Technician or Technologist Technology and the Role of the Library Media Specialist

Mary Alice Anderson
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Long before classes begin, the doors to the library media center open, students rush in to complete multimedia projects, update their class project Web site, access their server space, search the online catalog, edit a video project, review lessons in their online math textbook, download a homework file they e-mailed themselves, or just hang out because the library media center is a cool place to be. Soon the weekly news broadcast begins; by the end of first period, three classes have used the library media center's computers to both search for and present information. Throughout the day, teachers stop by to borrow resources, ask for tech assistance, or plan instructional activities with library media center staff. The principal brings visitors on a tour of the library media center; an adult education teacher stops by to make arrangements for using facilities. At day's end, more students stop by to complete assignments while faculty attend an informal staff development session. Typical? Yes. In schools where students have good access to good technology, this is the norm. In other schools it's unimaginable.

It's been more than a quarter of a century since automation made it more exciting and motivating for students to search for books, and more than a decade since the Internet entered the educational mainstream. Today there are countless technology-infused library media center programs operating in schools of all sizes with varying student populations, funding, and facilities. It's been 15 years since *Information Power* (AASL & AECT, 1988) defined our roles as staff developers, curriculum partners, and technologists. Yet technology is still not pervasive in all library media center programs. Some library media specialists still see technology as a threat; others see it as just one more thing to do. Literature still draws many into the profession; reading promotion is undoubtedly an important role in this era of No Child Left Behind. However, literature and books are just one part of our multifaceted jobs—technology is equally integral. Library media specialists must take proactive roles in making technology an essential part of their jobs, dispel myths about what they do, and use technology to create a vibrant learning community**.**

Why Technology?

Technology has a prominent role in *Information Power,* our national guidelines. In fact, technology has been mentioned in the guidelines for quite some time. *Media Programs: District and School* (AASL & AECT, 1975) addressed production, television, computerized instruction, and telecommunications stating, "technology presently enables the learner to participate in different environments and will increasingly do so." Technology is identified as a major tenant of *Information Power: Building Partnerships for Learning*; "Three basic ideas—collaboration, leadership, and technology—underlie the vision of library media programs. These ideas provide unifying themes for building the effective library media specialist and for infusing all the activities, services, and function of an effective, student-centered program" (AASL & AECT, 1988).

No Child Left Behind requires every child to be technology literate by the end of 8th grade. The ISTE (International Society for Technology in Education) NETS (National Educational Technology Standards for Students, 2002) address technology productivity tools, communication tools, and research tools. NETS complement our profession's *Information Literacy Standards for Student Learning*. The seamless blend of a technology-enhanced library media center and strong curricular integration supported by a library media specialist can help all students achieve these goals. It can even occur in the absence of formal district approved curriculums when the library media specialist provides proactive and strong leadership.

Library media center program impact studies show a direct correlation between student achievement and library media centers that provide access to information in both print and electronic resources, and information technologies. The Ohio study points to the importance of "state-of-the-art technology to acquire, organize, create, and disseminate information." The study recommends that library media centers provide a learning-

centered space supported by a strong technology infrastructure" (2003). *The Minnesota School Library Media Census* found "up to-date technology and access to fee-based information sources and the Internet" makes a difference in student achievement (Metronet, 2003). The North Carolina study also reported a connection between spending more money on electronic access to information and student achievement (Burgin, 2003). Keith Curry Lance found in three studies, including Alaska, Pennsylvania, and Colorado, that "the increasing high-tech environment in middle and senior high school libraries was contributing to academic achievement" (Loertscher, 2002). Studies with similar findings in 14 states can't be wrong.

Information is format-neutral and should be easily accessible in print and electronic formats. Every child using a library media center should have the capability of accessing information without having to stand in line to use a computer or go to an isolated lab down the hall. The same student should be able to move seamlessly back and forth between searching for information and producing his or her own information whether it is a basic word-processed document, a Web page, or a multimedia product.

Placing technology in a central location, which is generally more accessible than stand-alone computer labs, makes economic sense. Technology in the library media center is a good way to capitalize on a school's potential to reach all learners and help a school receive a good return on one of its largest investments. It is a leveling factor, providing opportunities for students of all abilities and learning styles to succeed while offering challenges for those who need or want them. Technology helps bridge the digital divide; quite likely a high percentage of students using a library media center's technology before or after the school day are students who do not have access at home because they live in a rural area or family finances prohibit it (PEW Internet and American Life Project, 2004).

Technology helps library media specialists reach today's digital natives who are more likely to access the Internet away from school than they are in school. Many students believe their teachers do not take advantage of what the Internet has to offer education. Millions of children and young adults have their own Web pages, use text messaging, and assume technology is a way of life (PEW Internet and American Life Project, 2004). This does not mean adopting their way of doing things; it means acknowledging technology, accepting change, and working to provide a learning environment that meets their needs and learning styles while also continuing and encouraging traditional best practices of information access and use.

Finally, technology helps us "build influence" and change perception as Dr. Gary Hartzell so often urges us to do. Technology calls attention to what we do and broadens our sphere of influence, putting us in contact with more staff, students, and the broader learning community. Technology in the library media center helps change people's perceptions of your role. One library media specialist described having visitors in her school; when she asked them which computer software they used in their district, they were amazed a "librarian" asked that question. These visitors had a far different perception of what a library media specialist would be concerned with.

Your technology skills will make you indispensable, especially when you provide assistance to teachers or do the jobs no one else knows how or wants to do. Principals want a tech-savvy library media specialist—someone who knows technology, keeps things running in top shape, keeps track of everything, and keeps things "humming." It's about more than hardware and software skills—it's about leadership and management. It's about managing technology, or someone who does will step in and take over your job.

Making It Happen

Library media specialists are good managers. Good skills applied to managing print resources can transfer to managing technology resources and access to technology. The management component of our jobs is no less important than our teaching and collaborative roles. Good management skills make us valuable employees as schools struggle financially. Good technology management skills also enhance our teaching and collaborative roles, helping provide quick and efficient access to resources.

Access, access, access! Administrators, parents, and community members expect it. It's worth repeating: Good access to information in all formats is essential to student achievement. Successful library media center programs provide and support equitable, transparent, and quality access to technology. Without it, students will take their information business elsewhere. Every student who uses the library media center deserves the right to access current and up-to-date information in multiple formats. This means more than the OPAC® and a few computers for accessing online encyclopedias and state-provided databases (Simpson, 2002).

Computer labs in the library media center or computers throughout the library media center are a natural fit (Anderson, 2000). Technology helps promote constructivist learning as students can both access information and create their own information. Last winter, one of our science teachers asked her students do a little research project that was entirely book-based. Halfway through the day, I suggested they could create a computer timeline depicting the information they were gathering about events in space travel. Within minutes, the students and their books had moved to one of the library media center's labs. There was an observable improvement in the students' interest, attitudes, and abilities to stay on task. We've long noticed that students are quieter and better behaved sitting at a computer than when working at tables. Technology is not messy and it doesn't promote misbehavior.

If labs in the library media center are not possible due to limitations of finances, infrastructure, or space, make it a goal to strive for, and work within the current realities. Innovative people can do a lot with a little. Financial and infrastructure issues cannot always be readily resolved, but they can be addressed through proactively documenting and supporting the need. Space issues can often be creatively solved. Our first computer lab was on an old stage; the remainder of the library media center had been an auditorium. Schools have knocked a wall out to add labs and an entire new look to their library media centers. A library media specialist in a 1,400-student high school had a dilemma. The library media center could only accommodate a class of 30. There was no space for a lab or many desktop machines. She solved the problem by establishing a wireless lab in the library media center. Students can use the computers at their normal table space or sit on the floor.

Will Technology Take Your Place?

Regrettably, wireless access is sometimes seen as a threat. In one Minnesota school, a library media specialist was cut when the school acquired several wireless labs. The administration assumed she would no longer be needed. Active involvement in planning and deploying wireless labs (or other labs) is crucial. Take mobile computers to classrooms or resource centers to extend access to the library media center and resources. Mobility, increased access, and our involvement will help make the library media center the true core of the school's learning environment, expanding, rather than eroding, our role and the viability of the library media center.

Technology will help make the library media center a place where students, especially teens, want to be. In "Teenager Users of Libraries" Loertscher and Woolls (2002) cite research showing the top three reasons teens use public libraries are to research, volunteer, and use the Internet. Make your library media center a place where kids want to be—remove the barriers to access.

Print and online can easily coexist. Many library media specialists, myself included, encourage a balanced use of print and online by putting books and note taking forms on carts that can be moved where the kids are: at the computers. It's a practice we reluctantly began, believing students needed to learn how to look for books on their own. We've since learned that easier access encourages more use of print.

Learning activities that integrate technology must be planned and scheduled the same as more traditional activities. The presence of technology affords library media specialists opportunities to model the use of technology and work with both students and staff. Technology is a hook for reaching out to digitally native teachers. Make it a practice to schedule with teachers; discourage the habit of just letting them "sign up" for labs or computers without co-planning. Joint planning encourages dialogue about both instructional and technology needs and can help you plan for optimal curriculum enhancement. For example, do the computers have the necessary plug-ins? Is everything working properly? Is a projector needed? Are students working in groups or individually? (Anderson, 2003).

Technology is a tool to enhance access to reading and motivate reading. Customized, enhanced online catalog records help identify special collections and curriculum resources. For example, library media center books that support a district reading curriculum can be appropriately identified. No Child Left Behind and reading achievement make it imperative that the capabilities of online catalogs are fully utilized.

The Role of the Web

When technology is widely accessible, you can more readily promote the use of subscription databases provided by your district or state. There is a general belief among library media specialists that few teachers are aware of these resources and do not encourage their students to use them. Library media specialists should be at

the forefront of both instructing teachers and students in the use of these tools, and providing easy access to them on the library media center Web sites. Sadly, this doesn't always happen. A Florida study revealed some disconcerting information about library media center Web sites. Only 20 percent of them link to SUNLINK, the state's union database of library media center resources—despite the fact that more than 85 percent of the schools provide access to these resources (Baumbach, 2005). A bit of good news from the study: "Higher achieving schools, as measured by the Florida Comprehensive Assessment Test, were more likely to have a school and a library media center Web site."

A Web site—is it one more thing to do, or the ideal tool for promoting access to your library media center program? Forward-thinking library media specialists view a Web site as the ideal tool for "one-stop searching" and expanding their program's influence. Link the library media center's Web site and core resources directly and prominently on the school's home page. Don't have a Web site? Start small even if it means only providing information about library media center hours and links to core resources. Develop the site to include subject-specific resources, program information and advocacy, reading promotion, special events, parent information, and whatever makes your program unique. Take control of your library media center Web site; make sure its content and focus is in your hands. Parents increasingly turn to the Web for information about their child's school. Make sure the library media center is one more place parents visit when they look at the school's Web site.

Giving, Not Just Taking

Access to technology in the library media center is about more than expanded access to information; it's also about producing information, offering students opportunities for authentic, engaged, active learning. Technology encourages effective use of real-world, authentic tools such as spreadsheets, career exploration resources, and multimedia authoring or editing systems. Make sure your students have access to a full suite of productivity software, including photo and movie editing software, and tools such as graphics software. Create spaces for group work and utilizing peripherals such as scanners and digital cameras. Helping students do more than "find" information gives library media specialists more occasions to be part of more phases of the information process and ultimately more collaborative planning.

Enhancing access may mean allowing students to bring in their own laptops, handhelds, flash drives or other portable storage, or accessing a file they e-mailed themselves from home. Often our own or district policies prevent moving forward with improved access. For example, many acceptable use policies do not allow students to use e-mail at school. With the absence of disk drives on most computers, e-mail may be the only way students can move a file between home and school unless the district provides remote access to the district's server space. It may be time to reexamine your policies and loosen up to better meet the needs of today's learners. As one library media specialist commented, "I might as well let them do e-mail; otherwise they would have been in during noon hour throwing paper airplanes or talking loudly."

Managing the Stuff

Your level of responsibility for managing hardware, peripherals, software, and supplies will vary with district staffing, policies, and how much you want to be involved. Consistency and standardization will make it easier to manage both hardware and software. With the exception of specialized software and peripherals (e.g., scanners, photo editing software), management will be simpler if all the computers are set up identically; students shouldn't have to guess if the computer they go to has what they need. Work with technical support to create images of a standard installation so it can be imaged to each computer. Have a plan for what is installed where and keep track of it. Keep a procedures book up-to-date so you can refer to it as needed. Utilize your automation system, spreadsheets, and databases to manage technology just as you use them to manage print resources.

Working with Technology Staff

It's quite possible that as a library media specialist you are also your school or district technology coordinator and support staff. More likely, you work with information systems or tech support staff. Ideally, you are all part of the tech team, working to ensure good access to resources and supporting students and teachers. Unfortunately, library media specialists are not always part of the team and conflicts between tech support staff and library media specialists are not uncommon. Typical complaints are not being allowed to add content to a Web site, access servers, or get beyond security software. A Texas library media specialist vented

her anger. “I had hoped to break down some barriers for students to get help from at least the librarian!” A Massachusetts library media specialist described a typical situation. “I often have to rely on the network administrator's assistance, because I'm locked out of the network management area for trouble-shooting purposes. I'm often frustrated because much of what I do depends on the other professionals in my building doing their job in a timely manner. When the people you depend on do their job well, you soar; when they don’t, you crash and burn.” (personal communication, February 2005) Library media specialists can lessen conflicts and potential problems that ultimately impact students by working with technology staff to model and develop practices that remove barriers, enhancing rather than impeding use. Lessen the impact of current or future problems by modeling good communication practices and showing tech support staff that you are a knowledgeable, professional team player. Finally, remember that they often take a lot of criticism from staff and need your support, too.

What If You Don’t Want to Be a Technician?

Quite likely you are still the first line of routine daily tech support in your building. In this role, you have the ideal opportunity to work with a broader array of staff and provide on-the-spot tech support for a smooth curricular experience. Just in time tech support is something you can learn through experience. It does not make you a technician, but it makes you a hero to the busy teacher you help. It never hurts to do a job that that no one else wants to do. Be the tech-savvy library media specialist in your building. Word spreads and dividends are high!

Conclusion

Did reading this article affirm your library media center as integral to the school and student needs? Did it encourage you to strive for more? Or, did it leave you angry, upset, and thinking, “No way is this for me.” If so, take a look at the programs that are thriving, merely surviving, or disappearing. Open your mind to other possibilities and newer ways of providing access for today’s learners. Our mission remains the same; what’s different is the expanded choice of tools. Student achievement is still the bottom line.

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Mary Alice Anderson is the lead library media specialist at Winona (Minnesota) Area Public Schools. She can be reached at maryalicea@mac.com *or* <www.rschooltoday.com/winonamiddle/maryaliceanderson>.

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CALLOUTS:

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