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TECHNOLOGY:
GET READY, IT WON'T GO AWAY!

BY GEORGE BRONSON

Silicon Valley. The World Wide Web. Macs and PCs. CompuServe and the Internet. The information superhighway. Technology is proliferating everywhere. In auto repair shops, public libraries, hospitals, restaurants, markets, construction sites, and homes, new technologies are rapidly changing the way we communicate, relate, and educate. For better or worse, technology is here to stay. Adventist education needs to respond quickly and appropriately to help teachers use

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Jason Cisernos, 10th grade lab assistant, helps a teacher enrolled in a summer course at the Pacific Union Conference's Model Technology School.

technology to support and enrich their students' learning.

Some Uses of Technology in Education

School administrators, too, need to use newly developed hardware and software to make their school operations more efficient and cost effective. Linking a school's faculty, staff, administrators, students, and the conference office of education through computer networks can enhance communication and learning. Here are some ideas for using technology:

• Students and teachers are linked in a friendly and familiar electronic classroom.

• Classroom telephones enable students to converse with teachers over toll-free lines.

• Students and teachers exchange homework and class assignments via modems and scanners.

• Enriched educational options eliminate the barriers of time, geography, physical limitations, and lack of local expertise.

• Educators participate year-round in continuing education with few if any long commutes to college campuses.

A Laboratory School

But how can we do all this in a typical Adventist setting? The Pacific Union Conference received a substantial grant to convert a junior academy into a laboratory school for its educators. In this Model Technology School (MTS), educators learn new concepts and skills among friends in a familiar setting on an Adventist campus, then apply them in church schools throughout the union.

By discovering and sharing what works, MTS has become invaluable in saving other schools time, effort, and money. Teachers can watch kindergarten students using a laserdisk player to learn about insects or get hands-on experience developing multimedia programs to enhance their own classroom presentations. They can watch technology applied in virtually any subject taught in Adventist schools. They observe students going online or using CD-ROMs to access information for a research project.

Seminars and summer training classes help interested teachers get "up to speed" technologically. Many teachers feel a real need in this area. The program has helped the union raise awareness about tech-

nology and provided a place for teachers to gain practical, hands-on experience. The demand far exceeds our capacity to accommodate interested educators at the four one-week summer-school courses. These teachers have discovered that technology is here to stay. And they want to learn more.

School Information Systems

Grades and transcripts, reports, memos, communication with the conference and union, information for parents and constituents—all can be perennial challenges for school administrators. With downsizing, secretarial assistance becomes limited or nonexistent.

To meet these challenges, the Pacific Union obtained a grant to study ways to establish quick, effective communication linkages. We decided to develop a School Information System (SIS) to streamline school communication. Imagine a school fully computer networked. Teachers can enter attendance and grades at a computer in their classroom or office. The information is im-

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Milo Heinrich, K-10 music teacher at the Model Technology School, uses the computer to help him compose and print out a song.

mediately accessible to those who need it—counselors, principal, registrar, deans. No more digging through endless file folders, filling out notes in triplicate, or making frantic phone calls all over campus. Data entered into the computer once is disseminated throughout the system. An emergency phone number, for example, can readily be called up by administration, faculty, and staff at any time, even when the office is closed.

Conferences can use the system, too. Selected information can be transmitted by phone line—achievement test results, enrollment statistics, daily attendance, employee addresses and phone numbers. Information can be updated daily—day or night, whenever long-distance rates are lowest.

Installing the same software at each school site and at the conference and union offices ensures efficient transfer of records. The system can be designed to accommodate all educational institutions, from one-teacher schools to large boarding academies.

Several years will be needed to bring all Pacific Union schools and conferences online. Within the next few months, we expect to have at least 17 schools fully networked. That will leave about 150 schools to go. The task is great, but the potential is even greater.

Distance Learning

The Pacific Union has also studied distance learning (DL). These days, many schools have smaller faculties. Most are stretched to the maximum and beyond. Yet, each school is committed to offering as rich a curriculum as possible. Finding well-qualified, part-time aides or full-time teachers certified in multiple subjects can be difficult. Interactive DL can provide second-language instruction, science enrichment, and advanced mathematics. At

least one Pacific Union academy has linked up with a nearby university to offer its students a college-level general-education course. College credit is issued by the university.

Through a contract with Ideanet, based in Washington state, Pacific Union schools can access economical interactive second-language instruction for all elementary grades, except kindergarten. Science is available, too, as are many other courses.

In addition, Ideanet offers a full array of teacher in-service programs. Course work can be completed at home, at school, or wherever satellite downlink equipment is available. Credential renewal credit is available through the many colleges and universities that recognize Ideanet programs.

Has the DL program worked well in the Pacific Union Conference schools? Not yet. Equipment cost is one factor. Scheduling is another. Schools have to take the programs when they come, sometimes at inconvenient time slots. Lack of understanding about how an interactive system works is another problem. More training is needed. But DL can link Adventist schools at all levels around the world into an interwoven family of learners. It can become our own world wide web via computers or through satellite and video conferencing.

Conclusion

What has the Pacific Union Office of Education learned about using technology in an educational setting?

• Students need it to prepare for life in the 21st century, regardless of their occupation or where they live.

• Parents and students expect it, even demand it.

• Extensive teacher training and follow-up support is needed.

• It's expensive.

Educational technology is here to stay—it won't go away! We must provide adequate support for educators and integrate technology into every facet of the school program. ✐

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Nancy Rouse, Model Technology School teacher, helps students solve a problem on the computer.

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Using a barcode scanner, a first grader at the Model Technology School explores a laserdisk program about animals.