

# Accelerating<sup>the</sup> **Vision**



Committee on Learning Resources  
...in the Twenty-First Century

Prepared by Janice Hayes & Susan Barclay-Pereira

**Accelerating the Vision:  
College Learning Resource Centres in the  
Twenty-First Century**

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College Learning Resource Centres  
in the 21<sup>st</sup> Century  
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**INTRODUCTION**

With the turn of the 20<sup>th</sup> century and the beginning of a new millennium, the challenges for Learning Resource Centres (LRCs) have never been greater. While many of these challenges are complex and difficult, they offer an extraordinary opportunity to revolutionize the way LRCs operate and the way LRC professionals deliver their services.

Technology and software have created a whole new world of informational access that can only serve to enhance the educational experience of both students and faculty. Our willingness to embrace new technologies, both psychologically and financially, will be the key factor in determining whether or not our college libraries remain relevant and vital to the people they serve.

Every now and then, however – let's say every 500 years or so – a technological breakthrough comes along that revolutionizes the way the world works. The most recent revolutionary breakthrough, of course, is the Internet and all of its accompanying technology. The Internet is not only here to stay, it will arguably have as profound an impact on mankind as the invention of the wheel. Because this technology is so right for its time, it has already created a groundswell of change and an explosion in technological innovation, which are unrelenting and irresistible. Those who are unwilling to adapt to this change – the reactionaries – will ultimately be left behind.

Any assessment of the current status and future direction of the college LRCs in Ontario inevitably brings us face to face with an inescapable fact: the decisions we make to improve the quality of LRC services for students and faculty will be driven almost entirely by new technologies and the burgeoning world of technological change.

In the context of this technological revolution, this committee must address some fundamentally important questions: To what extent are the LRCs able to adopt new technologies? What level of commitment can they bring to the new technological frontier? Acknowledging that Ontario's college libraries are at different stages of development, what can this committee do to ensure that the LRCs are given every opportunity to maintain their integral role in student education and faculty teaching?

## **INTRODUCTION** (cont'd)

This “visioning” document provides an overview of the emerging trends for LRCs and library professionals. It is a forward-looking document that reports on a number of new technologies currently under review and discusses the potential impacts and implications associated with the significant changes being contemplated.

### **1. GLOBALIZATION OF LEARNING**

#### **i. Distance Education**

Globalization of learning is probably the most significant change in education today. With the emergence of the Internet, a good number of educational institutions, both private and public, have been offering their courses online, thereby bringing instruction to people and places never before imagined.

Distance education clearly presents an opportunity for our colleges to penetrate new markets and dramatically increase student enrolment in courses that are conducive to web-based instruction. The key to success in this field is based on two key factors: the quality of the courses being presented online; and increasing global awareness of the availability of these courses through carefully targeted marketing efforts.

The libraries can also play an important role in helping the colleges achieve a competitive edge in distance education by evaluating the various products available for delivering online learning. Ultimately, the goal is to have as many courses online as possible in order give students a choice on mode of instruction.

#### **ii. Online Learning (e-learning)**

In 1999, more than 70 million people used the Internet to receive some form of education. This represents just the initial impact of online learning. Industry analysts indicate that within the foreseeable future, training for virtually every professional job should be available on the Internet. Revenues from web-based training alone are forecasted to rise from \$550 million in 1998 to \$11.4 billion in 2003 (Source: International Data Corporation)

There are numerous players in the online learning industry, including content providers such as SmartForce and NETg, service providers such as Click2Learn and eMind.com, and web hosts and integrators such as Caliber Learning Network and RWD Technologies.

## **GLOBALIZATION OF LEARNING** (cont'd)

The Learning Resources Centres and faculty members have had discussions with four major content providers to see how they can work together to develop online courses for the colleges. These discussions resulted in the search being narrowed down to the two companies mentioned above – SmartForce and NETg. As this effort progresses, there will also be a need to work with service providers and web integrators to help put a comprehensive e-Learning system in place.

### **iii. Learning Resource Centre Services to Online Learners**

The extraordinary potential of online learning clearly offers the LRCs an opportunity to extend and leverage their role in post-secondary school education. Today's more progressive libraries have gained a distinct and profound strategic advantage by recreating themselves as "virtual" institutions, able to deliver a wide array of remote services. In this sense, they have become "distance libraries" and "distance information centres".

Traditionally, library services such as instruction, interlibrary loan, research and reference have all been delivered only on-site. Now, with the advent of new technology, all of these services can all be delivered online through forms, tutorials and e-mail and telephone reference interaction.

In order to serve the new customer base of distance learners, the college libraries will need to modify or extend their programs. To help facilitate the new and emerging distance learning services, faculty members are encouraged to develop their curricula in digital formats. In addition, a concerted effort needs to be made to digitize local materials, such as course-related print sources, and to create electronic remotely accessible "reserve rooms".

These themes are really just extensions or variations on the collections and services that libraries have traditionally offered. As distance learning continues to grow, it will be incumbent upon the college libraries to keep pace. With just a little tweaking, college libraries can bring added value to the new customer base of distance learners, and thereby ensure their survival and vitality in the new digital age.

## 2. . **VIDEOSTREAMING**

One of the most exciting opportunities to enhance the educational experience in our colleges is videostreaming, which allows a classroom to connect to a video server (e.g. cable distribution) and select a video program from a digital video library.

## **VIDEOSTREAMING** (cont'd)

Video programs are currently being used on a regular basis, both in the classroom and by individual students. With the digitization of video products, however, it is now possible to provide a centralized video-on-demand service, which every college throughout Ontario can access.

The potential benefits of videostreaming are truly remarkable:

- It will eliminate the need to purchase portable classroom equipment and transport playback equipment to classrooms.
- The service will eventually offer a far greater selection of videos than that of any single educational institution.
- Users will be able request a video at any time, and the service can be provided simultaneously to unrestricted number of institutions and individuals.
- The fact that the service will be delivered from one centralized source means that it is something that all of our colleges throughout Ontario can collectively share.
- The service is tremendously cost-effective due to the economy of scale achieved through the collective participation of the colleges.
- It is extremely flexible and versatile, with rapid search and play capabilities, enabling faculty members to have complete control over the subject matter they want to present.
- It can also be accessible in the college libraries for students who may have missed it that day or would like to see it again.

### **Current Status of Videostreaming Initiatives**

As attractive an opportunity as videostreaming is, its implementation will be a major undertaking involving the participation of numerous players, including educational institutions, school boards, government institutions, technology providers and other organizations such as TVO, NFB and Magic Lantern.

A number of initiatives are underway to bring videostreaming a step closer to implementation. Perhaps the most noteworthy of these is a project being conducted by the Optical Regional Advanced Network for Ontario (ORANO), which is working towards the establishment of a Research & Education (R&E) network for Ontario's colleges and universities.

The ORANO project is important because it aims to establish a high speed provincial grid, which would allow researchers and students access to high quality facilities regardless of their physical location. In addition, a key dimension of the ORANO mandate is to develop, test and demonstrate new technologies and

## **VIDEOSTREAMING** (cont'd)

applications through public/private sector partnerships. These partnerships could have a far-reaching beneficial impact on Ontario's educational institutions and on the province as a whole.

We are participating on a large committee that is looking at ways to bring videostreaming to fruition. There is still a long way to go, but we can report that the interest and determination to make it happen is very strong indeed.

### **3. COLLEGES DIGITAL LIBRARY**

As more and more information is created and stored in digital formats, college libraries are destined to become considerably more digital and virtual. This means that the current functions of academic libraries have and will be further transformed and expanded.

All College libraries have digital products available to their students and faculty. Remote access is also available to users who wish to access information from remote locations such as a business, or at home. Many college libraries currently offer access to their digital resources from well organized and maintained web sites.

Given that information is now shared on a global basis through digital networks, it will be incumbent upon libraries to expand their databases, increase their access to regional and international resources and develop new skills for library staff and faculty members.

Once again, libraries are faced with the challenge of maintaining currency and relevancy as the demand for access to a wide variety of information continues to grow. The digital world is here to stay and the college libraries must be able to respond to this demand by developing new digital content through the provision of appropriate technological resources.

### **4. KNOWLEDGE MANAGEMENT**

#### **i. Academic Awareness Project - Push**

The term "push technology" refers to a method of delivering information onto the desktops of students and faculty members. The process begins with the student or faculty member submitting a profile of information requirements to the library staff who will then scan the electronic databases and send the required information directly to the student or faculty member's desktop.

## **KNOWLEDGE MANAGEMENT** (cont'd)

Once again, on behalf of the CLR, the Bibliocentre is in the process of running experiments to determine the best way to “push” electronic products directly to desktops. The major problem with standard push technology is that it consumes bandwidth, thus making downloads difficult and cumbersome. Fortunately, there are a number of options that offer variations on standard push technology. The most promising of these are the Worldflash News Ticker and Microsoft’s Active Channel Technology. It may also be worth considering the idea of developing one centralized “push” web site, which could be shared by all of the college libraries throughout Ontario.

Regardless of which technology is ultimately chosen, the ability the college libraries to deliver “push” will require an appropriate infrastructure of computers, connectivity and electronic products.

### **ii. Collaborative Learning**

Many college programs are currently being taught via collaborative learning – that is, students working on research projects together in groups. Collaborative learning is an important part of the educational process because it helps develop the social interaction skills essential for success in the working world.

With the emergence of electronic technologies, and their natural tendency to isolate individuals from one another, our challenge is to find an appropriate balance that can exploit these technologies without jeopardizing the collaborative learning experience.

It is important to point out that collaborative learning and new technology do not have to be mutually exclusive. College students can have the best of both worlds. One way this can be achieved within each college is by providing bookable seminar rooms equipped with electronic workstations that facilitate group research activities.

## **5. ELECTRONIC BOOKS (e-Books)**

The term e-Book applies to any published material such as reference books, scholarly monographs and consumer books that have been converted into digital format for electronic distribution.

e-Books provide numerous benefits not associated with printed materials. For example, librarians can expand their collections without having to build new storage facilities. In addition, e-Books can be delivered immediately to students in

## **ELECTRONIC BOOKS** (cont'd)

remote locations without the need to spend time and money transporting books from library to library.

e-Books are quickly gaining recognition as an important innovation in Canadian libraries. Many Canadian consortia are starting their own e-Book trials, and COOL (the Consortia of Ontario Libraries) has scheduled an e-Book session for the OLA Conference, where the various software and hardware offerings will be discussed.

### **How e-Books Work**

An e-Book can be checked out in the same manner as paper books. At this stage, however, only one person at a time can check out an e-Book. If concurrent use is required, multiple copies of the e-Book must be purchased.

e-Books offer a number of conveniences and advantages over paper books:

- Keyword searches and Boolean operators facilitate easy location of specific sections of the book.
- An e-Book can be downloaded to a computer or handheld device.
- An e-Book is never overdue. When the loan period expires, access is automatically denied to the user and the e-Book immediately disappears from the computer or hand-held file.
- An e-Book never gets damaged, so there is no depreciation in its value.
- During the loan period, the user can highlight passages, write margin notes or bookmark sections, and all of these markings will disappear when the loan period expires or when the e-Book is checked in.
- Administrative costs are minimal due to the reduced processing and circulation requirements.
- Any e-Book can be leased rather than purchased. For example, we may want to lease e-Books that contain information or materials that are time-sensitive – e.g. software manuals, periodicals, etc.
- E-books can be stored in one database location and then shared by all of the college libraries, with potentially significant reductions in cost.
- e-Books are particularly applicable to seldom used reference works that are now purchased in their paper versions by each of the college libraries. Providing these works via e-Books will avoid duplication of cost.

### **The Pilot Project with NetLibrary**

The Bibliocentre, on behalf of the CLR, is currently investigating the feasibility of running an e-Book pilot project through NetLibrary, the leading vendor of e-

## **ELECTRONIC BOOKS** (cont'd)

Books in the library industry. NetLibrary provides round-the-clock access to the world's most comprehensive collection of full-text e-Books from any location in the world. The pilot project will be a key step towards the ultimate implementation of a comprehensive e-Book system that can be shared by all of the college libraries throughout Ontario.

The Bibliocentre is also looking at a new e-Book service, which is scheduled to be launched in the first quarter of 2001. This service will not only provide one book at a time, but will offer an entire e-Book package covering a variety of subjects such as economics, business administration, etc.

### **Outstanding Issues and Questions Surrounding e-Books**

e-Books will have a tremendous impact on the way our libraries operate. While the college libraries clearly see themselves as playing a major role in the distribution and control of e-Books, there are a number of questions and issues that need to be addressed. For example:

- How will e-Books be administered throughout the Ontario college library system? Who will be responsible for overseeing its implementation?
- What can the libraries do collectively to achieve economies of scale and minimize costs?
- What type of infrastructure is needed to ensure that all libraries can participate in e-Books?
- What impact will e-Books have on paper book collections? (see below)

### **The Impact of e-Books on Paper Book Collections**

As attractive and exciting as the prospect of e-Books may be, it would be seriously delusional to conclude that paper books are on the verge of becoming obsolete and unnecessary. On the contrary, it is a simple fact that many paper books do not lend themselves to the new electronic media. Art history books or any books that are difficult to electronically open or download serve to illustrate this point. For the foreseeable future at least, the college libraries will have a strong need to maintain and augment their paper book collections, and future budgeting decisions should take this into account.

## **6. 24/7 SERVICES**

To maintain their vitality and relevance in a technology-driven, service-oriented world, college libraries must face up to the fact that it is no longer acceptable to

## **24/7 SERVICES (cont'd)**

restrict their services to the traditional hours of operation. It is therefore imperative that they begin to move towards “virtual” 24/7 operations.

This does not mean that the library doors have to be open 24-hours-a-day, seven days a week. It simply means that they must be able to address some fundamental student needs on a round-the-clock basis. For example, if a student is studying at two-o’clock in the morning and he/she has a research problem or question, the libraries need to have support systems in place that will facilitate a timely response.

To a certain extent, e-mail technology can address this issue, and indeed, some libraries are already providing after-hour services via e-mail. Nonetheless, our college libraries are not yet able to call themselves “24/7 Service Providers”. Some college libraries in the U.S. offer 24/7 access to professional librarians through the provision of a “time zone” partnership with other college libraries across the nation.

Once again, this is primarily a technology-driven issue. Unquestionably, many of the technology proposals contained in this document will contribute to the advancement of the virtual 24/7 cause. Further exploratory work needs to be conducted to determine the best way to achieve virtual 24/7 operations. In assessing this issue, a number of factors should be taken into account, including funding, library staffing, student computer capabilities, marketing, etc.

## **7. THE CHANGING ROLE OF THE LIBRARY PROFESSIONAL**

### **i. Leadership Skills Re-defined**

The successful implementation of electronic technologies in the college libraries will depend greatly upon the ability of the library professionals to provide leadership and guidance to the students and faculty on how these technologies work. This will require a commitment to provide the appropriate level of development training to our library staff – there’s no point in having a brand new Ferrari if no one knows how to drive it.

In the future, the majority of student questions and problem-related inquiries that the college libraries receive will pertain to technology issues. It is therefore imperative that all library staff be well versed in the electronic technologies of the day and that they maintain their level of competency as new technologies emerge.

## **THE CHANGING ROLE OF THE LIBRARY PROFESSIONAL** (cont'd)

In Ontario, demographics predict a significant increase in the number of retirements of library professionals in the near future. The issue of recruiting and retaining qualified information professionals for colleges in our province will require the attention of the Committee on Learning Resources over the next 3-5 years.

### **ii. The Librarian as Navigator to e-Learners and e-Information**

With the emergence of new technologies, the role of the librarian is clearly going to change and evolve. Information is now provided on a global basis in huge databases never before seen in a library. Librarians are constantly grappling with the challenge of turning the enormous glut of raw data into a useable resource. Deciphering or sorting through the billions of online articles, web sites, books and databases is indeed a very daunting challenge - it's one thing to have access to all that information; it's quite another to be able to navigate through it in a time-efficient and productive manner.

Indeed, the "librarian as navigator" is going to be one of the primary roles library professionals will be required to play in the years to come. This means providing students and faculty with expert guidance and direction on which sites to explore, which sites to ignore and which databases will best meet their needs. It means that librarians are not only going to require training on how the various electronic technologies work, but equally important, it means that they will have to do their own extensive research of worldwide information sources in order to provide the high level of service that students and faculty will inevitably demand.

To remain relevant and vital, librarians must continue to play a major role in creating the intellectual capital that is fundamental to education. And there's no question that they will need help in achieving this goal. It will require more investment in training programs that will equip our librarians with the skills to participate in the process of transforming information into knowledge.

## **8. PARTNERSHIPS**

We wholeheartedly support the idea of developing partnerships to help college libraries achieve their goals. The chief motivation for the establishment of partnerships is the added value gained from working with a wide range of diverse organizations, who bring their own special area of expertise to the task at hand.

## **PARTNERSHIPS (cont'd)**

### **i. Consortiums**

The consortium model has become popular as a cost-saving and resource-sharing vehicle for all types of libraries – eg. public, college and university.

The Bibliocentre model is a prime example of the value that a consortium can bring to the Ontario college system. For example, a cost effectiveness study conducted in 1998 showed that the Bibliocentre consortium model generated total annual savings of \$5.34 million for the 25 colleges – an average of \$213,000 in savings per college. The study also revealed that the 1996-97 provincial funding of \$2.8 million generated \$1.87 in savings for every dollar invested.

The Bibliocentre continues to function in a highly cost-effective and efficient manner, providing a wide array of value-added benefits to its members. It is therefore strongly recommended that the consortium model be retained and further developed. This model is extremely efficient and cost-effective, and has the potential to reap even greater benefits as the college libraries embrace the new world of networked electronic resources.

### **ii. Partnerships with Business**

In this highly technological age, it would be virtually impossible for colleges to survive and progress without developing partnerships with the private sector. These partnerships go a long way towards reducing costs and enhancing the educational experience for our students. An outstanding partnership is between Centennial College LRC and ten libraries including government, special, public and academic to fill information inquiries that could not be answered using only the resources at Centennial LRC. One of these partnerships is with the CNIB Library for the Blind to provide transcription of journal articles into Braille, or audio cassette.

Partnerships with private sector companies such as Bell, IBM, Novatel, Intel, etc. have opened up new areas and new opportunities never before available to the colleges. These partnerships offer a mutually beneficial or “win-win” relationship for all parties involved - the colleges benefit from an expansion in technological resources and a significant reduction in costs through the achievement of economies of scale; and the companies benefit from the increased marketing exposure and sales that the partnerships generate.

The Bibliocentre and many LRCs are continuing to meet with various private sector companies to see how they can work together to address the technological and educational needs of the LRCs. The colleges as a whole are also encouraged to broaden the scope of their partnerships to include the college libraries.

## **9. INFORMATION COMMONS AS A MODEL FOR SERVICE DELIVERY**

College libraries in Ontario have always provided a place where faculty and students can access books, periodicals, conduct research, study and write. While the research goals remain essentially the same, the tools available to conduct this research have changed dramatically. Computers have replaced yellow pads. Faculty are producing their own web pages and posting assignments on electronic bulletin boards and campus-wide networks such as Campus Pipeline.

To keep pace with changes in the ways Ontario's students and faculty study and work, colleges have developed a new model of service delivery, called the Information Commons.

Created to support teaching and learning initiatives, a typical Information Commons involves a comprehensive online environment, offering students high-end workstations that provide access to the library's electronic catalogue, the Internet, word processing and spreadsheet applications software, web-based and electronic research materials and electronic mail. Students using workstations in the Information Commons also have access to selected application software to support coursework as well as tutorial software for specific disciplines such as math, reading and communications.

The physical setting for an Information Commons varies from college to college. It may be located in a department or on the floor of a large academic library, such as the Information Commons in the Leavy Library at the University of Southern California, or as a dedicated building such as the one at Mesa Community College in Arizona. The Learning Commons at Sir Sandford Fleming College in Peterborough is an outstanding example of this model of service delivery.

Over the past five years, many colleges have developed the Information Commons concept. Although the physical facilities and scope of services differ from one college to the next, the Information Commons concept is clearly a progressive step forward that promises to enrich the educational experience of students and faculty.

## **CONCLUSION**

One part of the Committee on Learning Resources' mandate is "to develop policies and procedures to enhance library services in the college community..."

This visioning document will be the basis for further discussions and exploration of the key issues that will undoubtedly impact the future of the Learning Resource Centres. As the document describes, the new age of information technology is placing enormous demands on our LRCs – demands that must be carefully and thoroughly addressed.

## **CONCLUSION** (cont'd)

We have identified some of the emerging trends that will profoundly affect the way our LRCs operate. Our goal is to ensure that the college libraries remain current, relevant and vital in a complex and fast-changing technological world. Untold opportunities abound. It is up to us to help the LRCs seize these opportunities and bring them to life. There is much work to be done.

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