

TOWARDS A POLITICAL ECONOMY OF THE COMPUTER
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TABLE OF CONTENTS

THE BAREFOOT EXPERT p. 1

INFORMATIZATION..... p. 5

 Definition: Castells

 Evaluation: Cardoso

 Corporate Presence: Carnoy

CORPORATE EPISTEMOLOGY..... p. 11

 Schiller

 Critique of Schiller

CORPORATIONS AS PERSONS: PERSONS, SELF, AND
INDIVIDUALITY..... p. 19

CONCLUSION..... p. 25

REFERENCES P. 27

TOWARDS A POLITICAL ECONOMY OF THE COMPUTER

"The informational question, in all its dimensions - practical and theoretical - is an urgent political issue in America" (Schiller, p. 164).

"A black hole of ignorance about transnational corporate activity is the outcome of systematic omission of information and its meaningful analysis" (Schiller, p. 171).

THE BAREFOOT EXPERT

This paper is part of a larger investigation into the impact of computers on knowledge. My object in this study is to place the larger investigation into a global context. To do so, I have chosen to begin by reviewing a work which seems ideally suited to the objective because it juxtaposes computerized knowledge systems with so-called "Third World" indigenous knowledge systems" (Schoenhoff, 1993). Its focus is the interface between the "expert systems" of high-tech and the "barefoot experts" of the Third World.

The author has worked as a computer specialist in Africa and Latin America and is convinced that computerized expert systems "can make a contribution to development in Third World environments" (p. 160); more specifically, a contribution that will benefit the poor of those nations.

Expert systems are computer programs that seek to incorporate the expertise of a given domain of decision-making such as a medical diagnosis or a geological survey. The program is fed the results, say, of a patient examination, blood pressure, symptoms reported by the patient, etc. It emulates the decision-making process of a medical doctor and pronounces a diagnosis. The expert system doesn't skip steps. It can recall

anything in its knowledge base. And it can add to its knowledge base as new cases come to its attention. It can learn.

One of the best features of Schoenhoff's monograph is that it goes beyond the technology. In other words, the author recognizes that the really significant problems involved in implementing a particular technology are cultural, political, human, ethical problems. Thus, for example, in her discussion of the language we use for development, she concludes that "[n]one of the current terminology - Third World, developing world, the South - used to describe the discrepancy between the affluent and the poor nations of the earth is satisfactory. We are looking for an inoffensive way to describe poverty and injustice - and there is none" (p. 45). *great*

In choosing to step back from the technical details the author has moved too far, to a level of analysis that is too general and abstract. The topics are concepts, science (chapter 1), development (chapters 2 and 3), expertise (chapter 4), epistemology (chapter 5), formalized knowledge (chapter 6), and rationality (chapter 7). The result is a thoughtful, insightful, but ultimately abstract and therefore disappointing series of reflections. Despite the fact that the purpose of the book is to make a case for expert systems, there is not a single example of a successful implementation of an expert system within the context of a poor culture. In fact there is only one concrete example cited, and it is hypothetical and gets about a page of description half way through the work (p. 116-117).

*Why wouldnt a cure
for river fever be
applicable
anywhere?*

The most important point of the book is that "expertise is embedded in a community and can never be totally extracted from or become a replacement for that community" (115). Knowledge, rationality, logic, including western science is contextual, culturally specific. Knowledge is "irremediably social" (p. 113). Western logic is one folk system among others, not the norm (p. 140). It is just as contextual, community-based, as every other way of knowing. Therefore, she concludes, expert systems cannot be simply imposed on poor communities. The expertise must come from the indigenous culture (164). The expert needs the peasant (p. 86). "Strategies to transport expert system technology from Western nations to the Third World must address epistemological issues - issues that deal with the limits and validity of knowledge" (107).

Given these assumptions, it is disappointing that the voices of indigenous experts, the barefoot experts, is not given more of a hearing in the book. She cites Chinua Achebe and Wole Soyinka, both Nigerian writers, but for the most part her sources are overwhelmingly Western, speaking for the non-Western nations. The author has not, it seems to me, been able to break through to a genuine dialogue on the subject. Take this sentence, for example:

"In the Third World context, the challenge will be to formalize for the computer a knowledge that exists only informally now - and to convince the traditional farmers, environmentalists, and healers that this is a wise thing to do" (100,101).

Who is doing the convincing here? Clearly it is the outside expert. Who is to be convinced? The barefoot expert. What are they to be convinced about? That their contextual, community-based, informal ways of knowing need to be formalized in computerized expert systems. Yet Schoenhoff herself has done an excellent job throughout this book of raising doubts about whether, in fact, it can be done at all, not to mention whether it is a "wise thing to do," or at the very least, about when and where and under what circumstances it is a wise thing to do. And above all she has made an open and shut case for the fact that it can only be a wise thing to do if the traditional farmer, environmentalist, and healer has decided in an open dialogue that it is the wise thing to do. Until that point it should be considered, in light of all that Schoenhoff has said, an open question.

*excellent
pt*

Given the fact that knowledge and knowing is contextual - culturally, socially, economically, politically - how adequate is Schonhoeff's treatment of the global context of North-South technology relationships, computers in particular? She has not ignored the larger global context, providing an overview of "development" theory of the past couple of decades. However, I would argue that an adequate account must address what is happening to "information" on a global scale. In the following section I wish to focus on the role of the computer in the "informatization" of the global economy as a vital part of the context for treating North-South computer technology interchange.

INFORMATIZATION

First, what is meant by "informatization"? This phrase is used by Manuel Castells to refer to the increasing domination of the world economy by information and communications technologies (Carnoy, Castells, Cohen, Cardoso 1993). It refers to the increasing dependence of the world economy on the systematic application of science-based knowledge and information to productivity defined in economic terms.

Definition: Castells

Castells identifies five fundamental features of this new economy. First, the sources of productivity are increasingly dependent on the application of science and technology and the quality of information and management. Second, there is a shift from material production to information-processing activities. Third, the organization of production has changed from standardized mass production to flexible customized production, from vertically integrated, large-scale organizations to vertical "disintegration" and flat networks between economic units. Fourth, the new economy is global, not just in the sense the trade is international, but in the increasing integration of nations into a single, interpenetrating network of economies. And finally, these changes are taking place concurrently with the revolution in information technologies which is creating a new

material infrastructure for the global economy (Carnoy, p. 15-19).

Computers figure centrally in all five of these features. They are part of the new infrastructure that knits the global economy together. They play a central role in applying science and technology to production. They have made possible the flattening out of large-scale organizations.

According to Castells, the new "informational economy" has altered national relations on a global scale. It has brought about the dissolution of the Soviet Union (p. 16,40). It has created a new international division of labor. It has brought to an end the so-called "Third World" as a relatively homogeneous economic region and brought into being a "Fourth World" of marginalized economies in various regions of Africa, Asia, and Latin America. It has spelled the end of the three primary development strategies employed by developing countries (p. 27) and left the so-called "Fourth World" no options but destructive ones, including criminal economic links with the world economy, suicidal violence, or ideological/religious fundamentalism.

Castells paints a grim picture and leaves one with the question as to whether there is any way out for those regions and sub-regions around the world which have become, according to his analysis, structurally irrelevant.

Evaluation: Cardoso

Cardoso, in the final chapter of the same volume, suggests

that the only hope for the Southern countries is integration into the global information economy: "more education, a better state, enhanced productivity from its 'human capital,' and a great technological leap forward" (Carnoy, 1993, p. 157).

Before dismissing this suggestion as capitulation to capitalism, a closer look at Cardoso's interpretive framework is in order. According to him, the collapse of the Soviet Union and the new global economy are not a victory for competition, self-reliant individualism, the market, or neoliberal capitalism. Rather, what has happened has been a "strengthening of freedom, the pursuit of understanding, and a proliferation of global issues," indeed, classes and nations in vast regions of the planet "are experiencing a spirit of globalism and enlightenment" (Carnoy, 1993, p. 153).

Cardoso's optimism is not convincing, especially when he talks about the true revolution of our century as "the marriage of science, technology, and freedom; of university, enterprise, and public authority." I become even more skeptical when he goes on to describe, in apparent approval, the fact that the new information society is reaching beyond the organization of factory and management into "the public sector, the schools, the churches, the unions, and eventually everything- not only through the new methods of management it permits, but also through the establishment of great mass-communication networks; not only through conventional electronic media (radio and television), but also through computer networks, facsimile machines, modems, and

the rest" (p. 154).

It is difficult to see how this apparent optimism sits side by side with the very real risk of "barbarism" on a global dimension to which he has just called attention (p. 150). By this I assume he means the risk of greed, selfishness and what Robert Reich calls "the politics of secession" on the part of the privileged, though this assumption has very little to go on in the text. Indeed, in both the presentations of Castells and of Cardoso what is missing is any critical reflection on the moral threat from those in power, any sense of the corrupting influence of power. The dangers of irrationalism, evil, threat, criminality are all seen to come from those at the bottom and invite a "blame the victim" stance. Both Cardoso and Castells seem to suggest that exploitation has been reduced to insignificance! (See p. 152, cf. p. 37).

Cardoso himself seems profoundly ambivalent. Consider the following paragraph:

Accepting this weak version of utopia, we do well to accept the contemporary moment: that social justice and freedom are the pillars of the new socialism, that we all surrender ourselves to the supremacy of the market. But we must not accept its logic. The 'invisible hand' . . . is not perfection; it exacerbates and accumulates injustices (p. 151).

Surrendering to the supremacy of the market does not mean accepting the logic of the market. What does that mean? If

good pt

indeed, recognition of the inevitability of the market is called for, then everything depends upon what it means to refuse to accept its logic. Why is there no critique of 'human capital' theory? Why is there no reflection on the role of the corporate sector in his subsequent discussion of extending the scope of politics beyond state and party?

Corporate presence: Carnoy

Cardoso's silence on multinational corporate domination of the global economy is puzzling, given the extensive discussion by Carnoy in an earlier chapter of the book. Indeed, so extensive is this dominant position that Carnoy himself concludes that the only realistic options for nation-states is "not whether to work with multinationals - it is increasingly difficult, even if it were ever desirable, for nations to keep out direct foreign investment or to prevent national companies from investing abroad - but, rather, which policies regarding relations with multinationals will best promote a legitimate political agenda for the nation-state (p. 48).

Carnoy's conclusion based on his subsequent analysis of the relations between multinationals and nation-states is to endorse human capital policy. In answer to the question, Is there still a role for the nation-state? Carnoy spells out the need for "investment in human resources." Why? Because the "trainability" of local labor determines whether U. S. automakers will locate plants in a given locale. Japanese success is due to "highly

schooled Japanese." Competitiveness "increasingly depends on human-capital policies." In sum, according to Carnoy "[t]he role of the nation-state in creating an innovation society is thus absolutely crucial to the well-being of its citizens in the information age" (p. 91). To put it another way, the role of the nation-state seems to have been reduced to serving the needs of the multinational corporations.

and from Carnoy -

A hundred years ago the British musical opera team of Gilbert and Sullivan anticipated the takeover of the state by the corporation in their opera "Utopia." Utopia is the name of an imaginary South Sea island which has become enamored of British ways and, in fact, sees England as utopia! The king's daughter, sent to a British "finishing" school, returns home and brings with her representatives of British institutions, including a banker of course, to Anglicize the island. Upon learning of the benefits of incorporation the king decides to incorporate his kingdom. Utopia becomes Utopia, Limited. A board of directors takes over the management of the kingdom under the chair of the king. Things go well, so well in fact that all of the professionals, the doctors, the lawyers, the generals are out of work. In the end they revolt. When the king consults with his British advisors he discovers that one item had been forgotten, parliament. Parliament, rule by party, is instituted, and the kingdom settles down to blissful inefficiency!

When I watched Utopia this spring I couldn't help but be reminded of the missionaries of Western capitalism abroad in

Eastern Europe and the former Soviet Union.

CORPORATE EPISTEMOLOGY

To return to the main thread of my argument, what is clear from Castells and Carnoy is that computers in conjunction with communications technologies have been used to create a new global economic infrastructure driven by information. Furthermore, large multinational corporations are the most powerful actors in this economy. As such they are the most powerful "users" of the computers and communications technologies. So powerful have they become that the sovereignty of the nation-state has been called in question and its role in some cases has been cast in terms of serving the needs of the corporations.

The question that Castells and Carnoy have not addressed adequately is what is happening to information itself as a result of the informatization of the global economy? Information is transforming the global economy. How is this affecting information?

One answer, given by Herbert Schiller, a retired professor of communications, is that information is being transformed into a "salable good," (Schiller, p. 4). As he points out, a new "information industry" has been formed in the past thirty years, one goal of which, as formulated by its trade association, the Information Industry Trade Association (IIA) is to "gain recognition for information as a commercial product" (Schiller,

Did you see Wayne ^{Bobbles} _{II} essay in the
Chicago Tribune on
information for sale

p. 72). Schiller's analysis of what has been happening to information in the past several decades is worth closer attention for several reasons.

In the first place, he brings into diamond-sharp focus the fact that the starting point for understanding "information" today is the corporation. The gargantuan growth of the largest corporations relative to all other organized sectors of society anywhere in the world is the fundamental fact about "information" demanding attention, reflection, interpretation, decision, policy, action, opposition. Modern technology, including computer technology "has been designed, produced, and employed by the same corporations that have preempted national and international cultural and informational space" (p. 6).

In the second place, his analysis of "information" differs from many others in that the context is not narrow. Instead of discussing information within the context of technology, or science, or economics, or organizational development, or management, or even culture, Schiller has managed to back off from the trees in order to see the woods. He has written a case study of the social construction, or reconstruction of "information" over the past decades set in the context of the interconnections between economics, politics, class, and culture. As he points out, "all economic activity produces symbolic as well as material goods. ...a community's economic life cannot be separated from its symbolic content" (p. 31).

Schiller's subject is "the corporate organization of

society" (p. 9). His thesis is that corporate reality is "enveloping" public expression (p. 29). "The corporate 'voice' now constitutes the national symbolic environment" (p. 44). In his first chapter, Schiller focuses on the political implications, the weakening of the democratic order. The enormous growth of the corporate sector since the Second World War and the decline of independent farmers, organized labor pose a threat to the balance of power required by political democracy.

Within this political framework, Schiller turns attention, in his second chapter, to the private appropriation of symbolic activity (p. 32), and the infusion into culture of a pervasive marketing ideology (p. 33) as a result of the growth in size, concentration, and influence of the "cultural industries." A culture industry is one where "cultural goods and services are produced, reproduced, stored or distributed on industrial and commercial lines, that is to say on a larger scale and in accordance with a strategy based on economic considerations rather than any concerns for cultural development" (Schiller, p. 30, citing UNESCO, 1982, p. 21). Schiller's description, in the rest of the book, of the process by which culture, human creativity, is being commercialized is, it appears to me, a case study in the mechanisms of hegemony, the manufacturing of consent.

The key to their growth is their importance and centrality to the corporate economy. In other words, the growth of the cultural and informational sectors as industries is a direct

effect of the growth of the corporate sector as a whole. As the latter has grown in size and has expanded its reach, the more it has depended on the cultural industries as a major tool, a major mechanism, for manufacturing consent, for extending its hegemony (p. 30).

In chapter 4, Schiller focuses attention more specifically on the new information industries - private research institutes, commercial database services, publishing, training - and the "assault that has been mounted on the public information sector. On the one hand, this has been encouraged by the government itself especially in the '80s, under the Reagan administration. Specifically, under Reagan, the government's Office of Management and Budget, has, according to Schiller, "been spearheading the effort to reduce the government's traditional responsibility to collect, compile, and disseminate information" (p. 83). On the other hand, the private information industry is fighting to dismantle the Federal information programs (p. 77), privatizing information traditionally made available through public libraries, and moving into higher education and research.

An example of what this privatization of information means is what happened in 1987 with Dialog, a commercial data-base vendor owned by Dun & Bradstreet. When unions wanted access to data from Dialog to use in their bargaining with management, Dun & Bradstreet instructed Dialog not to make the data available (p. 81). 019

In subsequent chapters Schiller traces the growth of

corporate presence in traditional sites of public expression and creativity such as museums, art galleries, as well as the physical landscape of cities, towns, and suburbs in the form of shopping malls, office parks, skyscrapers (ch. 5), as well as their international growth (ch. 6), focusing on the new media, such as television, in terms of international cultural-political implications. According to Schiller, what is happening "is the creation and global extension of a near-total corporate informational-cultural environment" (p. 128).

Critique of Schiller

Is Schiller correct in his analysis of the corporate "takeover" of public expression? Isn't it an exaggeration to talk about the "systematic envelopment of human consciousness by corporate speech in America in the 1980s" (p. 45)? Is the corporate "voice" in fact a single voice? Or better, to what extent does it represent a single ideology or point of view? There are those who would argue that the past thirty years have witnessed an unprecedented emergence of minority voices and cultures to new visibility and influence.

On the one hand, I find myself agreeing strongly with Schiller on the dangerously one-sided nature of corporate power and influence, on its global ambitions, and on its threat to democratic order. I believe that there is an underlying vision, order, ideology dominated by the corporation that is widely shared both within and without the corporate world. However, I

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also believe that many different and even contradictory versions of this vision appear upon closer scrutiny so that "the" corporate order is an abstraction or at least very thin. I cannot take for granted that "corporate" is by definition negative. I hold out the possibility of alternate social and political constructions of "corporate" reality.

Who would push it to a counter hegemonic view.

I believe that corporate influence is not only global in breadth but also spiritual in depth, extending to human consciousness. How profound is this influence? How deep does it go? How extensive is it?

The phrase "envelopment" of human consciousness, or "the industrialization of the mind" (p. 89, from Enzensberger, p. 133) gives the impression of a total infusion of interiority, whether intended or not. However, if I try to examine my own consciousness, I find it very difficult to imagine a non-corporate world order, and in that sense, perhaps, I confirm Schiller's point. But I also find extremely powerful, even violent, reactions inside me to the claustrophobic, suffocating, smothering (cf. p. 33) commercial presence in daily life.

but many are already in a more or less demagogic state and don't see it that way outside the paradigm.

Schiller acknowledges, of course, counter forces, independent film and video producers (p. 43), "widespread popular opposition to saturated exposure to the corporate message" (p. 58), individual artists (p. 97ff.), social movements (p. 142,3). In the next to last chapter of his work he gives a critical history of the debate over media influence between those, like himself and those corporations who invest billions of dollars in

the media, who believe in its influence (the dominance paradigm), and those who argue that the effects of the media are limited (the limited-effects model). The latter stress the role of the "active audience" in interpreting the media, "producing its own meanings and resisting those transmitted to it that it finds objectionable or irrelevant" (p. 146).

Over against the active audience argument Schiller points out that it is overly optimistic in its attribution of social pluralism, is excessively subjective, does not take into account the massive power of "disinformation" campaigns like anticommunism (chapter 7), and is blind to the omnipresent class division in Western society. TV programs . . . always encode (carry) the message of the dominant class" (p. 153, citing Fiske, 1978). This is a description of hegemony in action in its purest sense, that is, in reference to class. Furthermore, for Schiller, all of the subgroups in the nation are "subject to the rule of market forces and the domination of capital over those market forces." This, he goes on, "is the grand common denominator that insures basic inequality in the social order, an inequality that the pluralists and the active-audience culturalists most often overlook" (p. 153).

It is one thing to agree that class divisions are a characteristic of U.S. society. It is another to say that one or another of the alternative Marxist experiments is better. Even if one agrees that capitalism is inherently class-based, this does not mean that the alternative is Marxism. One can agree with some

or all of the Marxist diagnosis without agreeing to the Marxist cure.

It seems to me hard to deny that there is still more freedom of expression in this country when it comes to minority life styles, for example, than is the case in most societies in history, more pluralism. Classism, sexism, racism, intolerance and bigotry are deeply pervasive, to be sure, but my impression is that this has been the case in every society in history.

But this flexibility of US society is getting as the middle class produces factors

So while I agree that corporate culture needs to be critiqued, while I agree that anticommunism is a sham in many respects and has succeeded in diverting attention from our own weakness of commitment to public, common good, I still feel that it is not enough to simply assume that corporate or capital equates with negative. Corporate needs to be differentiated, needs to be critiqued, and the critique of socialists and Marxists needs to be heard, but not on the assumption that their starting principles are to be taken for granted.

I agree

At a deep level of consciousness I think perhaps I do accept a system which provides for a balance of public and private responsibility, including private economic enterprises. So that I do not apriori dismiss corporate forms of organization in society. The issue is equal access, balance, equity, symmetries of power and privilege. It is moral issues of justice, responsibility for one another. Against such moral standards any order must be continually evaluated.

It's not the public or private that Commodification seems to me to be the issue -

CORPORATIONS AS PERSONS: PERSONS, SELF, AND INDIVIDUALITY

One of the most important points in Schiller's critique has not been mentioned, namely, the legal status of corporations in the U.S. as "persons." This, it seems to me, is a central issue that demands attention from all who would resist corporate hegemony.

In 1886, in a case involving county and state government versus several railroad companies, the Supreme Court, without discussion or argument, opened its decision with the statement that "the defendant Corporations are persons within the intent of the clause in section 1 of the Fourteenth Amendment to the Constitution of the United States, which forbids a State to deny to any person within its jurisdiction the equal protection of the laws" (Santa Clara County v. Southern Pacific Railroad, 1886). Schiller points out that between 1890 and 1910, 19 of the Fourteenth Amendment cases brought before the Supreme Court dealt with "Negros," whereas 288 dealt with corporations (p. 47, citing Zinn, p. 255)!

The status of corporations as persons raises the issue of the social construction of personhood, of the individual in this country. Schiller points out the distorting effect of the corporation-as-person doctrine on the meaning of such principles as freedom of information and democracy. It seems clear to me that in response to such distortions of individuality, adult education must contribute to the reconstruction and redefinition of individuality in terms of the self as a member of communities,

in terms of identity or identities. What adult education cannot do is avoid, or ignore, or deny the issue.

Schiller, in his discussion of the commercialization of creativity, clearly implies that "the writer's personality" should be free of commercial control (37). He attacks market control of creativity and symbolic production (32). On the other hand, he grounds the expressions of human creativity in the group and community (31). He denies that culture is the output of "ahistorical, universalistic creative genius and talent" (32). He attacks the "private appropriation of symbolic activity" (32) and he points out corporate willingness to examine individual behavior in microscopic detail but not corporate behavior (38).

Ian Baptiste defines education as the pursuit of virtuous excellence. He defines "self-realization" as a virtue, but affirms, with Rousseau, that self-realization is impossible without political participation. Thus his definition of adult education as, in fact, political participation.

The term 'self' lends itself more readily to understanding in terms of community than does the word 'individual.' Likewise with the word 'identity.' On the other hand, there is still, for me, a point where it comes down to an "individual" initiating, from inside, a choice, the start of an action. There is an internalization, a subjectivity that feminists, for example, have been insisting on at the same time that many of those same feminists are insisting on the primacy of communal experiences of knowing. There is a psychology, a spirituality involved, that is

"experienced as private" (Rosaldo, p. 107).

In the course of opposing hegemonic constructions of individualism adult education cannot afford to abandon what Mechthild Hart refers to as "the overwhelming importance of self-knowledge" (Hart, p. 194), and again as the "validation of the individual learner's subjectivity" (p. 193). What Hart means by "individual" must be interpreted in the international, institutional context of work and production which she has presented over against the "starkly individualistic approach" of mainstream adult education (p. 9). I interpret Hart's point in terms of Gramsci's assertion that "the starting-point of critical elaboration is the consciousness of what one really is, and is 'knowing thyself' as a product of the historical process to date" (Gramsci, 1971, cited in Said, p. 25). In another context Gramsci suggests that the injunction to "know thyself" was originally advice given by Solon to the plebeians, who believed themselves to be of bestial origin and the nobility to be of divine origin. Solon's point, according to Gramsci, was that the plebeians, by reflecting on themselves, would see that they had the same human nature as the nobles and hence should claim to be their equals in civil law. In other words, it carried a political message (Gramsci, 1977, p. 10).

In other words, the validation of subjectivity cannot be at the expense of the political, as appears to be the case in Matthias Finger's analysis of the new social movements. Finger asserts, for example, that the new social movements are not

political, that for them politics has failed, and that the individual is "the only unit of social and cultural transformation" (Finger, 1989, p. 18). In the first place, it is not clear that this is, in fact, an accurate interpretation of new social movements (See Welton, 1993). In the second place, the implication which Finger draws, that "transformation must therefore be thought and practiced from the point of view of the person," and that "the person rather than history becomes the subject of adult learning" (p. 21) - these implications must be rejected categorically.

They must be rejected on the grounds that they misunderstand the dialectical relationship between "the person" and the community, the dialectical relationship between internalization, objectification, and externalization, to use the language of Peter Berger's sociology of knowledge (Berger, 1967). Finger's conclusions in the last analysis give priority to the person over the community, despite his statement that "identity is both individual and social" (p. 21).

In addition, Finger's analysis leaves out of account the implications of the corporation-as-person doctrine, with all of its implications for how the language of personhood and individuality is actually used. There is no indication in Finger of the way in which the language of individualism is used to blind to, to divert attention away from, the fact that corporations are, in fact, collectives, so that a society dominated by corporations is hardly a society characterized by

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Analysis of Finger -
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individualism of natural persons.

Finger's call for adult education to recognize the emotional, moral, and even religious sources of transformative power and energy is in line with Hart's insistence on validating subjectivity. In affirming this point, adult education must draw on the feminist writers on the politics of identity. In addition, Raymond Williams's wonderfully articulated exploration of "structures of feeling," a "kind of feeling and thinking which is indeed social and material, but each in an embryonic phase before it can become fully articulate and defined," would serve as a useful starting point that would avoid separating the social and the personal (Williams, p. 131. See also Woll, 1992).

Another essential task in any successful effort by adult education to reconstruct the categories of individual and person in relation to community must be to face squarely the collective character of corporations. In the "American" (read U.S.) consciousness, "collective" is associated with "communist" societies. The collective nature of U.S. corporations is *goal* invisible in the context of this discourse. Yet in the giant, hierarchical multinational corporations of the early post-WWII period, the faceless corporate bureaucrat was very visible in other contexts, such as academic social science, comedy, film. In the new, flattened, flexible, virtual corporations or "global webs" the rhetoric of entrepreneurship and networks of independent consultants and small business enterprises is a new form of mystification. But Robert Reich points out, ominously,

that even in the age of "global webs" there is "no 'inside' or 'outside' the corporation, but only different distances from its strategic center" (Reich, p. 96).

Not only are corporations collective institutions, they are more than just economic in nature. Corporations are political organizations. "A corporation is government through and through" (Miller, 1985, p. 303, citing Bentley, 1908). Miller's proposal is "to constitutionalize the corporation," that is, to reverse the present legal status of corporations as persons with rights but without corresponding duties.

According to Peter Drucker, corporations are the local self-governments of modern society, "the logical successor to manor, village and town" (Miller, 1987, p. 308, citing Drucker, 1953). On the other hand, Drucker also has noted, recently, in an article on "the new society of organizations," that the modern organization is destabilizing of society, community, and family, that "it must be organized for the systematic abandonment of whatever is established, customary, familiar, and comfortable, whether that is a product, service, or process; a set of skills; human and social relationships; or the organization itself" (Drucker, 1992, p. 96. Emphasis added)! This, it should be noted, is one implication of the new learning organization, which adult educators are supporting, in some cases with a great deal of enthusiasm. Drucker also points out that the feature that gives modern organizations the capacity to perform "is precisely that each is autonomous and specialized, informed only by its own

narrow mission and vision, its own narrow values, and not by any consideration of society and community" (p. 104). Drucker ends his article with a question. In the modern society of organizations, who will take care of the common good? Who defines it? Who balances the separate and often competing goals and values of society's institutions? He does not offer an answer.

CONCLUSION

I come back to the question with which I began. What is the impact on knowledge of the ways in which society is putting computers to use? In the course of this discussion it has become clear that corporations are the primary computer users and that the ambitions, visions, goals, purposes, ends which organizations bring to the computer, including the ways of understanding knowledge, knowing, information, are shaping the global order in ways that cannot be ignored.

One effect of corporate dominance is the increasing influence of economic definitions of knowledge and information. Knowledge and information is becoming commercialized. A second effect is that there is "a black hole of ignorance about transnational corporate activity" which is the outcome of systematic omission of information and its meaningful analysis (Schiller, p. 171). An example of the distorting, blinding consequences of corporate hegemony is the discourse about self, individuality, and community, which manages to ignore or minimize the political implications of the communal, collective nature of

corporations themselves. It is clear from all this that "the informational question, in all its dimensions - practical and theoretical - is an urgent political issue in America" (Schiller, p. 164). Therefore, the starting point for an adequate adult education policy regarding the "information" machine par excellence, the computer, must be political, and that means coming with a clear understanding of what that means. In a democratic society that means deconstructing the notion of "individuality." It is fascinating to reflect that the era of the "personal computer" coincided with the Reagan administration

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REFERENCES

- Bentley, A. (1908). The Process of Government.
- Berger, P. and Luckmann, T. (1967). The Social Construction of Reality: A Treatise in the Sociology of Knowledge. Doubleday & Company, Anchor Books.
- Carnoy, M., Castells, M., Cohen, S. S., & Cardoso, F. H. (1993). The New Global Economy in the Information Age. University Park, Pa.: The Pennsylvania State University Press.
- Drucker, P. (1953). "The Meaning of Mass Production," Commonweal, 57.
- Drucker, P. (1992). "A Society of Organizations," Harvard Business Review. September-October. 95-104.
- Finger, M. (1989). "New Social Movements and Their Implications for Adult Education." Adult Education Quarterly, 40(1), 15-22.
- Fiske, J. and Hartley, J. (1977). Reading Television. London: Methuen.
- Gramsci, A. (1971). The Prison Notebooks: Selections, trans. and ed. by Quintin Hoare and Geoffrey Nowell Smith. New York: International Publishers.
- Gramsci, A. (1977). Selections from Political Writings (1910-1920). Minneapolis: University of Minnesota Press.
- Hart, M. U. (1992). Working and Educating for Life: Feminist and International Perspectives on Adult Education. London: Routledge.
- Miller, A. S. (1987). Politics, Democracy, and the Supreme Court: Essays on the Frontier of Constitutional Theory. Westport, Connecticut: Greenwood Press.
- Rosaldo, R. (1989). Culture & Truth: The Remaking of Social Analysis. Boston: Beacon Press.
- Said, E. W. (1979). Orientalism. New York: Vintage Books.
- Santa Clara County v. Southern Pacific Railroad, 118 U.S. 394 (1886).
- Schiller, H. I. (1989). Culture, Inc.: The Corporate Takeover of Public Expression. New York: Oxford University Press.
- Schoenhoff, D. M. (1993). The Barefoot Expert: The Interface of

Computerized Knowledge Systems and Indigenous Knowledge Systems. Westport, Connecticut: Greenwood Press.

UNESCO, (1982). Cultural Industries: A Challenge for the Future of Culture. Paris.

Welton, M. (1993). "Social Revolutionary Learning: The New Social Movements as Learning Sites," Adult Education Quarterly, 43(3), 152-164.

Williams, R. (1977). Marxism and Literature, Oxford: Oxford University Press.

Woll, B. (1992). "The Black Hole: Epistemology and the Liberal Roots of Adult Education," Unpublished Paper.

Zinn, H. (1980). A People's History of the United States. New York: Harcourt Brace Jovanovich.