

Essays on Teaching Excellence

Toward the Best in the Academy

Volume 10, Number 1, 1998-99

A publication of The Professional & Organizational Development Network in Higher Education (www.podnetwork.org).

Are we going to Cyberspace, or is this just another trip to Abilene?

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Ironically, a few weeks after I penned the title of this essay, Vice President Gore announced that the backbone network being developed to support the Internet2 project will be called the Abilene network. Although the history of the city of Abilene makes it a good metaphor for what will be accomplished by Internet2, I am referring to the use of that location by Harvey to describe what he calls "The Abilene Paradox" (Harvey, 1996).

Harvey uses an ill-fated trip to Abilene, taken by his family one hot summer day, to describe a phenomenon that he contends is one of the most pressing issues in organizations. Just as all of the members of his family agreed to take a trip to Abilene that none of them thought was a good idea, Harvey states that organizations take actions contrary to the desires of any of their members and defeat the purposes they want to achieve.

The paradox is that a group can reach total agreement to do the opposite of what any of the individuals in the group think is a good idea. Although Harvey discusses the Paradox in the context of a single organization, I believe it can also apply across similar organizations such as colleges and universities. Is the pull of technology in higher education so strong today that we run the risk of finding ourselves on a journey to Harvey's Abilene?

The Cost of the Trip

Thanks to technology, never before have we been able to spend so much, so fast, to do potentially so little. At my institution we spend approximately 10% of our operating budget on information technology. At many colleges and universities students are being asked to pay technology fees amounting to hundreds of dollars per year; and at a growing number of institutions students are required to arrive on campus with a laptop or desktop computer costing over \$2000. In some instances, students will purchase or lease two computers during their four years of undergraduate study.

Academic departments are adding costly computer labs, networks, and servers and hiring expensive technical support personnel. A recent job listing for one of the two-year institutions in our university system announced an instructional technologist position, at the bachelor's degree level with a minimum of two years related experience, at an annual salary of more than \$38,000. The search was being reopened; so this institution, located in a major metropolitan area, must be having difficulty filling the position.

At the institutional level, centers to advocate and support teaching and learning with technology are becoming commonplace. Millions of dollars have been invested in initiatives such as the Glass Highway in North Carolina and the Georgia Statewide Academic and Medical System (GSAMS). New buildings such as George Mason University Johnson Center, the University of Michigan Media Union, and the University of Texas, El Paso Multimedia Teaching and Learning Center represent additional multimillion dollar investments in technology at the institutional level.

Indeed, the technological journey we are on is costly in both capital outlay and human resources, as well as in recurring expenses required to sustain and refresh equipment and software. Is our destination worth the price of the ticket?

Landmarks and Guideposts

As we make our way on our journey, a number of troubling landmarks can be observed. Many of the individuals left behind, and therefore not going our way, are labeled luddites or laggards. We accept without qualification observations that our students "have

spent their early lives surrounded by robust, visual, electronic media - Sesame Street, MTV, home computers, video games, cyberspace networks, MUDs, MOOs, and virtual reality" (Dunderstadt, 1999, p.7).

Along the way, we see institutional leader after institutional leader voicing the desire, for competitive purposes, to make their institution or program the most technologically advanced. Students are asked to invest in technology through the payment of technology fees or the purchase of personal computers, and the magnitude of this investment is creating the need for development of applications to make this investment by students and their parents worthwhile. In turn, the need for rapid application development places additional demands on faculty members and support units.

Regional groups such as the Southern Regional Education Board and the Western Governors' Association are investing in duplicative efforts to provide distance education via technology even though one of the greatest benefits of this application of technology is to eliminate constraints of place (region). Community colleges, the success of which has been based on their abilities to respond to local needs, are now seeking a national market through the creation of the Community College Distance Learning Network.

Large capital investments are made in hardware and networking amid a cacophony of concern over a lack of adequate human resources to support technology already in place and unfunded hardware upgrade and replacement strategies. Faculty positions are being cannibalized for technology support personnel who are then recruited away to higher paying opportunities outside academe.

We spend more time servicing our desktop, preparing our own documents, and responding to our e-mail and less time in face to face interactions (a problem soon to be "solved" by desktop teleconferencing). Courses seem to be separated into two categories: those that have websites and those that will soon have a website.

These landmarks are not signposts clearly labeled "Next Stop, Abilene"; however, they should cause us some concern about our ultimate destination.

Fortunately, our journey is not by train, on a set of rails, with a terminus that is determined the moment we leave the station. Adjustments are possible along the way; and some guideposts are available to direct us to other, more rewarding destinations than Harvey's Abilene. "The Seven Principles of Good Practice for Undergraduate Education" are available to guide our choices for the use of technology (Jackson, 1994; Chickering & Ehrmann, 1996), and the recently published 10 learning principles (Engelkemeyer & Brown, 1998) can be used in the same way. We know that time on task, frequent feedback, student-faculty interaction, student-student collaboration, and opportunities for active learning are among the key elements of a productive learning environment.

In the past, it has been difficult to integrate these elements into large lecture sections of 200, 300, or 400 students. Technology gives us that opportunity; and the success of initiatives like the Math Emporium at Virginia Tech (Olin, Rossi & Scruggs, 1998), where many of these elements appear to be present in classes of more than 1000 students, is an indication of the value of the use of technology.

The increased availability of sophisticated Web authoring systems such as World Wide Web Course Tools (WebCT) has the potential for reducing both the amount of faculty time required for the development of Web resources and the demand on support units for intensive, one-on-one support of individual faculty efforts. In addition, publishers are beginning to provide text specific web sites that should reduce the pressures on faculty members to construct content rich sites on their own.

Rather than establishing entirely new units to support instructional technology (the traditional add-on approach), institutions are experimenting with virtual or meta organizations formed through collaborative efforts among existing campus units like the teaching and learning center, computer services, the library, and specialized support units in individual colleges and schools. Facilities such as new student learning centers under development at The University of Georgia and Gore Hall constructed at the University of Delaware have been planned with an emphasis on what the appropriate, as compared to maximum, level of technology should be for various classroom configurations.

Concluding Observations

The costs of technology are high, and the options for its use are varied. In order to avoid arriving at a technological Abilene, we must continually ask and answer the question "what ought we do with technology?" and not "what can we do with technology?". Purpose must lead deployment. Otherwise, we risk expending great efforts and scarce resources to produce the educational equivalent of "Thank you for calling, press 1 if you. . .".

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