

mental right, then all citizens should have equal access to these techniques. As noted, the authors argue that cryptography is both practical and inexpensive, and most in the community of professors, computer scientists, and engineers likely would agree with this statement. However, one wonders about those who remain largely outside this discussion, without the type of training and education that would provide, at the very least, the confidence and the wherewithal to enter the debate. As this society continues to sort out how it will balance privacy rights in cyberspace with security concerns, it also needs to consider developing an electronic variant of the Miranda warning—"You have the right, and the tools, not to leave electronic footprints strewn throughout cyberspace." The poor, the uneducated, and the marginalized always have been less secure in their private space, in the aggregate, than have those able to live in nice neighborhoods with fancy security devices. However, although this physical vulnerability might arguably be an inevitable downside of either capitalism, the human condition, or both, Diffie and Landau suggest that it need not necessarily be replicated in cyberspace. The issue of privacy haves and privacy have-nots, therefore, becomes a critical corollary to the more general issue of information access.

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*Class Warfare in the Information Age*. Michael Perelman. New York: St. Martin's, 1998. 154 pp., \$35.00.

*Class Warfare in the Information Age* questions the validity of free market economics. It follows in the wake of *The Death of Economics* (Ormerod, 1994) and *The Crisis of Vision in Modern Economic Thought* (Heilbroner & Milberg, 1995). Each takes modern economics to task for one reason or another, but Perelman initiates a direct attack based on issues of class.

Although there is much in this work that is provocative, the reader who expects to find a deep analysis of the socioeconomic side of the information economy is likely to be disappointed. Indeed, Perelman claims that there is no such thing as an information economy if information is thought to be a replacement for labor and goods. Yet, in the same chapter, he makes observations about the costs of participating in this (non)economy and informs us that access to technology is not enough and that training also is needed before students can benefit from it.

Perelman tackles, in a somewhat disorderly manner, several of the commonly held beliefs about the nature of the information economy, toppling some and getting in a solid lick or two against others. For example, many believe that high-speed information processing devices add new elements to old production processes. Not so, says Perelman. To an overseer in a field, the short-handled hoe was an information device that provided real-time feedback about worker performance because those who stood upright to rest could easily be seen over the stooped backs of the others.

Some proponents of the information economy point to quantitative evidence to prove that it exists, but according to Perelman, many of these measures are overblown, and even where they are valid, they do not represent information that improves the quality of our lives. Information residing in the expanding finance, insurance, and real estate (FIRE) sector does more harm than good when it is used by investors to force firms to reduce research and development or to downsize in other ways to show a profit. In the former case, Perelman claims that the FIRE sector acts as a barrier to the development of a true information economy.

Kenneth Arrow observed that possession of information reduces decision-making risk. Perelman takes an opposing position, claiming that possession of information is simply about increased control. Management has replaced workers who once possessed tacit knowledge and skills that once were essential to the operation of the firm with automated production methods and now expects to be rewarded for that appropriation of the information. And management is, to such an extent that upper echelon executives are provided with compensation that appears exorbitant by ordinary standards.

Perelman points out that 70% of the jobs in the year 2000 will not require a college education. More than one third will require little more than an eighth-grade education. He believes that managers restrict access to information and benefits and that profit-oriented business never has found an adequate system to encourage individual creativity on the part of production workers. Yet, we have “deskilled” individuals and replaced them with systems that are so complex that it is not possible for any one person to understand them. If we were preparing in earnest for the information age, then we would be spending more on education, but “we do a better job in our society of preparing underprivileged youth for prison than for productive and meaningful employment” (p. 27).

The real revolution, Perelman says, is that we now treat information as private property and organize it into massive databases containing the most personal of information about each and every citizen. This leads to what he has identified as the paradoxes of the information age: Exclusive access to information becomes a source of private power, although it hinders society’s ability to benefit and has profound consequences for the individual.

*Class Warfare in the Information Age* can be read quickly. The reader will find that it contains no original research and no dense statistics or econometric models. It can, however, serve to stimulate discussions about the information age and where we seem to be heading. This clearly was Perelman’s purpose, and in that regard, he has fulfilled his objective.

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## REFERENCES

- Heilbroner, R., & Milberg, W. (1995). *The crisis of vision in modern economic thought*. New York: Cambridge University Press.
- Ormerod, P. (1994). *The death of economics*. New York: John Wiley.

*Education/Technology/Power*. Hank Bromley and Michael W. Apple (Eds.). Albany: State University of New York Press, 1998. 263 pp., \$19.95.

This anthology seeks to provide new perspectives on the role computers play in the classroom. The central focus of *Education/Technology/Power* is primary and secondary schools, but some attention is paid to undergraduate programs as well.

More than half of this work consists of ideological bromides mixed with decade-old observations about the teaching of computing. Hank Bromley, one of the editors, sets the tone by referring snidely to schools’ “supposed responsibility to prepare students for the workplace” (p. 9). It is not clear from Bromley’s critique of the relationship between computers and teaching what role schools are supposed to play, but graduating students capable of using computers to earn a living apparently is not part of his educational vision. According to Bromley, relatively few graduates will be called on to use computers because the economy is