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Industry and Education

A trend to watch with interest is the movement of industry into the classroom. General Electric, I.B.M., Raytheon, Xerox, and other industrial giants have recently acquired smaller companies with long experience in educational work, or have established educational divisions or subsidiaries. To help direct these new ventures they have recruited teachers, psychologists, and educators, among them Francis Keppel (former Assistant Secretary of Health, Education and Welfare) and Francis Ianni (former director of research in the Office of Education), who have joined the new General Learning Corporation created by Time and General Electric, and Edward L. Katzenbach, Jr., who left the American Council on Education to direct the educational division of Raytheon.

Not everyone welcomes this industrial invasion. Traditional textbook publishers are keeping a wary eye on their new competitors. Some educators fear that the motivation is wholly financial, for education has now become one of the largest employers and greatest investors of capital in the United States. Some warn against overemphasis on hardware, and have history to cite in justification of their fears. Motion picture film has long been recognized as a useful teaching aid, but some bad pictures have been produced. Programmed instruction is a useful technique, but some programmed courses have paid more attention to method than to material. Television has promise, but has fallen far short of its educational potential.

Statements of some of the top officers of companies with educational interests bring assurance that they recognize these dangers and that their emphasis will be—as any teacher's should be—on the learner and the learning process. Joseph C. Wilson, president of Xerox, told the New York Society of Security Analysts, "Xerox has no intention of imposing hardware on the content of education. . . . We are entering this market with many more questions than answers." Lyle Spencer, president of Science Research Associates, recently commented on the expected competition for the educational market: "Competition for what? Merely to sell textbooks by the carload and teaching machines by the dozen? Hardly. We are in competition to ask questions and find answers. . . . We are looking beyond the pages of a textbook and into the mind of a child. . . . We want to find out—and intend to find out—how a classroom can become a more effective organizer of a child's experience."

If these attitudes are typical, the situation is full of promise, for industry can provide fresh ideas, a largeness of approach, and resources for innovation and experimentation. One opportunity is to treat education more comprehensively than the individual author or curriculum builder can treat it. The term *systems approach* may be overworked, but the educational system could profit from being considered as a whole. Another opportunity is to experiment on a large scale. Much of the educational change of recent years has dealt with single courses, or even smaller units, and much has been introduced without experimental test or verification. A related opportunity is to assess more systematically what happens to students under different forms of educational handling. Competition, for sales as well as for prestige and the satisfaction of making major social contributions, should require industry to evaluate its educational work thoroughly.

Education has profited from the efforts of senior scholars to improve course content. It has benefited from the growing support and involvement of the federal government. It can also profit from the activities of its new ally, industry. A community of interest is evolving. If an effective partnership can be developed, the benefits to education can be great.

—DAEL WOLFLE

Science

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