

**Developing Curriculum and Pedagogy for Media
Center Education in the Information Technology Era**

Author: Associate Professor Gabriel Gomez

**In the Department of Reading, Elementary Education, Early
Childhood Education and Library Science/Communications
Media (REEL), the College of Education, Chicago State
University**

Mailing address:

**REEL/ED 318
Chicago State University,
9501 South King Drive
Chicago, IL 60628-1501**

E-mail address: g-gomez@csu.edu

Phone number: (773) 995-2071

Fax number: (773) 995-3889

Developing Curriculum and Pedagogy for Media Center Education in the Information Technology Era

Asst. Professor Gabriel Gomez, REEL, the College of Education, Chicago State University

Abstract

This paper surveys a pedagogy geared towards media literacy that demonstrates and deploys digital technology in the training of school library media specialists. My objective is to outline in broad terms the structure, techniques, and methods needed for the education of media specialists in light of contemporary technological change. This entails instruction in basic and advanced computer skills, as well as a discussion of social change, because both issues are integral to the aims of information science as regards k-12 curricula. Technological innovations have built the environment we currently enjoy, and as technology changes, this environment will be transformed. Information technology should not be feared, but seen instead as a route to greater opportunity.

Introduction

Before participating in continuing education, school library media specialists identified using computers for management as the most important topic. Following participation in such activities, participants identified providing services to clients as the most important topic [7].

This statement from “The Education and Competencies of School Library Media Specialists: A Review of the Literature” by Donna Shannon illustrates an important point.

School librarians or library media specialists (LMS), as they will be referred to from this point onward, cannot help but see how technology has transformed library management through computer based materials like online catalogs. LMS recognize that library management inevitably will be standardized and facilitated through digital technology, even at the level of

school libraries, and as a result, I teach a class, Library Science 417, Introduction to the Use of Computers in the Library, that is devoted to this very issue. Information technology (IT) has become fundamental to all libraries across the country, and throughout the world, though in the Chicago Public School system, school libraries continue to exist without the essential management capabilities that IT offers. Many school libraries run by my students utilize mostly print materials, and manage these materials without computers. This has implications for the structure and pedagogy of the Library Science Program in the College of Education, at Chicago State University, particularly the technical component, that is, those Library Science courses centered on technology and all of the Communications Media (CM) courses. The class, Library Science 417, though an introductory course, requires some initial training because LMS from low tech environments need more than instruction in specific computer skills. The technology courses in the Library Science program teach basic and advanced IT skills even as they provide an academic framework for these skills. These skills form part of a pedagogy that relates techniques and methods to an underlying and fundamental academic rationale. The technology courses must explain the history and the nature of future changes in information science that will transform k-12 education. In fact, soon after

enrolling in our program, LMS come to understand the changing world of media and computers will alter not just the management of their collections but the very nature of those collections. A world of digitally based materials will transform information science, or how information is stored and accessed, and also education, that is, how information is taught. In light of this, today's LMS need not just technical skills, but also a deeper understanding of the larger changes they face in order to plan and advocate for their schools. It's essential to keeping their workplace vital and relevant to students in a changing technological world

Understanding change in school library media centers

In this paper, I will show a relationship between the changing requirements demanded of school LMS and the technologically oriented courses taught in the Library Science program at CSU. As one who teaches in this area, I must continually assess and incorporate digital technology into library science and k-12 education goals. Often, my students fear such a technological emphasis, even as they recognize its importance to their own professional development, and the growth of their students. My objective here is to outline in broad terms, the structure, techniques, and methods

needed for the education of LMS in light of contemporary technological change as it affects real world situations characterized by tremendous inequalities, and another important issue, that is, school reform.

My own background as a student, producer, and/or instructor in a variety of media ranging across, film, video, radio and print, has given me a unique perspective on the history and use of changing media technology. It is a perspective that has resulted in a hard won understanding. New skills must be learned in tandem with specific instructional ends. For LMS this is a crucial element. If they must learn new technical skills, they need to understand how these skills will affect their work.

John Guscott, in his article, "These Emerging Technologies Will Change Public Libraries," outlines in ten technologies a transformed library environment dominated by everything from personal assistants which might make library circulation functions ever simpler, to next generation online publishing, a technology that blurs the traditional line between housing and producing resources [2]. Guscott is addressing public libraries in his article, and not school libraries, but even so, the future he foresees, because of technology, is going to be a world that links together a host of currently distinct places. Not just libraries, but all areas where information is stored, used, and even created, will be linked together. Dispersed workplaces,

places k-12 education must prepare students for, as well as all those places that manage and administer education, will communicate directly. If this world is hard to see in neglected school library media centers, I had to find a way to make it more concrete. Library Science 410, Library Information Retrieval Systems is a class based on a reality in education. Curricular materials no longer need be fully physically present in the building where they are used, but can be utilized from distant sources. This fact is part of a larger reality for LMS. In order to service their schools as information science specialists, technology must be seen, not as an added skill, but as the fundamental way to ensure the continuing relevance of their role. Information science has come to see non-print sources, everything from CD-ROMS to on-line materials, as an ever growing part of the materials that will be central to k-12 education. Indeed the children we are currently instructing, will face a world dominated by just such access to information. Consequently, Library Science 410, is devoted to accessing, assessing, and deploying online materials for education. Students learn computer skills, the concepts behind databases, and the academic skills that allow them to use this knowledge in the selection of curricular and reference resources. These skill and techniques prepares LMS as leaders who can show the way to online information.

Impediments to change

If the school library media center can be part of an interconnected world, this connectivity does not necessarily transform the centers actual home, that is the immediate school environment. Anne McCracken's paper, "School Library Media Specialists' Perceptions of Practice and Importance of Roles Described in Information Power," points out a real problem faced within schools.

Many library media specialists noted that they do not receive the funding necessary to purchase resources that adequately support the curriculum. For instance, the advent of CD-ROM and online materials has created an additional category of resources for which most school library media centers were not given additional funding. Library media specialists noted that they did not have funding to purchase needed equipment, especially computers and other technologies. Comments such as 'technology is expensive' and 'cannot upgrade technology' were frequently made [6].

This quote illustrates an important corrective to the view that technology will offer education unlimited resources. Because of the current state of the k-12 environment, one that may well be bereft of technology, my students are not only apprehensive about technological change, but often skeptical. In any class I teach, there are LMS who have better technology at their

disposal than I do, and then there are those who do not even possess a computer to manage their collections, much less computers for their students or fellow faculty. For this reason, an introductory class in Communications Media, or our CM 400, Survey of Technology for Libraries, has to accommodate technologically advanced students alongside neophytes and even technophobes. In order to teach technical skills to such a diverse group, I relate these skills directly to the evaluation and use of computer based or digital materials in school library media centers. This means students learn new skills that help them accomplish traditional educational goals, everything from how to use various media for instruction, to the development of greater services for school library media center patrons. Along the way they also learn basic issues surrounding software, a wide range of equipment, and the use of digitally based materials for the curriculum.

In addition to fundamental economic inequalities in our school system, there is another key factor to consider. The article, “The Implications of Selected School Reform Approaches for School Library Media Services” by Gary N. Hartzell, shows that reforms have a real impact on LMS. School reforms can affect all areas of k-12 education, indeed Hartzell finds that

adding technology is not a type of school reform unto itself, but is instead a central goal which reform can facilitate.

Schools and programs may need to be "reformed" in order to capitalize on technology's educational potential or to ensure that students are prepared to deal with it as an integral part of their lives, but such needs define it as an educational tool and a twenty-first century challenge. From this perspective, technology is not a separate issue. Rather, it is a component of educational quality that must be considered within the context of reforming curriculum and instruction [3].

The impact of technology on resources

If technology will alter the collections in school libraries because it will alter instruction and the curriculum, then those of us who educate LMS must explain how these changes are integral to k-12 students. This paper has up to this point shown the underpinnings of a pedagogy geared towards media literacy that demonstrates and deploys digital technology, and online resources, in the training of education professionals and school LMS in line with specific goals. To review, specifically I teach computer based collection management in Library Science 417 because students rightly expect it. It's a course that is best taken however, after the introductory course, Communications Media 400, Survey of Technology for Libraries. This course ensures all students possess basic computing skills. Given the

range of skills LMS possess, these skills must be taught alongside techniques and understandings that facilitate the adoption and expansion of digitally based materials and capabilities into school library media center services and the curriculum. Regarding the curriculum, there is even a course specifically devoted to online curricular resources that is, CM 410. The subject matter of CM 410 combines technical skills with a ground breaking reality, online resources can link the school library media center to any where in the world. This interconnectivity forever changes the relationship of a student and teacher, equalizing their roles as both users and producers of information. These three courses focus on technical skills in line with traditional LMS education capabilities. As a result they illustrate how current technical innovation has changed the school library media center. This however is not enough as the American Library Association and the Association for Educational Communications and Technology explicitly state in the book, *Information Power: Roles and Responsibilities of the School Library Media Specialist*.

Confident of the importance of the effective use of information and information technology to students' personal and economic success in their future lives, the library media specialist is an advocate for the library media program and provides the knowledge, vision, and leadership to steer it creatively and energetically in the twenty-first century [1].

Technological change is part of our greater history as Americans. It is a constitutive element of our culture. It made our world. To ignore this fact is to ignore who we are, and does a great disservice to the students in our k-12 system. They already live in a world transformed by old communications media technologies, like film and video, even as newer technologies like CD's, MP3's and computer games continue to grow in importance. LMS must deal with students who are often distracted or even consumed by these kinds of media products. The significance of these products in our society is something most school LMS can readily confirm. That's why when I teach a traditional course on media literacy called Communications Media 450, Communication and Media Centers, I begin with this point. From this understanding, a basic course on the nature of technological change and media literacy can be seen as an essential building block for the growth of those who will inhabit a world that stands to be transformed yet again, but this time by IT. CM 450 is a traditional academic course, one that describes the history, traditions, and processes of communications media. It only uses computer skills peripherally. I do this for a specific reason, to soften the impact of an often troubling realization. If media have already profoundly changed our society, then IT promises another profound change in our very

lives, and the goal described in *Information Power*, to lead k-12 education into the 21st century, can seem overwhelming.

The results of technology on education

The larger trajectory of technological change is key to changing attitudes. Fortunately, evidence is available that offers an even more concrete rationale from actual school environments for expanding this attitude with the most up-to-date skills. Keith Curry Lance's article, "Proof of the Power: Recent Research on the Impact of School Library Media Programs" examines hard data on the relationship between school LMS and test scores from four extensive state studies. The results are controlled for differences in funding. One specific area of interest is the availability and use of technology.

In Alaska, the availability of Internet-capable computers in the LMC was tied to test scores. In Pennsylvania, Colorado, and Oregon, where similar questions were asked about technology, achievement levels increased with the availability of networked computers both in the LMC and elsewhere in the school that provided access to catalogs, licensed databases, and the Internet [4].

Here is a specific relationship, noted in this report, between technology use and improved school testing results. Just as importantly, this report reveals a link between technology and the specific goal of information literacy at both

the level of faculty and students. An extremely important common finding from Lance's study, a conclusion that holds for all four states is that, "Library media specialists have a two-fold teaching role. They are teachers of students, facilitating the development of information literacy skills necessary for success in all content areas, and they are in-service trainers of teachers, keeping abreast of the latest information resources and technology [4]."

School library media specialists lead the way

The central role of LMS as the leading educators regarding technology across the school community presents the Library Science program at CSU with a challenge. Carrie Lowe in "The Role of the School Library Media Specialist in the 21st Century," places the changing role of the LMS squarely at the heart of technological change.

Information and technology teams composed of technology teachers, library and information professionals, English teachers, history teachers, and key administrators can help with successful integration of technology. These team members represent the political muscle, technical savvy, and information literacy expertise to ensure that all students get the information literacy instruction they need [5].

This kind of statement is something LMS have grown used to hearing, particularly in my Communications Media classes. Again, I must turn to McCracken's writing on school LMS' perceptions for a corrective view of the changing role these professionals play in a real world dominated by factors like economic inequalities and the changing expectations often exemplified in school reform.

In response to the question 'What barriers do you face as you attempt to expand your role?' factors related to technology were often cited. The factors included lack of technology—especially Internet access—lack of knowledge about how to use technology, and lack of technical support [6].

These three issues access, knowledge and support are something I can only partly address in my technologically oriented classes. I can't give LMS internet access at their schools though I can teach them about the internet in classes like the CM 400 and CM 410 mentioned previously. I can't give them support, though I can instruct them in trouble shooting as is also done in these classes. The one area I can address their real environment is in the area of knowledge. For this reason the CM 400, Survey of Technology for Libraries has a follow up course, CM 461, Audiovisual Materials Production. This course begins with simple things like digital cameras and PowerPoint, but progresses to web page development. Such a range represents the technological culmination of the CM courses in Library

Science at CSU because it gives students partial access to technology that is they have access during the class, it gives them knowledge, and it even teaches them how to do some of their own support by developing the standard IT information resource, the web page.

Conclusion

The ever expanding technological role of the school LMS involves the delivery of collections, services and resources, in an environment changed by digital technology like on-line catalogs. In addition, resources today inevitably include electronically available materials ranging from simple CD-ROM based instructional software, to internet accessed reference materials, and this latter element can encompass everything from primary sources maintained by organizations of interest for education professionals, to the latest on-line encyclopedias. For many of my students this part of their profession offers tremendous challenges. It demands complete facility with the latest information technology, and the ability to demonstrate this usage for others. As if this were not difficult enough, today's LMS is expected not only to utilize the core technologies that deliver information, but also to advocate throughout the school community for the inclusion of these essential technologies in all areas of the curriculum. Again, here is an

excerpt from the book, *Information Power* by the American Library Association and the Association for Educational Communications and Technology.

As information specialist, the library media specialist provides leadership and expertise in acquiring and evaluating information resources in all formats; in bringing an awareness of information issues into collaborative relationships with teachers, administrators, students, and others; and in modeling for students and others strategies for locating, accessing, and evaluating information within and beyond the library media center. Working in an environment that has been profoundly affected by technology, the library media specialist both masters sophisticated electronic resources and maintains a constant focus on the nature, quality, and ethical use of information available in these and in more traditional tools [1].

This means that media specialists will lead the school community to the latest important developments in IT, and then demonstrate and educate this community through full adoption. In education, there are currently professionals who completed their studies long ago, and do not easily understand why they should change because traditional duties, like fostering literacy and a love of reading, have been effectively taught using low tech means such as books and chalkboards. To more effectively illustrate this challenge, I can cite a specific example involving one of my students. This student was very current and comfortable with basic IT, and fell very easily into a role as a facilitator of such for the rest of the faculty. As a result, he

became a key figure for a principal determined to bring a faculty up to date in terms of that standard communication medium known as email. The principal decided to use email to replace weekly faculty meetings. Many teachers had to learn from the LMS, how to create and run an email account, even though the school had sufficient technical support, because only the LMS was fully equipped to teach new skills and effectively explain these skills as an integral element in the field of education. Specifically, any IT technical support person could demonstrate how this medium easily incorporates electronic sources through attachments and links, but the LMS was better able to show how a principal might include memos on school matters or actual curricular materials that could now be transported anywhere, and easily cited, thanks to digital interchangeability.

This example demonstrates, I hope, how new technology, even the simplest kind, can be best demonstrated through the expanded role of a traditional LMS. By bringing information science techniques to technology, a new kind of advocacy is born. It may seem simple, but it requires a change in the way basic things are done, and this kind of basic change is fundamental to k-12 education. This idea is well illustrated by one final piece of information brought to light in Lance's study.

In that state (Colorado), at that school level, reading scores correlated with individual visits to LMCs, but not group visits.

While evidence about the differences between these two types of visits is anecdotal, it indicates that group visits are more often for traditionally assigned library periods, when little or no information literacy instruction may be taking place. By contrast, when students are visiting the LMC individually, they are believed to be more likely to be pursuing somewhat self-directed learning in which they are exercising information literacy skills [4].

If this is true, it means higher test scores are related to the individual adoption of information literacy skills, that is, an individual finding and using resources on their own. This is the ultimate promise of new digital technology for education, and by the extension of traditional information science ends, the new school LMS. Information technology, with its emphasis on individual learning and unlimited access to nearly unimaginably vast resources, offers k-12 education a great opportunity, and the school library media center must play a central role in bringing this promise to our educational system. For this reason, the Communications Media and technologically oriented Library Science classes in the Library Science Program at CSU, lead students through a sequence that encompasses everything from learning basic skills in a world compromised by financial inequalities and school reform, to a larger understanding, that of the importance IT plays in our culture, and indeed, throughout the world.

References

1. American Association of School Librarians and Association for Educational Communications and Technology. 1998. *Information power: Building partnerships for learning*. Chicago: American Library Association. Accessed July 7, 2002, http://www.ala.org/aas/ip_toc.html
2. Guscott, John. 2001. These emerging technologies will change public libraries. *Library Futures Quarterly* Spring Summer, accessed online October 15, 2001, <http://www.libraryfutures.com/freereports/technology.htm>
3. Hartzell, Gary N. 2001. The implications of selected school reform approaches for school library media services. *School Library Media Quarterly* 4. Accessed July 5, 2002, <http://www.ala.org/aas/SLMR/vol4/reform/reform.html>
4. Lance, Keith Curry. 2001. Proof of the power: Recent research on the impact of school library media programs on the academic achievement of U.S. public school students. ERIC Document ED456861.
5. Lowe, Carrie A. 2000. The role of the school library media specialist in the 21st century. ERIC Document ED446769.
6. McCracken, Anne. 2001. "School library media specialist' perceptions of practice and importance of roles described in "Information Power". *School Library Media Quarterly* 4. Accessed July 8, 2002, <http://www.ala.org/aas/SLMR/vol4/perceptions/perceptions.html>
7. Shannon, Donna The education and competencies of school library media specialists: A review of the literature. *School Library Media Quarterly* 5. Accessed July 8, 2002, <http://www.ala.org/aas/SLMR/vol5/litreview/litreview.html>