as the game is not a game of perfect information, the advantage will be with the player who has knowledge and can obtain information. By definition, this is the case with the student in a learning situation. But in games of perfect information, the best performativity cannot consist in obtaining additional information in this way. It comes rather from arranging the data in a new way, which is what constitutes a "move" properly speaking. This new arrangement is usually achieved by connecting together series of data that were previously held to be independent. This capacity to articulate what used to be separate can be called imagination. Speed is one of its properties. (Lyotard 52)

But seeing information (and hence "literacy") in that way plays itself back on how we conceive of the space we are creating by and within new communication technologies. The speed of our imaginations—our ability to make instantaneous connections—relies on the construction of information spaces that can be navigated so quickly that space seems compressed for us. With new communication technologies, we want to be able to—we feel we can—move from one end of space to another nearly instantaneously; we can bring any set of places—any set of things—together into one.

In one way of looking, then, this is not just about privileging space over time, but about time and space collapsing into each other... and if we can

work as though time does not ration out what we can do, then we can work as though space doesn't either: with new communication technologies, space, like information, can become less something we experience and more something we simply work with/in, making creative connections and reconnections.

For flatness is corrosive and infectious. Who, after all, is Paul Virilio anyway? The name sounds as if it belongs to a B movie actor, a member of *Frankie Goes to Hollywood*, a contestant in a body-building competition. I know that "he" writes books but does such a person actually exist? In the land of the gentrified cut-up, as in the place of dreams, anything imaginable can happen, anything at all. The permutations are unlimited: high / low / folk culture; pop music / opera; street fashion / haute couture; journalism / science fiction / critical theory; advertising / critical theory / haute couture....With the sudden loss of gravity, the lines that hold the terms apart waver and collapse. (Hebdige 161)



In this way of looking, the collapse of our experience of "technological" space can also correspond to a collapse of "real" space. Two steps are at work here: first, physically distant locations are wired up, so that it seems the one with whom I am communicating is just on the other side of the screen; second, the possibility that virtual spaces are collapsible leads to the idea that real spaces are likewise. This may sound like faulty logic, but, instead, the shift is straightforward: if communication is real, then the spaces in which it occurs are also real.

But what are we, then, in this space of all spaces all at once and no temporal flow? Under the sense of literacy we unpacked in the earlier/previous part of this writing, we rely on our ability to construct ourselves at some nexus between past and future, to have faith in the present as the point where past and future meet like (exactly like) a reader progressing through a linear text, uniting what has gone before with what is now and with what will come.

[P]ersonal identity is itself the effect of a certain temporal unification of past and future with one's present.... If we are



unable to unify the past, present, and future of the sentence, we are similarly unable to unify the past, present, and future of our own biographical experience or psychic life. (Jameson 27)

When everything is all at once, what do we do?

Long ago, there must have been a golden age of harmony between heaven and earth. High was high; low was low; inside was in; and outside was out. But now we have money. Now, everything is out of balance. They say, "Time is money." But they got it all wrong: Time is the absence of money. (Wenders.)

The shift towards privileging space over time—what so many say is a hallmark of now—can have a frightening and dangerous result: the shift towards postmodernism acts in a radical unbinding of history from subjectivity. The unbinding can become so overpowering that it colonizes subjectivities and tears them apart; with no guarantees of either a stable past or a connected future, it is impossible to believe in the unity of a single, stable subject—the subject of our previous discussions of literacy.



But the unbinding can also be understood as opening up room for another view of ourselves: in understanding the implications of a postmodern worldview, we open ourselves to the possibility of remaking cultural meanings and identities. The connotations of literacy, as we discussed it in the first sections of our writing, suggest a process of mechanical and passive individual reception: the book gives us who we are, the book sets the limits for who we allow into the realms of privilege. If we understand communication not as discrete bundles of stuff that are held together in some unified space, that exist linearly through time, and that we pass along, but as instead different possible constructed relations between information that is spread out all before us, then... living becomes movement among (and within) sign systems.

Data Warehouse. *noun* 1: a process that collects data from various applications in an organization's operational systems, integrates the information into a logical model of business subject areas, stores it in a manner accessible to decision makers and delivers it to them through report-writing and query tools. The

goal is to put standardized and comparable corporate information into employees' hands, enabling an enterprisewide view of the business. (McWilliams, DW/2.)

Symbolic analysts solve, identify, and broker problems by manipulating symbols. They simplify reality into abstract images that can be rearranged, juggled, experimented with, communicated to other specialists, and then, eventually, transformed back into reality. The manipulations are done with analytic tools, sharpened by experience. (Reich, 178).

Here is the possibility of understanding our relation to our communication technologies as not being one through which we are passively, mechanically shaped. There is the possibility of seeing ourselves as not just moving through information, but of us moving through it and making and changing conscious constructions of it as we go. This is not about handing books to children or high-school dropouts or the underdeveloped, and hoping that they will pick up enough skills to be able to lose themselves in reading (and so to come back with different selves that better fit a dominant culture); it is instead about how we all might understand ourselves as active participants in how information gets "rearranged, juggled, experimented with" to make the reality of different cultures. This involves, of course, understanding our selves within the making and changing.

And this involves, then, not just thinking that we should pass along discrete sets of skills to others—or pretending that those discrete sets of skills are all that it takes to have a different life. There are certainly skills needed for connecting and reconnecting information—but the relationships to communication technologies we are describing now and here ask, in necessary addition, for a shared and discussed, ongoing, reconception of the space and time we use together and in which we find (and can construct) information and ourselves.

This reconception is thus not about handing down skills to others who are not where we are, but about figuring out how we all are where we are, and about how we all participate in making these spaces and the various selves we find here.

2

ARTICULATING LITERACY

So what else? We hope to have made it clear by now that our questions never have simple, bounded answers. No single term—such as "literacy"—can support the weight of the shifting, contingent activities we have been describing.

There are many possibilities—other than literacy, other than postmodernism—for how we might conceive our relationships with communication technologies (and no single correct answer). We can work from Stuart Hall's term "articulation" to suggest something else yet again.

In England, the term [articulation] has a nice double meaning because "articulate" means to utter, to speak forth, to be articulate. It carries that sense of language-ing, of expressing, etc. But we also speak of an "articulated" lorry (truck): a lorry where the front (cab) and the back (trailer) can, but need not necessarily, be connected to one another. The two parts are connected to each other, but through a specific linkage, that can be broken. An articulation is thus the form of the connection that can make a unity of two different elements, under certain conditions. It is a linkage which is not necessary, determined, absolute and essential for all time. You have to ask, under what circumstances can a connection be forged or made? (Hall 53)

Under this understanding of relationships, then, we could describe literacy not as a monolithic term but as a cloud of sometimes contradictory nexus points among different positions. Literacy can be seen as not a skill but a process of situating and resituating representations in social spaces.

So the so-called "unity" of a discourse is really an articulation of different, distinct elements which can be re-articulated in different ways because they have no necessary "belongingness." The "unity" which matters is a linkage between that articulated discourse and the social forces with which it can, under certain historical conditions, but need not necessarily, be connected. Thus, a theory of articulation is both a way of understanding how ideological elements come, under certain conditions, to cohere together within a discourse, and a way of asking how they do or do not become articulated, at specific conjunctures, to certain political subjects. Let me put that the other way: a theory of articulation asks how an ideology discovers its subject rather than how the subject thinks the necessary and inevitable thoughts which belong to it; it enables us to think how an ideology empowers people, enabling them to begin to make some sense or intelligibility of their historical situation, without reducing those forms of intelligibility to their socio-economic or class location or social position. (Hall 53)

With the notion of connection, in articulation, comes the notion of potential disconnection. Literacy here shifts away from receiving a self to the necessary act of continual remaking, of understanding the "unity" of an object (social, political, intellectual) and simultaneously seeing that that unity is contingent, supported by the efforts of the writer/reader and the cultures in which they live.

With and through articulation, we engage the concrete in order to change it, that is, to rearticulate it. To understand theory and method in this way shifts perspective from the acquisition

or application of an epistemology to the create process of articulating, of thinking relations and connections as how we come to know and as creating what we know. Articulation is, then, not just a thing (not just connections) but a process of creating connections, much in the same way that hegemony is not domination but the process of creating and maintaining consensus or of co-ordinating interests. (Slack, 114).

Articulation is only one among many ways of re-presenting literacy. Jim Collins, paralleling Jameson's discussions, offers an "architectural" model as one possibility:

Appropriation is not simply an anti-Romantic stance opposed to the mythology of pure genius; this shift also involves profound changes in regard to the mutability of both information and the forms of cultural authority which govern (or used to govern) its circulation. To appropriate is to take control over that which originated elsewhere for semiotic/ideological purposes....

The determination to take possession does not signify the denial of cultural authority but, rather, the refusal to grant cultural *sovereignty* to any institution, as it counters one sort of authority with another. (Collins, 92-93)

Still other possible terms abound: Deleuze and Guattari describe the rhizomic nature of the nomad; Pratt offers linguistic contact zones; Giroux constructs border spaces; Anzaldúa occupies borderlands. With such new bundles, we suggest new ways of relating to technologies (including texts) and to each other: both a process and a structure bound up (literally and figuratively) with social change.

BUT...

None of these terms exhausts new possibilities for "literacy," but only suggests productive ways of questioning our current positions, of unpacking old bundles and remaking new ones. Unpack ours and make your own.

A NOTE ON THE ILLUSTRATIONS

The drawings of people with books (and the one illustration of a woman with a television) come from a collection of clip art produced by the Volk Corporation and the Harry Volk Jr. Art Studio, both in Pleasantville, NJ, from 1959 through 1968. In the various small books of clip art from which these illustrations come, all the people are white and clearly middle class; there are many illustrations of women and children holding books; if men have printed matter in their hands, it is account books or newspapers—unless they are shown reading to their families (as one illustration here shows).

Family Values Literacy, Technology, and Uncle Sam

Joe Amato

MY UNCLE SAM ALWAYS SAID CHICAGO IS A "FAST TOWN." HE'S AN EX-CON, my uncle. Three-time loser who did a twenty-one year stretch in Attica and Auburn. Picked up on armed burglary, shot in the leg (it was entrapment actually, but who's taking notes?). The day he got out I spotted him walking down the street. It was the year I graduated from high school. He was wearing a toupee. My father didn't recognize him.

When I was a kid, nobody told me I had an uncle named Sam. But I can recall my grandpa putting together care packages of food and such, and my father occasionally talking about driving to Auburn. And here and there dropping into Italian, capisce? I didn't get the connection till years later.

My grandpa and grandma were both poor people from Sicily. My grandpa, Rosario (or Roy as he was generally known), had been a fisherman in a small village, Spadafora. I'm not certain, but it seems he participated in the Italy-Ethiopia conflict during the early part of this century. When he came to this country, he worked with the railroad, and then construction-concrete. He helped pour the foundation for a major sewage treatment plant on the north side of the city. His English was what we used to call "broken," but he was nonetheless proud to be a naturalized United States citizen. After a meal cooked by my grandma—usually macaroni and assorted meats—my grandpa would tell stories and my father would translate. Or try to.

Sometimes my grandpa would ask me how many congresspeople were in the House of Representatives, how many senators were in the Senate. I could never remember, and he'd smile as told me the correct numbers. In his early eighties, he worked for the Onondaga County Park Service, taking care of the flower beds at different points along the lake. He smoked unfiltered Camels for sixty-five years. He died in 1975 of a stroke. He was eighty-seven.

My grandma, Antoinette, was always a difficult woman. For no apparent reason, she kicked her son Joe, my father, out of her house shortly after he returned from Europe with his French war bride Suzette, my mother. My grandpa found them another place to stay on the west side, on Belden Ave., with a not-so-distant relative. This was where I spent the first year of my life.