

Reviews

***T.H.E. (Technological Horizons in Education) Journal* (USPS 527-890) (ISSN 0192-592x), 10 issues per year, by Information Synergy, Inc. P.O. Box 15126, Santa Ana, CA 92705-0126. Subscriptions free with qualification, \$29 otherwise. Photocopying permitted.**

T.H.E. Journal, 16 years old, can help ACE communicators be part of the educational revolution called "computer-based instruction (CBI)". It provides news about hardware, software, meetings and research in computer-based and videodisc-based training. In the process, it provides justification for hardware and software purchases for computer-based instruction in Extension. You'll find more educational focus here than in *PC World* or *MacUser*, and less to wade through. The journal makes major conclusions easy to skim with bold-face headlines down the outside column of each page.

ACE communicators may want to be part of the CDI revolution for several reasons:

- It's more effective for some applications.
- It attracts budget.
- Computers will take a bit out of the training publications budget, anyway; so keep that money in-house.
- Through the interactive capability of computers, the learner can be more involved in instruction, creating a very interesting communication environment.
- The software is now available to make it, reasonably, easy for non-hackers to create courseware.
- Through the computer, many specialists can team-teach a course, at a reasonably low cost, in the long run.
- Communicators need familiarity with computer-based instructional materials, at the very least, to give good counsel to agents.
- We can make CDI better; our expertise in packaging information, in targeting, in attention spans, and in other aspects of communication can improve computer-based instruction as it is now, generally, practiced.

The September issue included two articles of particular interest:

Research Review

Extension training—especially in technical, scientific areas such as pesticide use—might be improved by the introduction of interactive computer instruction, judging by conclusions which Dr. M.D. Roblyer (Florida A&M University) draws in a review.

His findings can be used to support grant applications and budget requests:

- Computer-based instruction is more effective with adults than with children.
- Science is the subject taught best by computer, especially through simulations.
- The computer worked equally well with males and females, and equally well with low and high achievers.

- Using a computer did not improve attitudes toward school or teachers, but word processing software reduced reluctance to write.

Roblyer's article does not explore the reasons why science may be delivered more successfully by computer than other subjects. Especially where cause-and-effect "trees" can be drawn and simulations created, other subjects should be presented as successfully by computer as is science. For those subjects, the problems may lie in the people, rather than in the technology.

Hypothesis #1: Programmers tend to be science types, familiar with science, and not familiar with other subject matter.

Hypothesis #2: Programmers' learning styles probably differ substantially from the learning styles of subject-matter specialists outside science.

Hypothesis #3 (probably not testable): Rethinking of topics to package them for interactive computer presentation may lead to fresh insights in those subjects.

MacClassroom

Especially interesting to Macintosh fans is T.H.E. Journal's "Macintosh Special Issue 1988," available free. It discusses:

- use of the Macintosh in the nation's high schools with a closeup of those in Shrewsbury, Mass. (contact: Thomas Plati, technologies coordinator, Shrewsbury Public Schools);
- the way by which good instructional design makes a learner look, almost, like a self-directing researcher;
- the Perseus Project, a multimedia videodisc database used to teach classics at Harvard (contact: Gregory Crane, editor in chief);
- networking for teaching;
- using Macintoshes in educational administration at Cornell University (contact Russell S. Vaught);
- using the Macintosh, videodisc, and compact disc for multimedia instruction, with a case study on the interaction of color (by Andrew Phelan at Pratt Institute, Brooklyn).

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***Surviving Corporate Transition* by William Bridges. 1988. Doubleday, New York. 227 pp.**

Don't be misled by the title of this book since it deals with transition's role in the subject of change. Robert N. Beck says, "This is certainly 'must' reading for anyone planning for change, going through changes, or trying to recover from change." In the climate of higher education, in general, this includes just about everyone.

Bridges refines the age-old adage that people resist change with the insight that people really resist transition—not the change itself. The transition is the hard part of change because it involves people, psychologically, over a long period of time. Change is something new, different and, usually, exciting.

Transition usually is the least planned part of bringing about change. It is a high demand time—for, in helping the organization move from an out-dated way of doing business to the new, a leader must handle both.

The author presents many examples of businesses making change, including how corporations such as Goodyear Tire & Rubber Co., Owens Corning, Dow Chemical and Campbell Soup, dealt with takeover attempts. But, one example comes directly from higher education.

A small liberal arts college for women was on the verge of going out of business in the early 1970s. Research had indicated that few high school graduates wanted to go to a small religious institution staffed by nuns. On the positive side, research showed an expanding market for adult women. After re-doing its curriculum to include career and life planning, together with several other changes, Mayhurst College of Oregon has transformed into a thriving institution.

Several more examples could be given from higher education. Colleges of agriculture, home economics, business, education and, yes, extension, are all being asked to change and provide citizens with the leadership needed in how to handle changes.

Shakespeare once wrote of the Seven Ages of Man. For the author, they became stages in industry—dreaming about the venture; beginning it; getting organized; making it; becoming an institution; closing in; and terminating the venture. Let's not let our institutions be trapped in this natural life cycle, or we may be associated with dying organizations!

I believe this book would be of particular interest to the ACE communicator who is dealing with deans, presidents, and others who try to effect change in higher education.

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***The Media Lab* by Steward Brand. New York: Viking Penguin, Inc. 1987. 268 pages.**

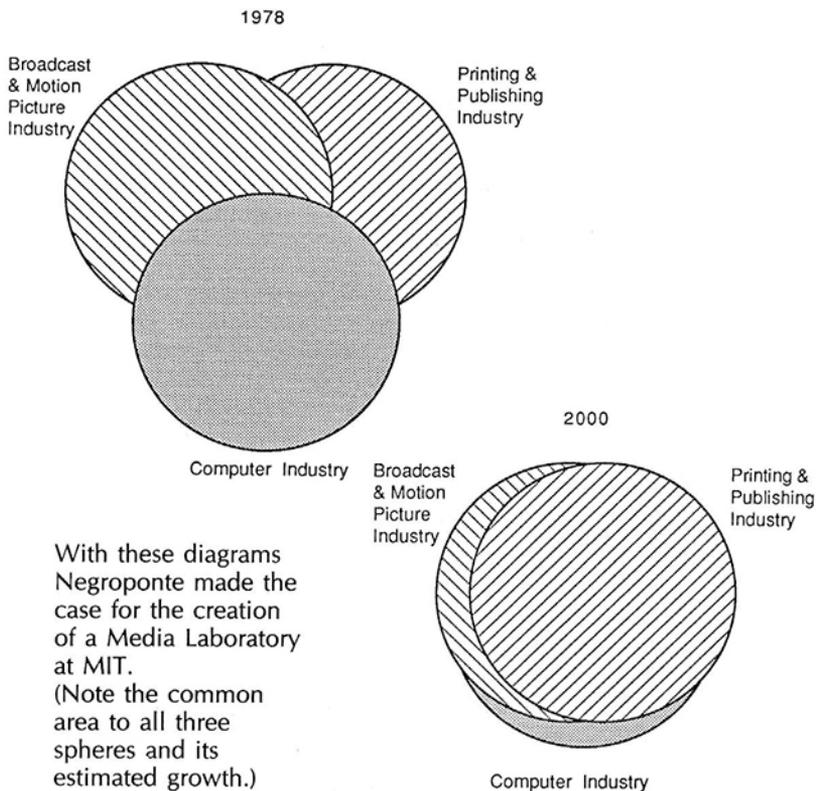
Steward Brand is the editor and visionary behind the *Whole Earth Catalog* and its spin offs, the *Co-evolution Quarterly* and the *Whole Earth Review*. Sometime in the mid-'70s, Brand saw the emerging computer revolution and started a great exploration of computer applications, much to the dismay of many of his readers. Yet, time has been on Brand's side. Now, he makes a great contribution to the mainstream in *The Media Lab*. This is must reading for those interested in the future technology and educational applications of media.

Simply, this book describes the "going-ons" at the Media Lab housed at the Massachusetts Institute of Technology. Brand recounts the origins of the lab and visions of its founder, Nicholas Negroponte. In 1978, Negroponte saw the merging of three discrete media industries: broadcast and motion picture; print and publishing; and computer. He saw the three as having similar parts with rich interactions. Studying these media groups as a single unit, and exploring the human sensory and cognitive systems became the keys to developing and organizing the lab. Brand includes the original chart which Negroponte used to explain the future and his vision. You'll be amazed

at how simple the chart is, yet how futuristic it was and how the ideas it represents still have power and influence. I've been using the chart in discussions, meetings and classes.

The visions coming out of the lab, the lab's workings and integration of media and education are well explained in this very readable book. You'll meet all sorts of provocative people involved in exploring the true frontiers of computer and human interface. You'll get to know some of their thoughts and the trends which they're establishing because the people at the MIT Media Lab are making the future. An example is Alan Kay, one of the developers of the Macintosh. Kay is a brilliant idea person and has a key ability to develop his hunches into wonderful and fun applications.

Figure 1. The Media Lab



The book has been discussed widely and was listed as a "book-to-read" at the 1988 Extension technology conference at Clemson University. You won't need to be a computer literate because the book is quick-reading with lots of stimulating thoughts and illustrations. Brand also acquaints you with the background theories which are making things happen now in the media world. *The Media Lab* should definitely be on your reading list and shared with your colleagues.

Jim King
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***New Directions for Agriculture and Agricultural Research: Neglected Dimensions and Emerging Alternatives* by Kenneth A. Dahlberg. 1986. Totowa, NJ: Rowan & Allanheid. 436 pages.**

If you haven't been following the flourishing discussion on the research and extension agenda for sustainable agriculture, this collection of papers offers you an excellent way to catch up. Dahlberg's volume will expose you to ethics and values, the global and economic setting, past and present goals and priorities, and the emerging agricultural alternatives.

The authors of the 17 papers are drawn from political science, philosophy, anthropology, rural sociology, agriculture and other disciplines. The blend of the humanities and the social and natural sciences accords the reader an appealing perspective on the emerging agriculture.

For example, the basic ideas behind conventional economics as applied to agriculture are challenged. This is an intriguing and provocative chapter. In another section, Pat Jordan and co-authors describe the State Agricultural Experiment Station system. The controversy between agricultural production and health effects is covered in another well written paper. There are also chapters on alternative agriculture, biotechnology and research, and farm behavior.

For communicators, John Bennett's chapter on "Research on Farmer Behavior and Social Organization" may be the most interesting. He looks at research methodologies appropriate to the study of knowledge and transfer. Bennett contrasts *indigenous* and *exogenous* knowledge. Indigenous knowledge is produced on or near the agricultural production system, "accumulated by agrarian producers who have learned by doing." Exogenous knowledge is developed by "external, non-producing experts, via the use of science."

This distinction is significant for sustainable agriculture. Chuck Francis argues that information can substitute for external, purchased inputs on the farm, and therefore, communication and agricultural communicators play a major role in the emerging paradigm shift. Bennett's chapter will give you much to weigh and discuss.

If Dahlberg's book is in your library, look over the articles. You'll encounter numerous appealing arguments . . . and you'll discover some wanting. The concepts all are important and, already, subject to much debate on our university campuses, as well as in agricultural production and business sectors.

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