# Technology, Young People, and the Library

*by Cathy Collicutt*

**W**hy and how do we fit technology into our libraries? How do we best position ourselves to take advantage of the technological bounty that surrounds us now? These are crucial questions for those of us who work primarily with young people. No matter what kind of library we are in, we are the teachers, the guides, and the allies for our young patrons.

In *Power On! New Tools for Teaching and Learning*,[1] the report of the Office of Technology Assessment (OTA), the answer to the query "What the Technology Can Do," is a list of twelve things that "certain configurations of hardware and software, used with particular populations of children and under the supervision of competent teachers, contribute to meeting specific instructional objectives. OTA finds that the varied capabilities of the technologies are key to their power." Four of these twelve are most relevant to the library. They are manipulation of data, problem solving, development of writing skills, and record keeping.

The 90's term for manipulation of data is information literacy. As we acknowledge the reality of the deluge of data that is flooding our lives, we have to conclude that the library is one of the most appropriate settings for teaching the management of information. Any library is a big information bank, broken down in various ways into smaller, more manageable banks of data. Databases are not new to us. Teaching people how to use databases is not new. Databases organized using the latest technology are a perfect fit with existing library structures. The automated card catalog is an example. The library houses information, and helps people find what they need. Technology helps the librarian manage information more efficiently. In our role as bridge to our patrons, we need to consider what they need. "Students need to know how to access information through technologies, but they also need to learn how to do so with some judgement...Databases are useful tools to students, which they need to know how to search—a fairly complex cognitive process. Knowing how to access information from a variety of databases means that students could learn how to use a wide range of reference materials, including computer databases, CD-ROM discs, and videodiscs. Knowing how to use reference sources is the beginning of learning how to check the accuracy of information and how to discover what one does not know, both of which encourage learning on one's own."[2] Another author points out that "the process of information gathering and use are changing; today's student will solve information problems in new, more efficient and perhaps more scientific ways."[3]

Children are attracted by the wonders of technology. They always will opt for a computerized resource over a print one. We need to take advantage of this affinity while it exists. We have all heard about adults who find if impossible to program a VCR, while the five-year olds have no problems at all. We cannot afford to let our children grow up into timid technophobes. A good education today must include a working knowledge of current technology. This is best gained through familiarity and use.

Secondly, the library/technology partnership can help young people develop their problem solving skills within the context of the search for information. Today's students "need to possess two essential skills to cope in our information society: the ability to search computer databases and the ability to use information in decision making to solve a problem. This second skill is significantly more complex, involving higher levels of cognition such as analysis and evaluation."[4] We are confronted every day with students who get lost in the research maze. The more successful they become in learning to get from the problem to the solution, the more skills they acquire. The librarian is the guide through the maze of the various resources — the teacher of the research process.

The growth of multimedia resources is a boon to young searchers. Here they can get introductory lessons in searching for information and valuable experience in formulating relationships between subjects. Integrated resources, where users can move freely among different subjects following a single train of thought, requires even more skill. The development and availability of such sources are growing rapidly; soon they will be commonplace. We cannot afford to wait until our students reach high school to start teaching searching skills. The foundation must be laid early.

Thirdly, libraries can use technology to help students practice writing skills. Most of the time our young patrons have to produce something with the information they find — a paper, a report, a product of some sort. This step requires that they synthesize the information they've gathered and communicate it.

Word processing skills are quickly becoming a basic necessity in our society. The freedom provided by computers and their facility in manipulating text is a far cry from the old days of handwritten reports and papers. Composing a written document on a computer encompasses different skills and patterns of thinking and doing.

Libraries can offer technological support by setting up word processing centers in the youth services area. A computer equipped with a simple word processing program and a printer is the minimum requirement for such a center. Some students have access to word processors on home computers, but many do not.

School media centers and public libraries can help fill this need.

Finally, technology facilitates recordkeeping in libraries. Automated card catalogs and circulation systems do their jobs with speed and accuracy. According to *Webster's Ninth New Collegiate Dictionary*, the definition of technology is, "a scientific method of achieving a practical purpose." We have always been interested in inventions that make us more efficient in our work. Automation of the load-bearing services allows the librarian and the library user to use their energy in more productive ways. The librarian is free to work with patrons, not with cards; therefore, the user is often able to discover a wider variety of information. We are not so much at the mercy of the search or the system.

If the school library, or the public library, is to be expected to contribute to the furthering of instructional objectives, then we cannot be left out of the automation equation. We must claim our rightful places as full partners in the education process and equip ourselves to meet the needs of our patrons.

Today, we weigh the costs of technology versus materials. In schools we weigh the needs of one department against the other. We even may be asked to decide between staff and technology. "'Buy more hardware' sounds appealing, especially to advocates of computer-based instruction, until someone points out that the additional equipment is likely to come at the expense of other materials or programs. Difficult questions inevitably follow: Will the new learning tools be more effective than books? ... Will computer-based materials bring about savings on traditional instructional materials?"[4]

Equitable distribution of resources is a continuing battle. Technological solutions are often expensive. How do we make sure that all the young people in our public libraries and school systems have what they need to educate themselves? Equitable distribution of library resources means that all our citizens have equal access to quality resources and programs, and that our young patrons get the tools they need to prepare themselves for their future.

When we combine technology and youth services we discover an ideal match. Our adolescent and teen patrons, whether in school or public libraries, have no memory of a time when technology meant simple solutions to complex problems and good old American know-how. To them technology means PCs and CDs and E-mail and lasers. It means always having lived in a world of automated teller machines and barcoded products in the grocery store. They are at home; we are the time travellers. The world is zooming toward the year 2000. Theory is flying ahead of reality, and we're barely holding on.

Our problem is how to fit current and emerging technologies into our facilities and bare-necessities budgets. Our challenge is wise selection. If we do not take the lead in confronting this problem, we stand to lose this generation of library users. We won't have them, and they won't have us.

## References

[1] U.S. Congress, Office of Technology Assessment, *Power On! New Tools for Teaching and Learning* (Lancaster, PA: Technomic, 1988), 11.

[2] Cynthia Warger, ed., *Technology in Today's Schools* (Fairfax, VA: Association for Supervision and Curriculum Development, 1990), 10.
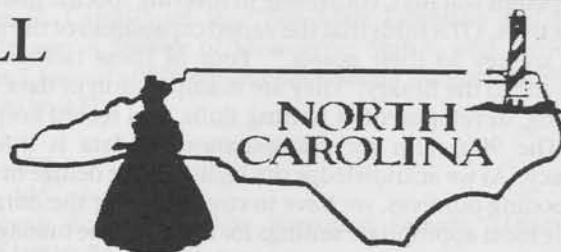
[3] Mary Jo Langhorne, *Teaching with Computers: a New Menu for the '90s* (Phoenix: Onyx Press, 1989), 103.

[4] American Association of School Librarians and Association for Educational Communications and Technology, *Information Power: Guidelines for School Library Media Programs* (Chicago: American Library Association, 1988), 44.