

What's in it for Kids? [mancall]

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When I delivered my first message as President of AASL in Miami, Florida in June, 1994, I said that during my year as President I intended to be guided by the question: "what's in it for kids?" For me this means considering what we as a profession must do to have a role in helping children throughout the country conquer new educational frontiers and get ready to meet the challenges of citizenship in the 21st century. Change is not new to our profession; nor is it to me.

My professional career began as an elementary school librarian in a school influenced by the work of the educational reformer, John Dewey. Active, experiential learning was the order of the day. The library was the source of information and inspiration for children's projects, and the place they came to find a good book to read for fun. In mid-1960's, the post sputnik but pre-technology era, publishing output was smaller and well defined. It was a time when professional librarians were educated to believe they knew what everyone should be reading, looking at, and collecting and they weren't shy about making their opinions known. Professionals divided their time between working with children and teachers on classroom projects and developing, producing and discussing lists of best titles.

When I left my school library job in 1975 the resource world had expanded to include many types of audiovisual media as well as books. I joined a university faculty where I continued to be concerned with the evaluation and potential applications of fine children's and young adult materials for the curriculum of the school.

As the 1980's swung into gear, events involving school reform and technological developments moved swiftly. By the end of the '80's "John Dewey really did meet R2D2, the thinking computer."¹ Experiential learning became more stylish and the understanding of the computer as a tool to encourage thinking came into its own. Experts began to examine more closely the impact of technology on how children think and learn. We also learned more about literacy and how to encourage it. We gained deeper understanding of the research process and how students feel and react at different

stages of their search for information. ²

In 1995, the time has come to combine our traditional expertise in selecting and integrating fine books and other resources into the curriculum with suggestions for school change that come from the restructuring movement. Add to this the tools of growing technological innovations and the opportunities offered by the changing information landscape, and you can see "what's in it for kids". You can also make sensible stabs at what we have to do to achieve a successful future for school library media services. In particular, we must determine what a refocused educational arena, new technological tools, and the changing information landscape mean for kids.

Influencing Factors on Library Media Programs

The educational restructuring movement is the best friend libraries and library programs have ever had. The movement advocates what we have always believed: that children can make meaning out of experience, particularly if we continue to help them develop appropriate habits and offer them appropriate resources. The basic principles of this movement are compatible with our efforts to encourage children to become informed and literate citizens.

In the restructured educational arena the school library media specialist is an essential member of the learning team in the school, collaborating with all teachers to suggest resources, develop instructional targets, and provide information from both inside and outside the media center. The school library media specialist develops the links to other groups via the internet to gather information and opinion on parallel problems, and provides the tools to record and analyze local data. Most importantly, the school library media specialist becomes both mentor and coach in the educational process.

Technology, particularly computer technology, demands our enlarging the emphasis on reading and writing literacy to include the concept of information literacy. This requires knowledge of how to access, evaluate and use information from an ever-changing variety of resources.

In the changing information landscape it behooves us to expand the way we see our business to accommodate the individuals who inhabit this landscape. In 1995 it is no longer unusual to hear stories about very young children teaching themselves to read, to add, subtract, and explore basic mathematical concepts through personal interaction with sophisticated computers. Realities for interacting with information and ideas has proliferated. Some of our youngest users can even teach themselves to play sophisticated games without much adult guidance. Mickey, the four-year-old son of one of my colleagues is an example.

Educating Mickey

Mickey is a very lucky young fellow. His parents are deeply concerned about his education and pay great attention to the environment that surrounds him, at home, at the

nursery school he attends, and in his play environment. Although he may have more than the usual set of "smarts" for his age, he is a typical four-year-old in terms of his interest in movements on a video screen, particularly those with lots of action. When his father first told me that Mickey had learned to play chess I wasn't much of a believer, but then he showed me how it had happened and gave me the opportunity to view a live hands-on demonstration by Mickey.

Mickey has taught himself to play the game with Battle Chess, a computer program, in which the chess pieces introduce themselves, explain their history, talk about how they're allowed to move, and most importantly to Mickey, engage each other actively. The game can be played in either a two dimensional format (like on a conventional chessboard) or in a three dimensional highly dynamic form in which the pieces actually simulate an engagement as the player directs their actions. There are sound effects, including music, moans and groans, and whimsical actions take place between pieces. Mickey essentially taught himself to play with advice of the program along the way.

Mickey started out with no idea of what legal moves were, but he quickly found out since the program would not allow him to make illegal ones. At first he wondered why he couldn't create an encounter at a particular point, or between any adversaries he selected. Gradually, through his own imaginative play, he learned the rules and what was and wasn't "legal" although legal is not the word he'd use to describe what he was allowed to do. The oral and visual tutorial embedded in the program were sufficiently imaginative to engage his attention and teach him the game. For example, at one point he discovered you could promote the lowly pawn. When his father noticed him doing this sophisticated move correctly he asked how he knew. Mickey said "the Queen told me." Her advice was given orally since Mickey does not know how to read. And yet Mickey controls the computer well. His parents have his programs loaded on a macintosh which means there are menus that pull down, but at this point they're not of interest to Mickey. He doesn't read yet!

Mickey taught himself which are the command keys on the keyboard for taking back a move or recommending one. He usually plays against himself and makes his own decisions about whether blue or red will win. He's even been known to change his mind mid-point in a game. He knows when he's stuck that the recommend command will help him out. He knows about stalemate, checkmate and the rules of the game. He's learned how to accept and how to avoid perilous situations. He's even transferred his understanding of the game to the board version, although he is much more interested in creating interactive situations. Habits of thinking and exploring are being developed and tested as he plays. He's learning the rules of the game as he explores it. His pre-school world is one of learning by experience and taking charge of his own learning in a highly personal, gradual, non-threatening manner.

When I discuss the importance of the computer as a tool for his child, my colleague, Mickey's Dad, carefully points out to me the value of encouraging a child to explore on his or her own, to gain authority and control over an environment of interest, and to learn in a self-paced manner. He admits that the technology on its own will never be able to

encompass everything we would like the school to do for the child, but it does offer one mode for an individual to control his or her environment with the complementary personal empowerment that accompanies that.

Mickey is a living example of the basic Dewey concept that children learn by doing. What is different today is that technology has expanded the opportunity for him to control his learning environment.

Opportunities Through Technology

Technology has expanded opportunities for teachers and school library media specialists to help learners gain meaning from selected experiences. Our role as instructional consultant is evolving into one of true collaborator in curriculum development. We no longer have to depend solely on guessing and collecting resources for topics in advance. We as school library media specialists are in the ideal position in the school to become the catalysts to enable our clients to develop living curriculums through access to resources on an "as needed" as well as an "as predicted" basis.

1. Applications in the Restructured School

In an article entitled "Technology in the Essential School: Making Change in the Information Age," Kathleen Cushman addresses how technology makes it possible to create strategies that enable students to define issues and develop positive intellectual habits.³ She discusses how use of technological tools has broken down the professional isolation of teachers and helped them develop new ways of reaching and challenging kids at different levels.--new ways of getting students to use their minds well--ways of expanding the coalition's governing metaphor "student as worker" into "student as information-age worker." Among her examples is a Spanish class in New York City where students at six different proficiency levels conduct e-mail interchanges at their various levels with kids in a school in a different state. She points out how kids teach teachers and other kids about technology; how small group work springs out of knowledge of computers and video technology; how rich narrative environments are encouraged by technological tools, and how working with hypercard stacks to select and organize information helps students use their minds differently from what she terms their "pencil-wielding predecessors."

I particularly enjoyed reading about the skills she considers essential in the information age. She calls them GUMS skills -- getting, understanding, manipulating and synthesizing information. They emulate the "Big 6" that came out of New York state in which the authors, Eisenberg and Berkowitz suggest students must learn to deal with defining a task; developing information seeking strategies, using appropriate information effectively, synthesizing ideas and evaluating results. Cushman, Eisenberg and Berkowitz are today's interpreters of Dewey's experiential motif.⁴

Cushman's arguments for the role of technology in the Coalition's essential schools support what has been written about authentic learning -- learning by doing. Instead of

relying solely on textbooks to solve hypothetical problems, students can also focus on real problems, perhaps community problems.

2. Project Problem Solving

Examples for this process can be readily drawn from the school's community. A case in point concerns a situation in a community where citizen groups are trying to influence the zoning board to halt building development in an area they believe will endanger the community's water supply. Investigating such a problem presents a great opportunity for upper elementary through high school age students. An integrated thematic unit on this topic would develop real lifetime skills in problem definition, task analysis, location, selection and analysis of pertinent information. Internet access is essential to connect students to real people and authentic information. Students as problem solvers can synthesize their findings, and present their results for different audiences -- everyone from the local press to the members of the zoning board. They can follow the issue and community decision making and evaluate the success or failure of their input to the process. This also calls for basic understanding of how to ask questions and conduct surveys. It demands the development of mathematical skill in data collection, analysis, and graphing; and communication skills in defining and relating main ideas in a clear and consistent fashion.

Technology provides the wherewithall for students to explore the reality of a current situation. They can contact experts in any locale via e-mail; share information about problems with other students in distant places and find out how they attacked similar problems. They can locate and select information from both paper and electronic resources and combine this information with what they gleaned from their e-mail contacts. Their discussions can reflect an overview of what is known about the problem, including current regulations or court cases. They can use spreadsheets to record and analyze data they collect and prepare tables of results that reflect the situation. Word processing programs can be applied to provide tools for clearer, correct written expressions, suitable for exposes for the local press or outlines for debates or presentations to the local zoning board to convince them to look beyond potential tax enhancers to the dangers developers bring in building on unsafe land.

3. Technology in the Arts

In the aesthetic realm, multimedia technology plays a growing role. Students can explore the art collections of museums around the world without leaving the room. One example of this was described in The New York Times Book Review.⁵ A product review was introduced with the headline "Please Touch the Paintings." It is not unusual for The New York Times to review a work about painting or about great collections. What was unusual was that the format being reviewed was a CD-ROM five-inch disk that had more than 2,000 pictures from London's National Gallery. The review included an illustration of one page from the product that showed a painting, gave its provenance, a brief description of what was being depicted, and clues to what else viewers could find by pushing the appropriate buttons on their computers. It was clear that the user could get

help in pursuing historical information, commentaries, and definitions of terms. Excited browsers could even select, copy, cut and paste pieces and construct their own works of art. These tools stimulate the creative thought process. Think about Mickey and what he might do if his interest in chess led to an interest in medieval life and events. He could use a tool like this one to explore a great collection of visual impressions of medieval Europe. He could create his own medieval world with well articulated kings, queens, knights and medieval scenes. Along the way, serendipity might take over and a small computer browser would be introduced to other aspects of the visual arts.

As Mickey gets older and enters a formal school setting multimedia CD-ROMs will give life to every curricular area by capturing the images, figures, events, habits and manners of earlier times. In teaching students to do what we term "research" we must encourage them to use authentic visual and auditory representations to support their use of authentic writings of a period. Here again is an opportunity for the school library media specialist to function as a catalyst on the teaching and learning team; to play the role of mentor and coach in the learning process; and to make the facilities and the resources available on demand.

Of course, the digitized tour of a great gallery is very different from standing in front of the actual painting and sculptures or reading about them in a book that offers a consecutive argument for structuring learning. With a multimedia CD-ROM, the approach to learning is determined by the user. The job of the school is to prepare individuals so they can guide themselves when they visit this type of virtual space. The job of the media specialist is to become knowledgeable about the resources available and to identify the skills the curriculum reformers in any discipline area deem essential. The digital world extends and enhances, and is one piece of the curricular puzzle.

4. Meeting the Challenges of the Changing Information Landscape

For the information professional in 1995 the changing information landscape places the user, regardless of how unique he or she is, at the center of all access considerations. Characteristics of the particular user at a particular point in time determine which aspects of the information landscape will come into play. Consider Mickey. He is four years old; he cannot read; he gets some guidance from his parents and teachers but he learns through personal experience and play. Consider the characteristics of the knowledge base that Mickey may want to access. He is interested in exploring games, asking questions, probing for more information about the world that surrounds him--although what the particular questions will be cannot be predicted. Every discipline area is up for grabs. If Mickey has just visited the zoo he may want information about snakes. Do they sleep? Where? How? What wakes them up? Can he play with them? If he takes a drive in the country with his parents and sees a wheat field he may be encouraged by his parents to think about how he gets the food that nourishes him.

Now, consider what is in a potential information storage arena for Mickey -- everything from beautiful and informative picture books from his nursery school library, his public library, the neighborhood bookstore and the shelves in his room, to computerized games

and multimedia encyclopedias. He and his caregivers need the full complement of items: the picture books and the full range of materials currently present in library collections that can help structure his learning experiences and develop his aesthetic senses, as well as the multimedia products that promote serendipitous learning in other ways. How information is disseminated to him depends on where he is, who is with him, what he and his companions have available to them at a particular point in time, and most importantly, his ability to articulate what it is he wants to know or be able to do. He must learn how to ask the right questions. Teaching him to do that continues to be one of your most important jobs as a member of the teaching team and as the information expert Mickey encounters when he enters school.

Mickey, Ms. Cushman's students in the Coalition's essential schools and the students who understand and solve community problems are all explorers in a new, rapidly changing, information world. Our job as the information specialist, teacher, and consultant in the school is to create an educational setting and program that encourages students to thrive in the changing information landscape. This means we must be part of the process suggested by educational restructurers who want to change the way kids view schooling. Our role is critical. No one else in the school has as broad a view of the resource arena and the information use process; or as deep a professional background in evaluation and selection of resources and knowledge of how they are organized for access and how that's changing.

We have always been the linkers between people and information resources. As partners in the school restructuring movement we extend that role of linker and become mentors and coaches for students, teachers, administrators and parents in the broad educational process.

I believe this will happen because *we know the tools*. We continue to be aware of the resources that are necessary to support the curriculum of the school. I believe this will happen because *we know the rules*. We know how resources are organized and what students must be taught for successful access. I believe this will happen because *we know what's happening in our schools*.

We are in the perfect position to define "what's in it for kids!"

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