Strategic Planning: Lessons Learned from the Computer-Intensive Campuses

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It is a pleasure to join my former colleagues, Jack McCredie and Doug Van Houweling, on this Strategic Planning panel, and to share with you some of the preliminary findings of the Computer-Intensive Environments (CIE) research project. Our project is co-directed by Tony Cline of Educational Testing Service and funded by the Carnegie Corporation of New York and the Exxon Education Foundation.

First, let me admit that I have no precise definition of a "computer-intensive environment." Jim Morris of CMU has, however, suggested the following working definitions: (1) an institution on the leading edge of providing "computons per capita," where a "computon" is a fictitious unit of all-purpose computing power (thus, a CIE is like a super-computer, with a definition that changes over time); (2) an institution that supports the maximum number of input devices to laser printers. These definitions are, of course, tongue-in-cheek; yet clearly in 1985, a CIE connotes many microcomputers and probably includes significant time sharing and local area networking.

"Strategic planning" is no easier to define. Most people think planning means the long-range, comprehensive, multi-committee, multi-year, multi-document study that results only in a very heavy file cabinet in the planning office. Of course, most long-range plans are never carried out, in no small measure because the organization has been exhausted in the planning effort. An opposing view, espoused decades ago by Herbert Simon, Charles Lindblom, and others, is "muddling through" -- abandoning the search for optimal, long-range solutions, trying small changes at the margin, noting effects, and adjusting course frequently as the environment changes. Muddling through is considered to be practical and political, but too dependent on the intuition of the leader(s) and unlikely to inspire an entire institution.

Somewhere between long-range planning and muddling through is the "good kind" of planning, what George Keller in his 1983 book, Academic Strategy, calls "strategic" planning. Keller argues for a much more controversial, activist, outward-looking, explicitly risk-taking concept of planning. Certainly there would be participation and task forces, but there would be no waiting for the ultimate consensus to emerge. Rather, the focus would be

foundation support, and -- not inconsequentially -- national attention. In most cases, a key premise was that being first would open the door to vast external resources, so that the operating and capital budgets would not face serious tradeoffs. The vision seems to have inspired the task forces, and in most cases still inspires people on the campus. One is reminded of Daniel Burnham's famous urban planning dictate, "Make no small plans for they have not the power to inspire the imaginations of men."

On each campus, there is a sense that "we are special." Clearly, part of this is "Hawthorne Effect," as visitors from other campuses, national and international media (and researchers) are given the grand tour. More important is a common sense of being "on board," of suspending the typical academic criticism, perhaps even suspending disbelief. (At Reed, 100% of the faculty voted to support the computing plan! Judith Turner reported on a similar situation at Drew University in Madison, NJ.) In fact, it was quite difficult to find skeptics on these campuses; faculty, staff, and students were very excited about making their institution better, different, unique, a leader.

What one observes then is the enthusiasm of the visionary, translated into resource allocation, which generates activity, which (ideally) produces more enthusiasm, which generates more activity. In the best case you capture all the discretionary time in an academic year. (And with all due respect to the faculty and students, there is an enormous amount of discretionary time in an academic year.) Doug Van Houweling suggested several year ago that there might be no hope for changing the way the faculty does business, but there is an enormous opportunity for changing what students do. I'm pleased to say that we observed changes in both groups. Especially impressive is the the amount of energy and excitement evident in the faculty. In some cases, this has already translated into instructional or research improvments. In others, there is the promise of applications (beyond word processing) of the new-found understanding of technology. Although in the short run it might be a dead weight loss to have theologians learning about RS-232 interfaces, they reported real pleasure in their new knowledge.

There are, however, two concerns about this virtuous cycle of enthusiasm and activity. One is that it could lead to chaos, as innovations proceed without plans or standards. For example, there are at least six different systems for text processing at Brown: Apollo workstations, Apple Macintoshes, DEC VAX VMS, DEC VAX UNIX, IBM mainframe, and IBM PC. (On the bright side, sharing tricks in this environment leads to much new communication across departments and disciplines!) The other concern is: what if the institution does not deliver on all those promises? What if you've created expectations that your people are going to be part of "the grand transformation" and the machines show up with defective chips -- or don't show up at all? On one campus, where foundation grants were slow in coming, some students asked, "What computer-intensive campus?"

So, there is probably a tipping point between keeping the faculty and students convinced they are in the midst of a very interesting -- but manageable -- problem (a la Tom Sawyer's fence) and having them rise up en masse convinced that someone sold them a bill of goods. (We aren't

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Appendix A

At Hamilton, a small liberal arts college in upstate New York, the concern was attracting high quality students and faculty to a remote rural area. The answer was a tight partnership with Cornell University so that state-of-the-art computing, data bases, and network access to the world could be provided. At CMU (the case featured in Keller's book), the goal was taking a regionally-known institution and turning it into a national leader by building on strengths in computer science and robotics. At RPI there was a long range plan "RPI 2000," into which information technology was imbedded. See McCredie (1982) for details.

Appendix B

The Six Campuses in the ETS-EDUCOM Study of Computer-Intensive Environments

The campuses were chosen to provide a range of institution types, sizes, locations, previous computing intensities, strategies, and corporate partners. On each campus, the researchers interviewed executive officers, computing administrators, technical and user services staff, faculty involved in planning, software development, and instructional innovation, and students. They also toured computing centers, stores, maintenance shops, libraries, classrooms, and dormitories. The six campuses are: