

Information literacy: what is it? Are you information literate? How do you know?

ANN M. RIEDLING

Spalding University, 851 South 4th Street, Louisville, KY 40203,
email: amried01@ulkyvm.louisville.edu

ABSTRACT

No other change in our nation has offered greater challenges than the emergence of the Information Age. In an information society, all people should have the right to information that can enhance their lives. To reap the benefits of our global society, individuals must be information literate on a global basis.

This article discusses several aspects of information literacy, from characteristics of an information literate person to information literacy education, including the role of the library media specialist, to educational criteria for evaluating electronic information literacy. It is our job as educators to teach students to become critical thinkers and lifelong learners—information literate citizens.

Introduction

If the dynamics of our evolving world could be captured on a slide and analyzed under a giant magnifying glass, the image would be extraordinary. The defining characteristics would certainly include an incredible growth of knowledge, an explosion of technology, and the speedy reconfiguration of the boundaries that separate the myriad of academic fields and social conventions. Without the benefit of the kind of clear picture a magnifying glass provides, our complex, global society continues to expand at a rate beyond the capacity of individuals to comprehend. Collectively, and with the use of technologies that have potentiated the momentum of change, humanity generates enormous amounts of information. Access to information is critical to ease the burden of change and to help humanity navigate its course toward the future. The abilities to access, comprehend, and use information become the skills people must develop in order to function in the current world.

What Is Information Literacy?

A number of people have developed meanings for information literacy. For instance, Doyle (1992) defines it as the ability to access, evaluate and use information from a variety of sources. According to Burnhein (1992), "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" (p.192). Lenox and Walker (1992) explain, whether information comes from a computer, a book, a government agency, a film, a

conversation, a poster, or any number of possible sources, inherent in the concept of information literacy is the ability to dissect and understand what you see on the page or the television screen, in posters, pictures, and other images, as well as what you hear. If we are to teach information literacy, we must teach students to sort, to discriminate, to select, and to analyze the array of messages that are presented. Information literacy is a means of personal empowerment. It allows people to verify or refute expert opinion and to become independent seekers of the truth. The author defines information literacy to mean the ability of people to: 1) know when they need information; 2) find information; 3) evaluate information; 4) process information; and 5) use information to make appropriate decisions in their lives.

The Colorado Educational Media Association (1994) states the following:

Information literate students are competent, independent learners. They know their information needs and actively engage in the world of ideas. They display confidence in their ability to solve problems and know what is relevant information. They manage technology tools to access information and to communicate. They operate comfortably in situations where there are multiple answers, as well as those with no answers. They hold high standards of their work and create quality products. Information literate students are flexible, adapt to change, and are able to function independently and in groups (p. 3).

Are you information literate?

Characteristics of an information literate person

What are the basic characteristics of an information literate person? As stated by the American Library Association (ALA) Presidential Committee on Information Literacy (1989):

To be information literate an individual must recognize when information is needed and have the ability to locate, evaluate and use effectively the information needed. Ultimately information literate people are those who have learned how to learn. They know how to learn because they know how information is organized, how to find information, and how to use information in such a way that others can learn from them (p.1).

From this description, several characteristics can be identified regarding the information literate person:

- 1 the information literate person engages in independent, self-directed learning;
- 2 the information literate person implements information processes;
- 3 the information literate person uses a variety of information technologies and systems;
- 4 the information literate person has internalized values which promote information use;
- 5 the information literate person has a sound knowledge of the world of information; 6) the information literate person approaches information critically; and
- 7 the information literate person has a personal information style which facilitates his or her interaction with the world of information.

Information literacy education

For students to graduate having acquired characteristics of the information literate individual, educators must accept responsibility for information literacy education; it is a shared responsibility. Initiators of information literacy programs require collaboration of content experts, media specialists, and computer scientists. It is critical that the responsibility for information literacy be shared and implemented as a collaborative effort.

National reports have urged the adoption of new educational goals; information literacy has been at the root of these new goals. Unfortunately, information literacy has not been delineated and advocated in these national reports. Unless schools begin to address and teach information literacy, students will be targets to another round of outdated teaching at a higher level.

Educators have the task of encouraging and supporting the implementation of information literacy. If it grows in proportion to existing information, we are living in exciting times! Information literacy will allow anyone to organize and communicate vast amounts of information any time, any place, and anywhere. Ross and Baily (1994) state that the failure to grasp our "new style" of communication will leave us at the mercy of those whom "can". To the illiterate, information is not a tool, but a terror; not a servant, but a master; not something to communicate with, but something to be overwhelmed by.

To prepare the leaders of tomorrow, teachers, library media specialists and administrators must teach students to become critical thinkers, intellectually curious observers, creators and users of information who challenge the validity of information and who understand the political, social and economic agendas of information creation and dissemination.

As explained by Hade (1982), "In an information society, information is a slavery to the thoughts of others; knowledge is power and freedom to do one's own thinking" (p. 8). Most citizens acknowledge that there is too much information to possess either personally or institutionally. Today, to know means to have access to the information process. Possession is replaced by access. How can educators implement programs and ideas to meet today's information literate challenges? According to Lenox and Walker (1992), the following steps are necessary:

1. accept the fluidity of information and shift our instructional emphasis from acquisition of a product to execution of a dynamic process;
2. transmit to students an understanding that information is a commodity—bought and sold like the product of any other business;
3. accept and celebrate the individual, cultural, and ethnic differences of a multicultural/multiethnic student population;
4. broaden our concept of available information products and present dynamic processes; and 5) foster a climate in which we see ourselves as facilitators of lifelong learning (p. 60).

As explained by the American Library Association (ALA) Presidential Committee on Information Literacy (1989), the following is a description of what a school might be like if information literacy were critical:

1. 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;
2. in such an environment, teachers would be coaching and guiding students more and lecturing less;
 3. 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 are explorations and challenging, interesting, and productive learning experiences in which they can all take pride;
 4. 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; and
 5. it would look and sound different from today's schools. 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?" People need more than knowledge, they also need techniques for exploring it, connecting to it, and ways of making practical use of it in order to respond to our ever-changing global society. Individuals must possess numerous technological skills in addition to a broad, integrated and critical perspective on the contemporary world of information.

The role of the library media specialist in information literacy education

Library media specialists have a particularly important role to play in fostering information literacy. Media centers are traditionally repositories of information and media specialists traditionally the keepers and disseminators of information. The challenge of all educators is equally great. Library media specialists must join with their colleagues in developing and implementing strategies for achieving information literacy. By combining their knowledge and involvement with their roles as educators, library media specialists can develop partnerships with teachers and other educators to integrate information resources into the curriculum. Library media program goals should include the following:

1. provision of access to materials in all current forms;
2. incorporation of information seeking skills into curriculum subject areas with the use of print, non-print and electronic resources;
3. activities designed to meet the needs of all individuals;
4. promotion and support of a love of reading; and
5. the provision of a supportive environment for library media center users.

According to Mancell, Aaron and Walker (1986), the role of the school library media program in achieving the basic objective of educating students to think was described:

1. school library media programs need to be involved in helping students develop thinking skills;

2. school library programs need to take into account current research on how children and adolescents process information and ideas; and
3. school library media programs need to assist with the development of an information skills program in all curricular areas.

The traditional ways in which library media specialists have organized, stored and retrieved information must be altered to meet the needs of culturally diverse learners. Media specialists who are aware of differing learning styles due to cultural diversity can develop reference strategies to help meet the needs of all students. Library media specialists are in a critical position to help create tomorrow's information literate workforce by emphasizing the power of information and by providing opportunities to develop information seeking skills. Media specialists should be available to advise faculty and administrators who are implementing information literacy education, as well as designing their own programs for educating staff and students in the principles and practices of information retrieval management and use. Library media specialists should also be closely involved in the development, implementation and evaluation of curriculum. Teaching for information literacy requires continual updating of skills and knowledge about the world of information as well as particular kinds of teaching-learning strategies. Media specialists must move from isolated skill instruction to an integrated approach. This is a crucial step that takes a great deal of time and planning, but is necessary and worth the effort.

Leaders who have empowered others to create the teaching and learning of information literacy are witnesses to a shift in the way that educators perceive and promote the educational process. Basically, the overall goal of information literacy education is to ensure that people are equipped and encouraged to learn from the range of information resources surrounding them. Information literacy education involves learning to use the formal and informal networks available to individuals in their professional lives and as private citizens. How can one foster information literacy? As the American Library Association (ALA) Presidential Committee on Information Literacy (1989) states:

What are called for is not a new information studies curriculum, but rather a restructuring of the learning process. Textbooks, workbooks and lectures must give way to a learning process based on information resources available for learning and problem solving throughout people's lifetimes...(p. 7).

The goal of information literacy is achievable through the integration of information literacy education in curricula and the provision of information resources and opportunities to learn to access the world of information.

Evaluation of electronic information literacy In education

In evaluating electronic information, one should consider many of the same elements that would be considered when selecting resource material in other formats, and a new one: permanence. As when judging any kind of publication, much is subjective. The following elements will assist users in identifying resources of value to meet their information needs.

1. Accuracy: How do you tell if the information is good? One way is to measure it against information on the same topic in other formats. Look for the author, creator, publisher and their credentials, as well as references from other resources on the same or related topics;

2. **Content Scope:** Identifying the scope of material presented is the basic breadth and depth question of what is covered and in what detail. The scope should reflect the purpose of the site and its intended audience. Evaluating scope includes reviewing topical aspects of a subject on which the site is focused and noting if there are any key omissions from the subject area. The student should look for the stated purpose of the site, statements of scope and any limitations that may apply, and site comprehensiveness;
3. **Authority and Bias:** At times it is extremely difficult to discover who actually provided the information available in e-mail or at an Internet site. E-mail provides a special case. Checking the publisher of the information may be helpful. Electronic conversation, particularly in a listserv format, may provide valuable archives of conversations between experts, but does the chatty nature of e-mail lessen its value as an authoritative reference? Some things to look for are who provided the information and why, a point of view being "sold to the use", explicit statements of authority;
4. **Permanence:** There is no guarantee that a particular file of information will reside in the same location today that it did yesterday. It is important to note that date and time that a site is visited if one plans to use the information and a citation is taken;
5. **Timeliness:** Printed media is often considered to be out of date before it reaches its audience. All sources should be checked for currency. E-mail to a listserv is dated. Many Web sites post the date. Sometimes you will find relevant information in a document header or footer. Some things to look for are posting and revision dates, policy statements for information maintenance, and link maintenance;
6. **Value Added Feature:** Some listservs and Web sites are moderated by trained professionals. In the Web world you can sometimes find sites rated for content and presentation. Certain things to look for include tools, descriptions of site structure, help information, summaries or abstracts and ratings and/or evaluations; and
7. **Presentation and Organization:** Presentation issues include page or site layout, clarity or intuitiveness of the site's organization design, and help/example sections. Some things to look for are intuitive site organization for the appropriate audience, appropriate use of graphics and multi-media, help and example sections appropriately placed, and navigational links provided back to starting points or table of content pages.

How do you know if you are information literate?

As outlined by Doyle, (1992) "An information literate person is one who:

1. recognizes the need for information;
2. recognizes that accurate and complete information is the basis for intelligent decision making; 3) identifies potential sources of information;
3. develops successful search strategies;
4. accesses sources of information, including computer-based and other technologies;
5. evaluates information;
6. organizes information for practical application;
7. integrates new information into an exiting body of knowledge; and
8. uses information in critical thinking and problem solving" (p. 2).

A précis from the seven dimensions of information literacy by Shapiro and Hughes (1996), displays an information literate person as possessing:

1. the ability to understand and use the practical and conceptual tools of current information technology that are relevant to education, work and professional life the individual expects to inhabit;
2. the ability to understand the form, format, location and access methods of information resources, especially daily expanding networked information resources;
3. the knowledge of how information is socially situated and produced;
4. the ability to understand and use the information technology-based tools relevant to the work of today's researcher or scholar;
5. the ability to format and publish research ideas electronically, in textual and multimedia forms;
6. the ability to ongoingly adapt to, understand, evaluate and make use of the continually emerging innovations in information technology so as not to be a prisoner of prior tools and resources, and to make intelligent decisions about the adoption of new ones; and
7. the ability to evaluate critically the intellectual, human and social strengths and weaknesses, potentials and limits, benefits and costs of information technologies.

One who is information literate is a competent, independent learner, knows information needs and actively engages in the world of ideas. This person displays confidence in his/her ability to solve problems and knows what is relevant information. An information literate individual uses technology tools to access information and to communicate effectively.

Conclusion

Information literacy prepares each person to learn, earn, and return. Like the other boundaries in today's society, the lines that define the best periods in life to accomplish these tasks have been deleted. People are empowered to contribute to the good of society. Information skills can no longer be confined to academic settings. Information is an integral part of meeting life's challenges and reaping its benefits. Information literacy has become an essential competency for all learners and an essential life skill in our global society. Our American society has shifted from an economy based on capital goods to an economy based on services—information. There has been a corresponding shift in what is expected from American education. Knowing how to ask the right questions may be the single most important step in learning. The process that is conducted in order to find answers to the right questions leads to the point at which information becomes knowledge. Information literacy—the ability to access, evaluate, and use information from a variety of sources—is central to all successful learning and by extension, to all successful living.

References

- American Library Association Presidential Committee on Information Literacy. (1989) *Final Report*. Chicago.
- Bruce, C. (1994). *Information Literacy Blueprint*. Division of Information Services. [On-line] Available <http://www.gu.edu.au/gwis/ms/infolit/bluepmt.thm>, March 5, 1997.
- Burnhein, R. (1992). Information literacy: A core competency. *Australian Academic and Research Libraries*, 23(4), 188-196.
- Colorado Educational Media Associations. (1994). *Model information literacy guidelines*. [On-line] Available <http://cde.state.co.us/infolitg.htm>, March 8, 1997.
- Doyle, C. (1992). Outcome measures for information literacy within the goals of 1990. In *Final Report to the National Forum on Information Literacy. Summary of Findings*.
- Hade, D. (1982). Literacy in an information society. *Educational Technology*, 26(8), 59-61.
- Lenox, M. and Walker, M. (1992). Information literacy: challenge for the future. *International Journal of Information and Library Research*, 4(1), 1-18.
- Mancell, J. Aaron, S., & Walker, S. (1986). Educating students to think: The role of the library media program. A concept paper written for the National Commission on Libraries and Information Science. *School Library Media Quarterly*, 15(1), 18-27.
- Ross, T. and Bailey, G. (1994). Wanted: A new literacy for the information age. *NASSP Bulletin*, 21(9), 31-35.
- Shapiro, J. & Hughes, S. (1996). Information literacy as a liberal art. *Educom Review*, 31(2).