

Defense during the 1960s — but because of the proliferation of newer, more powerful computers and software, the construction of the information superhighway is off and running.

"People are just starting to see the usefulness of e-mail because the personal computer is a common item in the household," says Chester Bullock, a senior at Embry-Riddle Aeronautical U. in Arizona. "E-mail allows me to communicate with friends all over the country and

If universities are going to train us how to operate anything more advanced than a deep-fat fryer, they had better take notice

world for free and without the waiting time that the standard mail system has."

The increase in on-line computing isn't confined to schools. The Electronic Mail Assn., a trade group based in Arlington, Va., estimates that 30 to 50 million Americans of all walks of life use electronic mail. About 3 million computers are hooked to the Internet alone.

But the Internet is by no means the only form of electronic communication used on campus.

Many universities are installing digital hookups that connect every dorm room and administrative office on their campuses.

Some students at Northwest Missouri State U. failed classes because they spent so much time on their campuswide e-mail network. And at Dartmouth College, the university's e-mail system, called Blitzmail, is taking over as the way to keep in touch on campus.

"It's pretty much replaced the telephone in terms of use," says Chris Johnson, a senior at Dartmouth. "Anything that would have been sent through the campus mail system is now done electronically. It's basically the easiest thing in the world to use."

At the U. of Colorado, students use their Macintosh computer network to see if they've fulfilled course requirements. And students at Cornell U. have access to a computerized counseling service.

"People have this habit of opening up on-line," says GWU's Maltese. "The [Internet] is a very informal place, and it's a place where we share a lot. People post pictures of their weddings to bulletin boards, announce the birth of children, everything. These people become your family. It's like the biggest secret clique in America."

WELCOME TO THE CLASSROOM OF THE 21ST CENTURY

Has the boredom of studying 15th century women's literature got you down?

Well, at Pace U. in New York they're introducing multimedia (integrated text, video and music) to their course on women in the Middle Ages in an attempt to make the subject more lively. (Good luck.)

The classroom of the next century may seem like an odd place for a 500-year-old woman, but the technological revolution doesn't discriminate by age or gender. Relatively inexpensive equipment has allowed more instructors to teach with computer-driven visual images and sound. Through

now

continued on next page

infotainment — Toys for the 21st century

Dorm rooms often rival computer labs for sheer number of high-tech equipment items. Between the TV, VCR, CD player, Nintendo, Sega (maybe both), computer with CD-ROM and digital phone hookups, a lot of dorm rooms keep the power company scrambling to produce the juice. Here's a list of what's here and what's coming on the technology/infotainment front.

Digital Compact Cassette

PURPOSE: Digital sound without the fuss, muss and fits of psychotic rage that would accompany throwing out all your conventional cassettes. The sound is almost as good as a CD, and you can play your Pat Benatar tapes, too.

USEFULNESS TO STUDENTS: DCCs are still expensive even though they've been out for about a year. Being able to record your CDs is a bonus, but the minidisc does that too. Hmm. See the **WORTH IT?** section.

AVAILABILITY: You can find a DCC at most any well-equipped stereo store. Locating a good selection of your favorite artists on DCC is a bit of a problem though. On a recent visit to a record store, several of the employees didn't even know where they kept the DCCs.

COST: About \$550 for the portable version and \$1,000 for the home model. Blank DCCs cost \$8 or \$9 and pre-recorded cassettes are as expensive as CDs.

WORTH IT? Minidisc is really the only competition, since digital audio tape (DAT), which actually provides better sound than minidisc or DCC, is used mainly by professionals. A word of caution: Minidisc and DCC are going to fight it out and it's likely only one will survive. DCC is the best bet for people with who can't cut the cord with their conventional cassettes.

Recordable Mini-CD

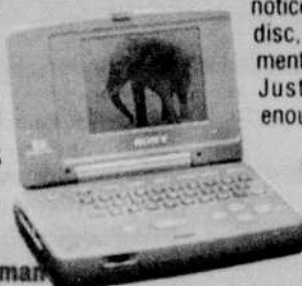
PURPOSE: The minidisc allows digital audio recording on a disc that is a little more than half the size of conventional CDs. The MD's sound range is more limited than a CD, but the minidisc doesn't skip like a regular CD, because it stores 10 seconds of music in its memory. So if you bump the player, it will continue to play while correcting itself. Also, it's enclosed in a plastic case that resembles a computer disk for protection.

USEFULNESS TO STUDENTS: The minidisc should serve you well under casual listening conditions. It's also portable and the sound is far superior to the Walkman you've been taking to class. And as far as recording goes, each copy will sound as good as the first. MDs can be recorded over a million times without any loss of quality.

AVAILABILITY: Like the DCC, most stereo store chains are carrying them. The selection of prerecorded titles isn't huge, but Sony makes the MD, so a lot of Sony/Columbia artists can be found on the format.

COST: MD portable and home players are priced to move at \$550 and \$1,000, respectively. The blank discs run between \$14 and \$17.

WORTH IT? The minidisc has basically corrected all the shortcomings of the CD. Most listeners won't be able to



Data Discman



notice the difference between CD and mini-disc, and conventional CDs are temperamental on bumpy roads and jogging paths. Just being able to record digitally is enough to dig this.

CD-ROM

PURPOSE: CD-ROMs (Read Only Memory) look just like regular CDs but can hold an amazing amount of information: The text, video and

audio entries of a small encyclopedia can all fit on one disc. CD-ROM offers multimedia capabilities, so when you're reading about JFK, you can actually hear a digital reproduction of one of his speeches. You can also listen to conventional CDs and get bitchin' games on CD-ROM.

USEFULNESS TO STUDENTS: CD-ROM really is the format of the future. No one other device offers so much in the way of education and entertainment for students. You can read *Newsweek* and the King James Bible on portable CD-ROM players or listen to the Butthole Surfers. For academic slackers, the entire line of Monarch Notes is available.

AVAILABILITY: The players are already everywhere and the software is exploding. You can get everything from the latest bestsellers to thesauruses, from how-to books to Berlitz Spanish lessons on CD. And in almost every case the text is accompanied by audio narrative. *Bueno, mis amigos!*

COST: Bookplayers as well as CD-ROMs you hook to your computer are about \$300 and up. Books on CD-ROM range from \$49 to \$69; some of the other titles such as Monarch Notes are cheaper (\$40 for Monarch, \$30 for a CD on how to write term papers). You can get books for your computer CD-ROM for about \$20.

WORTH IT? It's hard to imagine anyone reading a CD-ROM player on the beach, but the format offers amazing entertainment capabilities. Already you can hook a CD-I (Interactive) player into your television for multimedia programs. In the future, CD-I movies will be interactive, and *Viola!*, you become the director and can change plots at your capricious whim. If you have the cash, CD-ROM is a worthwhile investment that is going to grow by leaps and bounds. Yes, buy one, OK?



CD-ROM player



Sony MiniDisc

High-Definition Television

PURPOSE: HDTV will offer a wider image than traditional tube televisions and five channels of digital surround sound. The picture will double the quality of standard idiot boxes and the sound will rival that of CDs.

USEFULNESS TO STUDENTS: Very and scary. Incredible clarity + 500 cable channels + sound as good as your Pearl Jam CD = a lot more empty seats in your Elizabethan Poetry class.

AVAILABILITY: Word on the street is HDTV may be available as soon as the 1996 Olympics.

COST: Yikes — an HDTV will cost about \$2,000. But you'll be able to receive high-definition broadcasts on that old, beat-up TV you stole from your brother.

WORTH IT? Sure, it's pricey, but the sound and quality will kick butt and the picture ratio will be more similar to that of the theater. You've got until '96 to raise the funds, so start saving.

continued on next page