No other change in American society has offered greater challenges than the emergence of the Information Age. Information is expanding at an unprecedented rate, and enormously rapid strides are being made in the technology for storing, organizing, and accessing the ever growing tidal wave of information. The combined effect of these factors is an increasingly fragmented information base—large components of which are only available to people with money and/or acceptable institutional affiliations.

Yet in an information society all people should have the right to information which can enhance their lives. Out of the super-abundance of available information, people need to be able to obtain specific information to meet a wide range of personal and business needs. These needs are largely driven either by the desire for personal growth and advancement or by the rapidly changing social, political, and economic environments of American society. What is true today is often outdated tomorrow. A good job today may be obsolete next year. To promote economic independence and quality of existence, there is a lifelong need for being informed and up-to-date.

How our country deals with the realities of the Information Age will have enormous impact on our democratic way of life and on our nation’s ability to compete internationally. Within America's information society, there also exists the potential of addressing many long-standing social and economic inequities. To reap such benefits, people—as individuals and as a nation—must be information literate. To be information literate, a person must be able to recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information. Producing such a citizenry will require that schools and colleges appreciate and integrate the concept of information literacy into their learning programs and that they play a leadership role in equipping individuals and institutions to take advantage of the opportunities inherent within the information society. Ultimately, information literate people are those who have learned how to learn. They know how to learn because they know how knowledge is organized, how to find information, and how to use information in such a way that others can learn from them. They are people prepared for lifelong learning, because they can always find the information needed for any task or decision at hand.
The Importance of Information Literacy to Individuals, Business, and Citizenship

In Individuals’ Lives Americans have traditionally valued quality of life and the pursuit of happiness; however, these goals are increasingly difficult to achieve because of the complexities of life in today’s information and technology dependent society. The cultural and educational opportunities available in an average community, for example, are often missed by people who lack the ability to keep informed of such activities, and lives of information illiterates are more likely than others to be narrowly focused on second-hand experiences of life through television. On the other hand, life is more interesting when one knows what is going on, what opportunities exist, and where alternatives to current practices can be discovered.

On a daily basis, problems are more difficult to solve when people lack access to meaningful information vital to good decision making. Many people are vulnerable to poorly informed people or opportunists when selecting nursing care for a parent or facing a major expense such as purchasing, financing, or insuring a new home or car. Other information-dependent decisions can affect one’s entire lifetime. For example, what information do young people have available to them when they consider which college to attend or whether to become sexually active? Even in areas where one can achieve an expertise, constantly changing and expanding information bases necessitate an ongoing struggle for individuals to keep up-to-date and in control of their daily information environment as well as with information from other fields which can affect the outcomes of their decisions.

In an attempt to reduce information to easily manageable segments, most people have become dependent on others for their information. Information prepackaging in schools and through broadcast and print news media, in fact, encourages people to accept the opinions of others without much thought. When opinions are biased, negative, or inadequate for the needs at hand, many people are left helpless to improve the situation confronting them. Imagine, for example, a family which is being evicted by a landlord who claims he is within his legal rights. Usually they will have to accept the landlord’s “expert” opinion, because they do not know how to seek information to confirm or disprove his claim. Information literacy, therefore, is a means of personal empowerment. It allows people to verify or refute expert opinion and to become independent seekers of truth. It provides them with the ability to build their own arguments and to experience the excitement of the search for knowledge. It not only prepares them for lifelong learning; but, by experiencing the excitement of their own successful quests for knowledge, it also creates in young people the motivation for pursuing learning throughout their lives. Moreover, the process of searching and interacting with the ideas and values of their own and others’ cultures deepens people’s capacities to understand and position themselves within larger communities of time and place. By drawing on the arts, history, and literature of previous generations, individuals and communities can affirm the best in their cultures and determine future goals.

It is unfortunate that the very people who most need the empowerment inherent in being information literate are the least likely to have learning experiences which will promote these abilities. Minority and at-risk students, illiterate adults, people with English as a second language, and economically disadvantaged people are among those most likely to lack access to the information that can improve their situations. Most are not even aware of the potential help that is available to them. Libraries, which provide the best access point to information for most U.S. citizens, are left untapped by those who most need help to improve their quality of life. As former U.S. Secretary of Education Terrell Bell once wrote, "There is a danger of a new elite developing in our country: the information elite."(1)
In business, Herbert E. Meyer, who has served as an editor for Fortune magazine and as vice-chairman of the National Intelligence Council, underscores the importance of access to and use of good information for business in an age characterized by rapid change, a global environment, and unprecedented access to information. In his 1988 book, *Real World Intelligence* (2), he describes the astonishment and growing distress of executives who "are discovering that the only thing as difficult and dangerous as managing a large enterprise with too little information is managing one with too much" (p.29). While Meyer emphasizes that companies should rely on public sources that are available to anyone for much of their information (p.36), it is clear that many companies do not know how to find and use such information effectively. Every day lack of timely and accurate information is costly to American businesses. The following examples document cases of such losses or near losses.

A manufacturing company had a research team of three scientists and four technicians working on a project, and at the end of a year the team felt it had a patentable invention in addition to a new product. Prior to filing the patent application, the company's patent attorney requested a literature search. While doing the search, the librarian found that the proposed application duplicated some of the work claimed in a patent that had been issued about a year before the team had begun its work. During the course of the project the company had spent almost $500,000 on the project, an outlay that could have been avoided if it had spent the approximately $300 required to have a review of the literature completed before beginning the project.

A manufacturing company was sued by an individual who claimed that the company had stolen his "secret formula" for a product that the company had just marketed. An information scientist on the staff of the company's technical library found a reference in the technical literature that this formula was generally known to the trade long before the litigant developed his "secret formula." When he was presented with this information, the litigant dropped his $7 million claim.

When the technical librarian for an electronics firm was asked to do a literature search for one of its engineers, four people had already been working to resolve a problem for more than a year. The literature search found an article that contained the answer the engineer needed to solve his problem. The article had been published several years before the project team had begun its work. Had the literature search been conducted when the problem was first identified, the company could have saved four man-years of labor and its resulting direct monetary costs.(3)

The need for people in business who are competent managers of information is important at all levels, and the realities of the Information Age require serious rethinking of how businesses should be conducted. Harlan Cleveland explores this theme in his book, *The Knowledge Executive*. Information (organized data, the raw material for specialized knowledge, and generalist wisdom) is now our most important, and pervasive resource. Information workers now compose more than half the U.S. labor force. But this newly dominant resource is quite unlike the tangible resources we have heretofore thought of as valuable. The differences help explain why we get into so much trouble trying to use for the management of information concepts that worked all right in understanding the management of things---concepts such as control, secrecy, ownership, privilege and geopolitics. Because the old pyramids of influence and control were based on just these ideas, they are now crumbling. Their weakening is not always obvious, just as a wooden structure may look solid when you can't see what termites have done to its insides. Whether this "crumble effect" will result in a fairer shake for the world's disadvantaged majority is not yet clear. But there is ample evidence that those who learn now to achieve access to the bath of knowledge that...
already envelops the world will be the future’s aristocrats of achievement, and that they will be far more numerous than any aristocracy in history.(4)

In Citizenship American democracy has led to the evolution of many thousands of organized citizen groups that seek to influence public policy, issues, and community problems. Following are just a few examples:

A local League of Women Voters has been chosen to study housing patterns for low-income individuals in its community. It must inform its members of the options for low-income housing and, in the process, comment publicly on the city’s long-range, low-income housing plans.

In an upper Midwestern city, one with the highest unemployment rate in 50 years, a major automobile company offers to build a new assembly plant in the central city. The only stipulation is that the city condemn property in a poor ethnic neighborhood of 3,500 residents for use as the site of its plant. In addition, the company seeks a twelve year tax abatement. Residents of the neighborhood frantically seek to find out how they might save their community from the wrecker’s ball but still improve their tax base.

A group of upper-middle-class women in the junior League has read about increased incidences of child abuse. They want to become better informed about the elements of child abuse: What brings it on? What incidents have occurred in their own community? What services are available in their community? What actions might they take?(5)

To address these problems successfully, each of these groups will have to secure access to a wide range of information, much of which—if they know how to find it—can be obtained without any cost to their organizations. Citizenship in a modern democracy involves more than knowledge of how to access vital information. It also involves a capacity to recognize propaganda, distortion, and other misuses and abuses of information. People are daily subjected to statistics about health, the economy, national defense, and countless products. One person arranges the information to prove his point, another arranges it to prove hers. One political party says the social indicators are encouraging, another calls them frightening. One drug company states most doctors prefer its product, another "proves" doctors favor its product. In such an environment, information literacy provides insight into the manifold ways in which people can all be deceived and misled. Information literate citizens are able to spot and expose chicanery, disinformation, and lies.

To say that information literacy is crucial to effective citizenship is simply to say it is central to the practice of democracy. Any society committed to individual freedom and democratic government must ensure the free flow of information to all its citizens in order to protect personal liberties and to guard its future. As U.S. Representative Major R. Owens has said: Information literacy is needed to guarantee the survival of democratic institutions. All men are created equal but voters with information resources are in a position to make more intelligent decisions than citizens who are information illiterates. The application of information resources to the process of decision-making to fulfill civic responsibilities is a vital necessity.(6)

Opportunities to Develop Information Literacy

Information literacy is a survival skill in the Information Age. Instead of drowning in the abundance of information that floods their lives, information literate people know how to find, evaluate, and use information effectively to solve a particular problem or make a decision—
whether the information they select comes from a computer, a book, a government agency, a film, or any number of other possible resources. Libraries, which provide a significant public access point to such information and usually at no cost, must play a key role in preparing people for the demands of today's information society. Just as public libraries were once a means of education and a better life for many of the over 20 million immigrants of the late 1800s and early 1900s, they remain today as the potentially strongest and most far-reaching community resource for lifelong learning. Public libraries not only provide access to information, but they also remain crucial to providing people with the knowledge necessary to make meaningful use of existing resources. They remain one of the few safeguards against information control by a minority.

Although libraries historically have provided a meaningful structure for relating information in ways that facilitate the development of knowledge, they have been all but ignored in the literature about the information society. Even national education reform reports, starting with *A Nation at Risk* in 1983, largely exclude libraries. No K-12 report has explored the potential role of libraries or the need for information literacy. In the higher education reform literature, Education Commission of the States President Frank Newman's 1985 report, "Higher Education and the American Resurgence", only addresses the instructional potential of libraries in passing, but it does raise the concern for the accessibility of materials within the knowledge explosion. In fact, no reform report until "College", the 1986 Carnegie Foundation Report, gave substantive consideration to the role of libraries in addressing the challenges facing higher education. In the initial release of the study's recommendations, it was noted that

> The quality of a college is measured by the resources for learning on the campus and the extent to which students become independent, self-directed learners. And yet we found that today, about one out of every four undergraduates spends no time in the library during a normal week, and 65 percent use the library four hours or less each week. The gap between the classroom and the library, reported on almost a half-century ago, still exists today. (10)

Statistics such as these document the general passivity of most academic learning today and the divorce of the impact of the Information Age from prevailing teaching styles.

The first step in reducing this gap is making sure that the issue of information literacy is an integral part of current efforts at cultural literacy, the development of critical thinking abilities, and school restructuring. Due to the relative newness of the information society, however, information literacy is often completely overlooked in relevant dialogues, research, and experimentations. Moreover, most current educational and communication endeavors—with their long-standing history of pre-packaging information—militate against the development of even an awareness of the need to master information management skills.

The effects of such prepackaging of information are most obvious in the school and academic settings. Students, for example, receive predigested information from lectures and textbooks, and little in their environment fosters active thinking or problem solving. What problem solving does occur is within artificially constructed and limited information environments that allow for single "correct" answers. Such exercises bear little resemblance to problem solving in the real world where multiple solutions of varying degrees of usefulness must be pieced together—often from many disciplines and from multiple information sources such as online databases, videotapes, government documents, and journals.

Education needs a new model of learning—learning that is based on the information resources of the real world and learning that is active and integrated, not passive and fragmented. On an intellectual level, many teachers and school administrators recognize
that lectures, textbooks, materials put on reserve, and tests that ask students to regurgitate data from these sources do not create an active, much less a quality, learning experience. Moreover, studies at the higher education level have proven that students fail to retain most information they are "given."

The curve for forgetting course content is fairly steep: a generous estimate is that students forget 50% of the content within a few months.... A more devastating finding come from a study that concluded that even under the most favorable conditions, "students carry away in their heads and in their notebooks not more than 42% of the lecture content." Those were the results when students were told that they would be tested immediately following the lecture; they were permitted to use their notes; and they were given a prepared summary of the lecture. These results were bad enough, but when students were tested a week later, without the use of their notes, they could recall only 17% of the lecture material.(11)

Because of the rapidly shrinking half-life of information, even the value of that 17 percent that students do remember must be questioned. To any thoughtful person, it must be clear that teaching facts is a poor substitute for teaching people how to learn, i.e., giving them the skills to be able to locate, evaluate, and effectively use information for any given need. What is called for is not a new information studies curriculum but, rather, a restructuring of the learning process. Textbooks, workbooks, and lectures must yield to a learning process based on the information resources available for learning and problem solving throughout people's lifetimes—to learning experiences that build a lifelong habit of library use. Such a learning process would actively involve students in the process of:

- knowing when they have a need for information
- identifying information needed to address a given problem or issue
- finding needed information and evaluating the information
- organizing the information
- using the information effectively to address the problem or issue at hand.

Such a restructuring of the learning process will not only enhance the critical thinking skills of students but will also empower them for lifelong learning and the effective performance of professional and civic responsibilities.

An Information Age School

An increased emphasis on information literacy and resource-based learning would manifest itself in a variety of ways at both the academic and school levels, depending upon the role and mission of the individual institution and the information environment of its community. However, the following description of what a school might be like if information literacy were a central, not a peripheral, concern reveals some of the possibilities. (While focused on K-12, outcomes could be quite similar at the college level.)

The school would be more interactive, because students, pursuing questions of personal interest, would be interacting with other students, with teachers, with a vast array of information resources, and the community at large to a far greater degree than they presently do today. One would expect to find every student engaged in at least one open-ended, long-term quest for an answer to a serious social, scientific, aesthetic, or political problem. Students’ quests would involve not only searching print, electronic, and video data, but also interviewing people inside and outside of school. As a result, learning would be more self-initiated. There would be more reading of original sources and more extended writing. Both students and teachers would be familiar with the intellectual and emotional demands of asking productive questions, gathering data of all kinds, reducing and synthesizing information, and analyzing, interpreting, and evaluating information in all its
forms. In such an environment, teachers would be coaching and guiding students more and lecturing less. They would have long since discovered that the classroom computer, with its access to the libraries and databases of the world, is a better source of facts than they could ever hope to be. They would have come to see that their major importance lies in their capacity to arouse curiosity and guide it to a satisfactory conclusion, to ask the right questions at the right time, to stir debate and serious discussion, and to be models themselves of thoughtful inquiry.

Teachers would work consistently with librarians, media resource people, and instructional designers both within their schools and in their communities to ensure that student projects and explorations are challenging, interesting, and productive learning experiences in which they can all take pride. It would not be surprising in such a school to find a student task force exploring an important community issue with a view toward making a public presentation of its findings on cable television or at a news conference. Nor would it be unusual to see the librarian guiding the task force through its initial questions and its multi disciplinary, multimedia search-all the way through to its cable or satellite presentation. In such a role, librarians would be valued for their information expertise and their technological know-how. They would lead frequent in-service teacher workshops and ensure that the school was getting the most out of its investment in information technology.

Because evaluation in such a school would also be far more interactive than it is today, it would also be a much better learning experience. Interactive tutoring software that guides students through their own and other knowledge bases would provide more useful diagnostic information than is available today. Evaluation would be based upon a broad range of literacy indicators, including some that assess the quality and appropriateness of information sources or the quality and efficiency of the information searches themselves. Assessments would attend to ways in which students are using their minds and achieving success as information consumers, analyzers, interpreters, evaluators, and communicators of ideas.

Finally, one would expect such a school to look and sound different from today's schools. One would see more information technology than is evident today, and it would be important to people not only in itself but also in regard to its capacity to help them solve problems and create knowledge. One would see the fruits of many student projects prominently displayed on the walls and on bookshelves, and one would hear more discussions and debate about substantive, relevant issues. On the playground, in the halls, in the cafeteria, and certainly in the classroom, one would hear fundamental questions that make information literacy so important: "How do you know that?" and "What evidence do you have for that?" "Who says?" and "How can we find out?"

Conclusion

This call for more attention to information literacy comes at a time when many other learning deficiencies are being expressed by educators, business leaders, and parents. Many workers, for example, appear unprepared to deal effectively with the challenges of high-tech equipment. There exists a need for better thinkers, problem solvers, and inquirers. There are calls for computer literacy, civic literacy, global literacy, and cultural literacy. Because we have been hit by a tidal wave of information, what used to suffice as literacy no longer suffices; what used to count as effective knowledge no longer meets our needs; what used to pass as a good education no longer is adequate.

The one common ingredient in all of these concerns is an awareness of the rapidly changing requirements for a productive, healthy, and satisfying life. To respond effectively to an ever-changing environment, people need more than just a knowledge base, they also need
techniques for exploring it, connecting it to other knowledge bases, and making practical use of it. In other words, the landscape upon which we used to stand has been transformed, and we are being forced to establish a new foundation called information literacy. Now knowledge—not minerals or agricultural products or manufactured goods—is this country's most precious commodity, and people who are information literate—who know how to acquire knowledge and use it—are America's most valuable resources.

Committee Recommendations
To reap the benefits from the Information Age by our country, its citizens, and its businesses, the American Library Association Presidential Committee on Information Literacy makes the following recommendations:

1. We all must reconsider the ways we have organized information institutionally, structured information access, and defined information's role in our lives at home in the community, and in the workplace. To the extent that our concepts about knowledge and information are out of touch with the realities of a new, dynamic information environment, we must reconceptualize them. The degrees and directions of reconceptualization will vary, but the aims should always be the same: to communicate the power of knowledge; to develop in each citizen a sense of his or her responsibility to acquire knowledge and deepen insight through better use of information and related technologies; to instill a love of learning, a thrill in searching, and a joy in discovering; and to teach young and old alike how to know when they have an information need and how to gather, synthesize, analyze, interpret, and evaluate the information around them. All of these abilities are equally important for the enhancement of life experiences and for business pursuits. Colleges, schools, and businesses should pay special attention to the potential role of their libraries or information centers. These should be central, not peripheral; organizational redesigns should seek to empower students and adults through new kinds of access to information and new ways of creating, discovering, and sharing it.

2. A Coalition for Information Literacy should be formed under the leadership of the American Library Association, in coordination with other national organizations and agencies, to promote information literacy. The major obstacle to promoting information literacy is a lack of public awareness of the problems created by information illiteracy. The need for increased information literacy levels in all aspects of people's lives—in business, in family matters, and civic responsibilities must be brought to the public's attention in a forceful way. To accomplish this, the Coalition should serve as an educational network for communications, coalescing related educational efforts, developing leadership, and effecting change. The Coalition should monitor and report on state efforts to promote information literacy and resource-based learning and provide recognition of individuals and programs for their exemplary information literacy efforts.

The Coalition should be organized with an advisory committee made up of nationally prominent public figures from librarianship, education, business, and government. The responsibilities of the advisory committee should include support for Coalition efforts in the areas of capturing media attention, raising public awareness, and fostering a climate favorable for information literacy. In addition, the advisory committee should actively seek funding to promote research and demonstration projects.

3. Research and demonstration projects related to information and its use need to be undertaken. To date, remarkably little research has been done to understand how information can be more effectively managed to meet educational and societal objectives or to explore how information management skills impact on overall school and academic performance. What research does exist appears primarily in library literature, which is seldom read by educators or state decision makers.

http://www.ala.org/acrl/publications/whitepapers/presidential
For future efforts to be successful, a national research agenda should be developed and implemented. The number of issues needing to be addressed are significant and should include the following:

- What are the social effects of reading?
- With electronic media eclipsing reading for many people, what will be the new place of the printed word?
- How do the characteristics of information resources (format, length, age) affect their usefulness?
- How does the use of information vary by discipline? How does access to information impact on the effectiveness of citizen action groups?
- How do information management skills affect student performance and retention?
- What role can information management skills play in the economic and social advancement of minorities?

Also needed is research that will promote a "sophisticated understanding of the full range of the issues and processes related to the generation, distribution, and use of information so that libraries can fulfill their obligations to their users and potential users and so that research and scholarship in all fields can flourish."(12)

The Coalition can play a major role in obtaining funding for such research and for fostering demonstration projects that can provide fertile ground for controlled experiments that can contrast benefits from traditional versus resource-based learning opportunities for students.

4. State Departments of Education, Commissions on Higher Education, and Academic Governing Boards should be responsible to ensure that a climate conducive to students' becoming information literate exists in their states and on their campuses. Of importance are two complementary issues: the development of an information literate citizenry and the move from textbook and lecture style learning to resource-based learning. The latter is, in fact, the means to the former as well as to producing lifelong, independent, and self-directed learners. As is appropriate within their stated missions, such bodies are urged to do the following:

- To incorporate the spirit and intent of information literacy into curricular requirements, recommendations, and instructional materials. (Two excellent models for state school guidelines are Washington's "Information Skills Curriculum Guide: Process Scope and Sequence" and "Library Information Skills: Guide for Oregon Schools K-12.")
- To incorporate in professional preparation and in-service training for teachers an appreciation for the importance of resource-based learning, to encourage implementation of it in their subject areas, and to provide opportunities to master implementation techniques.
- To encourage and support coordination of school/campus and public library resources/services with classroom instruction in offering resource-based learning.
- To include coverage of information literacy competencies in state assessment examinations.
- To establish recognition programs of exemplary projects for learning information management skills in elementary and secondary schools, in higher education institutions, and in professional preparation programs.

5. Teacher education and performance expectations should be modified to include information literacy concerns. Inherent in the concepts of information literacy and resource-based learning is the complementary concept of the teacher as a facilitator of student learning rather than as presenter of ready-made information. To be successful in such roles, teachers should make use of an expansive array of information resources. They should be familiar with and able to use selected databases, learning networks, reference materials,
textbooks, journals, newspapers, magazines, and other resources. They also should place a premium on problem solving and see that their classrooms are extended outward to encompass the learning resources of the library media centers and the community. They also should expect their students to become information literate.

To encourage the development of teachers who are facilitators of learning, the following recommendations are made to schools of teacher education. Those responsible for in-service teacher training should also evaluate current capabilities of teaching professionals and incorporate the following recommendations into their programs as needed.

- New knowledge from cognitive research on thinking skills should be incorporated into pedagogical skills development.
- Integral to all programs should be instruction in managing the classroom, individualizing instruction, setting problems, questioning, promoting cooperative learning—all of which should rely on case studies and information resources of the entire school and community.
- Instruction within the disciplines needs to emphasize a problem-solving approach and the development of a sophisticated level of information management skills appropriate to the individual disciplines.
- School library media specialists need to view the instructional goals of their schools as an integral part of their own concern and responsibilities and should actively contribute toward the ongoing professional development of teachers and principals. They should be members of curriculum and instructional teams and provide leadership in integrating appropriate information and educational technologies into school programming. (For further recommendations regarding the role of library media specialists, consult Information Power: Guidelines for School Media Programs prepared by the American Association of School Librarians and the Association for Educational Communications and Technology, 1988.)
- Exit requirements from teacher education programs should include each candidate’s ability to use selected databases, networks, reference materials, administrative and instructional software packages, and new forms of learning technologies.
- A portion of the practicum or teaching experience of beginning teachers should be spent with library media specialists. These opportunities should be based in the school library media center to promote an understanding of resources available in both that facility and other community libraries and to emphasize the concepts and skills necessary to become a learning facilitator.
- Cooperative, or supervising, teachers who can demonstrate their commitment to thinking skills instruction and information literacy should be matched with student teachers, and teachers who see themselves as learning facilitators should be relied upon to serve as role models. Student teachers should also have the opportunity to observe and practice with a variety of models for the teaching of critical thinking.

6. An understanding of the relationship of information literacy to the themes of the White House Conference on Library and Information Services should be promoted. The White House conference themes of literacy, productivity, and democracy will provide a unique opportunity to foster public awareness of the importance of information literacy. (The conference will be held sometime between September 1989 and September 1991.) The American Library Association and the Coalition on Information Literacy should aggressively promote consideration of information literacy within state deliberations as well as within the White House conference itself.

References

1. Terrell H. Bell, Communication to CU President E. Gordon Gee, September 1986.

**Information Literacy Bibliography**


**Background to Report**

The American Library Association's Presidential Committee on Information Literacy was appointed in 1987 by ALA President Margaret Chisholm with three expressed purposes: (1) to define information literacy within the higher literacies and its importance to student performance, lifelong learning, and active citizenship; (2) to design one or more models for information literacy development appropriate to formal and informal learning environments throughout people's lifetimes; and (3) to determine implications for the continuing education and development of teachers. The Committee, which consists of leaders in education and librarianship, has worked actively to accomplish its mission since its establishment. Members of the Committee include the following:
Gordon M. Ambach, Executive Director Council of Chief State School Officers
William L. Bainbridge, President School Match
Patricia Senn Breivik, Chair, Director Auraria Library, University of Colorado at Denver
Rexford Brown, Director Policies and the Higher Literacies Project Education Commission of the States
Judith S. Eaton, President Community College of Philadelphia
David Imig, Executive Director American Association of Colleges for Teacher Education
Sally Kilgore, Professor Emory University (former Director of the Office of Research, U.S. Department of Education)
Carol Kuhlthau, Director Educational Media Services Programs Rutgers University
Joseph Mika, Director Library Science Program Wayne State University
Richard D. Miller, Executive Director American Association of School Administrators
Roy D. Miller, Executive Assistant to the Director Brooklyn Public Library
Sharonj. Rogers, University Librarian George Washington University
Robert Wedgeworth, Dean School of Library Service Columbia University

Further Information
Further information on information literacy can be obtained from:

Information Literacy and K-12
c/o American Association of School Librarians American Library Association
50 East Huron Street
Chicago, IL 60611

Information Literacy and Higher Education
c/o Association of College and Research Libraries American Library Association
50 East Huron Street
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