

Reading, Writing, and Wealth in the New Economy

Deborah Brandt

Professor of English, University of Wisconsin-Madison

*A lecture presented by the Center for
Interdisciplinary Studies of Writing and the Literacy
& Rhetorical Studies Minor*

Speaker Series
No. 21 ♦ 2002

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ISBN: 1-881221-50-4

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Preface

The Center for Interdisciplinary Studies of Writing sponsors an Annual Colloquium and Speaker Series to contribute to our primary mission of improving undergraduate writing at the University of Minnesota. These activities, along with faculty development workshops, conferences, publications, and other outreach programs, are designed to foster active engagement with issues and topics related to writing among all members of the university community. In addition, the Center annually funds research projects by University of Minnesota faculty who study any of the following topics: (1) curricular reform through writing-intensive instruction, (2) characteristics of writing across the curriculum, (3) connections between writing and learning in all fields, (4) characteristics of writing beyond the academy, (5) effects of ethnicity, class, and gender on writing, and (6) the status of writing ability during the college years.

In November 2002, this mission was advanced when the Center and the Graduate Minor in Literacy and Rhetorical Studies welcomed Professor Deborah Brandt for its twenty-first Speaker Series, "Reading, Writing, and Wealth in the New Economy." Professor Brandt discussed a variety of the issues regarding her research and teaching, including the social histories of literacy, the changing nature of literacy in American society, issues of equal access and reward in literacy, reading and writing processes, and writing pedagogy. More specifically, Professor Brandt discussed the position of literacy in a society driven by economic competition. She illustrated these theories with specific examples from the lives of people she interviewed.

A leading voice in literacy studies in the United States today, Deborah Brandt is currently a Professor of English at the University of Wisconsin- Madison, where she

teaches undergraduate and graduate courses in literacy and writing theory. She is the author of two acclaimed books, *Literacy in American Lives*, and *Literacy as Involvement*, and she is the coeditor of “Written Communication.” Professor Brandt is also a research affiliate at the National Research Center for English Learning and Achievement, where she furthers her studies of the social and cultural aspects of literacy.

We believe this speaker series will provide new insights for teachers and researchers in the field of literacy studies. We invite you to contact the Center about this publication or any others in the series. We also appreciate comments on our publications.

Lillian Bridwell-Bowles, Series Editor
Mesut Akdere and Elizabeth Oliver, Editors
January 2003

Reading, Writing, and Wealth in the New Economy

In the closing decade of the twentieth century, I interviewed more than 80 people born between 1895 and 1985, asking them to remember everything they could about how they learned to read and write across their lifetimes (Brandt 2001). Our conversations focused particularly on the people, places, materials, and motivations involved in the process. I talked with people from all walks of life: salesman, home health aide, livestock buyer, corporate executive, teacher, counselor, farmer, student, the retired, the un- and underemployed. The people I talked with were all living at the time in the county that surrounds the University of Wisconsin but they had been raised in diverse regions of the United States, including African American sharecropping communities of the South, Jewish garment-working communities of New York City, Mexican-American migrant communities of south Texas, and Euro-American professional communities in Silicon Valley, as well as rural communities throughout the Midwest. I found volunteers for the project through contacts with nursing homes, unions, senior centers, housing agencies, religious institutions, electronic bulletin boards, community organizations, and schools, as well as through leads from friends and associates. I talked with each person for one to three hours, usually in their homes. Through their accounts, put side by side, across a period of some ninety years, emerged patterns of literacy learning and development set within the turbulent economic and social transformations of the twentieth century. These included especially rising standards for literacy achievement, and a rapid turnover in the technologies of literacy—a rhythm of innovation and obsolescence that altered physical environments and literacy practices of schools, libraries, homes, and workplaces in ways that profoundly affected the routes to literacy and literacy learning available to ordinary

Americans (Brandt, 2001). People's accounts of how they learned to read and write were filled with references to other people: parents, teachers, religious figures, military officers, older relatives or friends, authors, editors, prison personnel, supervisors, physicians, therapists, librarians, product companies, government agencies, unions, school clubs, civil rights organizations, businesses and corporations, and radio and television programs of all kinds as well as an array of materials from ballpoint pens to newspapers, phonographs to appointment calendars, toys to computers that were sold, given, or issued at various times to the people I talked with. So ubiquitous, diverse, and often, rivalrous were these agents hovering at the scenes of literacy learning that I came to pay systematic attention to them. I came to think of them as sponsors of literacy: those agents, local or distant, abstract or concrete, who enable, support, teach, model, recruit, regulate, suppress, or withhold literacy and gain advantage by it in some way (Brandt, 1995). Sponsors of any kind, as we know, lend their resources or credibility to the sponsored, but do so for their own advantage, whether by direct repayment or, indirectly, by credit of association. Whenever anybody is learning to read or write anything, it is always possible to ask who is subsidizing the event (or not), how the materials involved have arrived at the scene (or not), and whose interests are served in the learning (or not) (Brandt, 1998).

Tracing sponsors of literacy across the twentieth century revealed many things. Seeing who was sponsoring whose literacy, how, for what, and to what degree made it possible to apprehend deep structures of literacy inequity—stratified systems of sponsorship that usually stretch far beyond individual families or schools to affect access and reward for literacy. Tracing sponsorship also revealed how changes in literacy are

linked to economic transformations. As a once dominant economy such as family agriculture fades, so go the sponsorship networks associated with that way of life and with it the literacy practices and values sustained through that economy. As sponsors compete with each other for dominance, they often use literacy as the grounds of competition as they try to gain the upper hand. As a result, the sponsored can find the worth or reach of their literacy skills caught up in inflationary or deflationary spirals. Changing sponsors can destabilize literacy, and what we feel as the rising standards for literacy achievement—the demand on more and more people to do more and more things with symbols—reflects the fierce economic competitions in which literacy, especially now, gets caught up. Sponsors also carry with them ideologies, beliefs about what literacy is, what it is used for, where and how it finds value. A sponsor's beliefs often rub off on learners but whether they actually do or not, changing forms of sponsorship under which people learn to read and write ultimately change the logics and meanings of literacy as a social resource, affecting the political and educational climates in which we teach and learn.

A new dynamic in the sponsorship of mass literacy emerged in the twentieth century. For a long time, most people learned to read and write under the auspices of a small number of largely conservative institutions, principally houses of worship and then the common school (Kaestle, 1983). Literacy preserved the wisdom of the ages. Reading and writing gave you access to the traditions of the institutions that sponsored you and through your literacy those institutions were able to maintain their authority and adapt to change. Although reading and writing existed as forms of skilled labor, literacy remained peripheral to most work.ⁱ Its value was chiefly moral and cultural, a sign of

membership, compliance, conformity, belief, assimilation (Soltow & Stevens, 1981). As literacy linked citizens to an official cultural past, traditional knowledge and centralized authority, it could serve, as it did during industrialization, as a counterbalance in periods of social disruption and economic change. Historian Harvey J. Graff (1979) calls this “the moral economy of literacy” (p.26). Soltow and Stevens (1981) link it to campaigns that expanded free public education for purposes of civilizing, that is, socializing, masses of schoolchildren into their duties as Americans (pp. 85-88).

But by the early decades of the twentieth century and accelerating soon after that, this context of literacy began to change, as the skills of reading and writing were becoming more deeply implicated in the engines of economic productivity. Rapid-process production, technological innovation, modern weaponry, corporate consolidation, the growth of consumerism, and especially the rise of knowledge industries all led to new and intensifying demands on reading and writing (Beniger, 1986; Castells, 1989). Buying and selling involved many more people in recording, moving, and promoting information. Readers became targets both as audiences for advertising and as purchasers of literacy-based commodities.

At the same time, a market mentality was helping to separate out forms of human resources, including literacy skills, as commodities in themselves.ⁱⁱ In increasing numbers, people found their mental and scribal skills rated and tagged for market to employers. Even more profoundly, literacy loosened its allegiance with tradition and stability and aligned more often with competition and innovation, technological or otherwise. Literacy’s value as a raw material, an energy source, a technology, and an end product was making it a principal mode of production and profit and a site of increasing

investment. Finding new ways to appeal to people's literacy or use their skills more efficiently or their outputs more ingeniously or even to go around them when necessary or beneficial became fundamental to economic competition, especially in the second half of the twentieth century. Rather than serving to replicate tradition, literacy has been pushed into the restless search for new thinking, new knowledge, new products, new angles, new markets. Instead of serving as a counterbalance during periods of excessive or rapid social change, literacy is now playing a leading role in that change; it has become a major catalyst in new modes of communication, production, and social relations. This has led, among other things, to instability and volatility in the worth of people's literacy skills.

At the heart of this change is the rise of the so called Knowledge Economy. As we know, knowledge intensive companies account for more than 40 per cent of new employment growth over the last fifty years (Stewart, 1997, p. 41). In addition, more workers of all kinds use information (that is, formal or codified data) in their work. Some analysts estimate that information now comprises about three-fourths of the value added in manufacturing (Neef, 1998, p. 4).ⁱⁱⁱ As Thomas Stewart (1997) observes, "Knowledge has become the primary ingredient in what we make, do, buy, and sell. As a result, managing [knowledge]—finding and growing [it], storing it, selling it, sharing it—has become the most important economic task of individuals, businesses, and nations" (p. 12). A commentator joked recently that information about money is now more valuable than actual money, and he was only half joking (Wriston, quoted in Stewart [1997], p. 109). While knowledge and literacy are not synonymous, literacy is a form of knowledge, certainly a form of human capital, that is getting implicated in the emerging

practices of knowledge capitalism. These implications are far-ranging, not only because they affect the experiences people have with literacy but because they transform the ideological basis under which literacy can find its political and cultural meanings. Simply put, literacy is changing from a moral imperative into a production imperative, from a public good into at least a quasi-private good, from an entitlement of citizenship into a rentable skill (Brandt, in prep.). This overtaking of older rationales and sponsors of literacy by newer ones shows up palpably in the literacy accounts I collected. Sorting out the dynamics of this takeover can help us understand the historical complexities that shape literacy and literacy learning today and can help us think about the role that public education will—or perhaps will not—play during this change.

Consider, then, the case of a person we can call John Dockery. Dockery, an African American, was born in 1969 in the urban Midwest. Three months premature, he was blinded shortly after birth when an overdose of oxygen given to him in the hospital destroyed his optic nerve. He was adopted shortly afterwards and raised in a bi-racial, working-class family on the outskirts of his state capital. When I interviewed him in 1995 Dockery was twenty-six years old and working as a mainframe computer programmer for a multinational insurance company headquartered in the Midwest. An accomplished pianist, Dockery also performed occasional piano concerts in local venues.

Like many young people of his generation Dockery was introduced to computers for the first time in his middle-school classroom in 1981: a six-week course in programming on an 8-bit Atari. Dockery recalled the experience as “cool” but cumbersome. He had to depend on his classroom aide to read the screen to him as he performed a kind of double composing, writing a program along with his classmates and,

also each time, programming in a voice to make the computer talk back to him. A few summers later, Dockery landed a part-time job at a state-sponsored residential school for the blind. During an idle hour, he discovered a computer lab on campus, where older adults were receiving lessons in word processing. He located an unoccupied computer, sat down, and started teaching himself how to program on a machine that by then could talk on its own. In Dockery's junior year of high school, 1985, his parents bought him his own computer, an Apple IIE, which he used in part to cope with changing technological and, we might say, political conditions. When all the other students in his advanced math class showed up with calculators, Dockery was at a distinct disadvantage. The only talking scientific calculators available at the time cost \$600. So he spent an entire weekend programming his computer to carry out factorial functions. By the mid-nineties, Dockery was a college graduate with a degree in computer science. His apartment teemed with some of the latest technology available to the blind, including an instantaneous Braille translator, a scanner that could Braille or say any text, and an Internet hookup that, among other things, was allowing him to beta test software for a company that produced products for the blind. At the time of our interview, Dockery said he was writing more regularly than ever before. His scanner was allowing him to read more widely and at a much faster pace than before. Dockery was convinced that if it were not for recent computer developments, he "wouldn't be as equal as other people in reading and writing." Yet at the same time, when I spoke with him in 1995, he was worried that the decision by the insurance company he worked for to adopt the visually-based Windows operating system on company computers would make it much harder for him to integrate with people and systems on the job. He also mentioned that a software

program he had written for the blind was recently turned down by the company he tried to peddle it to. “It was an equation library with over 200 equations and other functions,” he explained. “It was something I would have wanted in college. But they told me that only five per cent of blind people would understand enough math to use it so they wouldn’t buy it from me.”

Dockery’s account carries the marks of two competing traditions of literacy sponsorship, one associated with the long-standing moral imperative for literacy, what we might call public good literacy, and another associated with the production imperative for literacy or what we might call free-market literacy. The older tradition appears through the state school for the blind, which was founded in 1850 during the years of high missionary zeal for the powers of education to save all souls. Providing basic literacy for the poor, the newly emancipated, the disabled became an appealing social cause during this period, a sign of benevolence and a practical way to teach self sufficiency. By the early decades of the twentieth century, this school was instrumental in establishing library services for the blind and remains today a beleaguered but still tax-supported institution providing primary education, Braille literacy, and job training through its public facilities and residential and outreach classes. In the late 1980s, the tradition was continuing in updated form through adult classes in word processing. These job training facilities became an important access point for the young John Dockery, materially and, I suspect, psychologically.

This older sponsorship tradition also appears in the figure of Dockery’s classroom aide, who worked with him throughout his K-12 years. We might trace her presence to the last big booster of literacy as a public good: the civil rights movement of

the 1950s and 60s. During that time African Americans won judicial victories in the area of education that paved the way for other constituencies, including Americans with disabilities, to secure equal access to public schooling. Important federal legislation passed in 1975, right around the time that Dockery was starting school, secured his right to an education of least restriction, including access to Braille textbooks and individual assistance in a mainstream classroom (Martin, Martin & Terman, 1996).

But there are other agents at the scenes of Dockery's literacy learning that are of a newer and different origin. There are the computers themselves, for one thing, that began pouring into public schools in the early 1980s, as technology companies competed with each other for contracts and for the product loyalty of American schoolchildren and their families. It is interesting to note that the Atari Co., which supplied the first computer that Dockery used, was most known at the time as the maker of arcade-like video games and that the students in Dockery's seventh grade class wrote adventure games as their introduction to computer programming. And behind all of the state-of-the-art technology that Dockery was acquiring in the mid-1990s were the huge investments in digital speech and voice recognition technology by Bell Labs, IBM, and others as these companies sought ways to replace humans with machines in an increasingly service-intensive, customer-intensive economy. Many of the new technological developments for the blind minority in this country are spin-offs from this major investment in research and development (Chong, 2000; Olive, 1996).

At one level Dockery's experience merely measures the extent to which literacy learning is implicated in economic and technological change—a change that reached an unprecedented pace in the closing decades of the twentieth century. Things had come a

long way for Dockery since the 1970s when his aide placed his hands over hers to teach him to use a six-key Braille writer that looked like an electric typewriter. He would emboss his compositions onto paper, after which the aide would translate his writing by hand in the margins so his teacher could read it. The rapid turnover in the technologies mediating literacy—caused in part by a wild scramble for market control by early producers of personal computers-- could make the writing tools of a twenty-six-year-old's childhood seem quaint. It was not unusual for young adults I spoke with to link literacy experiences with specific brands and models of computers and to express nostalgia for Ataris or Tandys or Apple IIs in the same way older generations might remember their McGuffey readers. Disappearing writing tools are not unlike a plant closing: when they go, they take with them people's investments in learning, forms of human relationships, residues of experience and skill. As we can see in the case of John Dockery, these changes also bring rising costs—in both money and time—to the efforts and re-efforts of literacy learners.

But I would like to dwell for now on the ideological contrasts in the two main sponsorship traditions that entered John Dockery's literacy learning. On the one hand, under the auspices of the school for the blind and the Education for Handicapped Children Act of 1975, Dockery was offered literacy the old fashioned way: as a form of civil right and moral duty. In the context of the "moral economy" that grew up around the nineteenth-century common school, literacy is provided and pursued for the common good, for the public interest. Literacy is "good." It spreads civilization or uplift or moral progress, and its goodness rises as the society improves. Under these auspices, the aim is to be treated the same as others and to be made the same as others. The entitlement to

literacy resides in the entitlements of citizenship. While various groups throughout history have had to fight for their right to citizenship and we all remain unequally positioned under its protections, literacy has been, at least officially, like citizenship: universal and democratic, entitling everyone to its benefits. When President Bush calls reading “the new civil right,” he wants us to invoke this tradition. Throughout U.S. history, public-good literacy enhanced nation building as reading particularly proved an effective medium for cultural assimilation. As a public good, literacy counts for what it turns you into. And under the arrangements of the public good, the society uses its resources (financial, cultural and political) to develop its individual members.

If public-good literacy came to John Dockery through his status as citizen, free-market literacy came to him through his status as consumer and producer. In the context of the market, entitlement resides in the ability to pay for what you want and charge for what you have.^{iv} John Dockery’s ability to rent his skills as a computer programmer to the insurance company that employed him allowed him in turn to purchase cutting-edge technology that, at least for a while, was enhancing his literacy and winning him a form of communicative equality that he previously lacked. Yet under the sponsorship of the free market, Dockery’s literacy—and everyone’s literacy—remains vulnerable to the volatility that those sponsors interject. The race for always faster, newer, stronger ways of making, moving, and selling information draws free-market sponsors to literacy as never before, but it also makes their competitions fierce and unsparing for those living and learning under their auspices. When Dockery walked into a classroom filled with inexpensive calculators or into a workplace captured by the Microsoft monopoly, the relative viability of his math and literacy skills could sink faster than the Dow Jones.

Under the rules of competition, his status as a minority is not protected. It is doubtful that affordable technological developments for the blind would have been so quick in coming had not digital speech been so attractive to major investors like AT&T and others. Sponsors of free-market literacy expect to recoup returns on their investment—whether that be in the form of product development or in the form of human development. If public-good literacy counts for what it turns you into, free-market literacy counts for what you can turn it into. And if, in the name of public-good literacy, the society invests its common wealth in individual intellectual development, the free market of the new twenty-first century invests individual intellectual assets to develop corporate wealth.

These two sponsorship traditions come into conflict when Dockery seeks a manufacturer for his equation library. He had applied his public education to invent a product that was good in the moral sense—a resource that could help to equalize access of the blind to the study and practice of mathematics. But he runs into a different set of values governing the free market, in which public good functions explicitly in an economic sense, in the sense of good and services, rather than a moral sense. In the context of the Knowledge Economy, his equation library lacks sufficient value. Not enough people need that knowledge in the form in which he presents it in order for an investor to return a desirable profit.

In many ways, of course, the dynamics I have been discussing are not new to the society or to the school. David Labaree (1997), for instance, has explored the struggle between public and private interests in education reaching back to the founding of U.S. common schools. However, I want to suggest that what is new in our history is the

transformation of knowledge, learning, and intellectual skills like literacy into major modes of production, and their centrality now to the interests of capitalism and national economic well being. This development introduces new complications into the acquisition of literacy and the relationship of school and society, bringing new opportunities as well as new barriers to the pursuit of literacy learning. I also want to suggest that the issues involved in this transformation go more deeply than the problems of lagging skill levels or income inequality—two issues that perhaps rightly command attention in current public debates. But let us notice that John Dockery has financial wherewithal and skills (and even, it appears, an entrepreneurial spirit) to put him in pretty good standing in the Knowledge Economy. Yet his literacy—as everyone’s literacy—remains insecure.

A spate of recent business books—with titles such as *Knowledge Assets* (Boisot, 1999), *Intellectual Capital* (Stewart, 1997), *Knowledge Capitalism* (Burton-Jones, 1999)—attempts to define the new organizational and accounting needs of the new economy. These books both confirm the reliance of corporate capitalism on human skills and knowledge and address the problematic nature of these assets from the corporate perspective. Although knowledge and mental skills are now more valuable than land, physical labor, tools, or factories (Stewart, 1997), they have some unfortunately intangible and messy properties that can neither be controlled nor counted in the same ways as old-fashioned material and physical assets. Getting a rational hold of knowledge as a reliable mode of production and a financial accounting value currently occupies many corporate and government analysts, and there is much consternation around the issues. For one thing, as a recent government publication so delicately put it, human

capital is “non-appropriable...outside of a slave society” (OECD, 1996, p. 43). The major knowledge assets of a firm (people) walk out the door at the end of each working day. Knowledge, as Burton-Jones (1999) put it, is “leaky property” (p. 225). And, unlike a machine that can predictably produce so many widgets an hour, the output of human thought and creativity is much vaguer. (OECD, 1996, p. 46). Given these conditions, ownership, control and standardization become a real issue. Who owns what I know? Who controls what I learn? These are now questions under serious consideration from financial accounting and investment perspectives.

One of the most vexing problems from the corporate perspective is that knowledge naturally wants to behave as a public good.^v Unlike many physical assets, sharing knowledge does not reduce its utility. In fact, sharing knowledge often enhances its utility. But sharing knowledge can reduce its value (Boisot, 1998, xiv). On the one hand, for knowledge to be valuable, lots of people must want what you know and be willing to compensate you for it. [This is the problem with John Dockery’s equation library. Not enough people need that knowledge to make production worthwhile.] On the other hand, the more people know something, that is, the more shareable and widely applicable and borderless it becomes, the more it starts to function as a public good in the economic sense of the phrase—that is, the less new profit there is to be made from it. In industry lingo, public-good knowledge is akin to a low-level commodity skill: it is not specific to any business, it is readily obtainable, and it is of equal value across businesses (Stewart, 1997, p. 89). So, the important thing to remember is that investing corporate resources in the production of public-good knowledge is bad. Figuring out what

knowledge is worth developing and what knowledge development is worth paying for is a significant part of the new risks of the new economy.

We see here the reason why companies invest a lot more in specialized job training than in basic adult literacy classes, why they invest a lot more in educating their higher-echelon technicians and executives than their minimum wage, front-line workers. Basic literacy is a waste of private investment. The intense Presidential interest in third-grade reading scores, in leaving no child behind, has more to do with sparing private enterprise the future costs of certain kinds of human development than it does, I suspect, with civil rights.

While corporations try to figure out how to measure knowledge and human capital by standard, reliable formulas, they also are interested in growing more knowledge as a privately-controlled asset. Corporations want to increase and leverage their learning capacity and organize themselves in such a way as to maximize the production, control and exploitation of knowledge (Zack, 1999). Learning is coming to be treated as a basic task of production and a part of what is created at every stage of production (Nevis, DiBella & Gould, 2000). This is what is meant by the phrase “learning economy.” There is a concern with organizing knowledge flows in workplaces so that people inside of companies can communicate with each other more regularly and teach each other more easily. At the same time there is a concern with protecting and hiding and obscuring knowledge to maintain competitive edge. The aim is to embed knowledge deeply within organizational routines and structures so that it doesn’t belong to any one person. This is one way to handle the ownership and control problem (Boisot, 1999).^{vi} There are attempts to identify the core competencies of a corporation so that

they can be rearranged to invent new products and, most important, be preserved during periods of lay-offs (Cross & Israelit, 2000; Prahalad & Hamel, 1999). There is attention to just-in-time, strategic learning. And there are lots of models of ways of sharing intelligence between people and technology and ways of skimming off, codifying, leveraging, or organizing the cognitive assets of individuals into collective resources (Cohen & Levinthal, 2000).^{vii} Attention is paid to the customer as a learner in ways that deliberately blur the activities of learning and consuming. There are predictions that learning will be a byproduct of the customer's world, that corporate learning will be a shadow education market, and that the private sector will eclipse the public sector in providing education (Burton-Jones, 1999, p. 201). Clearly we can see in these descriptions potentials for new opportunities for literacy and learning. What educator wouldn't thrill at the thought of an entire society focused on maximizing teaching and learning? Making learning more ubiquitous, more social, more explicit, more rewarding, more life long, seems a boon to children and families in the same way that digital speech technology was a boon to John Dockery. The learning economy can democratize learning, as the drive to sell it proliferates markets and unleashes into the general society new forms and new niches for learning. At the same time, however, it is important to realize the extraordinary implications of these changes for the meanings of reading, writing, and knowing. Literacy and knowledge, once the domain of the humanistic tradition, are being redefined within a production imperative. At the start of the twenty-first century, literacy may still remain a cultural mandate, taught and learned as a general good. Good parents still read to children. Good children still read to get ahead in school and ahead in life. Corporate sponsors still earn good will by funding literacy initiatives.

Reading is still regarded as morally superior to just about all of its leisure-time competitors. Illiteracy is still seen as the road to crime. These are some of the legacies of the moral imperative for literacy. But while literacy may still *be* morally good, it is no longer *for* moral good. It is for productivity. Its justifications reside in its value as a mental and scribal asset—a production asset upon which the American economy increasingly relies. Just as the meanings of literacy are changing, so it goes for knowledge. Inevitably this economic transformation will alter the access and reward systems for knowledge and learning as well as the dominant forms of knowledge in society. Self-knowledge or disciplinary knowledge will be subordinate in value to what Drucker (1998) calls knowledge for action or knowledge for systematic innovation (p. 30). In this process will come the devaluation of public-good knowledge, knowledge for sameness, the kind that our old-fashioned schools work so doggedly to provide.

Under knowledge capitalism, opportunities for human development increasingly will be embedded in product development. In fact it will become harder to separate the two. Teaching and learning will be for the stimulation of consumer desire. As in the case of John Dockery, expanded uses of reading and writing will be byproducts of technological innovations. What people produce will configure opportunities for learning. Where in the production process they are situated will determine the kinds and amounts of investment made in their learning. The durability of learning opportunities will ride on the durability of product value. And humans will have to compete with technology for public and public investments in their development, including communicative development (Quinn, Anderson & Finkelstein, 1999, p. 275). Under free-market principles, uneven investment in human development is built in, no longer a sign

of the failures and hypocrisies of public education but a hierarchy based on rational, economic good sense. The digital divide that is opening up is not merely a matter of some families and school districts having more money to buy computers than other families and school districts. More broadly, it is a result of investments in certain kinds of workers, the courting of certain kinds of consumers, the subsidy of certain kinds of learning, from which flow benefits to certain kinds of families and school districts over others.

At the same time, pressure will continue to build on public education for accountability and sustained improvement in student achievement, for leaving no child unproductive. It is an ironic time for public educators. You would think it would be noticed that only a population fairly highly skilled to begin with could manage to make and sustain a Knowledge Economy. You could argue that mass literacy that developed out of free public school (literacy as a public good) was the irresistible energy source that fueled American capitalism in the twentieth century. Information, mental labor, ideas, written symbols--these have always been the main ingredients and products of the school. We are all about human capital. You would think in this new economic climate that schools would be sources of authority and consultation, sites of investment and reward, models for reform instead of objects of reform. Yet this is not the case and teachers and students are routinely criticized for not producing enough of what is needed. Given the relentless market demands for cheaper, better, faster human capital, these pressures only can be expected to escalate.

There is part of me that wants to remain optimistic about the future of literacy in a Knowledge Economy. The leakiness of knowledge, its proclivity for common good,

seems uncorrectable. Long after the economic value of certain forms of knowledge has waned, those surplus forms will hang around materially, intellectually, rhetorically, potentially retaining or creating cultural value in new and unforeseen ways. Further, I must admit to a certain fascination with some of the learning theory developing in this area, which in some cases predicts a complete refashioning of spaces and processes around human beings and their communicative and intellectual needs. I find myself comparing my classroom to models of high-powered knowledge companies (experimental mind-set [check!], involved leadership [most of the time!], climate of openness [yes, I think so!]). And if I get really carried away I wonder if ultimately businesses will grow more sympathetic to schools as they find that producing and measuring human competence eludes rational planning principles—something that most teachers already know.

But in the meantime I think it is important that we bring as much scrutiny to business in the area of literacy and learning as they seem to be bringing to us. If literacy is to remain an entitlement of citizenship, this may be a time when we must assert what is most threatened in the transformation to knowledge capitalism-- the human right to equal value—as well as the role of literacy and the public school in sustaining that right. At the very least we must understand and respond to the new basis of inequality that the Knowledge Economy is manufacturing within the public school and hold it more responsible for redressing it.

End notes

ⁱ For a pertinent analysis of the relationship between literacy levels and GNP in the nineteenth century, see Mitch, 1992.

ⁱⁱ For a crucially important explanation of the historical roots of this process, see Polanyi, 1944.

ⁱⁱⁱ In this same chapter Neef (1998) quotes a 1996 study forecasting that by 2000, 80 per cent of all jobs in America would be “cerebral” in nature (p. 2).

^{iv} For a useful treatment of “rent” as it pertains to human skills and human capital as owned assets, see Sorensen (2000).

^v Burton-Jones (1999) is an author especially wary of wasted investment in human development. He writes, “As training becomes an ever larger investment, and less firm specific, the risk for firm owners is that they will be investing, in effect, in a public good” (p. 39). He goes on to muse about the possibility of making workers reimburse the firm for training received if or when they leave the firm.

^{vi} If the field of literacy studies has learned anything over the last twenty years, it is how highly contextual literacy and cognition can be: people’s skills reside in and lean on particular contexts, practices, and human relationships (Scribner & Cole, 1981; Heath, 1983; Besnier, 1995). This principle apparently is well recognized in corporate learning theory as a condition to be exploited for the benefit of the company.

^{vii} It is fascinating to see how exceedingly collective—and not individualistic—these orientations often are. Individuals work best as assets when they return what they know to a shared process for use by others.

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