

ACCESS TO TECHNOLOGY AT WOODBURY UNIVERSITY—THE AFTERMATH

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In the fall of 1997, Woodbury University inaugurated its Access to Technology (ATT) program. The goal of this program was to put notebook computers in the hands of each of our undergraduate students. We began with the freshman class and added another class for three years, through the fall of 1999. In the spring of 1999, faced with mounting and insurmountable difficulties, we terminated the program. We now instead have a computer hardware and software requirement for our undergraduates.

In my presentation I outline what happened to our notebook program and what lessons are to be learned from our mistakes. It is my belief that our goals were sound, but that there are serious pitfalls which through inexperience we were unable to avoid. My discussion could be of help to other institutions considering delivering computer capacity to their students by means of notebook computers.

HISTORY OF THE ATT PROGRAM

Woodbury has had a computer literacy requirement for all undergraduates and graduate students since 1988. Our requirement is competence in basic applications on a PC platform.

The idea for the notebook computer program surfaced as a response to an invitation to submit a grant proposal. The grant proposal failed, but the program took on a life of its own, initially justified as a marketing tool to attract new students. In the fall of 1997, all 120 incoming fulltime first-year students received Compaq Presario notebooks with Office 97, together with a full Internet account and three hours of training. About 20 hours per week of dedicated in house tech support was provided, plus dedicated phone and email help lines. The intention was to add a class each year, until by 2000 all undergraduates would have notebooks.

In Spring of the first year, 1998, survey data revealed that incoming students did not have much computer literacy. Around 20% were able to pass the computer literacy exam. We changed the goal of the notebook program to *computer fluency*, the ability to use information technology easily and wherever its use is appropriate. In addition, it was hoped that with students having notebooks the capacity of the computer labs would not need to be increased, or at least increased as rapidly.

An assessment one year later made a number of problems clear:

- There was not enough instructional involvement in the program.

- Our initial ISP choice had unreliable service. In 1998, we moved to Earthlink, a reliable major provider with excellent phone support, and ISP student use roughly tripled.
- Three hours was just not enough training. In Fall 1998, we added a 12-hour 7-week course for all first-year notebook-using students in addition to computer literacy.

In the fall of 1998, we made some other changes: We decided to give our second-year students new computers and use the old computers as "training" computers for our first-year students. This was to help ameliorate obsolescence. We also switched vendors from Compaq to Dell mainly to improve service on the computers.

For faculty to obtain the necessary skills to teach with computers, we offered several optional workshops. Unfortunately, we were unable to mandate faculty training. With only a small number of faculty trained in the use of appropriate technology, we could not implement computing-across-the-curriculum or integrate computer skills into many courses.

COST FACTORS

Woodbury has an annual operating budget of about \$17,000,000; we have a modest endowment of \$7,000,000, so we are basically tuition-driven. Our (full time) tuition is \$15,800-16,640. Our total number students is about 1200, with about 850 day undergraduates. In recent years enrollment has been growing about 10 percent per year.

The notebook computers were to be paid for through an extra technology fee, \$850 per semester in 1997-8 and \$950 per semester in 1998-9. In practice there was also some operating budget subsidy, probably on the order of \$100,000. Two years' experience and numerous time-consuming appeals convinced us to switch to bundling the cost into tuition. The program was cancelled before we could implement this approach in Fall 2000.

Initially the notebooks were financed through a 5-year conventional lease. We switched to three-year operating leases with fair market value buyout because computers tend to depreciate very quickly. The intention was for students to use the lease buyout to purchase their notebooks for a reasonable price when they graduate. As it turned out, the buyouts when the program was terminated were unreasonably high. We ended up once again subsidizing the sale to the students of their notebooks for the amount of their accumulated paid-in technology fees.

FACTORS IN ENDING THE PROGRAM

Finance. It was initially hoped that the technology fee would enable us to break even. In reality, losses kept increasing for a number of reasons.

Inadequate Staffing. We seriously underestimated the increased staffing required for adequate support. There was not enough technological sophistication at the upper level of management to grasp what it would take to make the program viable.

Inadequate infrastructure and liaison to instructional uses . The final blow for me, after developing the 1-unit course for entering students, arranging class instructors and times, was the failure of the person in charge of new student orientation, to notify students that they should register for the course. As a result, about 20 out of 40 notebook computers newly acquired for the Spring of 1999 were never used. The University's infrastructure simply could not support the logistics of the program, and the goal of supplying each student with a computer was simply not going to happen.

Obsolescence. The well-intentioned decision to recycle the first Compaq notebooks that we bought to incoming first-year students and to give second year students current models itself was an enormous resource drain. It was basically not successful because the older Compaq 133s were perceived as not being powerful enough to run current software.

Platform variety. About 20% of our students work in design disciplines for which Macs are standard. Given the difficulty we were having with logistics with essentially one model, we could not see our way clear to implementing an entirely separate support structure.

HOW YOU SHOULD DO IT

The idea of supplying notebook computers to all students still seems to me a good one. There are benefits which cannot be easily achieved any other way. From the point of view of the student, our goal of computer fluency is still a sound one. From the point of view of the University, notebooks give students 24/7 access to computing power without having to maintain a large computer lab capacity.

In retrospect, two things that we did were very wrong:

First, this program was imposed on a University otherwise not ready to utilize it. I had hoped to be able to use the program to bootstrap the University to a higher level of technology utilization, but this did not come about. A preexisting infrastructure including IT-knowledgeable faculty and staff is required. Infrastructure must be in place **BEFORE** you begin having students acquire computers. If funds are not available to bring faculty and staff up to speed, I would strongly recommend against doing this particular project.

Second, we assumed the burden of becoming computer dealers for the students. Without the support infrastructure, we ended up not doing this very well. Distribution logistics were our Achilles' heel.