



**CIDL sets 2006 workplan; endorses OCDI**

**On the agenda...**

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- LAC Symposium Fall 2006
- CIDL supports OCDI
- CIDL Workplan 2006

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The CIDL Steering Committee met December 1 and 2, 2005 at the University of Calgary, and set the 2006 workplan. Through this workplan, CIDL will continue to represent its membership in advocating for a national digital strategy; and advance the development of its Digital Canada numérique initiative.

**LAC Symposium 2006**  
CIDL will participate fully in the Library and Archives Canada Canadian Digital Information Strategy Symposium slated for Fall 2006. Former CIDL Chair Brian Bell is on the organizing committee. CIDL indicated to

LAC its support for this Symposium in October 2004.

**Supports OCDI**  
CIDL, as a cross-sectoral organization that includes membership from a variety of types of libraries and is open to other like-minded memory organizations, endorses the Open Canada Digitization Initiative (OCDI) initiated by CARL. We support the general principles of the draft vision and declaration documents.



CIDL indicated to OCDI that it sees a potential role cont'd. page 2...

**CIDL Steering Committee 2006 & 2007**

The new Steering Committee was elected by acclamation in January 2006. The members for 2006 and 2007 are:

- Canadiana.org**
- Dalhousie University**
- Toronto Public Library**
- University of Calgary**
- University of Saskatchewan**
- University of Windsor**

At a joint meeting Jan. 27, Bill Maes (Dalhousie) became the new CIDL Chair, and Johanna Wellheiser (Toronto PL) is the Vice-Chair. Other members are:

Magdalene Albert (canadiana), Mary Westell (Calgary), Janet Catterall, (Saskatchewan), Gwen Ebbett (Windsor). Susan Haigh represents Library and Archives Canada.

CIDL thanks outgoing chair Brian Bell (HALINET) for his energetic promotion of a national digital strategy, Bell will help organize the LAC Symposium, Fall 2006. We thank outgoing Steering member Chris Petter (University of Victoria) who brought clarity to setting metadata standards. Petter will help analyze cont'd. page 7..

CIDL is part of the Library and Archives Canada Symposium: Canadian Digital Information Strategy Fall 2006.

CIDL Chair Brian Bell brought our Digital Canada numérique vision to the CARL annual fall meeting.

### CIDL sets 2006 workplan cont'd. from page 1

for itself through involvement in the OC-DI committee structure.

#### Metadata Survey

The CIDL Metadata Working Group will harvest the information from its recent Metadata Survey and prepare its report on current Canadian practices in metadata standards.

#### Inventory

CIDL will continue to improve its Inventory of Canadian Digital Initiatives as a national registry by investigating the possibilities of enriching the reporting and information harvesting mechanisms. Dalhousie University Library has offered its partnership.

#### 2006 Operations

CIDL will continue its normal operations in 2006 beginning with the Steering Committee (2006-2007) elections, and the 2006 membership campaign in February.

As progress is made in 2006, CIDL will assess its future role.



### CIDL at CARL Fall Session 2005

In November 2005 CIDL was an invited guest of the Canadian Association of Research Libraries at the CARL Fall General Meeting held in Emerald Lake B.C.

The plenary session focussed on a national digitization strategy. CIDL Chair Brian Bell brought our Digital Canada numérique vision to the CARL plenary. Bell also presented the CIDL analysis of the Inventory of Canadian Digital Initiatives: when it comes to digitization projects in Canada, who is doing what and from where. Bell reported that he received positive feedback and interest at the event.

For five days participants from 30 of Canada's research libraries, including Library and Archives Canada, plus guests such as CIDL, canadiana.org, Canadian Heritage Information Network and Canadian Council of Archives debated and planned a national digitization strategy that CARL hopes will win the wide support of the library community and its partners.

The outcome was agreement on the Open Canada Digitization Initiative (OCDI), a coordinated and sustained program to digitize Canada's information and knowledge resources. The OCDI vision is to involve all types of Canadian memory institutions in an open governance model.

The OCDI intends to act in concert with the Canadian digital information strategy presently under development by Library and Archives Canada.



## Folksonomies and Controlled Vocabularies

Louise Spiteri, Associate Professor

School of Information Management Dalhousie University

presented at Metadata Forum II, September 2005

Library and Archives Canada

Folksonomies (known also as “social classifications”) are the user-created metadata of digital resources. Folksonomies are found in social bookmark managers, such as Del.icio.us (<http://del.icio.us/>) and Furl (<http://www.furl.net/>), that allow users to add their preferred sites to their personal collections of links; to organize and categorize these sites by adding their own terms, or tags; and, to share this collection with other people with the same interests.

One of the most daunting challenges of information management in the digital world is the ability to keep, or re-find relevant information. Once a person finds relevant information, how do they remember to use this information later when a need for it arises? How do people organize Web information for re-access and re-use?

Bookmarking is one of the most popular methods for storing relevant Web information for re-access and re-use (Bruce, Jones,

on the Web rather than within a single instance of a browser, they can be accessed from any computer with an Internet connection.

Perhaps the most important strength of social bookmark managers is the ability they provide users to organize their bookmarks in a way that reflects directly their own vocabulary and needs.

“A folksonomy represents a fundamental shift in that it is derived not from professionals or content creators, but from the users of information and documents. In this way, it directly reflects their choices in diction, terminology, and precision” (Mathes, 2004).

Folksonomies can serve to create a sense of community amongst their users. Most social bookmark managers will recommend new links, and other members’ folders or sites, that are strongly related to an individual member by analyzing their linking pattern. The managers can then create a “circle of bookmark buddies” (Fichter, 2004) that monitors the user’s updates to their bookmark archives. The managers provide instant feedback; as soon as users assign a tag to an item, they can see the cluster of items carrying the same tag.

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When users find a Web page that they would like to add to the bookmark manager, they select the bookmark and then enter their own tags to categorize the page. The tags are used to collocate bookmarks within a user’s collection and across the entire system. For example, the page <http://del.icio.us/tag/blogging> shows all bookmarks that are tagged with “blogging” by any member of the Deli.cio.us site.

& Dumais, 2004). Social bookmark managers such as Del.icio.us allow people to bypass the problem of different computer use by allowing them to leave the information where they found it and provide a pointer or bookmark to that content.

Rather than store bookmarks on the browser of a particular computer, people can store their bookmarks centrally at the bookmark managers. Because the bookmarks are

**Dr. Spiteri was awarded a \$9000 grant from the Library and Information Science Research Grant Program of the Online Computer Library Centre (OCLC) Dublin OH, and the Association for Library and Information Science Education. Dr. Spiteri’s 2006 project is entitled: “The Use of Collaborative Tagging in Public Library Catalogues.”**

**Bookmarking is one of the most popular methods for storing relevant Web information for re-access and re-use.**

Are any issues of  
Annuaire Marcotte  
in your collection?  
Our Roots would  
like to know.  
Contact CIDL:  
cidl-icbn@lac-bac.gc.ca

## Université Laval takes the lead www.OurRoots.ca / www.Nosracines.ca

Université Laval has the lead organizational role in the Our Roots project this year. Production coordinator David Anderson reported, « We are planning to add l'Annuaire Marcotte to our collection, plus several other titles. We will digitize 150,000 pages! » Marcotte directories of Québec locales contain alphabetical listings of residents & business, streets, post offices, and information on provincial and federal government. Contact CIDL if you have issues in your collections.



## Folksonomies cont'd. from page 3

Folksonomies do  
not include  
guidelines for  
use or scope  
notes.

This feedback loop “leads to a form of asymmetrical communication between users through metadata. The users of a system are negotiating the meaning of the terms in the folksonomy, whether purposefully or not, through their individual choices of tags to describe documents for themselves” (Mathes, 2004).

Folksonomies share the problems inherent to all uncontrolled vocabularies, such as ambiguity, polysemy, synonymy, and basic level variation. The terms in a folksonomy may have inherent ambiguity as different users apply terms to documents in different ways. The polysemous tag “port” could refer to a sweet fortified wine, a porthole, a place for loading and unloading ships, the left-hand side of a ship or aircraft, or a channel endpoint in a communications system.

Folksonomies do not include guidelines for use or scope notes. Folksonomies provide for no synonym control; the terms “mac”, “macintosh”, and “apple”, for example, are used to describe Apple Macintosh computers. Similarly, both singular and plural forms of terms appear (e.g., flower and flowers), thus creating a number of redundant headings.

The problem with basic level variation is that related terms that describe an item vary

along a continuum of specificity ranging from very general to very specific; so, for example, documents tagged “perl” and “javascript” may be too specific for some users, while a document tagged “programming” may be too general for others (Golder & Huberman, 2005).

Folksonomies provide no guidelines for the use of compound headings, punctuation, word order, and so forth; for example, should one use the tag “vegan cooking” or “cooking, vegan”? Finally, and not insignificantly, the terms could be applied incorrectly; the term “archaeology”, for example,

**Users are willing to tolerate the shortcomings of folksonomies because ultimately they lower barriers to cooperation.**

is used to tag items pertaining to both dinosaurs and primitive.

Users are willing to tolerate the shortcomings of folksonomies because ultimately they lower barriers to cooperation. Users do not have to agree upon a hierarchy of tags; they strive to achieve a degree of consensus over the general meaning of tags. “What makes the tagging phenomenon utterly fascinating is that there is a collective action component to it. We love to see how people will come to common consensus on relevant terms” (Boyd, 2005).



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## Building Metadata Application Profiles

Nancy Stuart Technical Services Librarian

University of Victoria Libraries

CIDL 2005 Bursary Award Recipient

Technology is changing rapidly as is the development of metadata schemes. Librarians need to take a lead role in the development and implementation of metadata application profiles and the Building Metadata Application Profiles workshop illustrated that there is still much work to be done. I was very fortunate to receive the 2005 CIDL Bursary to attend this Metadata Application Profiles workshop offered by the Electronic Text Centre at the University of New Brunswick in their 2005 Summer Institute Series.

Diane Hillmann, currently the Director of Library Services and Operations at the National Science Digital Library, gave the 3-day course. Hillman was an early participant in the Dublin Core Metadata Initiative, and is currently editor of *Using Dublin Core* as well as member of the DCMI usage and Advisory Boards. Twelve people participated, 10 were from various parts of Canada and two from the U.S.

Metadata application profiles are one of the steps to defining standards around the application of metadata for digital resources. Increasingly, projects with metadata requirements are considering constructing these application profiles to define and document their metadata needs. Application profiles specify metadata choices, sometimes taken from more than one element set, combined with local policies and guidelines. The workshop provided a practical, hands-on investigation into application profiles and their issues.

**Application profiles specify metadata choices, sometimes taken from more than one element set, combined with local policies and guidelines.**

What is a metadata application profile? It is a declaration specifying which metadata terms an organization, information provider, or user community uses in its metadata. By definition, an application profile identifies the source of metadata terms used – whether they have been defined in formally maintained standards such as Dublin Core, in less formally defined element sets and vocabularies, or by the creator of the application profile itself for local use in an application. Optionally, a metadata application profile may provide additional documentation on how the terms are constrained, encoded, or interpreted for application-specific purposes.

Hillman led us through the basics of a metadata schema and why we need a metadata application profile. No matter what metadata schema is chosen for a digital project, the application profile will document the elements used, their definition for the project, and will determine quality metadata. Community consensus is needed to create this documentation and show the intent of usage. There are basic decisions to be made, such as the basic schema to use and technical issues for metadata interchange.

Defining the scope and purpose of your digital project is very important, as it will affect the type of metadata application profile created. The metadata schema does not have to be Dublin Core, but that is the schema we used for our practice Metadata Application Profile.

Writing application profiles is a group effort, can take a long time and it isn't easy. Rules are not standardized, so "best practices" are often the only guidance.

**What is a metadata application profile?**

**Defining the scope and purpose of your digital project is very important ...**

## Snapshot of digitization in Canada who does what where

Inventory of Canadian Digital Initiatives [www.collectionscanada.ca/initiatives/](http://www.collectionscanada.ca/initiatives/)  
Michelle Landriault CIDL Coordinator

As of October 21, 2005 the Inventory contained 309 projects from 360 organizations, from every corner of Canada. A breakdown of these participating organizations showed Libraries at 49%, Archives at 24%, Museums at 9%; Galleries, Publishers, and Associations make up the balance. Top content contenders are Geography and History, with the exception of Arts for Galleries and Publishers. For project language levels: English at 60%, Bilingual (E&F) at 18%, French at 16%, Aboriginal at 4%, and other languages at 6%.

As for what is digitized, Images account for 33% of the Inventory projects, with Full-text at 26%. Other content

includes Bibliographic Records, Organized Links, Audio, Video, Statistical, 3-D. The majority of projects, 88%, have provincial content: Ontario at 22%, Nova Scotia at 18%, Québec at 16%, British Columbia at 12%. The remaining are each below 10%. Nova Scotia scores high because its Digitization Initiative links to the Inventory and promotes participation. In 2004, the Inventory began collecting information on project funding. Of 55 agencies reported, 33% are Federal, 16% are Municipal, 15% are University/College, 11% are Provincial, and 25% are member orgs, donors and business.



## Building applications cont'd. from page 5

We spent some time looking at the relationship between elements, element-refinements and vocabulary encoding schemes. Using standardized (Dublin Core) element names and using element-refinements promotes good “dumbing down” to unqualified Dublin Core. Encoding schemes are preferable to element-refinements. The use of the DC element “Type” and a locally controlled vocabulary is a solution. We also looked at when and how to document and register new properties.

Many groups think their digital project is special and they need to invent a new element set. There are many encoding schemes and vocabularies that are publicly available and reusable. Registries allow accessibility to, and reuse of encoding schemes and local vocabularies. Don't reinvent the wheel. Metadata should not be “dumbed down” simply because a search interface can't retrieve all the metadata. The next iteration may be able to do this.

We spent the better part of half-a-day working on our own digital project and creating a Metadata Application Profile for it using the DE-Ed Application Profile template. On the final day, each person presented the application profile they created for their digital project. Hillman gave excellent suggestions, as did the other participants in the workshop. Many challenges were evident and we all have homework to do on our return to our home institutions. I hope this is the first of many workshops on metadata application profiles. It was a very valuable experience and my thanks go to CIDL, Diane Hillmann and the other participants who made it so.



**Don't reinvent  
the wheel.  
Metadata should  
not be 'dumbed  
down' simply  
because...**

**Summer Institute Series  
Electronic Text Centre  
Harriet Irving Library  
University of New Brunswick  
Alan Burk, Director  
[www.lib.unb.ca/Texts/](http://www.lib.unb.ca/Texts/)**

## CIDL: the year 2005 in review

### LAC Symposium Fall 2006

In October, CIDL Chair Brian Bell was one of about 60 reps of the Canadian library, archives, museum and publishing world invited to the 2-day Library and Archives Canada Exploratory Meeting to discuss the need for a national digital information strategy. Bell outlined the important role of CIDL and the Digital Canada numérique vision. Bell was invited to be part of the LAC planning committee now preparing for the LAC Symposium for a Canadian Digital Information Strategy, Fall 2006.

### CIDL support for Canadiana.org

In early November, Canadiana.org chair John Teskey and Executive Director Magdalene Albert thanked CIDL and other peer groups for their role in lobbying Canadian Heritage for assistance to complete its ambitious 6 year, 1.5 million page government documents project.

### CIDL sponsors Metadata Forum

In 2005 CIDL continued its support for Library and Archives Canada Metadata Forum series with a \$500 sponsor fee, and the loan of CIDL staff Michelle Landriault in a key organizing role. The 2005 forum, "Metadata: A Reality Check," attracted over 200 participants from across Canada, and was declared a success.

### Canadian Culture Online (CCO)

Chair Bell met with CCO personnel to discuss current mandatory CCO educational requirements. (Report, CIDL

News #11). As well, the CIDL Metadata Working Group reviewed CCO technical guidelines and made recommendations (Report, CIDL News #11).

### CIDL 2005 travel bursaries

The CIDL 2005 travel bursary program totaled \$1000. In two competitions, CIDL awarded \$500 each towards travel costs for Nancy Stuart (University of Victoria) and Marie-Hélène Vezina (Université de Montréal) to attend respectively the Electronic Text Centre Summer Seminar Series, University of New Brunswick, and Access 2005 Edmonton. Read their reports here!

### CIDL at CARL AGM

In June, Bell participated in a forum at the CARL AGM in Saskatoon. The joint forum included the Canadian museum and archives communities. A powerful message from speaker Brewster Kahle was for memory institutions to work together in a new era of collaboration. The day ended with a panel of Canada's various memory institutions agreeing to strengthen efforts to work toward a national digitization strategy.

### CIDL at CARL Fall Session

Chair Brian Bell presented the CIDL report on digitization in Canada. See pages 2 and 6 for more details.



## CIDL Steering Committee 2006 & 2007 ... cont'd. from page 1

The 2005 Metadata Survey. Our gratitude to David McKnight (McGill University) for leading the 2005 Metadata Survey! Through McGill, CIDL worked with Infopoll to bring the successful survey questionnaire to its members. McKnight and Petter will continue to

work with the Metadata Working Group to analyze the survey results.

It is evident our outgoing Committee members: Bell, Petter and McKnight, will continue their work for a national digital strategy in new roles.



### Metadata Survey

There was a 58% return on the 2005 survey! The Working Group will analyze the results. We thank Infopoll at McGill University and McGill staff for hosting and refining this survey!

Metadata Working Group members are:

David McKnight  
(McGill University),  
Chris Petter  
(University of Victoria), Guy  
Teasdale  
(Université Laval),  
Mark Jordan  
(Simon Fraser University),  
Deane Zeeman  
(Library and Archives Canada).

## Southern Alberta Information Resources (SAIR) Project

Kathy Crewdson & Ian Dew    NextLibrary Inc.

CIDL Sponsor 2005

This article outlines the methodology of NextLibrary Inc. in dealing with issues and challenges that occurred in producing an updated digital bibliography on Southern Alberta Information Resources project (SAIR). When completed in 2006, SAIR will present bibliographies and collections of published materials related to southern Alberta.

SAIR is a regionally funded library project, initiated in part in 2003 with funding from Alberta

The SAIR Project also comprises the inventory, one of the critical preparatory steps in the development of the Southern Alberta Digital Library.

### Bibliography Design

Our mission, from summer of 2003 to date, was to introduce our aims and goals for this project to the people in Southern Alberta. We established initial contacts, and extended cooperation with librarians, curators, and directors.

The definition of 'significant resources' was a major issue since it is subjective. A working definition of 'significance' eventually emerged. Beyond the common meaning, it shall mean the importance of the topic to the region. High priority topics will include such things as community, water, energy and environment, and specific topics, such as health issues related to the cattle industry. Some formats were excluded. Among print and other materials, ephemeral materials, tourist brochures, advertisements were excluded.

Some issues and questions remain to be resolved. Digital formats present a number of challenges in terms of selection and presentation; for example, how to define "published" material as opposed to archival or other material. Legal issues relating to issues such as linking and location information have emerged. Basic technical issues remain, such as, how to update links.

Several newsletters were produced to involve the practitioners in our decision-making. Feedback was welcomed, and it was critical in presenting this first step toward pres-

**Southern Albertans will have a detailed level of access to their research and literature to allow better quality research on any topic or issue in the region.**

Historical Resources Foundation. The project mandate is to update *A Bibliography of Information Resources and Material Relating to Southern Alberta* from 1991 to 2005. The updated bibliography will be available online and in paper; and, it will include significant, published information resources in specified formats. Southern Albertans will have a detailed level of access to their research and literature to allow better quality research on any topic or issue in the region.

A test database was provided by the University of Lethbridge. Librarians and curators were asked to participate by expressing their opinion about criteria for materials to be included in the finished work .

Discussions followed with practitioners and centred on the production of the bibliography. Methods for accomplishing the task and standards for presentation and provision of access to the content were discussed.

**The definition of 'significant resources' was a major issue since it is subjective. A working definition of 'significance' eventually emerged.**



## Digital Canada numérique Web Forum

This spring CIDL is preparing to launch a membership discussion board. Interactive discussion topics include a wide range of digitization issues: Metadata, Access policies & practice, Applied research, Digital preservation, End-user access technical requirements, Rights management and Fundraising to name just a few. Members can also initiate topics of interest to them. Employees of all member organizations will be invited to contact the CIDL Coordinator for password entry. Watch for the announcement!



### SAIR Project cont'd. from page 8

**Our project is a work in progress: it is a unique journey into presentation of digital and other material.**

ervation and making available the heritage locked in fragile published materials, monographs, and serials, particularly newspapers.

This demonstration project uses a partnership among communities in Southern Alberta; NextLibrary Inc, a Canadian software and consulting company; Greenstone, an open source software developer at the University of Waikato, New Zealand; and, the University of Lethbridge.

Our project is a work in progress: it is a unique journey into presentation of digital and other material. Our intent is to help communities preserve unique documents.

The project has, and will contribute to the development of a major open source digital library soft-

ware package, Greenstone, that has the potential to put sophisticated digital library functionality within the means of any community at affordable cost.

Topics studied during the project include logistics and system design. The project team gives exposure to key issues related to information systems on the Internet, such as intellectual property rights and security.

#### Technical

The files are presented in Version 2.52 of Greenstone software. Modifications could be included in future versions of Greenstone. The use of open source software reduces cost and, with some modifications, makes a sophisticated service affordable. Software development was undertaken over the summer of 2005 by a

team from NextLibrary Inc. (Ian Dew and John Paterson) and the University of Lethbridge Greenstone Project (Attila Aros)

**... the system can import MARC records and display them in DC format.**

on using facilities maintained by Confederation College in Thunder Bay Ontario (Paul Inkila and Ken Shurget). The development modified Greenstone Digital Library System to handle records in standardized formats.

Specifically, the system can import standard MARC records and display them in DC format. This development is expected to make the software attractive to a wider range of institutions. Next steps include addition of holdings and development of a web based regional bibliographic database for distribution in a permanent format.

**For information about SAIR,  
& NextLibrary Inc.  
contact**

**Kathy Crewdson, President**

**[Kathy@nextlib.com](mailto:Kathy@nextlib.com)**

**Website : [www.nextlib.com](http://www.nextlib.com)**



## Access 2005 Edmonton

**Marie-Hélène Vezina** Librarian Digital Library Projects  
Université de Montréal

CIDL 2005 Bursary Award Recipient

Access is an annual conference held in Canada that brings together over 250 participants with a keen interest in library-related information technology developments. The conference consists of a single session for which all participants gather in the same hall. This allows for fruitful exchanges among both lecturers and participants. Since everyone attends the same presentations and there is no need to change halls in between, participants are free to discuss any aspect with all other participants.

One original and very popular element of the conference is the Hackfest, an event held separately from the presentations and in which programmers and participants from other library-science sectors gather to collaborate on real-world library problems using freeware. The results of this work blitz are then presented to the audience.

I had the opportunity to attend the Access 2004 Halifax, and this year in Edmonton I again found the presentations

**Current mass digitization projects suggest that for the first time, it may be possible to digitize our entire documentary heritage.**

to be of high quality and very relevant. I would like to share my impressions as well as the key ideas and trends presented there.

Access 2005 Edmonton saw Clifford Lynch return with his traditional lecture on upcoming trends. Since I am involved in developing digital library projects at my university (digitization and institutional deposit projects), I was particularly interested in his presentation.

He explained the expanding role that libraries, already implementing institutional deposits, will be called to play in managing and disseminating datasets from scientific research, now based on a collaborative and international model (eResearch/eScience).

We are now seeing, and will continue to see, the rise of digital data scientists who will be responsible for conserving, disseminating and updating these datasets ("digital data curation").

Lynch also addressed the topic of mass digitization. Current mass digitization projects suggest that for the first time, it may be possible to digitize our entire documentary heritage. However, one significant element remains to be settled: the issue of copyright. Only time will tell whether our documentary heritage will be digitized entirely and will continue to be so, or whether twentieth-century works will be notably absent from this body.

A common thread through Access 2005 Edmonton, and an aspect repeatedly raised by participants, was the disintegration of library services as they have been understood in the past few years. Instead of gathering all services into a single portal for users to visit physically or virtually, these services should instead be integrated directly into the user's environment.

As Lorcan Dempsey so eloquently explained, one-stop shops for information ought to be abandoned in favour of seeing the library as one among many such windows and recognizing that users' information requirements can

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**... one-stop shops for information ought to be abandoned in favour of seeing the library as one among many such windows ...**

**Access 2005 Edmonton cont'd from page 10**

... prompted me to find out more about the consortium for university libraries in Québec: Bibliothèque de recherche virtuelle québécoise ...

... reSearcher, an open-code freeware suite for libraries developed at Simon Fraser University ... includes a tool for managing electronic periodicals, a full-text link resolver, a federated search engine and an on-line bibliographical management tool.

also be met by many other windows in the network. The library must therefore integrate its content into users' environments (on-line course management system, institutional portal, local or on-line bookmarks, local or on-line bibliographical management software, blogs, Web search engines, etc.).

How? Through the latest generation of protocols and technologies such as the RESTful system, COinS, integrated search functions, RSS threads, widgets, bookmarklets, and AJAX applications to name only the key developments.

Ross Singer, whose presentation also dealt with this subject, demonstrated what can be achieved with Firefox extensions, bookmarklets, JavaScript, etc., to bring the library's services into the user's environment. I particularly enjoyed the demonstration with the A9 search engine, an OpenSearch tool, where search results for various sets (documentary resources of the main library, documentary resources of the user's library consortium, Web content) appear side by side on the same Web page.

Although the technologies on which the demonstrations were based are not yet reliable and universal, one can easily see where such integrations may lead.

I much appreciated the presentation by Roy Tennant, a speaker who never fails to inspire, who showed us how his team tried, albeit with a few challenges, to "break out of the box" by re-designing the MetaLib interface (an Ex-Libris federated search engine recently acquired by our institution) while maintaining its intrinsic functionalities using X-Server, an XML-based API.

I also draw attention to the presentation by developers at Simon Fraser University (SFU). While I had certainly heard of the Public Knowledge Project (PKP) (<http://www.pkp.ubc.ca>), I was unfamiliar with reSearcher (<http://researcher.sfu.ca>), an open-code freeware suite for libraries developed by the

people at SFU. This suite includes a tool for managing electronic periodicals, a full-text link resolver, a federated search engine and an on-line bibliographical management tool. I must say that I am always impressed with the high level of information technology development conducted at this university. Well done SFU!

Another joint presentation reported on the growth of library consortia (Western Canada, Ontario and the Atlantic provinces). I took away that beyond pooling documentary resources, the sharing of services (OpenURL link resolver, ILL forms, on-line bibliographical management tool, federated searches, etc.) is well underway and continues to grow.

This established fact made me wonder about the state of our library consortia in Québec and has prompted me to find out more about the consortium project for university libraries in Québec: the Bibliothèque de Recherche Virtuelle Québécoise (BRVQ).

Participating in the Access conference is an extraordinary opportunity to find out about the latest technological developments for libraries. The enthusiasm and expertise of lecturers and participants are a major motivation for transposing certain elements of the presentations to my work environment. I highly recommend attending this conference, to be held in Ottawa, October 11 to 14, 2006.

Access 2005 conference information is available on-line in MP3 format (<http://access2005.library.ualberta.ca/presentations>).



**Access 2006**  
**Ottawa**  
**October 11-14**

## OCLC Canada helps Manitoba Library Consortium develop perfect place to find digitized information about the province and its people

Daniel Boivin Director OCLC Canada

CIDL Sponsor 2004, 2005

OCLC Canada recently worked with the Manitoba Library Consortium to digitize over 122,000 pages of historically significant newspapers and other content including an atlas, books and historic maps to make them freely accessible on the World Wide Web.

This digitization effort is part of the *Manitobia: Life and Times* project.

“Manitobia” was coined by combining Manitoba, the keystone province located in the heart of Canada, with Utopia, signifying an ideal place—the new term meaning a perfect place to find information about Manitoba.

In a perfect world, this digitization project would not be bound by time, or resource constraints. But in the real world, the Manitoba Library Consortium and OCLC Canada worked on a tight schedule with limited resources to create, in the end, a wonderful learning experience for Manitoba students and others interested in the rich history of this part of the world.

The Manitobia project is managed by the Manitoba Library Consortium, a group made up of govern-

ment, public, school, college and university libraries from across the province. Major partners include the University of Manitoba, the University of Winnipeg, the Archives of Manitoba and the Legislative Library of Manitoba.

The project began in October 2004 when Canadian Heritage granted a Partnerships Fund via the Canadian Culture Online Program (CCOP) to the Manitoba Library Consortium, the proponent of the project. Since the federal government fiscal year runs from April 1 through March 31, the Manitoba Library Consortium had barely six months to complete this extensive project.

The Manitoba Library Consortium project leaders carefully weighed which newspapers to digitize in this phase of the project. Once identified, we set the schedule and signed the agreement to complete the project.

Once OCLC Canada had the data—the newspapers were on 133 microfilm reels—we began the digitization process at our OCLC Canada Preservation Service Centre in

Winnipeg. We opened this Service Centre in 2004 specifically for film scanning projects like this. From here, we can provide local solutions to the digital preservation needs of Canadian libraries and other heritage institutions. We also offer a mobile service, if an institution has fragile originals that cannot leave their premises.

The OCLC Canada Preservation Service Centre staff of local, experienced technicians and consultants worked closely with the Manitoba Library Consortium to ensure the project met their product expectations within a unique timetable.

OCLC Canada’s post-scanning processes included cropping, deskewing, padding and noise reduction to prepare files for distillation through Olive Inc.’s PipeX. As a result of this process, the content of the newspapers was delivered as an XML repository to allow for future manipulation by the Manitoba Library Consortium.

Working with both French and English language materials was another of the project challenges

**‘Manitobia’ is a name fashioned by combining Manitoba, the keystone province located in the heart of Canada, with Utopia, to signify an ideal place to find information.**

**OCLC Canada’s post-scanning processes included cropping, deskewing, padding and noise reduction to prepare files for distillation through Olive Inc.’s PipeX.**



**OCLC Canada and Manitoba** cont'd. from page 12

**This Manitoba Library Consortium digitization project presented many challenges: a tight schedule, limited resources, low quality acetate microfilm, and the complexities of accommodating materials in two languages.**

**OCLC Canada**  
[www.oclc.org/ca/](http://www.oclc.org/ca/)

during the distillation process. The process had to extract the words properly in order to have an appropriate and viable index of the documents.

Although more than 30 newspapers were digitized for the Manitoba Library Consortium project from the period 1859 to 1919, they were just one part of the Manitoba project. Other educational resources on the web site include organizational record excerpts, photos, maps, letters and diary entries. The newspaper collection includes:

*Brandon Sun Weekly, Courrier du Nord-Ouest, Daily Nor'Wester, Echo du Manitoba, La Liberté, Le Manitoba, Le Métis, Libre Parole, Manitoba Gazette (1878), Manitoba Herald, Manitoba Liberal, Manitoban and Northwest Herald, Manitoba Newsletter, Minnedosa Tribune, Morning Telegram,*

*New Nation, One Big Union, Ovest Canadien, People's Voice, Portage la Prairie Weekly Tribune, Quiz, Red River Pioneer, Standard, Strikers Defense Bulletin, The Enlightener, The Voice, Manitoba Liberal (weekly), Western Labor News, Winnipeg Citizen Strike Editions, Winnipeg Daily Sun, Winnipeg Telegram Strike Editions.*

*Manitobia: Life and Times* is a stunning example of what is possible when organizations partner their resources and put technology to work for the learning benefit of all.

This Manitoba Library Consortium digitization project presented many challenges: a tight schedule, limited resources, low quality acetate microfilm, and the complexities of accommodating materials in two languages.

The close cooperation

and collaboration that OCLC Canada is uniquely positioned to facilitate, through its ties to the OCLC worldwide cooperative, helped to surmount this mix of obstacles.

This digitization project was initiated to provide information about Manitoba and its people for learning purposes — targeting students from grades 4 through 12. We hope that the success of this project translates into additional support, so that the Manitoba Library Consortium may continue to make use of OCLC Canada expertise to expand the scope of the project, and to extend the reach of this effort to promote the rich history and heritage of Manitoba and its people.



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## Card Catalogues to Virtual Catalogues: a career librarian reminisces

**Carrol D. Lunau** Former Senior Resource Sharing Policy Officer (National Library of Canada); Assistant University Librarian, Systems and Planning (University of Saskatchewan); Systems Librarian (Carleton University). Ms. Lunau will complete her career this year at Library and Archives Canada.

When I first entered the world of libraries in the mid-1960s, library automation was not yet a factor. Cataloguers wrote the description of the book or periodical, and somebody typed the 3 x 5 cards to be filed in the catalogue. Hours were spent poring over national bibliographies. For rare or unusual items, you might even write notes on the back of the card using proper 'library hand', a precise way of writing to ensure readability. These were antiquated, time-consuming systems and processes, about to radically change in ways we had never imagined.

In Ontario universities document delivery became an issue leading to the establishment of the Interuniversity Transit System in 1967, followed by pebuQuill for universities in Quebec in 1969. U.S. libraries adopted the MARC format for cataloguing in 1968, and the National Library of Canada (NLC) began a system development project in 1969. This was the same year that the National Science Library (now Canada Institute for Scientific and Technical Information) began a Selective Dissemination of Information service for scientists. During this era the University of Guelph developed the CODOC system to classify government documents and, still in use today, it was adopted by many universities.

Today, researchers sit at home with a world of information and facts at their finger tips: without even venturing into a library. Though a commendable approach when the snow flies, the personal touch is lost. Where is the happenstance of meeting a like-minded researcher in the stacks, or the reading room, or the café and discussing ideas of mutual interest – for me the computer screen and e-mail or e-chat just don't do it! How did we get here?

### The Seventies

In Canada, NLC began using CANMARC formats for monographs in 1972 for the production of Canadiana. Formats for serials, government documents and audio visual materials soon followed. Most libraries used batch cataloguing systems that allowed cataloguers to complete worksheets, usually entered into the databases by clerical staff. In the late 1970s, cataloguers started to do their own data entry;

but the end product was still a set of 3 x 5 catalogue cards.

Cataloguing was an expensive and labour intensive activity. Cataloguers consulted the print version of Canadiana and other national bibliographies to acquire cataloguing data. Once the MARC formats and systems were in place, NLC introduced the Canadian MARC Tape Distribution Service in 1973, the same year that the Canadian MARC Office was established.

In 1974, NLC entered into the first MARC exchange agreement with Library of Congress, followed in 1975 by the MARC Records Distribution Service to provide Canadian and non-Canadian source records to other libraries for cataloguing. By the 1980s, University of Saskatchewan, an early adopter of the distribution services, began to question the costs of maintaining these files.

Shared cataloguing systems through library consortia emerged in the 1970s. OCLC first came on the scene in 1971. In Canada, a group of Ontario universities initiated Unicat/Telecat in 1974. This became UTLAS, the Canadian shared cataloguing facility, and it soon created an online union catalogue.

**Cataloguing was an expensive and labour intensive activity. Cataloguers consulted the print version of Canadiana and other national bibliographies to acquire cataloguing data.**

Retrospective conversion projects became popular as libraries strived to create a comprehensive database to support the developing automated circulation systems. One of the more creative recon projects was undertaken by Carleton University in Ottawa. Contracted out to Correctional Services Canada, coding and data entry were done by inmates at Springhill Institution in Nova Scotia.

Spending time inside Springhill to train the inmates was a somewhat unique experience in my library career. The actual shelf list cards were sent to Nova Scotia where the inmates input the data, then returned the cards and a

Where is the happenstance....

How did we get here?

Spending time inside Springhill Institution to train the inmates was a somewhat unique experience in my library career.

## a career librarian reminisces

**Suddenly, communication standards became essential for libraries.**

tape of the records for loading into the database. The end result was a complete database of Carleton's records, plus a few very creative fictitious records created by the inmates.

Computer output microform (COM) catalogues were talked about as a way to eliminate the task of filing cards while using the data in the databases created in many libraries. This technology never really caught on. It was quickly superseded by the potential of online catalogues and integrated library systems.

### The Eighties

As the 1980s dawned, some libraries were ready to replace their first generation cataloguing systems, often home-grown, with new commercially available integrated library systems. Systems development wasn't as much fun, as the focus in most libraries shifted to writing requests for proposals, negotiating with vendors and implementing turn-key systems. There were some perks as investigative visits to vendors and libraries became commonplace. Technology blossomed with the spread of microcomputers; and the possibilities opened up by the rise of networks, both local and wide area.

**The national union catalogue, started in 1950, was closed in 1980 when it was automated...**

The national union catalogue, started in 1950, was closed in 1980 when it was automated using DOBIS. The records in this database were more widely available; and the desire to increase its breadth and scope resulted in machine readable reporting or MARA. This idea came from the previous decade with the development of the mini-MARC format for union catalogue reporting in 1975.

As early as 1974, I developed specifications for converting Carleton's local cataloguing format to the mini-MARC format for reporting to the union catalogue. Little did I realize that the records wouldn't actually be loaded until several years later.

Suddenly, communication standards became essential for libraries. Electronic mail was used for Interlibrary Loans (ILL). Envoy 100 came into use at NLC for ILL messaging in 1982. By 1985, 65% of requests received by the library were electronic. This

e-mail growth resulted in a number of proprietary scripts. To simplify the situation, NLC developed the generic script as a bridging mechanism until protocol-based systems were in place. Remnants of this short-term solution can be found in ILL systems even today!

**In 1988 both Z39.50 and ILL became international standards. Unfortunately, it took years before they received widespread adoption...**

This was the decade that started discussion about ILL and information retrieval protocols. In 1985, before the ILL protocol became an international standard, NLC implemented PEB/ILL, the first Canadian protocol-based ILL system. This early action helped streamline NLC's ILL operations, and demonstrated a protocol-based system; to prove it was a feasible solution for library ILL operations.

In 1988 both Z39.50 and ILL became international standards. Unfortunately, it took years before they received widespread adoption in the now significant base of installed Canadian library systems.

### The Nineties

The 1990s witnessed the rise of the Internet. The World Wide Web made its way into the public domain in 1993, along with Windows and various browsers. The Gopher protocol was distributed in 1991 and libraries began to create their own sites. NLC released its site in June 1994. Google, the ubiquitous search engine, launched in 1999.

There was now change in the world of library cataloguing utilities. In 1997, A-G Canada Ltd., a new subsidiary of Auto-Graphics Inc., purchased the CATSS database and AVISO. In 1998, OCLC opened its first Canadian office, OCLC Canada.

Libraries, in this environment of rapid change and Internet, began to view their services and products in the context of a global information society. The 1997 Speech from the Throne set the goal for Canada to be the most connected country in the world by 2000. Libraries and schools were the stated means to accomplish this. By March 30, 1999 John Manley, Minister of Industry, announced that all public libraries and schools wanting to be connected were online. Broadband, digitization, virtual catalogues, portals/gateways and interoperability became the rallying call for libraries.

While the beloved card catalogue became the online public access catalog-

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**Libraries, in this environment of rapid change and Internet, began to view their services and products in the context of a global information society.**



## a career librarian reminisces cont'd from page 15

**I am hopeful that libraries will choose to safeguard the human touch and the sense of place that characterizes them. In the end, it is this new power to choose that is the greatest change.**

**Cornell Timeline: Digital Technology and Preservation**  
<http://www.library.cornell.edu/iris/tutorial/dpm/timeline/viewall.html>

gue, it essentially remained the card catalogue accessible by computer. Libraries applied the Z39.50 standard. In Canada, Acadia University was first to apply the standard in 1993, followed by University of British Columbia, Memorial University and University of Saskatchewan.

Soon libraries talked about simultaneously searching multiple catalogues: virtual catalogues. Often, this was viewed as a way to acquire free MARC records for cataloguing, or to find locations for items on ILL. A number of provincial jurisdictions planned Internet networks based on Z39.50 systems to replace, create for the first time, or supplement centralized union catalogues.

NLC, with a number of libraries from across the country, began the virtual Canadian union catalogue pilot project, to test the feasibility of using Z39.50 to create a virtual catalogue. The original catalogue schema included repositories of electronic documents, GILS servers, directories and library catalogues.

The actual project never ventured beyond library catalogues. Much to their surprise, librarians discovered that the interoperability achieved between these systems was less than ideal due to different interpretations of the standard and choices made by vendors.

These interoperability issues sparked the creation of a number of profiles. These profiles defined the options to use to apply the standard, and precisely described how different types of searches were defined. Several national profiles were developed and culminated in 1999 with the release of

the Bath Profile 1.0.

This is the decade when Dublin Core (1995) and the term "metadata" (cataloguing data by any other name) entered the librarian's vocabulary. The catalogue moved beyond traditional library materials to incorporate the metadata for nascent collections of electronic and digital documents.

Cataloguing records contained the links to electronic materials, and the click of a mouse moved the user from the record to the actual document. In 1995, one of the earliest electronic collections was created as part of the NLC Electronic Publications Pilot Project that

**... the term 'metadata' (cataloguing by any other name) entered the librarian's vocabulary...**

mounted 25 Canadian online publications.

### The New Millennium

After the Y2K scare, development in library systems picked up again. Now the focus became a prism: the Web, the open source movement, digital repositories, digital rights management, convergence between libraries and other institutions, preservation of digital objects, harvesting data, the impact of Google, federated search, and so much more. Users no longer want to go to the library; instead they expect to find everything at the click of a mouse.

### Future of Change and Choice

The venerable library catalogues are still there, and through projects like Open World Cat will be web accessible through Google.

The librarian of 1966 would not have believed what the library

of 2006 is able to do, and today's user would be horrified by what we expected users to do in 1966. Change for the better?

Many advances shaped today's libraries: circulation systems,

**... many of our key milestones are poorly documented ...**

virtual reference services, digitization, electronic journals, electronic collections, regional networks, library supported e-government services, Community Access Program, and more.

This brief survey presents my view of developments that I have directly experienced and is not a listing of all major achievements of Canadian libraries.

One issue that becomes clear as I write: many of our key milestones are poorly documented, and our unique history is endangered. This loss will impede our building on success. Instead of learning from our failures, we may inevitably repeat them. The Cornell University "Digital Technology and Preservation Timeline" is a model to document the Canadian library timeline. It's a challenge I pass on to library school students and researchers.

Given the drastic changes in the last 40 years, I cannot imagine what libraries and library services will be like in 2046. I believe libraries, as they always have, will transform to meet the expectations of their users and to make use of the latest technologies.

I am hopeful that libraries will choose to safeguard the human touch and the sense of place that characterizes them. In the end, it is this new power to choose that is the greatest change.

