Small Missouri University Has Nation’s First ‘Electronic Campus’

By Brit Hume

MARYVILLE, Mo.

Rising from the rolling, rich farmland of this remote corner of Missouri is a small state university whose continued existence was in doubt a few years ago. It has now seen enrollment rise steadily, thanks largely to a unique attraction: Northwest Missouri State University is the first “electronic campus” in the United States.

Other colleges now require students to purchase personal computers as a condition of attendance. But Northwest, as it’s called here, was the first to put a computer terminal in every dormitory room and faculty office, and tie the whole system together with software designed for college life.

Built around a Digital Equipment VAX minicomputer, the system offers full-blown word processing and an on-line, 20-volume encyclopedia, dictionary and thesaurus. An electronic mail system permits students and faculty to communicate with each other, and to turn in papers and other work without leaving their desks.

The system also has a built-in calculator and spreadsheet software. The status of books in the school library is on line, as is a schedule of activities and a daily newspaper published by the school administration. Some terminals also have color-graphics capability.

Every one of the 5,200 students has storage space in the computer, so a paper or other file can be called up from any terminal. Students accustomed to writing and turning in papers by computer say what you’d expect: that having done it this way, they could never go back to the old way. Those who have typewriters report they never use them. Just in case hard copy is needed, there are laser printers near terminals in the library, and students can rent dot-matrix printers from the university at a nominal charge.

Computer literacy has also spread to the student newspaper and yearbook, which use electronic typesetting equipment. The result is a professional-looking newspaper and graphically spectacular award-winning yearbook.

The university also has several hundred microcomputers, but most of the work is done at the more than 2,000 Digital Equipment terminals. Having more personal computers might be nice, but Northwest was able to install two VAX systems (one for academic purposes, the other for school administration) for less than $3 million. And speaking of money, tuition, room and board here is about $3,400 per year for Missourians and $4,400 for out-of-state students.

Parents paying five times as much to send their kids to colleges that also require them to buy computers can only wonder why other institutions haven’t installed similar, or better, systems. As word of what’s happening here spreads, more seem likely to do so.

The big news in the personal computer world is that Apple has won a critical battle in its lawsuit against Microsoft and others charging that they have copied the operating system used in the Apple Macintosh.

The main target of the suit is Microsoft’s “Windows” software, version 2.03, an attempt to bring to IBM personal computers and compatibles the “point-and-click” method of running the computer made popular by the Macintosh.

Apple had granted Microsoft a license for development of an earlier version of Windows. In its initial defense, Microsoft contended that language in the license permitted it to update and change the program. The judge held otherwise, and the case will now have to be fought out on territory that could prove treacherous for the defendants.

There is no denying the similarity between what Windows allows a PC to do and the way a Macintosh operates. Using a mouse or other pointing device, an arrow is moved around the screen and aimed at objects or words representing commands to the computer. A click of the mouse button sends the computer into action. The user is thus relieved of the need to learn and enter a lot of arcane commands.

Software developed for use under both systems works in much the same way, so once the basics of running the computer are learned, the user also will have a basic understanding of how to run application software. Training time and costs are reduced and the computer becomes an accessible tool, not an intimidating device.

The question is whether Apple really has a legitimate copyright on its Macintosh “user interface.” The concept of using a pointer and on-screen symbols was first developed at Xerox Corp.’s Palo Alto Research Center and has been drawn upon by others besides Apple.

Both the Commodore Amiga and Atari ST, for example, use a mouse-based operating system, and a rival to Windows called GEM Desktop does so as well. None of these have been the target of litigation by Apple—yet.

An earlier column reported incorrectly that Ashton-Tate’s dBase IV software is copy-protected. The program does require users to enter their name and registration number each time they use it. But that’s not the same as copy protection, which prevents the making of copies.

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