

The Computer in the School: Tutor, Tool, Tutee.

Robert P. Taylor, editor.
New York:
Teachers College Press, 1980.

—Reviewed by Judith B. Edwards,
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I expected this collection of essays by five "pioneers" to be of merely historical interest. With the new capabilities of the microcomputer, I thought ideas from the teletype years would be irrelevant and perhaps misleading. However, I was pleasantly surprised.

Much of the work is historical—half the articles were published 1965-1975, pre-microcomputers—but most is still pertinent. Much is new thinking, highly relevant to the expanded capabilities of computers. And some is original and exciting, although perhaps not immediately practical in today's educational climate.

Taylor's structuring of the collection provides a useful framework for understanding the place of the computer in education. That is, the computer can teach (tutor), provide aid and support for student or teacher (tool), or actually be "taught"—that is, programmed—by student or teacher (tutee). Very different educational benefits are derived from each mode of use.

The choice of five authors seems to have been heavily influenced by the extent of continuity and consistency in their work. Thus we get a clear exposition of each of five perspectives.

Thomas Dwyer, for example, has long believed in providing a "rich and joyful environment" in which to learn. His concept of solo-mode, student-controlled learning and computing implies a willingness on the part of educators to allow and encourage students to learn by exploring in a setting rich with technological possibilities. In light of the dwindling resources available to education, the difficulties he sees with solo-mode learning are made even more problematic: it is complex to orchestrate; educators tend to regress to a more familiar way of guiding learning; and it is seen as being too avant-garde, too expensive, or too esoteric. Nevertheless, his thinking is exciting and stimulating.

Seymour Papert's work with the LOGO language and the popular "turtle" at MIT is similar to Dwyer's in that he

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believes in providing a rich environment for learning. The computer is used as a resource for students to learn heuristic thinking and problem-solving strategies. His "Computerbased Microworlds" article, part of his early work on a new book, is a fresh and exciting approach. He, like Dwyer, is not constrained by worries about ease of implementation, cost, or familiarity to teachers.

Alfred Bork provides a clear and highly detailed discussion, based on extensive experience, of the considerations involved in writing student-computer dialogs. For courseware developers, his work is essential reading. He also provides useful (again, to developers) discussions about the use of graphics in learning. His essay on "Interactive Learning" is, for the uninitiated, a powerful argument in favor of CAI.

Arthur Leuhrmann presents a passionate but logical case for computer literacy for the masses. Definitions of "computer literacy" vary, with noisy proponents at several points on the continuum. While some argue at one end for mere "awareness," Leuhrmann places himself at the other end, arguing that the computer has become a fundamental intellectual resource which all students must learn to program and use in non-trivial ways.

Patrick Suppes' articles, ranging from 1965 to 1977, may be, in the final analysis, the most relevant to education in today's climate. As resources diminish, educators are increasingly concerned about "productivity," a notion he deals with in a very practical way.

Use of the computer in the near

future will depend on the extent to which it contributes to the productivity and "cost-effectiveness" of education—and the extent to which it aids the teacher in the immediate daily problems of teaching and managing large classes. Dwyer quotes Jerome Bruner, who took a leave of absence from Harvard to teach fifth grade for three months: "I taught every day until 1:15 and came back to my office exhausted. Like the other teachers I had to prepare most everything myself. Now I know that after you teach for a while you can't expend energy that hard and lay your ego that costly on the line. How can a teacher cope without some kind of supporting back-up?"

This is the reality computer education must deal with. Unfortunately, none of the authors of *The Computer in the School: Tutor, Tool, Tutee* writes from the perspective of the classroom teacher. Nevertheless, it is an important book for any educator thinking about using computers in education.

Available from Teachers College Press for \$14.95.

Bootstraps: A Chronicle of a Real Community School.

Lewis E. Harris and Rae Harris.
Cable, Wisconsin:
Harris Publications, 1980.

—Reviewed by Henry H. Waibesser and Cheryl Gonce Winder, University of Maryland, College Park, Maryland.

During the 1930s, school systems throughout the country were re-examining their functions and purposes. The Floodwood School in Floodwood, Minnesota, was a product of that. Engineered by the "innovative practices" of Lewis and Rae Harris, the goal was to enhance the school's integration with the community. The impact of that experience for the original staff members and persons with whom they interacted did much to advance the view of schooling as a dynamic enterprise. For curriculum scholars and developers interested in the process of community school development, *Bootstraps* is an invaluable resource, written from first-hand experience by two distinguished educators.

Available from Harris Publications, SR 2, Box 123, Cable, WI 54821 for \$8.00; include \$1.50 postage and handling.

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