

**INFORMATION LITERACY AND EQUITABLE ACCESS:
A Framework for Change**

A DRAFT DOCUMENT FOR DISCUSSION AND RESPONSE

Ontario Ministry of Education and Training

January 1995

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INVITATION TO RESPOND TO:

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Ontario Ministry of Education and Training
(Ce document est aussi disponible en français.)

In our evolving information society, information literacy needs to be an integrated component of all our school programs. An essential foundation for developing lifelong learners is equitable access for students and educators to information resources and technologies. To realize equitable access will require the collaboration of all partners.

This document is intended to generate discussion and comments about the role of the school information centre in the development of integrated information skills programs and providing equitable access to information resources and technologies. The Ministry of Education and Training invites you to participate in developing a framework for changing school library resource centres into school information centres.

CONTENT OF RESPONSES

In your response, please comment on the following:

1. Vision of the school information centre;
2. Changing roles of teachers and teacher-librarians;
3. The framework for change.

INFORMATION ABOUT THE RESPONDENT(S)

Please indicate if the response is from:

an individual an informal group an organization

Also indicate to which of the following categories you (as an individual, group, or organization) belong:

| | | |
|--|---|--|
| <input type="checkbox"/> teacher | <input type="checkbox"/> parent | <input type="checkbox"/> elementary school |
| <input type="checkbox"/> teacher-librarian | <input type="checkbox"/> student | <input type="checkbox"/> secondary school |
| <input type="checkbox"/> principal | <input type="checkbox"/> librarian | <input type="checkbox"/> school board |
| <input type="checkbox"/> co-ordinator/consultant | <input type="checkbox"/> teacher educator | <input type="checkbox"/> faculty of education |
| <input type="checkbox"/> superintendent | | <input type="checkbox"/> other postsecondary institution |
| <input type="checkbox"/> other | | <input type="checkbox"/> public library |
| | | <input type="checkbox"/> other information service |
| | | <input type="checkbox"/> other |

So that we can acknowledge your response, please include your name and, if applicable, the name of your organization, and a mailing address.

DEADLINE

Please submit your response by **** MAY 15, 1995 ****. You can send it by Internet or the Electronic Village, as well as by mail and fax, to:

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INTRODUCTION

The Ministry of Education and Training is committed to providing all students in Ontario with equal opportunities to achieve their potential and recognizes that access to information, information technology and information literacy instruction is fundamental to meeting that commitment.

In 1982, the ministry signalled the need for students to have access to a wide range of information in its resource document, "Partners in Action : The School Library Resource Centre in the School Curriculum", which created awareness among educators of the importance of resource based learning and collaborative partnerships. The ministry recognizes the continuing value of "Partners in Action" with regard to these important concepts. However, the world of information and learning has changed dramatically over the past decade, and significant changes in our approach to information technology and information skills instruction are required if we are to prepare our students for success in the future.

"Information Literacy and Equitable Access" addresses those changes by focussing on the importance of access in an information society and the role of educators in ensuring that all students in Ontario have equitable access to information, information technologies and information skills instruction. It calls for school boards and schools to build on the strengths of their school library resource centres as they adapt their information systems and information skills programs to achieve the goals of education. It provides guidance for the transformation of school resource centres into information centres that, in addition to performing the traditional functions of libraries, would be the nucleus of a school's information network and the window to the world of information beyond.

This document takes an evolutionary approach to change. Rather than prescribing the technologies and programs information centres must offer, it provides a vision and a broad framework for change. The intent is to give schools the flexibility to develop information systems and programs that serve their unique and changing needs, and to take advantage of new technologies and learning opportunities as they emerge.

School boards should use this document to guide their planning and evaluation of information skills programs and school information centres.

Principals, teacher-librarians and teachers will find within this document guidance for the planning, acquisition and management of information and information systems. They will also find direction about information literacy programs and the changing roles of teachers and teacher-librarians.

Parents and community members can use this document to enhance their understanding of the challenges students and teachers face as they respond to changing technologies and expectations regarding information literacy, and the priority we must place on upgrading school resource centres and information systems.

Postsecondary institutions responsible for educating teachers and teacher-librarians should use this document to understand Ontario's strategic directions for information literacy and to evaluate and adjust their programs for pre-service and in-service training.

Our present and future partners in information sharing can use this document to learn more about the ministry's commitment to equity of access to information, information technology and information skills instruction, and to develop partnerships with educators to serve the information needs of students. It is only by building partnerships among ministries, schools, institutions of higher learning, public libraries and other information sources that we will have the financial and technical means to provide all students in Ontario with the opportunity to share in the benefits of an information society.

THE CHANGING ENVIRONMENT

Ontario is experiencing dramatic social transformations. Our family structures are changing, the racial and ethnocultural diversity of our population is rapidly increasing, and many of our society's long-held beliefs and institutions are being re-evaluated and altered.

At the same time, advances in computer and telecommunications technology are transforming our economy from one based on manufacturing to one based on information. Futurists say we are rapidly becoming an "information society" -- a society in which the abilities to find, evaluate and use information are essential to personal satisfaction, economic success and participation in our social and democratic processes.

These rapid advances in technology are already being felt in our schools, and many initiatives are underway to link students and educators to information sources provincially, nationally and internationally. Schools throughout the province are taking advantage of educational opportunities presented by electronic communication networks and distance education. A teacher-to-teacher network enables teachers throughout Ontario to participate in educational debates and conferences, and to support each other through peer coaching. Many of our students are already using multimedia learning materials at school and at home.

These social and technological changes are happening in a time of economic adjustment when we must make better use of our resources by developing partnerships and by critically examining our goals and objectives.

Educators have responded to this environment of change with a renewed commitment to equity in education and a province-wide focus on achieving well-defined goals. One of those goals is to give students the knowledge, skills and values they need to become lifelong learners who are capable of responding constructively not only to conditions we can foresee, but to those we cannot yet imagine. To achieve this goal, educators are expected to integrate the traditional subject areas into learning programs that reflect meaningful, real-life situations, and to engage students in active learning experiences that emphasize independent inquiry and problem solving. In addition, program planning is to be done at the board and school level to ensure that our programs meet the unique needs of individuals and communities.

Our commitment to equity is crucial as we become an information society. To thrive in a world of constant change and to succeed in an economy increasingly based on information, students must be information literate; that is, they must be able to find, critically examine and use information to solve problems as they continue their studies, as they work and change careers, and as they strive to achieve satisfaction in their personal lives.

If all students are to have equal opportunities to participate and succeed in tomorrow's world, educators must ensure that they have access to information technology, information skills instruction and a wide range of information. Equitable access is fundamental to achieving the goals and expectations of our education system. In particular, information literacy is the key to helping students become lifelong learners.

INFORMATION LITERACY AND LIFELONG LEARNING

Not long ago, it was possible to know or to acquire through books much of the world's information. With only a limited quantity of information available, students could rely on memorization and recall to succeed. They could also work easily with that information to form ideas and knowledge. Then, by applying what they had learned to situations in their own lives, they turned knowledge into wisdom. This traditional approach to education reflected the availability of information; teachers relied on lectures, textbooks and the ability to recall facts, to prepare students for their futures.

In the past few decades, however, our world has changed dramatically. The rapid development of computer technology and telecommunications has sparked an information explosion that is already being felt in our schools. Today, schools have access to an abundance of new information sources: on-line databases, Internet, electronic bulletin boards, multimedia learning programs, CD-ROMs, laserdiscs and others. These new media are not replacing books, which will continue to have a significant role in education, but they are changing the way we find, manipulate, analyze, communicate and store information. Faced with new technologies and a wealth of information, the task of finding and selecting information and using it to solve problems is overwhelming. To thrive in a world of abundant information, students need to be information literate.

What Is Information Literacy?

Information literacy is the ability to acquire, critically evaluate, select, use, create and communicate information in ways that lead to knowledge and wisdom. It encompasses all other forms of literacy -- traditional literacy (the ability to read and write) and media literacy (the ability to critically evaluate and create media, such as television, advertising, news stories and movies) and numerical literacy (the ability to understand and solve problems with data and numbers).

The key to information literacy, as with all forms of literacy, is critical thinking. Students need to know how to define a question. They need to know how to select the best sources of information from a multitude of sources and choose the best information from those sources. They must be able to evaluate information; that is, to detect bias, to differentiate between fact and opinion, to identify perspectives, to weigh conflicting opinions and to evaluate the worth of sources. When they have the information they need, students then need the skills to transform facts into the broad concepts that are the inspiration of ideas and knowledge. In a changing world, these information skills are far more important than memorizing facts -- facts that may be obsolete tomorrow.

Another important component of information literacy is the ability to use and share information in ways that respect our laws and the rights of others. This means understanding copyright, plagiarism, privacy and other concepts relating to the legal and ethical use of information.

Lifelong Learning

Information literacy is the key to helping students use learning throughout their lives as a way to solve problems, plan for the future and prepare for change. To become lifelong learners, students must be able to:

- find, evaluate and select information from a variety of sources;
- analyze, create, organize and share information;
- use information ethically and legally;
- use information technology and telecommunication networks.

Educational policy in Ontario emphasizes the importance of integrated learning programs that stress the connections among ideas, people and things. In the world our students will work and live in, different areas of knowledge do not exist in neat, separate compartments. Rather, problems are solved by integrating knowledge from many disciplines. Recognizing the importance of integration, educators in Ontario are developing learning programs that emphasize broader areas of study, rather than narrowly defined subjects. For instance, a student might gain knowledge of geography, history, languages and the arts through work on a single projects that reflects a real-life problem. The principle of integration applies equally to information literacy skills. To learn, to solve problems and to adapt to change, people must pose questions and find the information they need from a wide variety of sources.

If students are to become effective lifelong learners, their information skills instruction and experiences must go beyond that gained in the school's information centres. They must be given the opportunity to learn and apply information skills everyday in the classroom, and within the context of meaningful problems. This step forward in the delivery of information skills instruction has significant implications for teachers. In assuming responsibility for information skills instruction, teachers need to:

- model and teach information skills within an integrated curriculum;
- encourage active, independent learning using many different kinds and sources of information, including literature and other print materials, film and video, art and photography and sound, electronic information and the advice of individuals and groups;
- include diverse racial and ethnocultural perspectives within the curriculum;
- detect and deal constructively with all forms of bias and stereotyping.

To integrate information skills into the classroom programs and to tap the potential of information technology for enhanced learning, teachers will need extensive professional development. With their experience in information skills instruction and collaborative planning, teacher-librarians have a leadership role to play in providing professional development and in planning integrated information literacy programs.

EQUITY OF ACCESS

Equity of access to information, information skills and information technology is crucial to both individuals and to our society as a whole. Students who do not have access to information skills instruction and information technologies will not have the skills they need to fully participate in an economy increasingly based on information skills and products. Access to information is the foundation of our democratic processes. In the emerging information society, those who do not have the means and skills to access information will be powerless to participate effectively in our decision-making processes.

School boards and schools must be committed to providing all students with a wide range of information, access to information technology and information skills training. This is important for all students, and crucial to the success of those who, because of background or economic circumstances, do not have access to information technologies in their homes.

Equity of access to information instruction and technologies in schools will help to overcome economic barriers to achievement. It will also help educators reduce other barriers that prevent some students from both imagining and realizing their potentials. Information technologies can:

- Provide new learning opportunities to geographically isolated communities and individuals Distance education, satellite telecommunications, fibre optic networks, and other emerging technologies and education delivery programs will make it possible for students throughout Ontario to have access to richer learning environments and expanded learning opportunities. These advances will also make it easier for all residents to pursue learning and knowledge, regardless of their age or where they live.
- Enhance instruction in French and other languages Information technologies will make it possible, through the sharing of resources, for Francophone students, native students and those students for whom English is a second language to have greater access to information, learning materials, instruction and support.
- Expand racial and ethnocultural perspectives By bringing new worlds of information into schools, information technologies and information skills training will give students of all races and ethnic backgrounds improved access to information and knowledge about their cultures and the opportunity to develop greater confidence in their cultural and racial identities.
- Enable students to work and express ideas in an environment relatively free of gender stereotyping and other biases In comparison with other forms of communication, electronic networks have the greatest potential for allowing students to interact without regard for gender. They also allow students with any impediments to social interaction to interact with others in ways that build confidence.
- Provide new opportunities for students with special needs and abilities Information technologies are easily modified to meet the special needs of students with special hearing, visual, motor and learning needs. For example, computers can be adapted

to synthesize a human voice to assist students with visual limitations or to respond to voice commands from students who have restricted movement. Computer work stations provide a non-threatening environments where students of all abilities and backgrounds can learn at their own paces and make mistakes without embarrassment. In the same regard, information technologies can accommodate students with advanced skills who wish to explore information far beyond the limitations of the classroom. The use of computers can also help teachers adapt their teaching strategies to the learning styles of individual students, whether they learn best through listening, watching or participating in activities.

These potentials can be realized only if school boards and schools are committed to equity of access to information technology and instruction, including implementation of technology-based solutions for meeting the special needs of individual students.

SCHOOL INFORMATION CENTRES

VISION

The school library information centre is the hub of the school's information access and sharing network. It provides students and teachers with information on demand or just-in-time delivery of a wide variety of information and learning resources from sources within and beyond the school. It is a 'virtual library' or a 'library without walls', providing leadership, service and connections to the world of information.

The school information centre is the core of a lifelong learning community. Through distance education, it provides individualized programs for students and professional development for teachers. It provides information support to parents and community members who are contributing to the planning of school programs. By creating partnerships and sharing resources, it helps to provide equitable access to information within communities.

FROM SCHOOL LIBRARIES TO SCHOOL INFORMATION CENTRES

The library resource centre in most Ontario schools today bears little resemblance to the school library of the past. In 1982, "Partners in Action" signalled the change of school libraries to library resource centres. It asked schools throughout the province to transform school libraries from book collections to places where both teachers and students could find and use a wide variety of learning materials. Library resource centres were to provide a wealth of information sources formerly unavailable to most students, such as video and films, sound recordings, photography and art, as well as information about community resources.

With such a diverse selection of learning materials at hand, teachers were able to move to resource-based approach to teaching. They could rely less on lectures and textbooks and more on active learning strategies that emphasized questioning and exploration and the use of many kinds of learning resources. Teachers could also tailor instruction to the needs and learning styles of individual students.

As we head into the 21st century, school library resource centres must take the next step if they are to continue to meet the needs of the students and communities they serve. They must evolve from library resource centres that provide learning materials and instruction, to information centres that provide and co-ordinate the sharing of information of all kinds. This means evolving from collection-based facilities to access-based services; from local and self-contained resource collections to global and interconnected information networks.

The school information centres should manage and provide information to students and teachers in classrooms and, when possible, in homes. As well as housing their own computer work stations, information centres should be the link between classroom work stations and external information sources. This ensures efficient and equitable sharing of limited resources. It also gives school information centres responsibility for selecting compatible technologies and providing leadership in evaluating the abundance of information available to schools.

Flexibility is required as school boards and schools develop the information centres. We are in a period of great transition. We don't know what tomorrow's classrooms will look like. Will they be 'technologically smart', with individual student work stations linked to information resources around the world? If this is the case, a library's need for physical space may diminish. There will, of course, continue to be a need for places to house books. However, coming advances in our abilities to store and transmit information digitally will eventually enable the walls that divide libraries, classrooms and the wider world to disappear. When students can retrieve information from storage centres around the world, libraries as we now know them will be transformed to reflect new information environment.

The changes in the way we handle and use information will not happen in isolation. Changes to one part or function of a school, such as the information system, bring about changes to all the other parts, such as the classrooms, and the roles educators and students play in achieving the goals of education. Careful planning and collaborating at the board, community, school and classroom levels is needed to ensure that all partners work together in the interests of students.

Planning and collaboration are also required to link students to information resources in the wider world. Today, no resource centre, school or school system can contain all of the information students need. Schools need to share resources with public libraries, universities, museums and other information institutions. They also need electronic access to remote databases, bulletin boards, networks and distance education. For efficient and cost-effective use of limited resource, these partnerships in information sharing should be co-ordinated at the board or provincial level.

CHANGING ROLES AND RESPONSIBILITIES

Achieving equity in information literacy, while at the same time transforming resource centres into information centres, calls for changes in the roles and responsibilities of educators and students in schools.

Students

To become independent lifelong learners, students need to understand the importance of information in their lives and take greater responsibility for their own learning through independent study. Teachers can help students adapt by communicating these changing expectations.

Teachers

Integrating information skills training into the curriculum requires that teachers, rather than teacher-librarians, be accountable for helping students become information literate. To model and teach information skills in the classroom, teachers will need support, as well as extensive pre-service and in-service training.

Teacher-librarians

For their part, teacher-librarians have a leadership role to play in helping principals and teachers adapt to these changing expectations. They also have an opportunity to assume leadership responsibilities for planning and managing information networks and technology, for ensuring equitable access to and ethical use of information, for developing partnerships with external agencies and for co-ordinating distance education for teachers and students.

"Partners in Action" gave teacher-librarians responsibility for managing resource centres, for developing information skills programs in schools, and for leadership in the implementation of learning strategies that incorporated a wide variety of learning materials. As experienced teachers, teacher-librarians also played an important role in helping other teachers adopt more active and individualized learning methods. Today, however, the increasing complexity of information systems combined with rapid technological change, requires that teacher-librarians have advanced skills in information management and access. To take advantage of these opportunities for leadership, teacher-librarians need to re-evaluate their skills and, if necessary, acquire the training they need to meet the information literacy needs of both students and teachers. Teacher-librarians must also broaden their focus from teaching students to helping teachers integrate information skills training into the classroom curriculum.

As we adapt our education system to meet the information needs of students in a changing world, particularly with respect to school information centres, there is a need to constantly re-examine the role of teacher-librarians. The emerging role of teacher-librarian has three key areas of responsibility: educational leader, information manager and access agent.

Educational leader

As educational leaders, teacher-librarians should provide training and support to teachers as they assume responsibility for teaching information skills within an integrated curriculum. With their cross-disciplinary roles, teacher-librarians can facilitate integrated program planning in our schools. They can also select and acquire information for schools and boards. To fulfil this role, teacher-librarians

need advanced knowledge and expertise in all aspects of teaching, including curriculum, learning strategies, cognitive development and learning styles.

Information manager

As information managers, teacher-librarians should take responsibility for planning, developing and managing information resources and technology within schools, including access to electronic networks and facilities. They should take responsibility for implementing antiracism and ethnocultural policies related to information access and use, and instructing teachers and students in the ethical and legal use of information. To fulfil this role, teacher-librarians need advanced skills in the information sciences, including knowledge and expertise in the areas of access, communication networks, diverse media, copyright and ethical use of information, and information technology, management and organization.

Access agent

As access agents, teacher-librarians should work for equitable access to information, information technology and information skills instruction, including development of partnerships for information access and resource sharing. To fulfil this role, teacher-librarians need expertise in planning and developing partnerships and systems for information access and resource sharing, and in user needs assessment. They also need a broad knowledge of a community's information resources and services.

Principals

As the instructional leaders of schools, principals must ensure information skills instruction is an integral part of the school program, and that all students have equitable access to information and information technology. They must also ensure that teachers and teacher-librarians have the training and support they need to assume the new roles and responsibilities, and the time required to work together to develop an integrated curriculum.

FRAMEWORK FOR CHANGE

Many school library resource centres are well on their way to becoming information centres. Over the past decade, many teacher-librarians have assumed leadership roles by advocating the integration of information skills into the curriculum, collaborative planning at the school level and active learning methods that incorporate a wide variety of materials. As well, many resource centres are already equipped with computer work stations and telecommunication links to networks and databases.

To increase access and to make the best use of information resources, school boards need to develop plans for developing information centres in their schools. The following framework is suggested to school boards and schools for reviewing their current information programs, resources and systems and for planning for the future.

School boards need to consider the following when developing and implementing board-level plans:

- equitable access by all students to information resources, technologies and instruction;
- provision of independent and distance learning opportunities for students and teachers through multimedia programs and telecommunication networks;
- provision of resources to support the development and operation of school information centres;
- in-service training for teachers and teacher-librarians to enable them to fulfil their changing roles and responsibilities related to information literacy programs and information resources;
- support for information-sharing partnerships among schools within the board and with other school boards and organizations, such as public libraries, cultural agencies, community organizations, faculties of education and postsecondary institutions.

Principals need to consider the following when developing and implementing information skills programs, information systems and school information centres:

- involving teacher-librarians, teachers, students, parents and community representatives in planning;
- allocation of appropriate staff, information resources and technological equipment to support equitable access and information skills programs;
- training and support for classroom teachers to integrate information skills in classroom programs;
- training and support for teacher-librarians to enable them to fulfil changing roles and responsibilities;

- support for the development of partnerships for sharing of resources within the school and the community.

Teacher-librarians need to:

- provide leadership for the development and implementation of equitable information access plans at the school level;
- facilitate collaborative planning of information skills programs and support classroom teachers in teaching information skills;
- develop partnerships for sharing resources and expertise with other schools, school boards, public libraries, postsecondary institutions, and other cultural and community agencies and organizations;
- take responsibility for continually upgrading their curriculum and information expertise to meet the information needs of students and school staff.

Teachers need to:

- take responsibility for information literacy outcomes within their programs;
- work collaboratively with teacher-librarians and other educators to integrate information skills into the curriculum;
- take responsibility for continually upgrading their own information skills.

In our world of rapid technological change, there can be no single prescription for how educators can meet the information needs of students. We cannot foresee all the ways in which advances in information technologies and telecommunications will change the way we learn and work. Nor can we anticipate the speed of those changes. However, it is clear that to prepare students for life in our emerging information society, educators must be committed to providing equitable access to information resources and to using the full potential of information technologies to enhance learning.

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