Bernardo, Kurt E.

Low Cost, Low Tech, Low Brow Technology: A Plan for Campus Communication.


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Lake Erie College OH

This paper describes Lake Erie College's (Ohio) economical solution to providing electronic communication for faculty on its campus. The college first assessed its existing computer capabilities to determine its needs. The college wanted to increase the total number of users on the local area network in order to better utilize the existing network server and college administration software package, and to provide a local, campus-wide e-mail system. By posting a notice on the "Wanted" section of the Cleveland Freenet Classifieds, Lake Erie College was able to obtain from a local business close to 40 working, out-of-date personal computers which faculty and students cleaned, reformatted, and onto which they loaded software and installed internal modems. Faculty were given a reference handbook and trained on the "new" computers, particularly for using the local campus e-mail system. Most faculty members did not have computers at home. Since the implementation, e-mail has become a popular method of communication among faculty and administration departments, and faculty who act as academic advisors are able to view student records electronically. The project was an unqualified success, with a total cost of less than 10 dollars. The college is now actively trying to plan for newer and better equipment for faculty and staff use for daily administrative activities, on-line research, and other academic purposes. (SWC)
Lake Erie College is a small independent liberal arts college located in the city of Painesville within the heart of Ohio’s Connecticut Western Reserve. Currently Lake Erie College has a resident student population of approximately 125 and a total student enrollment, including full time, part time, undergraduate and graduate students, of less than 700. While the College has a long tradition of liberal arts education the primary areas of concentration deal with equestrian studies, K-8 education, and environmental sciences. Graduate degrees are offered in education and business.

The Lake Erie College was founded in 1856 and at times it seems as though the school’s application of academic and administrative computing, as well as technologies of instruction, are still rooted in the mid-19th century. While Lake Erie College does make use of an administrative computing system the connections have been limited to administrators and their staffs in the Business, Admissions, and Registrar Offices. Most newer desktop computers which arrive on campus are placed in our student computer and language labs. These are for the most part 486 and Power Mac machines. On the other hand, all faculty and staff communications, record keeping, and student advising has been done traditionally with pen, paper, student leg work, and filing cabinets. Few of our faculty have desktop computers and the current College budget does not permit us to purchase computers for them. Understanding that we desperately needed to change our present circumstance in an effort to move our institution toward the year 2000 and the fulfillment of our Technology Plan we have had to consider an array of issues. The issues involved addressing needs, acquiring equipment, planning and scheduling training, and utilization. As a result we combined donated equipment and low tech strategies to achieve an inexpensive, yet hopefully temporary, solution.

Addressing Needs

We had some immediate idea about what we wanted to accomplish but a complete assessment of our present computer capabilities was needed before we could accurately establish our needs. What we did know was that as a starting point we had a Hewlett-Packard 9000 Workgroup Server located in College Hall. We also knew that we had scattered among various departments throughout College Hall approximately 25 dumb terminals, and a precious few PCS, which were connected directly to the system. Also connected to the HP server were two modems which allowed dial-up access for anyone who might have the appropriate equipment at their end. These modems were originally installed for Hewlett-Packard diagnostics and software maintenance by our software vendor. At that point the only Lake Erie College users connecting through dial-up were two members of the MIS staff (the entire department!) and one techno-able faculty member. We knew,
too, that the software we were running, the College Administrative and Reporting System (CARS) was capable of far more than what we were using it for. CARS is a college administration package produced by CISC of Cincinnati, Ohio. The package includes modules dedicated to admissions, registration, advising, accounting functions, and other areas of administrative concern. It is the type of package that often makes sense for a college as small as Lake Erie which has a very limited MIS staff.

Our greatest need, then, was to increase the total number of users on the HP LAN, allowing us to use the HP 9000 and CARS package as a much more versatile and useful system. One of the more important options this would allow us to utilize would be a local, campus wide, e-mail system.

We immediately realized that on the down side there were some serious obstacles which would prevent us from simply adding more users. We could not afford, budget wise, to add more ports for direct connections to the HP. Besides, College Hall is an old building, listed on the National Register of Historic Places, and we did not have the staff or resources to begin trying to pull wire through its mazes of walls and structural oddities. Another obstacle which was a real issue concerned our overall budget which did not allow us to buy many computers at all let alone enough for our entire staff of 35 full time faculty members and selected staff personnel. This, in itself, prohibited us from realizing the easiest solution in terms of connectivity, using computers and modems to enable the faculty to dial in to the administrative system.

Acquiring Equipment

The next logical step in computerizing our campus was getting the equipment. What subsequently happened is almost unbelievable. Since Lake Erie College does not have a campus wide Internet connection many of us utilize the Cleveland Freenet, through Case Western Reserve University, as our Internet E-mail connection. Freenets are free, locally accessible, Internet connections offered to any one who cares to sign up for an account. Most, as does the Cleveland Freenet, offer other services such as community announcements, library access, and a variety of information services. On a whim I posted a notice similar to the following item on the Wanted Section of the Freenet Classifieds:

Lake Erie College is in need of any used computer equipment you might be willing to donate.....

To my surprise the very next day there was a brief response telling me that the person responding indeed had some machines to donate and that I should give them a call. As it turned out Jerry Rakar, owner of Great Lakes Wholesale, is in the business of buying out businesses who, for one reason or another, are liquidating their inventories or office possessions. What Mr. Rakar was offering us was an almost unlimited supply of a variety of old PC’s. I mean old PC’s! AT’s and XT’s to start with and a promise of more modern machines as we went along. After making a few trips to pick up the equipment we ended up with close to 40 working machines, a number of unopened boxes of software, and a room full of spare parts. Preparing the units for faculty use was an experience in archeology. Most machines had not been touched since the mid 1980’s and a few were found to have become great habitats for mice! Other realizations were that most machines were operating on some version of DOS 2.xx, and had 10 megabyte hard drives! Software left on some
units included VisiCalc, and, everybody's favorite, the vi text editor. Along with student help the drives were reformatted, loaded with a newer version of DOS, a shareware communications package, and WordPerfect 5.1. Students had also helped in cleaning and reassembling the computers. All of this was a great learning experience for our student assistants who became better acquainted with the inner workings of PC's and discovered more than they ever hoped to about COM ports and IRQ's. Mr. Rakar's company had also donated enough 2400 bps internal modems so that now each computer was able to be equipped for communicating with our administrative computer.

Training & Utilization

Once the "new" computers were ready to land on desktops it was time to train our new users. This was a pretty straight forward exercise in one-on-one training. After a group faculty meeting, where a demonstration was given and faculty were told what to expect from their new equipment, we began to distribute the computers and offer training on an as needed basis. Much to our surprise very few of the faculty were interested in learning how to use WordPerfect 5.1. Remember, these are educators who, for the most part, do not even have computers at home. We realized quite early on, however, not to force the issue and to let them continue using whatever writing tools they might be familiar with. What all new users did need to be trained for was using our local campus e-mail system. All faculty and staff received user names and accounts on the administrative computer and where trained how to dial-in, login, use e-mail, and exit the system. Each user was also given a handbook which acted as a reference when they found themselves stuck. Since marrying this equipment with our administrative computing system campus use of E-mail has become a popular method of communication among faculty and administrative departments. At this point one of the greatest benefits of using these PC's has been the ability of those faculty members who act as academic advisors to view student records electronically. Now when a student enters their office for preregistration advising the advisor can simply dial up the system, call up that student's records and make timely and documented decisions about what that student should be accomplishing.

Overall Results

The outcome of our experience has been an unqualified success. The fact that all of the equipment we were given is old and out dated means nothing as far as how it benefits Lake Erie College. The total cost for this project was less than ten dollars! This money was spent for cleaning supplies, and a few telephone connectors. Not only did this low cost, low tech, low brow solution work for us, but it had an added consequence as well. Many more of our faculty have been exposed to hands on personal computing for the first time and this exposure has peaked their interest and whetted their appetite for more. Think back 15 years and it's like reliving the first coming of the desktop PC. Many of our new users have now purchased new computers for home use. The downside of this is they now see how really antiquated their office desktop machines are! The positive effect of Lake Erie College's foray into the world of low tech computing is that the college is now actively trying to plan for newer and better equipment for faculty and staff use in not only daily administrative activities, but for on-line research and other academic pursuits as well.
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