

Book Reviews



Brown, John Seely, and Paul Duguid. *The Social Life of Information*. Boston: Harvard Business School Pr., 2000. 320p. \$25.95, alk. paper (ISBN 0-87584-762-5). LC 99-49068.

An odd experience, but one that more and more reviewers no doubt find themselves having, is that of receiving an assigned title and belatedly discovering that everyone else seems to have already read the book. Indeed, many of these individuals have provided testimonials for the dust jacket and perhaps even reviewed the title themselves. In this particular case, no fewer than ten eminent *blurbistes* have checked in before the reviewer has even had a chance to sample the first page. Among these are power-thinkers such as Francis Fukuyama and Robert D. Putnam and even the lesser-known ones are attached to prominent think tanks, the largest and best-known research universities, some very powerful corporations, quasi-governmental agencies, and some of our nation's most prestigious foundations. Perhaps the authors have been on book tours and done the television talk-show circuit as well, where they had their faces made up, their wardrobes exhaustively monitored, and their images scrupulously doctored for mass consumption. What is a mere book reviewer in an obscure professional magazine to make of all this?

Add to this that the title already has been reviewed in *Chronicle of Higher Education*, *TLS*, and *Publisher's Weekly*, and the ordinary reviewer begins to feel a little like a tourist on the set of a Hollywood movie. Perhaps the root of the discomfort is the realization that the English-speaking intelligentsia, having decided to stop criticizing the establishment and more or less join it, also have decided that it is time to welcome and encourage those who, like John Seely Brown and Paul Duguid, want to de-

velop the critique of electronic reason from the inside and who thus have no reason to fear being labeled as Luddites. This may be what distinguishes *The Social Life of Information* from certain works with which it might be profitably compared, such as *Resisting the Virtual Life: The Culture and Politics of Information* [San Francisco: City Lights], a 1995 book edited by James Brook and Iain A. Boal that has a distinctly countercultural flavor. None of this is in *The Social Life of Information*, which is written very much in the style of the businessman-turned-intellectual, warning colleagues that they are really way too simple-minded. Thus what we have here is a case of a message, some of which we have heard before, but in a very different context and with a different impact.

So perhaps two cultures of critique are emerging in response to the increasing hegemony of automation in late industrial society, corresponding loosely to the countercultural and the more mainstream points of view. The former wants, broadly speaking, to call into question the whole idea of using machines to replace human labor and both presupposes and develops a theory of alienation based on that concern; however, the latter wants to use machines more efficiently and more intelligently and shows no interest in philosophical issues such as liberation. Very much in this latter category, *The Social Life of Information* appears as a kind of administrator's companion. To reverse Marx's famous old saying, their business is not to change the world, but to understand it.

The chief danger, the authors argue, in today's highly automated and information-intensive environment is the development of tunnel vision, which prevents both designers and users of high-

information technology from understanding that information always has a social context that surrounds it and conditions its use. Thus the main question addressed by the book is neither information nor knowledge, but both in relation to their wider context. A closely related and very persistent theme is the tendency for the logic of information use to push aside long-term questions and concerns, causing us to fall into a myopic preoccupation with the short-term wonders of the digital age. Although the authors generally steer clear of theory as a speculative tool, there is an underlying suggestion of a dialectic between the short term and the long term, each somewhat blindly preparing the way for the other, like the shifts of the political pendulum that keep us alternating between contrasting points of view with a clocklike regularity.

For this reason, they suggest, many well-known trend analyses often turn out to be much too infocentric. Forecasts of decentralization, disintermediation, and the flattening of hierarchies, for example, often turn out to be much oversold because information is not autonomous, and exists in a larger and more determining social context. As work in many sectors of the economy becomes more automated and more information intensive, the organizations in which this work is done often become increasingly top heavy administratively and managerially, despite the periodic efforts to curtail this. This is probably because the adoption of new ways of doing things often increases overhead and administrative cost and thus requires more centralization of control to make sure that a firm's assets are used wisely. In any case, it is clear from these trends that informatization can increase, not decrease, administrative control and often causes more centralization.

Another factor here is that as work becomes more information intensive, the problems of gathering and distributing information tend to be largely performed electronically, but the problem of absorbing all the new information is a social and

human problem, not an electronic or mechanical one. Further, the great speed of the machine cannot be matched by the necessarily deliberate pace of mature human judgment. This leads the authors to an informative discussion of what economists have called the productivity paradox. In looking at economic growth in three distinct periods beginning in 1948 and ending in about 1998, a nice, round fifty-year period, analysts have noted that investments in information technology and productivity appear to be related inversely and not directly, as we might expect. Thus, although investment rates have grown steadily over this stretch, productivity has fallen from an impressive 2.5 percent in the period ending about 1973 to about 2.0 percent in the period ending in 1998.

Part of the answer to this is that productivity gains typically require several decades, or even more, to register, so they do not show very clearly until long after key innovations have been implemented. However, the trouble is that in a market economy, where almost constant innovation is the rule, the fabled payoff never quite arrives; rather, it is usually displaced by a new set of innovations being brought to market. Thus, perhaps the real paradox is not so much that technological investment seems to hold us back but, rather, that periods of innovation must somehow be balanced by periods in which societies assimilate a group of innovations and make the most out of them before moving forward to another set of changes. Thus, the paradox can be stated as the idea that innovation requires tradition. But one can hardly imagine a generation of management gurus saying this!

The analysis abounds in useful and memorable distinctions, some borrowed, some invented. For example, borrowing from psychologist Jerome Bruner, the authors capitalize on the distinction between learning about something and learning to be something, or learning a set of roles. Borrowing from philosopher Gilbert Ryle, they apply the famous distinction between "knowing that" and "knowing

how" to do something. Both of these are applied with great insight and are used to help introduce a nuanced concept of "practice" involving a complex web of human and electronic interactions, which shows that it may well be possible to learn about something or to accumulate the factual knowledge of knowing that something is true or false by relying heavily on information retrieval and processing. However, this will add virtually nothing to anyone's knowledge of how to be or become something or to anyone's actual ability to know how to do something. One may accumulate an enormous amount of information about primates, for example, and thus become impressively learned in the sense of "knowing about" and "knowing that." But becoming a real expert and a field researcher must be learned by working with other people who have experience that they are willing to pass on to the novice. In short, these are social and cultural processes and can never be reduced to problems of information transfer.

Somewhat more originally, they also distinguish between communities and networks of practice, a contemporary variation on the old distinction between the local and the cosmopolitan contexts, which helps explain the complexity of moving from invention to innovation and the interrelationships between firms or organizations and occupational groups. A community, on the one hand, is characterized by face-to-face interaction, sharing a common work site and a common organizational context or perhaps, more poetically, a common sense of place. But most workers also are connected to a wider world of colleagues they often consult, and this attaches them, on the other hand, to a network of people who do not work with them or live in the same geographical area and with whom they do not interact on a daily basis. Both are intertwined in today's complex environment.

Another original distinction is that between "sticky" and "leaky" knowledge (i.e., knowledge that is hard to share or

transfer versus knowledge that is hard to control and is appropriated by someone outside the original context of invention and turned into a lucrative innovation). A great example here is Xerox Palo Alto Research Center (PARC) and the invention of the graphical user interface, which got stuck inside Xerox whose principals did not appreciate its importance because they were focused on the lucrative business of producing photocopiers. As a result, it leaked to Apple, which then turned the invention into an innovation. For an example of how the authors relate their distinctions well, consider the relation between communities and networks and the phenomena of sticky and leaky knowledge. What stuck inside the Xerox community leaked out, via larger networks of expertise, and became part of the Apple community. From the viewpoint of these companies, it is a story of loss versus gain. But in a larger sense, everyone gained because a new product got developed and distributed; long-term gains here eclipse shorter-term losses. (A great irony here is that after benefiting from a nice leak from PARC, Apple then attempted to make the discovery sticky by refusing to license its operating system.)

For libraries, librarians, and particularly library administrators and trustees, these lessons already have proved to be very hard to learn and do not seem to be getting any easier. In libraries and information centers, the productivity paradox is as glaring as it is anywhere else, perhaps more so, as administrators invest lavishly in hardware and software but hesitate to add more staff to help users exploit the technology. Similarly, the great investment in information technologies has not made libraries any less hierarchical or less centralized. Information continues to flow primarily from the bottom of the organization to the top, the primary difference being that the flow is faster and richer than before. The truth is, as we should have known all along, that information technology does not really do anything by itself but, rather, is a reflection of who is controlling it.

There are other lessons that apply to libraries, one of the more important of which is both political and economic in origin. Because the Cold War is over, market capitalism has acquired a hitherto unknown hegemony; and because networked information technology, though largely a creation of the federal government, is developed in the private sector, entrepreneurialism has acquired an unprecedented prestige. For many, it supplies a fundamental cultural and ethical framework increasingly embraced by a wide variety of professionals who once looked to independent intellectual and critical models of our high culture. Intellectuals, and many writers as well, eagerly try to become businessmen, and many librarians seem bent on joining them. But our ability to profit from books such as *The Social Life of Information* depends very much on our ability to resist this temptation.

Clearly, there is much to admire and learn from here, but there is nonetheless a kind of Victorian faith in progress and problem solving through invention, innovation, and exploitation of the market. I suspect that the key underlying assumption of the book is that networking is an unquestioned good. Although there can be little doubt about how useful electronic networks can be, we need to be able to frame a larger context in which we can evaluate how networks function, something like the systems theory of the German writer Niklas Luhmann. Perhaps then we could recover some of the privacy and security of the stand-alone models of the past and the connectivity of the network models of the present and the future. Thus there may be a particularly relevant connection between networking and the productivity paradox, but unless we can find this larger context, we would never be able to see it.—*Michael F. Winter, University of California-Davis.*

The Collaborative Imperative: Librarians and Faculty Working Together in the Information Universe. Eds. Dick Raspa and Dane Ward. Chicago: ACRL, 2000.

158p. \$24, alk. paper (ISBN 0-8389-8085-6). LC 00-028392.

The Collaborative Imperative addresses a broad, amorphous, but clearly important, aspect of academic librarianship—cooperative working relationships with classroom faculty. The editors, a professor of interdisciplinary studies at Wayne State University and the coordinator of instruction services at Central Michigan University library, also cowrote three of the chapters, which seems particularly appropriate given the subject matter. Wisely dispensing with the need to establish the importance of collaboration, the book quickly moves on to deal with both the theoretical and practical aspects of collaborative undertakings. The central themes of the work are the need for active listening, creative dialogue, and the kind of mutual trust and respect that can grow only from personal connections.

The primary focus of *The Collaborative Imperative* is on projects that go significantly beyond the scope of librarian-faculty interactions generally expected in realms such as bibliographic instruction and collection development. These more common forms of interaction are identified in the book as “cooperation” or “coordination,” and although they are addressed throughout, most chapters assume these kinds of interactions already exist. Much of what is said in the book is relevant to these less complex forms of interaction and might serve to enhance them, but it is the overt hope of the authors to inspire more ambitious, “out-of-the-box” collaborative projects.

The book consists of eight diverse chapters that collectively deal with a broad range of different aspects of collaboration. Conceptual and psychological issues share the pages with accounts of successful programs, tips for successful collaboration, and other more concrete information. As in any compilation of texts by different authors, the whole is somewhat uneven and written in very different voices. Each chapter, however, clearly revolves around the central theme, and by dealing with different facets of the