

## The Three Rs

The EDUCAUSE National Learning Infrastructure Initiative inaugurated the annual Robert C. Heterick Jr. Lecture-ship at the January 2004 NLII Meeting in San Diego. Recognizing a lifetime of leadership in information technology, the lectureship was posthumously named in honor of Bob Heterick, who passed away on November 7, 2003.

Heterick enjoyed a thirty-eight-year association with Virginia Tech, as a student, a faculty member, and an administrator, and was named Vice President for Information Systems in 1985. From 1993 to 1998, Heterick served as President of Educom, one of the precursors to EDUCAUSE. He was a member of numerous professional and honorary societies, was the recipient of the 1994 CAUSE ELITE award for lifetime achievement in higher education technology, and was the author of more than one hundred professional publications.

The column reprinted here, published originally in *Educom Review* in 1998, could easily have been written for *EDUCAUSE Review* in 2004. Always the visionary, Heterick six years ago argued many of the same points still being debated today.

Direct, thought-provoking, and prescient, Heterick—and his contributions to higher education in information technology—will be missed.



Lately it seems that some folks in higher education are caught up in the three Rs—railing, writhing, and recrimination directed against technology and against the future.

They have chosen to see the introduction of technology into learning environments as replacing faculty, complaining bitterly about the imposition of cold, sterile machines in place of warm, attentive humans. One can't help but wonder if they have ever read student exit interviews complaining about the quality of instruction. They seem to suffer great emotional distress at the prospect of replacing the teacher by the student as the focus of the learning process. Any suggestion that there may be some things that technology can do better is met by accusations of an unholy alliance between higher education and the private sector.

But their fulminations are misguided. Higher education is a highly personnel-intensive activity. Eighty to 90 percent of the operating budgets of most institutions of higher education are devoted to personal services—faculty and staff salaries. Higher education costs have been rising at more than twice the increase in the consumer price index for the past two decades. And, the cost of receiving a university education at some of the nation's premier institutions is totally out of the reach of the vast majority of families. In fact, attendance at the

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local state university is likely to require about 25 percent of the median income family's pretax income.

In light of the very serious problem engendered by higher education costs so far outstripping the rise in family income, it would be less than responsible for any of us not to look for educational strategies that can reduce costs, improve quality, and broaden access. Given the examples in our economy of other enterprises that have sought similar goals for their consumers, we might expect that information technology, intelligently applied, could offer the promise to help us achieve some of the same goals for higher education.

It is difficult to be committed to the proposition that "the way we have always done it" is somehow sacred and inviolable, any more than to be committed to a belief that the

summer break for farm work, or the fifteen-week semester, or the three-hour lecture/recitation are inviolate precepts of a university education. We should be willing to ask the question, "How would a focus on learning rather than teaching permit us to achieve some of those goals?" And, it is myopic in the extreme not to recognize that the health of our society and our economy is dependent on providing a breadth of postsecondary learning experiences that currently are not available in our universities and col-

leges because of cost and physical or temporal constraints. If one views higher education as a no-growth segment of society, it wouldn't be unreasonable to view a "replacement" model as threatening to faculty. That simply isn't the case. Demand for postsecondary education is at an all-time high and projected to grow much faster than the population.

It may well be that some of our universities will decide that their comparative advantage lies in operating highly personal, mediated, residential teaching experiences. If so, no doubt a whole new series of postsecondary learning opportunities will emerge from the commercial sector of our economy. These new entrants would likely be characterized by the use of information technology to help deliver learning experiences where learners want them, when they want them, and at a cost they find acceptable. Frankly, I don't think any significant number of our institutions are going to pass on the opportunity provided by the ubiquity of the computer and emerging broadband access to communication services. Nor is it likely that any significant number of faculty will choose to pass. A quick look at the past few years' winners of the Educom Medal is sufficient to convince anyone of the innovation and energy emanating from our faculties.

The next decade or two are likely to be somewhat messy as both our historic institutions of higher education and new commercial entries decide in which segments of the learning market they will compete and in which they will cooperate. Likewise, faculty and researchers will be struggling to understand how to maximize the comparative advantages of technology and human mediation. Undoubtedly we will see many hybrids as historic institutions align themselves with commercial entities to develop the capability to address some new or expanded market segment.

The three Rs we should be focused on are reducing, wrestling, and reengineering—reducing the cost of education, wrestling with the thorny problems of learning quality, and reengineering our processes to reduce costs, increase access, and improve quality.