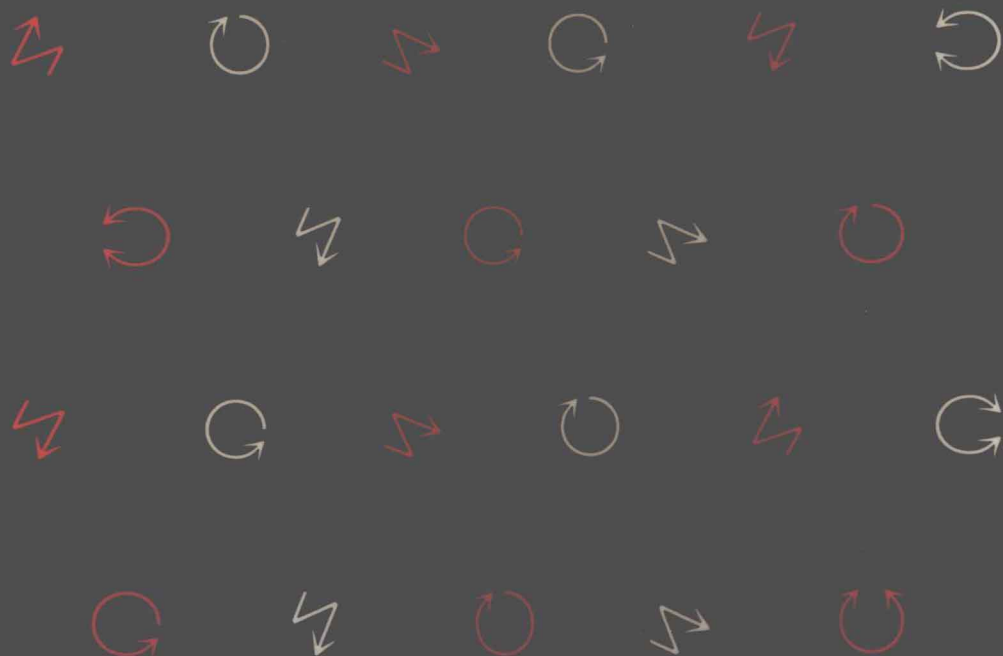


THE POLITICAL ECONOMY OF INFORMATION

Edited by Vincent Mosco & Janet Wasko



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The Political Economy of Information

1. Introduction: Information in the Pay-per Society

Vincent Mosco

Information Society. Postindustrial Society. Third Wave. Microelectronic Age. Computer Era. Network Marketplace. There is no shortage of reminders that society is changing and that these changes have something to do with communication and computer technologies. This book is an effort to analyze these changes by looking at information, the principal product of computer/communication systems. We call it *The Political Economy of Information* because one particularly useful way to understand social change today is to examine how *power* is used to shape the production, distribution, and use of information as a *commodity*.

Technology itself, even such seemingly powerful forces as the computer, does not determine or even shape social relations and social institutions. It is, rather, more useful to see technology as opening up a number of social potentialities. Those who have power to advance certain of these determine or shape the use of technology. This is not to suggest that all uses of technology are a function of power; rather, power sets the pattern for the principal direction of production, distribution, and use.

A fundamental source of power in capitalist society is profit from the sale of commodities in the marketplace. In fact, a basic driving force in the development of capitalism has been the incorporation of things and people into the commodity form. Capitalism was forged in clashes over making land, raw materials, finished products, and human labor commodities to be bought and sold for their *exchange*, as opposed to their *use*, value. The articles in this book consider the process of incorporating information into the commodity form.

As this suggests, power and commodity are inextricably linked. The division of academic disciplines into politics and economics reflects a distortion of this necessary connection. *The Political Economy of Information* is one among a number of efforts to return to the original unified field of such classical political economists as

Smith, Marx, and Ricardo. Such a perspective can advance our understanding of the social relations of information (see Mosco, 1986).

The first part of the book addresses ways of seeing, or, as Dan Schiller puts it, “How to Think About Information.” This is followed by studies that identify specific domains in the political economy of information. These include how corporations are making information a marketable commodity, how the state advances that process, the implications for access to information and the wider class structure, and the impact on the workplace and the home. The concluding articles—studies of developed and Third World societies—consider the international significance of transforming information into a commodity.

The remainder of this introduction will be taken up with two tasks. First, I offer a particular perspective on the political economy of information and trace the implications of this way of seeing for central issues confronting people today. The idea of the Pay-per Society provides another way of thinking about social life—about our social relationships in the home, the workplace, and the wider world of political upheavals. The introduction concludes with an overview of the remaining thirteen chapters.

THE PAY-PER SOCIETY

These days everyone seems to have a catchword for the new computer/communication technology: the Postindustrial Society, the Information Age, the Computer Era, the Second Self, the Third Wave, the Fifth Generation. These slogans embody general attempts to glorify the technology and gloss over the fundamental problems it creates or accentuates. They are what I like to call Pushbutton Fantasies (Mosco, 1982). As fantasies they are important because they, explicitly or not, seek to occupy the image space that people turn to when they think about what the new information technology means. Consequently, I have decided to enter this catchword contest by offering an image that captures better the spirit of computer communications today: the Pay-per Society.¹

We see evidence of the pay-per society all around us. There is pay per call in telephone, pay per view in television, pay per bit or screenful of material in the information business. Advertisers refer to pay per reader, per viewer, or per body when they place an advertise-

1. The pun on “paper” contributed to my choice of the term. It unnerves the high-tech advocates among my colleagues who, ignoring the contents of their own offices, think that paper is on the way out.

ment. In the workplace, word processors know about pay per key-stroke. And so on.

The essence of what is happening is this: new technology makes it possible to *measure* and *monitor* more and more of our electronic communication and information activities. Business and government see this potential as a major instrument to increase profit and control. The result is a pay-per society. Let's take a closer look at some of these examples and what is behind them.

First pay per call. The rise of digital technology has led to a concerted business effort to deregulate phone service in North America and Europe. Part of this effort is a move to introduce local measured service or pay per call. Many U.S. and European jurisdictions permit charging by the call or per second of phone use. Canadian companies such as Bell Canada are eager to introduce the service. The principal reason for pay per call is that it gives companies the opportunity to offer attractive deals to their business customers and maintain their profits from individual customers and small businesses. With the historical commitment to universal service deregulated or privatized out of existence, companies would use pay per call to shift their cost burden to those who lack the power to contest such a shift (Mosco, 1985; Pike and Mosco, 1986).

Second, pay per view. We have come a long way from the time when most television viewers paid for the service indirectly, through the increased cost of products advertised. We have moved rapidly from indirect payment to a monthly cable television charge, to pay-per-channel schemes with such services as Home Box Office. Now we hear more and more about pay per view. Pay per view is made popular by videocassette rentals but is appearing as well on interactive systems. According to one executive, "Pay-per view is the next grand frontier" (*Newsweek*, 1985).

How about pay per bit? The power of computer technologies to measure and monitor each transaction opens the door to charging for information by the page (or screenful, as it is increasingly called), by the bit, or by the minute of phone use. All sorts of information, from news stories to our shopping habits, from textbooks to performance data on the workforce, are now being packaged and repackaged in marketable form. As a result, as Demac and the Schillers point out in Chapters 7 and 8, these stores of information, or databases, which were once distributed by governments at no charge or a nominal fee to individuals and libraries, are now sold by private companies on the private market. Indeed, as Dan Schiller describes, companies have initiated a new position, the Information Resources Manager,

whose job it is to successfully market data on customers and employees, data that might otherwise be stored away or discarded.

Pay per call, per view, and per bit are complemented by what advertising people call pay per body. Advertisers have always known that the cornerstone of electronic media is the process of buying and selling audiences (Smythe, 1981). The new technology deepens and extends this process. The computerized credit card, the home computer, and the sophisticated television system that permits home banking, shopping, opinion polls, and so on also allow corporations to collect massive amounts of information on users. One analyst estimates that within five years 40 million so-called smart cards for automating banking, shopping, and other services will be in circulation in the United States alone. (Glaser, 1986, p. 35). How much money you have, what you like to buy, your views on capital punishment, your preference for president or for laundry detergent—the new technology is used to draw detailed marketing profiles of individual households for what is called (using appropriate military language) precise targeting of potential buyers. Indeed, advertisers are testing systems that use these profiles to direct different commercials to homes in the same neighborhood. These same advertisers go on to pressure program producers to shape their work for an audience of likely consumers. There is little resistance in the media. As one newspaper executive for the eighties put it: “Newspapers are in the information business, but at a more basic level their product is influence—the ability to help advertisers influence consumers” (Mosco, 1982, p. 104).

It should come as no surprise, then, to read daily newspaper accounts of the mania for mergers and joint ventures that has seized the computer communications industry. Companies see the profit in the pay-per society and are joining their respective strengths to take advantage of these money-making opportunities (Bernstein, 1986; Rothmyer, 1985). Take, for example, a recently announced joint venture among RCA, Citicorp, and the regional telephone company Nynex. RCA, now a subsidiary of the giant General Electric, itself owns the major television network NBC and is a leading arms manufacturer. Citicorp is one of the world’s largest banks, with over a thousand offices in more than 90 countries. It has pioneered in electronic, particularly home, banking. Nynex is one of the largest telephone companies spun off in the AT&T case. It serves New York and most of New England. These companies have joined to form a home information service that would provide banking, shopping, information, and other services for a pay-per fee over a re-equipped television set. This development mirrors an earlier joint venture among Sears, IBM, and CBS. There is no guarantee that such ventures will

achieve short-run success. In fact, such so-called teletext or videotex systems have been slow to develop, in part because of the cost of making such services worthwhile, but also because of their technical complexity. Nevertheless, one might see such ventures as testing grounds for future systems differing somewhat from their forerunners, but rooted in similar principles. In Chapter 9 Eileen Meehan describes a good example of this pattern. The interactive video system QUBE attracted a good deal of media and academic attention, both for what it tried to do and for its failure in business terms. But as Meehan skillfully points out, QUBE succeeded as a testing ground for a range of now lucrative systems (including Music Television, or MTV) and pioneered in developing the means to make profitable use of information gathered on subscriber choices.

The same technologies that extend the pay-per society into the home are used extensively to create a pay-per workplace. Hence pay per keystroke. Secretaries now work on machines that monitor when they begin work, when they take a break, how many keystrokes they type, and whether or not the number meets a minimum quota (10,000 strokes an hour is common). Telephone operators are driven to complete a phone call every 26 seconds. In addition to regular monitoring of Average Work Time, operators are presented with a computer printout on over 60 activities, including the amount of time they spend in the washroom. These same computer systems now control skilled telephone craft workers, who can be found in front of the same screens that confront operators. They are expected to complete a precise number of jobs each day; the computer that parcels out their work also monitors their performance (Mosco and Zureik, 1987). One result is a growing incidence of stress-related problems in the workplace. Or, as Jean de Grandpré, chairman and chief executive officer of Bell Canada, put it: "I have no stress. I impose stress on others" (*The Whig-Standard*, 1985). Grocery checkout clerks work with optical character readers that compute the number of items they ring up over a period of time. Workers in the insurance industry are given a fixed amount of time to handle phone inquiries based on the type of claim. The fast-food industry is preparing a generation of young workers for the rigors of a work world in which the machine embodies relentless supervision (Reiter, 1986).

Let's sum up where we have come to thus far by identifying what is driving this pay-per society. First, there are developments in technology: the integration of digital computers for processing information with cable and communication satellite systems for distributing it, and the linking of these to high-definition screens for display. These make up computer-communication systems that measure and moni-

tor information transactions and permit the packaging and repackaging of information into a marketable commodity.

Driving the technology are large businesses that would use computer communications to increase profit and extend control over workers and consumers. Businesses have a lot to gain in the pay-per society. They stand to gain simply by making information a commodity for sale rather than a public good, necessary for the maintenance of democracy. Though information has been a commodity from the earliest days of capitalism, the new technology deepens and extends opportunities for selling information by transcending the boundaries that space and time impose on the packaging and repackaging of information in a marketable form. A newspaper story can be repackaged in a number of saleable forms, including radio, television, cable, teletext, magazines, computer databases, educational "courseware," and so on—each package brings its own return for essentially the same content. It is no wonder that a company like Time, Inc., or ABC would like to be involved in most of these businesses. It is an opportunity to be paid several times over for the same story. Similarly, information about our credit purchases, vacation choices, opinions about society and politics, can be packaged and sold several times over. Again, it is no wonder that companies like Sears and American Express would like to be involved in this range of businesses.

Beyond the increased profit from the sale of information, as Andrew Clement describes in Chapter 11, there is the use of information technology to slash labor costs by eliminating jobs or deskilling them and thereby cheapening their value. Automated operator services, diagnosis and repair, and record keeping and filing have eliminated tens of thousands of jobs in the North American telephone industry. Membership in the largest phone union in the United States, the Communications Workers of America, dropped from 500,000 to 440,000 between 1981 and 1984. (*New York Times*, 1984). Since the telephone industry is looked on, in the words of a Science Council of Canada report, as "a paradigm for automation in other parts of the service sector," it is likely that we will see this pattern grafted onto other industries, such as banking, insurance, education, and social services (Cordell, 1985, p. 37). The jobs that remain in these industries are shorn of their skill content and thus cheapened beyond the need for further automation. This has been the case in the fast-food industry. One of the reasons why fast-food employment is growing so rapidly and unlikely to experience severe automation is that labor costs are too abysmally low to justify the cost of extensive automation. But it certainly makes sense to eliminate a well-paid

branch bank manager. Here is how one responded to the drive to automate, deskill, and centralize information and authority:

A Canadian local bank manager pointed out that his regional vice-president knows precisely the state of his branch, at any point during the day, by pressing the appropriate buttons. He can know the state of deposits in the bank, the state of withdrawals, the state of payments of loans, defaults on loans, everything that is put in the data banks, the bank's central place. So I asked the branch manager, "What is your role?" His response was "I'll be damned if I know." (Cordell, 1985, p. 41)

So the telephone operators and craft workers that remain see themselves as automatons responding to the dictates of a video display terminal that displays precise orders and just as precisely monitors their conformity. One consequence of this is that consumers bear more and more of the workload. Customers now go to the phone store to pick up a phone. Customers plug it in. Customers find phone numbers. Customers take the phone out to be repaired or, more likely, toss it out and buy a new one. Since the company does not pay customers for their labor, it saves money that used to pay a phone worker's wages.

But beyond this, as Gerald Sussman points out in Chapter 13, companies want to use the new technology to expand their control internationally. This technology allows a company to centralize key finance, marketing, research, and planning decisions in a headquarters office kept up to date with a regular stream of information brought in by a global network of computer communications systems. The company can then use the world as its market for products and labor, taking advantage of low-cost regions, antiunion policies, and political conditions that oppress resistance. Consider Digital Equipment's boast in a management publication about the company's World Computer:

DIGITAL'S WORLD COMPUTER

- keyboards made in Boston
- display monitors made in Taiwan
- system boxes assembled in Westfield, Mass.
- floppy disk drives made in Singapore and assembled and tested in Springfield, Mass., and in the future will also be assembled in Singapore

- disk drive heads are made in Westboro, Mass., with plans to move this operation to Shrewsbury, Mass.
- integrated circuits are fabricated in Hudson, Mass., sent to Taiwan to be cut and packaged, then sent to Marlboro, Mass., to be made into hybrid circuits, then tested and sent to Westfield, Mass., to be incorporated into the Professional 350 processor
- computer memories made in Hong Kong and Singapore
- circuit memories assembled in Albuquerque, N.M.
- power supplies made in Phoenix, Arizona
- some circuit modules subcontracted in Puerto Rico
- at the Westfield plant, “Gus” the robot works around the clock loading and unloading circuit modules from a “Smart Burn-In” system which tests the reliability of the modules
- robot manufacture of disk drive heads is being developed for Westboro or the Far East
- “for flexibility,” DEC wants to build monitors not just in Taiwan but also in Hong Kong

SOURCE: Decworld, March 1983.

The new technology makes possible a truly international division of labor. But, just as important, it is a flexible one. In response to changing political or economic conditions, companies can relocate with relative ease to a more stable or a cheaper location (Fuentes and Ehrenreich, 1983).

CENTRAL PROBLEMS IN THE PAY-PER SOCIETY

One can identify three central problems of the pay-per society. The headlong drive to expand the profitable uses of new technology deepens and intensifies some of the thorniest social and moral concerns: class divisions, threats to civil and human rights, global warfare.

We have been so caught up in what I call the Pushbutton Fantasies of the computer society that we have lost sight of a growing class of people who cannot afford the price of admission to the information age. As business and the Pentagon work toward the fifth-generation computer, the U.S. government acknowledges that about one-third of its adult citizens are functionally illiterate. What does this mean? They cannot read a help-wanted ad. They cannot address