Carleton University Library and Archives Strategic Plan 2008-2010

Mission

We promote excellence at Carleton University by collecting, preserving and providing access to information resources and services for our teaching, learning, research, and administrative communities, wherever they are located.

CARLETON UNIVERSITY Library

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Foreword

We are pleased to submit this document, Carleton University Library and Archives Strategic Plan 2008-2010, to Dr. Feridun Hamdullahpur, Interim Provost and Vice-President, Academic.

This report sets the Carleton University Library and Archives in the context of the best evidence available on current academic library and archival practices nationally and internationally.

The process of preparing this document involved extensive consultation, debate and critical analysis of the current strengths and weaknesses of the Library. We were pleased to receive input from students, faculty and staff. Their feedback encouraged us to sharpen our vision and to set challenging, but ultimately realistic and measurable goals over the next three years.

Based on an informed recognition of the University's financial context combined with our knowledge of the Library's opportunities for greater collaboration and partnership both within the Carleton academic community and externally among our networks of library and information organizations, we present a plan that we believe is both practical and innovative.

Finally, we believe this strategic plan sets our course for supporting the academic research, teaching and learning goals of the Carleton University community.

Respectfully submitted

Margaret Haines
University Librarian

Date: March 2008

Executive Summary

There are several trends in higher education which directly affect the ability of academic libraries and archives to serve their patron communities. These include: rising student enrollments (as much as 30%); increasing numbers of partnerships between researchers and industry around university-based innovations; and growing pressure on universities to be even more internationally collaborative and competitive in teaching, research and community development.

Similarly, developments in digital information technology and networks are also changing the ways in which academic libraries and archives deliver their services. For example, Web 2.0 creates opportunities for the synthesis of materials in disparate formats and locations but also raises challenges in preservation and sustainable access to these multimedia resources. Users also want remote access to information resources and services using a variety of wireless communication devices.

Finally, the roles for academic library and archives staff are changing with increased emphasis on teaching information literacy skills, developing personalized information services, digitizing resources, collaborating in research and collection development, and directing institutional information management practices.

In their recently updated text on academic libraries and higher education, Breivik & Gee[1] provide a roadmap to a future vision that requires academic leaders to imagine their university library much more formally integrated with the institution's broader goals and this view is echoed variously, in much of the literature on future roles of libraries:

> To persist in a traditional narrow view of libraries in the information age is to weaken most campus efforts, particularly in the crucial area of information literacy ….The value of the library for the academic administrator is not less than in pre-Internet days, but far greater. (pp.2-3).

Carleton University's current strategic priorities are to provide an outstanding academic experience for students and to ensure their success; to promote a high level and quality of research and scholarship; to recruit and retain the highest quality of faculty and staff and to exercise effective stewardship of university financial and capital resources. The Carleton University Library and Archives Strategic Plan links the Library and Archives operations and vision to these strategic priorities through four strategic directions and four strategic enablers.

The Library and Archives' four strategic directions are to add value to: research, teaching, community partnerships and corporate management. These inform all of our planning processes and service developments. In addition, we recognize that work must be done on strategic enablers, i.e. the critical foundation elements that will facilitate the implementation of the initiatives outlined within our strategic directions. These four enablers include: developing our staff, strengthening our technical infrastructure, improving our space, and expanding our collections.

Goals associated with each of our strategic directions and enablers are listed below.

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[1] Breivik, P.S. & E.G. Gee, (2006). *Higher education in the Internet age: Libraries creating a strategic edge.* Westport, CT: American Council on Education and Praeger Publishers.

Strategic Directions

Research

Goal #1: Explore the potential for partnerships with resource centres on campus to increase access to specialized research collections.

Goal #2: Explore expanded roles for library staff in faculty-library research partnerships.

Goal #3: Establish an institutional repository for research publications, documentation and data, in partnership with academic and administrative departments.

Teaching and Learning

Goal #1: Evaluate and enhance the Learning Commons services in collaboration with our Learning Commons partners.

Goal #2: Expand and promote information literacy and numeracy services, particularly for graduate students.

Goal #3: Improve the student experience within the MacOdrum Library by providing a learning environment which addresses diverse user needs.

Information Networks and Partnerships

Goal #1: Participate in national and international collaborative research projects to improve library, archive and data services and collections.

Goal #2: Take an active leadership role in the development of ODESI– the Ontario Data Documentation, Extraction Service and Infrastructure Initiative.

Goal #3: Develop Carleton's specialized library and data collections and promote these nationally and internationally.

Corporate Information Management

Goal #1: Become an active partner in the development of an information and knowledge management strategy for the University.

Goal #2: Extend the library's information literacy and Web 2.0 training to administrative staff in the university

Goal #3: Enhance library research services to university senior management and administrative staff.

Strategic Enablers

Developing our staff

Goal #1: Develop evidence-based practice skills among library staff.

Goal #2: Establish and implement a staff development plan.

Goal #3: Implement a recruitment, retention and succession planning strategy.

Strengthening our technical infrastructure

Goal #1: Expand our digitization infrastructure to enable capacity to build Carleton's institutional and scholarly repositories and digital collections.

Goal #2: In partnership with CCS, work toward better authentication and authorization systems for library and other campus information resources.

Goal #3: In partnership with our Learning Commons partners, develop our capacity to introduce Web 2.0 practices across all library and information collections and services.

Reinventing our space

Goal #1: Refurbish MacOdrum Library to address user needs for quiet study as well as interactive learning spaces and to increase overall study space.

Goal #2: Develop the Library Storage Facility to full capacity.

Goal #3: Investigate alternative locations for selected library services and collections elsewhere on campus.

Expanding and aligning our digital and physical collections

Goal #1: Revise the collection development policy to take account of opportunities for resource sharing, on-campus storage, and growth of digital and traditional special collections.

Goal #2: Expand access to research materials through further consortial purchasing,especially in relation to statistical and geospatial datasets.

Goal #3: Develop a strategy to support faculty and students in contributing research and teaching materials and archives to the institutional repository.

Structure of the report

This report Carleton University Library and Archives Strategic Plan 2008-2010 presents a plan for repositioning the Library as a full partner in the University's academic enterprise – specifically in areas of supporting research, teaching, learning, administration and in the Library's participation in international information networks.

The report begins by describing the current context of the Library and Archives, including the higher education sector, the library and information sector, Carleton University itself, and finally the Library, its mission, values and vision guiding its activities. The main body of the report presents a three-year plan for how the Library and Archives plans to strengthen and promote its information management, preservation and educational roles in the University's broader academic mission. 2008- 2010 will be a period for some necessary re-structuring, re-organizing, re-purposing and re-tooling of the Library's resources and services to better enable the Library and Archives to take the next strategic initiatives in becoming a widely-acknowledged, critical partner in the future academic success of the University.

Four strategic directions and four strategic enablers that together form the cornerstones of the Library and Archives' future relevance and success as an academic partner are presented. Descriptions of the principal initiatives the Library and Archives will undertake to realize these strategic directions are also described. Finally, the report concludes with a snapshot of what a strong partner the Carleton University Library and Archives could be to the academic mission by the year 2012.

2. The Global Information and Knowledge Context

2.1 Introduction

One of the University's key aims is to increase its recruitment and retention of a diverse, collaborative and research-oriented faculty and students. We want Carleton University Library and Archives to play an important role in reaching this aim - attracting and keeping people in the Carleton community, be they students, staff, researchers or faculty members. We want all staff and students to see the MacOdrum Library as the central meeting point, the social and intellectual heart of our campus, the place where their information needs are satisfied.

As Heather Menzies and Janice Newsom report in their preliminary study[2] of faculty use of time - far from liberating time, technology-enhancements have only added more stress and burden to their jobs. Work is performed at a much more rapid pace because of these powerful technologies and consequently expectations have risen from all university communities – principally faculty and students. Indeed this is true everywhere on the university campus, including how library services are offered in this technologically-enabled global information environment.

In this environment, academic libraries and archives face high expectations. Users today want:

- High quality information - from books, journals, databases or the Internet
- Resource material and information delivered to their chosen spaces, quiet spaces for study and introspection, spaces for group work, anywhere they wish via their preferred technology be it iPods, or laptops or cell phones
- Anytime, anywhere – virtual, 24/7 access to resources and services
- Information and information access customized to their individual needs

Today's academic libraries and archives are still the providers of information resources, study spaces and learning opportunities. Their major challenge is continuing to offer traditional services and collections while adding new technologically enabled services and addressing a growing diversity of users:

- Today's academic library extends beyond the walls of any building. We still need library buildings but library collections and services are also available electronically - accessible throughout the campus, at home, almost anywhere that there is an Internet connection.
- The people working in libraries have many new roles and backgrounds – they are information literacy teachers, electronic resource procurement specialists, online journal editors, IT systems specialists, archivists and much more. They are critical partners in learning and discovery.
- Library services also now include online chat rooms for research help, support for research data management and digital repository development, advice on freedom of information and protection of privacy, training in managing and protecting intellectual property, providing learning support, etc.

[2] Menzies, H. (2007). *No time to think. Ottawa Citizen*, January 5, p. A13.

In developing our strategic plan to put us in the best position to meet the challenges facing today's academic libraries, it is important to recognize the context in which we work. We need to recognize when determining our priorities that we are continually trying to adapt our services for a rapidly changing environment at many levels including the higher education sector, the library and information sector and in the context of the University itself.

2.2 The influence of the higher education sector

The information and knowledge economy that has emerged during the last 20 years has profoundly changed the ways that our society conducts business, including significantly changing the global education sector. Technology has increased the marketplace and availability of educational services and products.

We therefore operate in an increasingly competitive higher education community. Within this competitive environment, the Association of Universities and Colleges of Canada (AUCC)[3] highlights several trends in higher education that all universities are addressing over the next decade that will directly affect the Library's ability to serve its patron communities.

Given the expected in increase in student enrollment, there will be a need to recruit large numbers of faculty. There will be greater pressure on the higher education institutions to be even more internationally collaborative and competitive in teaching, research and community development. Universities will see increased partnerships between their researchers and industry resulting in the commercialization of university-based innovations.

Other changes in the higher education sector are in the area of teaching and learning. Learning theory has evolved from a more traditional 'teaching' paradigm to the constructivist 'learning' paradigm. The constructivist theory has important implications as it implies that learning is best served when it is:

Contextual—taking into account the student's understanding
Active—engaging students in learning activities that use analysis, debate, and criticism (as opposed to simply memorization) to receive and test information
Social—using discussions, direct interaction with experts and peers, and team-based projects

Also part of this paradigm shift, classrooms have been replaced by "learning spaces" and are defined by the activities they enable rather than by the technologies they contain [4]. These learning spaces are both physical and virtual and are less and less frequently differentiated by their technologies. E-learning is the generic term for a variety of information technology-enabled learning practices including distance learning, virtual classrooms, online communities. Libraries need to understand the implications of these changes in the higher education learning context.

Another factor which is now recognized to have an impact on student satisfaction is the quality of the 'university experience' which extends beyond simply classroom learning and research. As

[3] Association of Universities and Colleges of Canada (2002). Trends in higher education: summary of findings. Accessed February 13, 2006 at http://www.aucc.ca/publications/auccpubs/research/trends/summary_e.html

[4] Brown, M. (2005). "Learning spaces" in *Educating the Net Generation*. Lippincott, J. ed. An Educause e-book. Accessed February 12, 2007, at http://www.educause.edu/EducatingtheNetGeneration/5989

suggested by the National Survey of Student Engagement – Carleton University, 2006 [5] both first and senior year student experiences could be improved, particularly in the provision of study space and teaching support. The Library has a role to play in this quality improvement process.

Other trends in higher education related to the scholarly output and research orientation of universities also influence the Library's decisions and future service directions. The evolving nature of scholarly communication places much greater emphasis on open access publishing whereby research publications are widely available and broadly disseminated at all stages of the research process. Much of the scholarly discourse is now being conducted over the Internet via "virtual academic communities." These online scholarly communities are creating a huge new archive of scholarly material beyond the peer-reviewed published literature, and this archive is becoming part of the public record of scholarly knowledge and output[6].

Along with an expectation of higher undergraduate enrollments, universities are also building their capability and directing their recruitment towards increasing graduate student enrollment. Graduate research programs are becoming more interdisciplinary and as a result, require more collaborative research and information support.

The use of digital research data sets is central to the research enterprise and will require that universities develop and maintain end-to-end data systems. Researchers in partnership with the data specialists will design the data elements, process the data into sets, make it available in a distributed environment and finally arrange for preservation and archiving in an institutional repository for continued access[7].

With libraries traditionally expected to store, preserve and manage scholarly output, there is now the expectation that libraries will also play a leading role in the preservation and management of these new digital research products. Most CARL libraries are doing just that as indicated in a recent CARL survey which showed that all but a few have launched an institutional repository as part of the library service[8].

2.3 Trends in the library and information sector

As a university library and archives service, we are also aware of the changing roles and requirements of our professional community across all sectors. The roles of information staff have changed dramatically and we have new opportunities to support our institutions.

In their recently updated text on academic libraries and higher education, Breivik & Gee[9] contrast the 'traditional' academic library with a future vision that requires academic leaders to imagine their

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[5] National Survey on Student Engagement (NSSE), *Carleton University 2006 Benchmark Comparisons,* Accessed February 20, 2007 at http:// www.carleton.ca/oirp/surveys

[6] Birdsall, B., Principal Investigator. (2005). *Towards an integrated knowledge ecosystem: A Canadian research strategy.* A Report Submitted to the Canadian Association of Research Libraries / L'Association des bibliothèques de recherche du Canada, Ottawa, Canada. Accessed, February 8, 2007 at http://www.carl-abrc.ca/projects/kdstudy/public_html/results.html

[7] Cornillon, P. (2005). "What is a data system anyway?". *EduCause Review,* March/April, pp.10-11.

[8] *Birdsall, B. (2005).*

[9] Breivik, P.S. & E.G. Gee, (2006). *Higher education in the Internet age: Libraries creating a strategic edge.* Westport, CT: American Council on Education and Praeger Publishers.

university library much more formally integrated with the institution's broader goals and this view is echoed variously, in much of the literature on future roles of libraries:

> *In today's information society, the active involvement and support of the academic library staff and resources will be a key to students' acquiring lifelong learning abilities and faculty achieving greater research productivity. Libraries can also be strategic tools in enhancing community service and in supporting other important priorities, such as student recruitment and globalization of the curriculum. To persist in a traditional narrow view of libraries in the information age is to weaken most campus efforts, particularly in the crucial area of information literacy ….The value of the library for the academic administrator is not less than in pre-Internet days, but far greater. (pp.2-3).*

The Learning Commons is an example of how the academic library successfully partners with other campus services to offer a high quality and integrated information service that is designed to serve students based on their information-seeking and use behaviours. We also know that the pedagogy around higher education learning is changing to address the styles and habits of these Net generation students - e-learning, virtual classrooms, distance learning, multiple technologies, the increasing use of digital objects in "learning communities" – these shifts are already in evidence, and are being incorporated into the academic library's information literacy instructional services and approaches. Three 'modes' of interactive learning are available that the library can support through its staff and information technologies: a) human-to-information b) human-to-human and c) information-to-human[10].

We know that through convergence with archives, records management, metadata and information systems new partnerships with other institutions are increasingly available and becoming economical for libraries. Libraries already share collections across institutional boundaries, but data mining across library collections could open the door to new opportunities for shared collection management. Opportunities to work across sectors on consortial approaches to collection development, archiving and access to electronic and physical information resources are also becoming feasible. Studies of holdings patterns for institutional clusters at the consortial, regional, or even national level could reveal opportunities to reduce cross-collection redundancies and free up resources to fill gaps in collections.

While at the same time as we are investigating opportunities for collection sharing across sectors and boundaries, academic libraries and archives are also investing more resources in preservation and access of local specialized collections such as rare books, local / historical newspapers, theses and dissertations, archives and manuscripts. The uniqueness of university collections must be recognized and matched with appropriate resources for stewardship. Electronic records management systems (ERMS) and knowledge bases for archival and special collections are key areas where academic library staff are using their skills and expertise in organizing, preserving and making accessible such resources.

In the area of digital preservation and access, university libraries and archives have also accepted their role on the international stage through participation in global initiatives such as the National

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[10]See Andrew J. Milne (2007). "Entering the interaction age: Implementing a future vision for campus learning spaces …today." *Educause*, January/February and also discussed thoroughly by Joan K. Lippincott in her chapter on "Learning, engagement and technology." In *Student engagement and information literacy*. Craig Gibson, ed. Association of College and Research Libraries, 2006.

Library of Australia's Preserving Access to Digital Information (PADI)[11]. Digital library research encompasses a broad range of issues associated with preserving access to digital information. For example, there are technological issues relating to: systems for resource discovery and information retrieval; the use of technical standards; interoperability with other systems; and methods of storage and preservation. Legal issues such as intellectual property rights and licensing mean that consideration needs to be given to methods of controlling access and ensuring authenticity of information.

University libraries and archives worldwide are involved in identification of the emerging information management issues, in the national library and information archives policy discussions, and most importantly in crafting the technological and human solutions to these issues, first and foremost locally for their university communities and in appropriate regional, provincial, national and international partnerships. This strategic plan outlines Carleton University Library's plans for moving ahead towards the next stage of our post-Internet future.

3. Carleton University – Our context

Carleton University is a dynamic, research-intensive university, committed to ensuring an outstanding learning experience for its students.

Students are at the centre of the Carleton University mission. The University is constantly striving to develop new and innovative programs to help students succeed. Indeed, the most important measure of the University's success is the success of our students.

Carleton offers 65 programs of study in areas as diverse as public affairs, journalism, film studies, engineering, high technology, and international studies. The current student populations, from across the country and from more than 100 countries worldwide, totals approximately 24,000 undergraduate and graduate students.

The broader challenges of the higher education sector are also Carleton University's challenges – an expanding student population particularly at the graduate level, a campus building program resulting in physical regroupings of faculties, schools and departments and the addition of new faculties that expand the University's research interests and partnerships. These challenges become focal points for the Library as well which supports the teaching and research activities as one of the University's central public, informal, learning 'spaces.'

Carleton's current strategic priorities are to provide an outstanding academic experience for students and to ensure their success; to promote a high level and quality of research and scholarship; to recruit and retain the highest quality of faculty and staff and to exercise effective stewardship of university financial and capital resources.

This Library and Archives Strategic Plan – "Imagining our future" links the Library's operations and vision to these strategic priorities and to the larger university mission. The Library's strategic directions to support student success – in learning and in contributing to the University's scholarly enterprise locally and globally – is the Library's core business and informs all of our planning processes and service developments.

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[11] For a useful review of recent publications on these issues, refer to *Preservation of digital resources: primary focus on national strategies, emerging standards and best practices*, from the CARL/ABRC Backgrounder Series accessed January 30, 2007 at http://www.carl-abrc.ca/projects/preservation/pdf/2003Backgrounder.PDF

3.1 The Library - Today's realities and tomorrow's vision

Carleton's academic library of the future will build on the continuous feedback and evaluation all of our university communities already provide to us – identified through evaluations such as the LibQUAL™ survey and faculty and students' day-to-day interactions with our staff. Since 2000, the Library has completed an external review (2004), a service point review (2004) and a number of space planning studies. These planning studies have informed our decisions and priorities for service development.

Building on our strengths and our current initiatives, we will develop the Library further as the social and intellectual heart of the campus, as a central supporting institution in the academic, research, learning and discovery processes of all members of the Carleton University community. Some of the services and initiatives we have developed recently where we have responded to patron needs, building on our library and information management expertise, are briefly noted here.

All of these initiatives share the common goals of increasing access to Library resources and services and improving the overall quality of the student and faculty experiences with their University Library. This Library commitment to provision of the highest quality services by adapting to a changing data, information and knowledge universe, also underlies all future planning and initiatives outlined further in this report.

1. Learning Commons

The opening of the MacOdrum Learning Commons in 2005 had a dramatic physical transformation to the Library space and provided a striking, modern and fresh look for students. The physical infrastructure of the Commons included a complete reconfiguration of the technology throughout MacOdrum, including installation of additional workstations in single and group work configurations. This initiative adds a new service combining library research, IT and learning support. The effects of this evolving information and learning model are still being understood; however, experiences at other universities suggest that the students greatly benefit from this integration of service. Feedback from the Carleton student community has generally been very positive. The three supporting partners of the Learning Commons include the Library, Learning Support Services, and Computing and Communications Services.

2. MADGIC Research Support

Many government documents can now be accessed online, including those of the World Bank, IMF, and the OECD. The MADGIC Resource Centre also has online access to the U.S. Serial Set, the American State Papers, and the UK House of Commons Parliamentary Papers and can leadstudents to the best in-house resources and Internet sites for maps, other government documents and data to support their research. A team of qualified reference staff can assist students and faculty to access and prepare instructional and learning resources using a broad range of specialized data. MADGIC staff are also actively involved in provincial and national initiatives to develop metadata standards and data extraction and analysis tools for both statistical and geospatial data. The Ontario Data Documentation, Extraction Service and Infrastructure Initiative (ODESI) is a provincially funded initiative based at Carleton and Guelph universities which has already been highlighted in the recent draft Canadian Digital Information Strategy.

3. Joy MacLaren Adaptive Technology Centre

The objective of the Centre is to give students with special needs a pleasant, comfortable and quiet place to do university work using technology adapted to their needs. The Centre has several workstations and students have access to various software applications (wordprocessing and spreadsheets), the Library Catalogue, Connect Accounts, Journal Article Databases, large screen monitors, adjustable-height computer tables, a voice recognition system, screen magnification, screen reading, read and scan software, writing skills software and a scanner. Students registered with the Paul Menton Centre have access to required texts and readings in various formats such as 4-track audio tape, braille, large print or E-text. If a student requires in-depth subject assistance, arrangements will be made with the Library's Co-ordinator of Services for Students with Disabilities and other staff will assist in retrieving Library materials.

4. Library Sandbox – Integrating Library Research Skills into Web CT

Library Sandbox is the pet name for the WebCT module currently piloting in several of Carleton University's undergraduate classes. The primary goal of Sandbox is to support the research needs of undergraduate students by providing a single portal to research guides, integrated with class material available through WebCT. Created under the banner of the Learning Commons, this project aims to provide access to multiple services: Library Sandbox provides information from the Library as well as our Writing Tutorial Service, and Learning Support Services. The Sandbox includes a variety of guides which step undergraduates through the research process, all the way from choosing a topic and using the Library, to writing and creating a bibliography. Core library skills are also integrated into class curricula through a brief assignment to be used in tandem with the Library Sandbox module.

5. Storage Facility

In 2006, the University opened a Storage Facility on the Carleton campus with a goal of providing a secure, controlled environment to house and provide a retrieval service for low-use library research materials. In the first year of operations, approximately 68,000 volumes were moved from MacOdrum to create space for the Learning Commons and additional student seating. A secondary aim of the Facility was to create expansion room for new Library acquisitions to support the current teaching and research needs of the University and to provide much needed additional study space. This 10,000 square foot space is located on the campus and is staffed to provide on-site access to the materials by appointment.

6. Community Partnerships

The Carleton University Partnership Program provides an enriched educational experience for both high school students and staff, and facilitates academic exchanges and cooperation between 23 secondary schools in the National Capital Region and Carleton. This program is also mutually beneficial as participants share expertise and resources, enhance teaching and learning opportunities, and help prepare students for the transition to University and the world of work. The Library supports this program by providing these students with limited access to the collections and services. By promoting the Carleton learning environments and opportunities to the high school sector, the Library is playing a role in the recruitment of future students.

3.2. Library and Archives Mission, Vision and Values

Mission

We promote excellence at Carleton University by collecting, preserving and providing access to information resources and services for our teaching, learning, research, and administrative communities, wherever they are located.

Values

We are committed to:

- Anticipating and celebrating the diversity of our user community
- Continually appraising and reviewing the quality of our services and operations
- Supporting freedom of access to information and protection of privacy
- Preserving the information resources entrusted to our care
- Enabling our staff to achieve high standards of practice
- Collaborating within our library and university communities to achieve our goals
- Providing a safe working environment for our staff and users
- Being open and transparent in governance, planning and resource allocation

Vision

To be a library:

- that is not only the heart of the institution but its lifeblood, with resources and staff expertise flowing freely to all areas of the University
- which provides access to research and teaching materials around the world and whose own collections attract scholars from around the world
- which uses state of the art information technology to develop innovative services and resources
- which ensures that all library users have the opportunity to learn new information research skills appropriate for a knowledge-based society
- whose staff are themselves active learners and researchers, contributing to the knowledge base of our profession
- where learning and research needs are brought together in an adaptive and innovative environment
- that is a welcoming and inspiring community space which caters for both quiet and independent scholarly reflection as well as dynamic and interactive group learning
- that alumni and donors are proud to support.

4. Imagining our future… Where we're going

The dimensions to the overall plan include four Strategic Directions and four Strategic Enablers that will support these Directions, as summarized in Section 5. Making the future happen.

Between 2008-2010, the Library will support Carleton's scholarly, teaching and learning communities with the following Strategic Directions and supported by these Strategic Enablers. The Strategic Directions are described here with specific goals attached to them.

The Strategic Enablers are the critical foundation elements that must be in place before the initiatives outlined within the strategic directions can be implemented. These enablers can be conceptualized as the Library's infrastructure which must be upgraded and expanded to meet future growth.

4.1 Strategic Directions – - Imagining our future- Adding value to

4.1.1 Our research communities

4.1.2 Our learning and teaching communities

4.1.3 Our information networks and partnerships

4.1.4 Our corporate information management

4.2 Strategic Enablers - Re-purpose and re-tool our resources

4.2.1 Develop our staff

4.2.2 Strengthen our technical infrastructure

4.2.3 Re-invent our space

4.2.4 Expand and align our digital and physical collections

Strategic Direction - Add value to our research communities

The practice of scholarly research continues to evolve as information and communication technologies become essential elements of every researcher's toolkit. According to the researchers of Towards an Integrated Knowledge Ecosystem: A Canadian Research Strategy, An Overview (2005), prepared for the Canadian Association of Research Libraries, a coordinated framework for scholarly communication in Canada is needed to ensure Canadian research reaches the relevant international forums. The Carleton University Library has a leadership role in ensuring that the University's research products are promoted in these international networks of digital repositories.

In his comparative examination of how research libraries in the US and the UK have previously and continue to "engage the digital world" Lynch [12] notes that scholarly practices are increasingly facilitated by the networked information environment. These networks are the way forward to understanding the future of research libraries in Higher Education over the next decade. How research libraries and their supporting cyberinfrastructure [13] are funded, will in part depend on the degree to which academic libraries can shift to this network-based world where community, collaboration and competition are all in play. Carleton University Library will participate in this larger endeavour by establishing its own institutional repository for documentation and data.

The Library's membership in networked digital information consortia such as the Canadian Research Knowledge Network (CRKN) and the Ontario Scholars Portal will continue to be the preferred model for expanding this cyberinfrastructure through access to scholarly resources for researchers, teaching faculty and the students of the Carleton communities. CRKN has recently been awarded CFI funding to add 19.1 million dollars to support the development of a new infrastructure for social sciences and humanities research[14]. The acquisition of digital content from international sources will enable over 800,000 researchers and graduate students in 67 participating universities, to draw upon a wealth of digital journals, databases and other scholarly content from social sciences and humanities disciplines. Carleton will be adding many new electronic journals to its online collections through this consortial agreement. Similarly, the Ontario Council of University Libraries will be receiving nearly $2m funding from the Ontario Buys program to add e-books to its consortial purchasing arrangements and to add a provincial data extraction and analysis service ODESI.

As research and teaching programs become increasingly interdisciplinary, it is no longer possible for scholars and students to have comprehensive knowledge of their various subject bases and to do so across all the electronic databases and digital repositories, both public and proprietary. However, librarians are the researchers' natural partners in this regard. As professionally trained information searchers, designers and interface experts, and as experts in information organization and authentication, librarians can provide both the necessary subject expertise and the technical

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[12] Lynch, C. (2006). "Research libraries engage the digital world: A US-UK comparative examination of recent history and future prospects." *Ariadne* 46: February, Accessed January 28, 2007 at http://www.ariadne.ac.uk/issue46/lynch/

[13] Cyberinfrastructure refers to "the layer of information, expertise, standards, policies, tools, and services that are shared broadly across communities of inquiry but developed specifically for scholarly purposes; cyberinfrastructure is something more specific than the network itself, but it is something more general than a tool or a resource developed for a particular discipline … for example, digital history collections and the collection environments in which to explore and analyze them from multiple disciplinary perspectives might be considered cyberinfrastructure." From the National Science Foundation, *Revolutionizing Science, and Engineering through Cyber-infrastructure: Report of the National Science Foundation Blue-Ribbon Advisory Panel on Cyberinfrastructure* (January, 2003) Accessed February 6, 2007 at http://www.nsf.gov/cise/sci/reports/atkins.pdf.

[14] Refer to the Canadian Research Knowledge Network at http://researchknowledge.ca/en/news/index.jsp

and informational expertise across the widest variety of information technology platforms and collections. Subject specialists can support scholars and researchers preparing bibliographic and literature searches for their research projects.

More research data sets are being created and need more effective information systems support and management. Librarians are again well-positioned to manage these data sets and to provide expertise to researchers both in accessing and organizing such research data. The Library's Maps, Data and Government Information Centre (MADGIC) already provides advanced data management support to researchers and will soon be involved in a provincial meta-data extraction and analysis system, enabling more diverse access for searching and retrieving data.

Institutional repositories (IRs) are one of the newer models for disseminating the results of research in Canada. "An institutional repository is a set of services that a university offers to the members of its community for the management and dissemination of digital materials created by the institution and its community members[15]." While the content of institutional repositories varies, they most often collect electronic copies of published articles. However, the potential uses of these repositories is expanding, and they are beginning to contain a wider range of scholarly content, such as theses, learning objects, data sets, digital images, and maps.

Although the institutional repository is a fairly new concept, this method of disseminating scholarly output is quickly gaining momentum. In Canada, the number of institutional repositories has grown quickly over the past several years. For example, at the time of writing, 23 of the 27 academic libraries that are members of the Canadian Association of Research Libraries were at some stage of planning or implementing an institutional repository in their library[16].

To address this requirement to organize, preserve and make accessible, the University's intellectual property, the Library will investigate the feasibility of establishing a local institutional repository of scholarly output. This repository will be designed with the potential to store the significant published documents for these research programs so that what is built over time is far more than a static or historical collection of scholarly output. Rather, Carleton University Library will undertake to develop a vision of a "Research and Knowledge Repository" for its scholarly products, capable of being shared with other research partners and capable of being used and re-used by future Carleton students and scholars.

How will the library extend itself to better support the University's research communities? The Library will create strong partnerships with other library and archives institutions nationally and internationally; support coordinated instruction for graduate students in information and research management skills; and foster more formal participation by library staff in academic research programs.

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[15] Clifford A. Lynch, "Institutional Repositories: Essential Infrastructure for Scholarship in the Digital Age", *ARL Bimonthly Report*, no. 226 (February 2003): 1-7.

[16] *Towards an Integrated Knowledge Ecosystem: A Canadian Research Strategy, An Overview - A Report Submitted to the Canadian Association of Research Libraries / L'Association des bibliothèques de recherche du Canada (CARL/ABRC) (2005)* Principal Investigator: William F. Birdsall (Canadian Association of Research Libraries/Association des bibliothèques de recherche du Canada) Available at http://www.carl-abrc.ca/projects/kdstudy/public_html/chapter3.htm

The Library will respond to this Strategic Direction in the following ways:

Adding Value to Research Goals

Goal #1: Explore the potential for partnerships with resource centres on campus to increase access to specialist research collections.

Goal #2: Explore expanded roles for library staff in faculty-library research partnerships.

Goal #3: Establish an institutional repository for research publications, documentation and data in partnership with academic and administrative departments.

4.1.2 Strategic Direction – Add value to our teaching and learning communities

Within the campus community, the Library's role is to be the main gathering place or academic town square where all of the smaller Carleton communities can access their particular research and scholarly resources and engage in informal learning. This academic square is both virtual and physical – it is the MacOdrum Library building, the physical print collections and services and it is also the digital collections and services available through the Library's Web site.

Although for many users, the Library – in its most basic function as a source of information – has become overwhelmingly a virtual destination, among Carleton's graduate and undergraduate student communities the Library still has a significant role as a physical, real-world social learning and study space. As indicated by student respondents to the most recent Carleton University Customer Satisfaction Survey (2006), the Library building, its on-site computing services, and study spaces are the most frequently cited Library services. Results from two recent graduate and undergraduate student focus groups on the Library's draft Strategic Plan also confirm that the building as learning and quiet study space continue to be priorities.

Recent improvements in the Library at Carleton, such as the creation of the Learning Commons and the Storage Facility have provided opportunities to adapt and refine services but much work still needs to be done to improve the quality of our spaces, our services and our collections.

Rapid expansion and take up of digital library services at many universities during the 1990's has not diminished the "significance of the physical library". In their extensive survey [17] of 384 North American academic libraries to assess the "significance of the physical library," Shill & Tonner discovered that:

1. Academic library building activity has not diminished in recent years.
2. The most common project types were new buildings (43.1%) and addition / renovation projects (42.0%).
3. Wherever significant library building projects have been completed, students, faculty members and librarians have experienced a "very different post-project building."
4. 73.8% of the public institutions reported greater usage.

Clearly the physical library building as 'learning space' is still a necessary academic community pillar which complements and sustains the digital library [18].

The objectives noted under this Strategic Direction 4.1.2 propose to support Carleton's teaching and learning communities by expanding library services to meet the increasingly diverse needs of our community with a variety of learning styles. This expansion of services includes a commitment to address the issue of the use of space in the existing building as well as a commitment to seek out opportunities to take services out to our users.

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[17] The authors report their findings in two parts. The first article reports survey results about the building projects themselves while the subsequent article reports on post-building project uses. Factors that did and did not affect post-building project use are reported in detail. Shill, H.B. & S. Tonner. (2003) "Creating a better place: physical improvements in academic libraries 1995-2002." College & Research Libraries: November, pp. 431-466 and Shill, H.B. & S. Tonner. (2004) "Does the building still matter? Usage patterns in new, expanded and renovated libraries, 1995-2002." College & Research Libraries, March, 2004, pp. 123-150.

[18] See also *Library as place: Rethinking roles, rethinking space.* (2005). Washington, DC: Council on Library and Information Resources.

A "Learning Commons" is one of the most significant recent innovations being adopted by university libraries in their efforts to adapt to a changing education environment including the characteristic learning styles of today's 'Net generation' students: digital, mobile, independent, social and participatory. Our Library's challenge is to provide ways to support all of these learning modalities within our current physical space, with our Learning Commons partners in IT and teaching and learning support services. [19]

Social learning is already supported by the provision of group study spaces, or group computer workstations. If funding is available, the Library proposes to expand the group learning opportunities by establishing a social learning classroom or 'collaboratory' which could be used for both formal and informal instruction. Building on the library staff experience with WebCT services across the campus, the Library will make available a suite of social learning software applications and provide extended staff instruction and support for all students.

With the Library's partners in Computing & Communications Services and Learning Support Services, this classroom could offer instruction on basic and advanced computing skills for the undergraduate population – the centre will be both a 'laboratory' for students to experiment with these technologies and a more formal instructional setting. Web 2.0 applications including ICT skills for individual and collaborative learning, WebCT, Web publishing programs, including blogs and social networking, specialized searching, collaborative e-Learning, CSS, database design, mobile learning and writing and publishing for the Web could be offered.

These digital media resources and training proposed for the Learning Commons, would join our existing suite of information literacy training, e-learning activities, seminars and other outreach services to provide a comprehensive support system for student learning.

Despite the overwhelming success of the Learning Commons opened in 2005, one of the most common concerns identified by Library users is the level of noise and the scarcity of silent and quiet study space in MacOdrum. Our users expect the Library to provide a welcoming and inspiring community space that supports quiet and independent scholarly reflection as well as dynamic and interactive group learning.

According to the Association of Research Libraries and the Ontario Council of University Libraries, the standard allocation of study spaces in libraries is 20% and 27% of the student population respectively. Comparator universities, University of Guelph and Simon Fraser University provide library spaces for 22% and 9% of their student population respectively. The most recent MacOdrum space plan undertaken in 2004 recommended that the Library provide study seating for 6 to 8% of Carleton's student population. [20] At present, the Library has space for 4% of its total student FTE. The Library will redesign its existing space through a master space plan in order to increase study space, both individual and group.

Given these very different patron uses of the Library and given the limitations of the existing library building, clear demarcations and allocations of space are needed to protect the opportunities for these multiple users of the Library. This plan addresses these needs by creating provisions to expand the Learning Commons and to add silent and other quiet study spaces. These goals can only be achieved, however, if the re-purposing and re-tooling described in the section on Strategic Enablers are first completed.

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[19] Lomas, C. & D. Oblinger. (2006). "Student practices and their impact on learning spaces."

[20] *As reported in Space utilization study: report of MacOdrum Library (2000) prepared by Educational Consulting Services Corporation of Toronto.*

Adding Value to Teaching and Learning Goals

Goal #1: Evaluate and enhance the Learning Commons services in collaboration with our Learning Commons partners.

Goal #2: Expand and promote information literacy and numeracy services, particularly for graduate students.

Goal #3: Improve the student experience within the MacOdrum Library by providing a learning environment which addresses diverse user needs.

4.1.3 Strategic Direction – Add value to our global information networks and partnerships

University libraries have traditionally participated in national and international resource sharing networks using their inter-library loan services. Scholars and students alike continue to use and appreciate this particular service for information and resources that are not in digital form, and which may be rare or from a unique research collection. As well, Carleton University Library participates in the Canadian Research Knowledge Network and the Ontario Scholars Portal. These networks provide universities with purchasing power through economies of scale.

Beyond an economic resource-oriented perspective, however, our participation in various library, archives and information networks, also serves another valuable purpose. Participation in such networks provides the Library with a way of a) promoting Carleton's resources through sharing our knowledge and expertise in this external field and b) returning knowledge and learning about best practices, innovations and information assets back to the Carleton University teaching, research and learning communities.

Examples of how the Library staff can both contribute and benefit from this participation include:

- A Library-Geography Department partnership to take the issues of Web 2.0 data mining and storage for a specific Antarctica research project to Library and Archives Canada which represents such interests in negotiations on international digital information standards;
- MADGIC staff participation as experts in ODESI, an Ontario-led project to develop data extraction and metadata analysis standards for geospatial data that will also be valuable for description of any large digital research data sets;
- Participation in the academic library international forum to discuss and recommend standards for storage and access of electronic theses;
- Membership and participation in the Association of Research Libraries' Scholarly Publishing and Academic Resources Coalition (SPARC) to promote open access to scholarly publications.

Our participation in these kinds of provincial, national and international networks and organizations promotes Carleton University as being oriented towards the future, as having a knowledgeable and expert Library and archives staff supporting students and faculty, and as understanding and responding to the complexities of the scholarly research and learning enterprises on our local campus.

Adding Value through Information Networks and Partnerships

Goal #1: Participate in national and international collaborative research projects to improve library, archive and data services and collections.

Goal #2: Take an active leadership role in the development of ODESI – the Ontario Data Documentation, Extracion Service and Infrastucture Initiative.

Goal #3: Develop Carleton's specialized library and data collections and promote these nationally and internationally.

4.1.4 Strategic Direction – Add value to our corporate information management

Almost all organizations in this information-rich 'knowledge economy' are adapting and making strategic decisions based on a vast amount of data and information both from within and outside their organization. Moreover, many organizations are collecting and storing huge quantities of their corporate data and information without having a comprehensive information management (IM) strategy. Many more are failing to capture the knowledge and expertise of their staff – knowledge which if made available and transferred to others in the organization would increase its competitiveness. Carleton University does not yet have a structured information and knowledge management strategy in place. As more and more documents are produced in the digital environment, issues of access, security, re-use, and archiving become increasingly important.

Information and knowledge management (IKM) involves protecting, storing, and transmitting information of value and making it easily available to the people who need it, when they need it, in a format that they can rely on. The reasons for undertaking a structured IKM program are many.

The sheer volume of information available to workers can lower productivity and limit effective decision-making. New information formats raise new IM problems and poor IM can have serious legal and business consequences. As many knowledge workers shift from the use of unstructured information to semi-structured information such as documents on shared networks, the need for a systematic organization of these documents to facilitate retrieval and use is apparent.

Systems known as 'knowledge repositories' in the form of Enterprise Management Systems (EMS) and Content Management Systems (CMS) are commonly established to deal with these large containers of electronic files, documents, and other unpublished organizational records. But the information systems alone will not provide solutions – expert leadership is required to manage these repositories and to take responsibility for the organization's documentation life cycle, and to ensure that users are appropriately authenticated to use these resources. As information professionals, library and archives staff are well-positioned to assume a key role in leadership and stewardship within a university-wide corporate IKM program.

Selective Dissemination of Information (SDI) services are also increasingly available across most corporate settings to provide managers with the appropriate information needed for

effective decision-making. For example, library staff could assist development officers with their background prospect research or help senior management identify recent research and trends in corporate academic management or support Education Development Centre staff in identifying new pedagogical research. Library staff could also provide information literacy training for administrative staff to ensure that they can take advantage of the new networking and knowledge sharing tools made possible through Web2.0 applications.

Adding Value to Corporate Information Management

Goal #1: Become an active partner in the development of an information and knowledge management strategy for the University.

Goal #2: Extend the Library's information literacy and Web 2.0 training to administrative staff in the University.

Goal #3: Enhance library research services to university senior management and administrative staff.

4.2 Strategic Enablers – Re-purpose and re-tool our resources

The strategic enablers are the critical foundation elements that must be in place before the initiatives outlined as Strategic Directions can be implemented. These enablers can be conceptualized as the Library's infrastructure which must be upgraded and expanded to meet future growth needs. There are four areas which make up the Library's infrastructure: the Library staff, technical infrastructure, the physical Library spaces and the Library's collections and services. The current state of these supporting enablers is described and short-term goals and objectives are presented in each area.

4.2.1 Strategic Enabler - Develop our staff

The Library's team of professional librarians and library staff is continually engaged with their core patrons – students and faculty – in designing new initiatives and adapting existing library services in response to the rapid expansion of digital libraries and information collections and networks. Just as the teaching and learning practices are being changed by the influence of information and communications technologies, so too is the role of the academic librarian.

Carleton Library's recent LibQUAL™ customer satisfaction survey indicated that students and faculty appreciate and rely upon Carleton's library staff to help navigate the collections and information resources housed physically and available digitally. However, as partners in research and as partners in teaching and learning, we believe we can do more to support our primary patrons.

In order to undertake a number of the new initiatives proposed in this plan, the Library needs to re-organize the staff roles and services slightly. To strengthen our research skills as evidence-based practitioners[21], we must also broaden our staff development and training opportunities. To provide increased value to our student and faculty communities, our re-structuring efforts will have a related goal of 'pushing' our expertise out into faculties and departments.

Issues of recruitment, retention and succession planning to staff Canadian academic libraries for future 'knowledge work' have been thoroughly researched and reported[22]. Through our SmartLibrary membership with other libraries in the National Capital Region and with a new graduate School of Information Studies being planned at the University of Ottawa, we will continue to extend access to high quality professional development opportunities for our staff.

As Whitmell sums up the staffing challenges, academic libraries have "an increased need to work collaboratively with faculty, researchers, information technology professionals, learning designers and donors and to undertake teaching and research assignments, the work of library staff at all levels is becoming more complex and challenging" (p.17).

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[21] Evidence-based librarianship (EBL) is an approach to information science that promotes the collection, interpretation, and integration of valid, important and applicable user-reported, librarian-observed, and research-derived evidence. The best-available evidence moderated by user needs and preferences, is applied to improve the quality of professional judgments. Andrew Booth – "Exceeding expectations: achieving professional excellence by getting research into practice." Accessed February 2, 2007 at http://conferences.alia.org.au/ebl2005/whatIsEBL.html

[22] The complete report, *8Rs The Canadian Library Human Resource Study*, was released in 2005 by the University of Alberta and covered all types of libraries in Canada. The Canadian Association of Research Libraries (CARL) commissioned its own analysis of the study findings, particularly for academic library and university communities. This analysis appears in Whitmell (2006), *The future of human resources in Canadian Libraries, 'the 8Rs Study': Considerations for the Canadian Association of Research Libraries.*

By developing staff in these ways, the Library can extend its relationships with students and faculty and, in turn, improve their research productivity and learning outcomes.

Developing our staff

Goal #1: Develop evidence-based practice skills among library staff.

Goal #2: Establish and implement a staff development plan.

Goal #3: Implement a recruitment, retention and succession planning strategy.

4.2.2 Strategic Enabler - Strengthen our technical infrastructure

Information systems and support underpin almost all academic library services. More improvements or expansions of Library services will be dependent on improvements to our cyberinfrastructure.

In partnership with CCS, the Library continuously monitors its information technology capacities to enable reliable access to extensive digital collections across a complex network of library-specific technologies. Contrary to popular opinion, with the opening of the Learning Commons in 2005, the Library did not increase the number of computers for student use; rather, we improved access to and physical configuration of the existing computing services. However, access was extended through the introduction of a laptop loan program and, in response to the success of this service, an additional 30 machines were made available for loan in 2007.

Thus, further development of the Library's technical infrastructure is necessary to support the strategic initiatives outlined in this report. As 'Net generation' students, our primary patrons are themselves innovators in the use of emerging technologies and applications. We want to respond to their technological needs and expectations to strengthen their learning experiences in the virtual campus community.

Improvements to our technical infrastructure will be necessary to re-furbish MacOdrum Library, to expand the Learning Commons, to create a social learning 'collaboratory' and to establish an institutional repository. Over the next three years, we will collaborate with CCS to work towards improved authentication and authorization to access all library resources at the library and campus level. We will improve our ability to support the Web 2.0 requirements for personalized and remotely delivered services including podcasts, wikis, and will incorporate information management support into emerging learning support tools. We will also need to upgrade equipment to support the ongoing expansion of digital content and electronic resources. The recent establishment of a shared computer room with CCS will also support this shared network infrastructure.

Strengthening Our Technical Infrastructure

Goal #1: Expand our digitization infrastructure to enable capacity to build Carleton's institutional and scholarly repositories and digital collections.

Goal #2: In partnership with CCS, work toward better authentication and authorization systems for library and other campus information resources.

Goal #3: In partnership with our Learning Commons partners, develop our capacity to introduce Web 2.0 practices across all library and information collections and services.

4.2.3 Strategic Enabler - Re-invent our spaces

Patron feedback about the Carleton Library often includes mention of the inadequacy of the existing building to meet its many purposes. As noted earlier in this report, students regularly express their dissatisfaction with the library building to meet their individual learning needs, be they needs for quiet study or group study.

At the present time, however, a new Library building is not incorporated into any future campus-wide capital building plans or programs. Global university budget pressures and the steady erosion of funding to the higher education sector in Ontario restrict such new building priorities.

In the past seven years the University has commissioned a number of studies on space planning and renovation of the MacOdrum Library building. As documented in these studies and common to many Canadian universities, the ability of older university library buildings to meet the current and projected demands for collection access, study space, and computing space is being severely strained.

The opening of the Storage Facility in 2006 was an initiative taken in part to relieve some of the space pressures in MacOdrum. By moving parts of the collection to this onsite and staffed storage facility, we were able to preserve access to collections while at the same time, create room for the Learning Commons. The advantage of having our own storage facility should not be understated. Many other universities have no such facility and have difficult decisions ahead in relation to storing their collections

In addition to making full use of the Library Storage Facility, we propose a major re-furbishment of MacOdrum Library to address student concerns for increased quiet study space and Learning Commons services. We plan to investigate the use of compact shelving on Floor 1 of MacOdrum for serials collections – so as to preserve immediate on-site collection access, but also to free space that could be re-allocated as study space.

Another option that we will explore with the purpose of creating more study and learning space in MacOdrum is to investigate the feasibility of establishing a few specialized library resource centres elsewhere on the campus. This option would have the dual purpose of bringing all resources in a particular subject /research area together for students and faculty while at the same creating some additional space in MacOdrum Library.

Reinventing Our Space

Goal #1: Refurbish MacOdrum Library to address user needs for quiet study as well as interactive learning spaces and to increase overall study space.

Goal #2: Develop the Library Storage Facility to full capacity.

Goal #3: Investigate alternative locations for selected library services and collections elsewhere on campus.

4.2.4 Strategic Enabler - Expand and align our digital and physical collections

Collecting research data, multimedia, and print publications are at the heart of any university library's mission. However, increasingly across global and often unmediated information networks, the notion of "research publication" has never been more open to varied interpretation and

application. During the past decade, university libraries have been adapting their collection policies and service frameworks to reflect the changing needs of their Internets for research materials.

Student perceptions and expectations of an academic library's collections have also shifted from shelves to Web sites, from books and journals to e-resources, from open hours for borrowing to 24/7 Web-based access and from limited collections to extensive licensed collections. Whatever the Library does not have in its immediate collection can be located quickly and can be delivered through resource sharing agreements.

Canadian university libraries have all increased their e-journal and e-resource collections through participation in consortial purchasing agreements at both the national (CRKN) and provincial levels (OCUL - Scholars Portal). The ongoing development of Scholars Portal takes consortial purchasing a step further by locally loading and thus securing permanent access to a significant core of journal literature. The degree of cooperation shown by university libraries nationwide and more particularly within Ontario is a model to all library sectors and universities.[23] As a result of consortial purchasing, the Library has an opportunity to focus more of our expertise on building and promoting local specialized collections. Once digitized and accessible electronically, special collections can be accessible globally - thus promoting and supporting the University's teaching and research internationally.

In addition to building comprehensive digital and print-based research collections, the Library's initiative to build its own Institutional Repository answers two strategic issues facing academic institutions: "a) provides a critical component in reforming the system of scholarly communication that expands access to research [and] reasserts control over scholarship by the academy and b) has the potential to serve as tangible indicator of a university's quality and to demonstrate the scientific, societal, and economic relevance of its research activities.[24]" In partnership with CCS and EDC and faculties, the Library will explore all possibilities for establishing this knowledge base.

Expanding and aligning our digital and physical collections

Goal #1: Revise the collection development policy to take account of opportunities for resource sharing, on-campus storage, and growth of digital and traditional special collections.

Goal #2: Expand access to research materials through further consortial purchasing, especially in relation to statistical and geospatial datasets.

Goal #3: Develop a strategy to support faculty and students in contributing research and teaching materials and archives to the institutional repository.

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[23] Jacobs. P. (2006) "Current challenges for collection development in Ontario university libraries." *InsideOCULA*, Accessed February 9, 2007 http://www.accessola2.com/ocula/wordpress/?cat=7

[24] Crow, R. (2002). "The case for institutional repositories: A SPARC position paper." Washington, DC: The Scholarly Publishing and Academic Resources Coalition (SPARC). Accessed February 2, 2007 at http://wwww.arl.org/sparc/IR/ir.html

Imagining the Future

Carleton's academic library in 2010 will be the university community's primary information and knowledge hub, combining meeting and learning spaces and information access points. In , we foresee developments that combine adaptive and innovative approaches to library services:

- Collection management tools will concentrate library resources where they are most needed and used, evolving with changes in curriculum and instructors.

- The physical and virtual spaces will be flexible in how they are designed and used and will offer attractive and safe working environments.

- Training and learning support will be co-ordinated through learning commons and learning 'collaboratories', facilitating information literacy, media competency, and socio-technical fluency as the new core competencies for all students and staff.

- Personalized learning-support programs, delivered in person and using new technologies, will utilize preferred modes of learning and "stretch" the learning competencies of the Internet.

- The library staff will be engaged, networked, and accessible to patrons whether they are in the physical space of the Library or not. Research and information data mining will supplement traditional "reference" services in the front-line service for the Internet.

- The Library's perspective will be global as it promotes its unique research and collections in the international information communities.

- The Library will be deeply involved in collaborating with academic partners to create and publish academic journals and resources, particularly e-journals, e-books, and collections of visual resources in various media. The Library will manage both digital and print repositories of scholarly output from Carleton University.

  Many of these projections may prove too cautious as new technologies develop while other projections may not materialize due to lack of funding or competition from other providers. Whatever the future brings, the Carleton University Library and Archives will continue to offer the best of its traditional services as well as adapting to new demands and will seize opportunities to play a major role in the research, teaching and administrative success of the University.

Appendix 1- Carleton University Library Five Year Statistics

	FY 1999-2000	FY 2004-2005	FY 2005-2006
University Enrolment			
Undergraduate FTE	12,724	17,959	
Graduate FTE	4,726	6,083	
Total FTE	17,450	24,042	24,178[25]
Library Collection Expenditures ($)			
Books	$935,631	$882,819	
Print serials	$1,817,078	$740,722	
Electronic resources	$234,527	$2,093,843	
Other information resources	$174,427	$1,151,689	
Total library materials	$3,161,663	$4,869,073	

[25] Enrollment figures from Carleton University - Academic Year (Summer/Fall/Winter 1993-2005) – Measures of Undergraduate Student Enrolment Full-Time Equivalency (FTE)

Appendix 2- Medium-sized Research Libraries Comparative Use Statistics 2004-05

Indicators	Carleton	Concordia	Guelph	Memorial	Simon Fraser
Hours of opening	101	78	133	88	99
Items lent	519,724	670,393	403,469	221,644	441,314
Reference questions answered	34,626	73,476	22,376	54,596	43,273
Library instruction - # of classes	348	316	422	315	615
Library instruction - # of participants	11,212	8,572	6,685	8,930	15,297
Study seats - Main library	775	1,150	3,556	N/A	1,157
Workstations - pcs	186	N/A	300	N/A	347
Laptops	50	N/A	100	N/A	25
Total staff	131.4	163.0	131.0	179.4	150.9
Total volumes held	1,747,091	3,012,657	1,559,078	1,776,992	1,484,042
Total library materials ($)	$5,041,222	$4,098,879	$5,900,368	$5,424,426	$8,964,885

Please note that comparative statistics across libraries are notoriously problematic because of local differences by university. Indicators presented are intended to describe general trends only. Data sources include the Canadian Association of Research Libraries Annual Statistics and individual staff reports.

[25] Enrollment figures from Carleton University - Academic Year (Summer/Fall/Winter 1993-2005) – Measures of Undergraduate Student Enrolment Full-Time Equivalency (FTE)

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