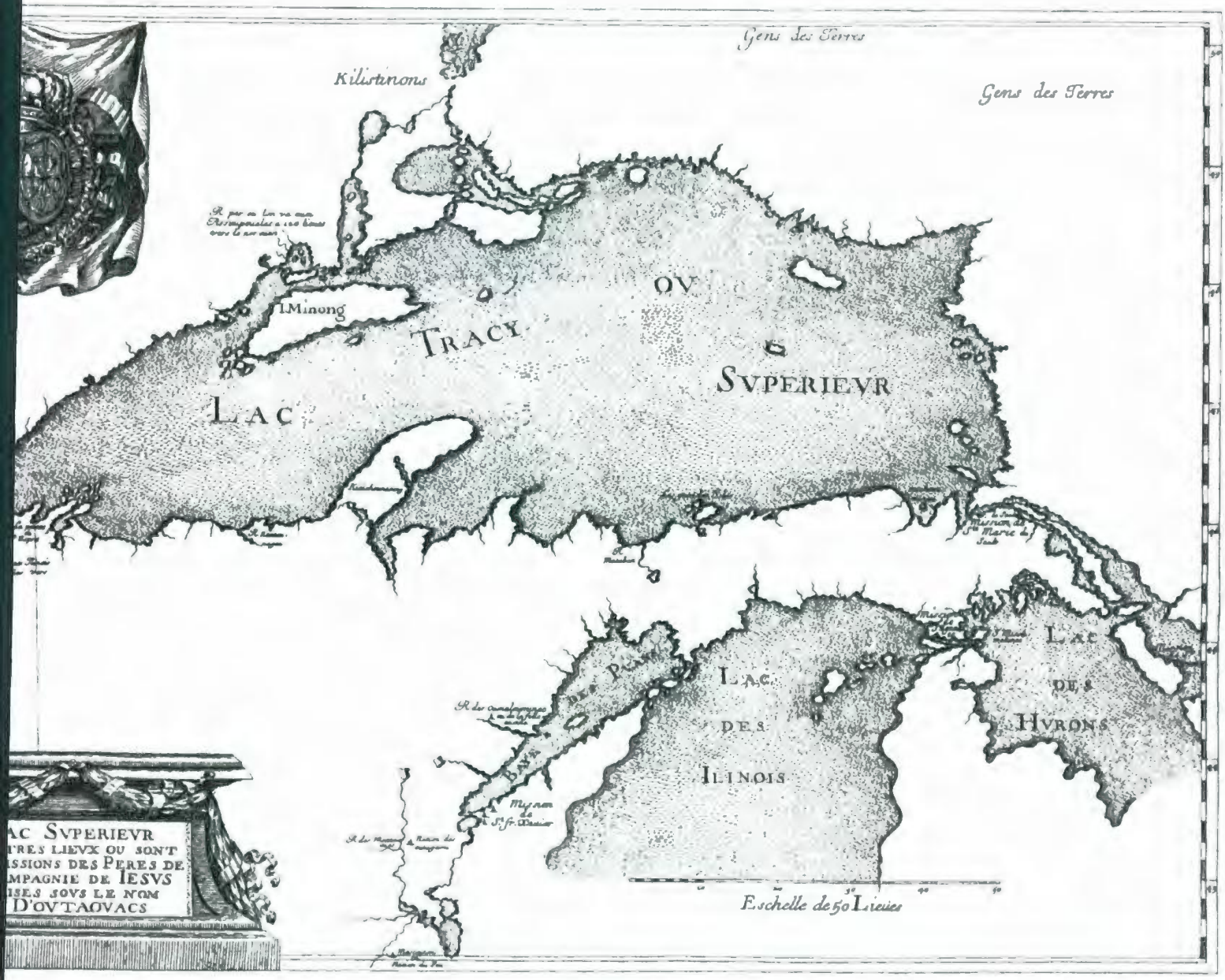
ASSOCIATION OF CANADIAN MAP LIBRARIES AND ARCHIVES

BULLETIN

ASSOCIATION DES CARTOTHÈQUES ET ARCHIVES CARTOGRAPHIQUES DU CANADA



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ASSOCIATION OF CANADIAN MAP LIBRARIES AND ARCHIVES / ASSOCIATION DES CARTOTHÈQUES ET ARCHIVES CARTOGRAPHIQUES DU CANADA

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ON THE COVER...

Claude Dablon, Paris, 1673. This map appeared in the *Relation* of 1671 and 1672, by the Jesuit Claude Dablon, published in Paris by Cramoisy in 1673. Reproduced from an original in the National Map Collection, National Archives of Canada, as ACML Facsimile Map Series No. 18 (ISSN 0827-8024).

Claude Dablon, Paris, 1673. Cette carte parut dans la *Relation* de 1671 et 1672 du jésuite Claude Dablon, publiée Paris par Cramoisy en 1673. Reproduit a partir d'un original de la Collection nationale de cartes et plans, Archives nationales du Canada, dans la Série de cartes fac-similés de l'ACC, carte No. 18 (ISSN 0827-8024).

PRESIDENT'S MESSAGE

Just in time for Christmas...; we're Vancouver bound...; a gathering of the Board members!

Historical Maps Give-away Event!
As announced on ACMLA-ACACC-L listserv, in our efforts to reduce the surplus of our historical map facsimiles, all FULL members will be receiving a bundle of 100 facsimile maps in exchange for a nominal fee of $25. Each member will receive the same 100 facsimiles, which can be re-sold, given as gifts, framed and hung proudly, used as door prizes at other conferences on campus.... or whatever you wish. They should arrive just in time for Christmas! Thanks to Library and Archives Canada and to all the Ottawa members for helping out. If you wish to "opt out" of this fabulous offer, please email Erin Forward by November 20 (eforward @uottawa.ca).

CARTO 2008 in Vancouver
The planning for the 2008 ACMLA conference is underway. Mark your calendars for May 13 –16. Hosted by the University of British Columbia, ACMLA will be meeting jointly with the Canadian Cartographic Association. There are several ways to become involved, either through volunteering on the planning committee, presenting a paper, moderating a session, recording a session, or just by being an attending participant. Look for details forthcoming on CARTA-L and ACMLA-ACACC-L listservs, ACMLA website, and elsewhere in this *Bulletin* issue. I remind members that SSHRC grant money is available for conference travel. An announcement regarding travel grant requests will be made early in the New Year along with updated SSHRC criteria.

ACMLA/NRCan Working Forum
In late July, the working forum (Heather McAdam, Larry Laliberte, Beth Ray, James Boxall, and myself as ex-officio) teleconferenced to discuss issues surrounding the future of the national mapping program and what this means for ACMLA. In short, NRCan has responded to concerns about the "currency" and "content" issues of the NTS maps by investing money into this project. They claim there has been an internal re-alignment of mapping services within NRCan with a "client view". ACMLA being one of those clients, our input into new products will be valued. Their priority for updating Canada's mapping lies with the national road network. They plan a prototype of a new printed product that will be delivered to all map depositories for comment. The working forum plans another teleconference very soon.

Board of Directors Fall Meeting
Hosted by University of Toronto Mississauga, all members of the ACMLA Board gathered on October 20 to prioritize the projects and tasks which the ACMLA members are engaged in. In addition to the three initiatives already mentioned in this President's message: the Association is in urgent need of a "permission to copy" policy (due to frequent requests for reproduction of our historical facsimiles); the Web Committee will be working on the re-design of the website; efforts will be made to finalize the Official Languages Policy; and the ACMLA Archives/Archivist issue will be addressed.

It will be a busy year!

Colleen Beard
ACMLA President

SPATIAL LITERACY AND INFORMATION LITERACY: AN EVOLUTION OF GIS SERVICES IN LIBRARIES

Andrew Nicholson
University of Toronto Mississauga Library

Revised version of a paper presented at the "Geospatial Data Users" session, ACMLA Annual Conference, CARTO 2007, Montreal, May 11, 2007.

Over the past decade, interest in geographic information among the general public has exploded. From being limited to using paper maps, people today have a wide variety of options for accessing, interpreting and manipulating geographic information. The roles of Geographic Information Systems (GIS), the widespread availability of the Internet for dissemination, and the growing popularity of GPS navigation devices have all played a part in this development.

The impact of these technologies has been especially evident in the education setting. Students from any discipline now have access to a wide range of geospatial technologies and datasets for their research. Being able to create maps for a paper or slideshow presentation has never been easier for students. Nevertheless, while such access to geographic information is something to celebrate, it is important to remember that many students who take up these technologies do not have geography, cartography or graphical design experience. The result has often been a map created (often in haste) with little thought given to its audience or the message it is attempting to convey. Such maps are often seen as unappealing at best and even misleading or inaccurate at worst.

To address this urgent need for Spatial Literacy among students (particularly outside of the traditional realms of geography and cartography), libraries should look for opportunities to educate students in concepts related to Spatial Literacy, while at the same time promoting the use of geospatial technologies and datasets across their campuses.

Spatial Literacy Defined

To best define Spatial Literacy, we must first define what it is not. Many people have often confused Spatial Literacy with concepts such as map literacy (map reading skills) or even geographic literacy (location of places). Recent work to define Spatial Literacy has taken a much broader approach than map or geographic literacy, to fully encompass such areas as visual literacy and technology literacy. In 2005, the National Academy of Sciences published "Learning to Think Spatially: GIS as a Support System in the K-12 Curriculum", which outlines how Spatial Literacy should be taught in schools.[1] Rather than fitting Spatial Literacy into one concise definition, the authors viewed Spatial Literacy as the understanding and application by students of three key concepts when searching and/or using geographic information. These concepts include: Space, Representation and Reasoning.

Space

The concept of Space as a part of Spatial Literacy involves a number of different but interrelated aspects with which all students should be familiar. These include understanding maps viewed in different dimensions, applying different measures of distance (physical length, travel cost, travel time), and understanding different coordinate systems (Cartesian and Polar coordinates).

Representation

The concept of Representation in Spatial Literacy refers to an understanding of good cartographic practices, such as properly representing map features, comparing and contrasting different data in maps, as well as providing a clear and accurate presentation of visual information. For example: understanding map projections to control distortion in a map view, and using the proper projection to effectively communicate the information displayed in the map.

Reasoning

The third and perhaps most important part of Spatial Literacy is the ability to analyse and make decisions

based on geographic information. For example, being able to identify the shortest distance between two points, but remembering to consider both a direct line measurement and driving distance. Reasoning also requires the ability to interpolate and extrapolate conclusions based on a map.[2]

Spatial Literacy & Information Literacy

With many academic libraries focussing on Information Literacy initiatives, opportunities to promote Spatial Literacy in the classroom and/or computer lab have never been greater. Although the definition of Information Literacy from the American Library Association does not explicitly mention Spatial Literacy, the five standards for assessing a "information literate" individual do include performance indicators and outcomes which encompass the usage, manipulation, and dissemination of data and imagery.

These include the following from the *ACRL Information Literacy Competency Standards for Higher Education:*

Standard One:
Outcomes:
• Identifies the value and differences of potential resources in a variety of formats.
• Determines the availability of needed information and makes decisions on broadening the information seeking process beyond local resources.

Standard Three:
Outcomes:
• Utilizes computer and other technologies for the studying the interaction of ideas and other phenomena.
• Determines probable accuracy by questioning the source of the data...

Standard Four:
Outcomes:
• Manipulates...images, and data as needed...to a new context.[3]

The growing appreciation of geographic information has seen librarians begin to talk of making Spatial Literacy more explicit in Information Literacy standards. For example, at a presentation on "Defining Information Literacy in the 21st Century" at the 2004 IFLA General Conference, three areas for moving forward were suggested:

- *Critical Thinking and Awareness of Information*
  - o "Making users self-reliant"
- *Decoding the Packaging*
  - o "Interpretation of statistical data, cartographic and spatial data...require additional literacy instruction"
  - o "the ability to understand why an image is presented in a particular way and the impact...on the viewer will become a critical piece of information literacy"
- *Appropriate use of Information*
  - o "develop sensitivity to cultural variations in what is considered... appropriate use of information."[4]

Approximately a year later, at a colloquium on Information Literacy and Lifelong Learning in November 2005, sponsored by IFLA and UNESCO, the importance of critical thinking and decoding were made clear in Proposition #5:

> The rapidity of technological chance requires continuous updating of the definition of Information Literacy and our assumptions about information technology.

Moreover, the colloquium summed up " Information Literacy" as the ability to use "knowledge and information interactively".[5]

Even the *Chronicle of Higher Education* noted the growing need for Spatial Literacy when it issued a "Plea for Spatial Literacy" noting that:

> Spatial Literacy is as important a goal as traditional literacy is. We need to invest our resources and efforts accordingly.[6]

Perhaps best summing up the need for Spatial Literacy was Professor Michael Goodchild who sees a "fourth R" being added to the traditional three "Rs" of education: reading, writing, and arithmetic. With the knowledge of the three R's plus Spatial Literacy, children can grow up to be fully functionally adults.[7]

Promoting Spatial Literacy (and GIS)

With Spatial Literacy being increasingly recognized as part of Information Literacy, efforts to promote both Information Literacy competencies and GIS

have converged to foster an instruction-driven GIS service.

For example, in an Archaeology class, students are assigned weekly readings. For one week in the course, the readings focus on "spatial analysis" in archaeology, and include discussion on settlement patterns and concepts. In their lab that week, students then perform some basic GIS mapping which tests their knowledge of the concepts from the readings, but also covers some of the principles of Spatial Literacy such as clear and accurate representation in their map layouts and crediting data sources.

Integrating Spatial Literacy instruction as part of GIS and Information Literacy has also helped students take ownership of their data and their learning. For example, students in a Forensic Science program can learn methods and techniques not unlike those shown on the popular CSI TV series. By adding a GIS twist, students can also record and then plot the location of the crime scene and its elements (footprints, clothing, apparel, etc.) using a GPS device. Maps are then created with GIS software, which can be included in their final presentation. As their data pertains to a crime and is being used to pursue a true account of events, special attention is given to instructing students on principles of Spatial Literacy including concepts related to representation.

Conclusion

Making Spatial Literacy (and GIS) instruction part of your regular Library and Information Literacy instruction offerings opens up many opportunities for connecting with instructors in departments across university campuses. With so much interest now being shown in utilizing geographic information, libraries are in a perfect position to help guide the learning of Spatial Literacy concepts. By utilizing such concepts, as well as the technology, students acquire a new understanding of maps, libraries and active learning.

Notes

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Andrew Nicholson, at the ACMLA Conference 2007. (Photo courtesy of Cathy Moulder)

NIAGARA ZOOMIFIED! USING ZOOMIFY SOFTWARE TO CREATE QUALITY WEB IMAGES

Colleen Beard and Sharon Janzen
Brock University Map Library

Revised version of papers presented at the "Digitization Projects" session, CARTO 2007, ACMLA Annual Conference, Montreal, May 10, 2007 and at the OCUL Library Assistants Workshop, Kingston, June 8, 2007

Introduction

Our interest in digitization projects heightened the day it was discovered that an entire folder of twenty-two 1934 air photos was missing from our collection. Although the replacement cost was hundreds of dollars, the biggest relief was that they could indeed be replaced! It also brought immediate attention to the deteriorating and delicate condition, and vulnerable position, of all the aging air photos. For these reasons, it prompted the investigation into digitization options as a method of archiving and securing the collection.

Digitizing our fragile collections as a preservation measure seems to be an overwhelming matter of concern. It needs to be done but requires a number of considerations, such as the digitizing process, standards, staff time, cost, server storage, and so on. The digitizing process is just the first step. If one goes to the trouble of converting images to a digital form, consideration should also be given to how to make use of them through web display capabilities. This paper focuses on the web display technology.

Marcel Fortin, in his ACMLA award-winning article, discusses the various software options available for image compression and web display. After quick consideration of the many pricey options available, such as ER Mapper, MrSid and others, we decided to explore the "free" option he mentions: *Zoomify*. Although it is a JPG approach, the results were impressive with very little effort involved, for the most part. Zoomify is not new. For years this software has been used by leading-edge cultural, scientific and educational institutions, such as the Getty Museum of Art, Harvard University, National Geographic, Metropolitan Museum of Art, Smithsonian, the National Library of Medicine and National Gallery of Art, to display their collections on the world wide web.

An explanation of the Zoomify technology and how it is being utilized in the Brock Map Library to enhance the use of older air photos and maps will hopefully inspire those in search of a simple solution to the digitization challenge.

Zoomify Technology—How It Works!

Zoomify offers three types of software products, each with increasing levels of difficulty and web display: *Zoomifyer EZ*; *Zoomifyer for Flash* and *Zoomifyer Enterprise*. *Zoomifyer EZ* is a free, downloadable program (www.zoomify.com) that transforms digital images into JPGs for web zoom-and-pan viewing. *Zoomifyer for Flash* incurs a small fee ($129) but offers additional components within the Flash authoring environment to enhance the Zoomify display by using Flash movie applications. The *Zoomify Enterprise* version is for serious programming folks, and is beyond the scope of this paper!

The *Zoomifyer EZ* technology, or the 'how to' process, can be described quite simply. It includes four files (Figure 1): a Quick Start document describing the three simple steps for creating a zoomify image; *Zoomifyer EZ* program (or droplet); the Template HTML document; and the Zoomify Viewer file. Each of these will be described as the process unfolds below.

Three simple steps

Zoomifyer EZ works best with large uncompressed digital images, such as BMP and TIF, but also supports JPG and GIF formats. The first step is to drag and drop the image onto the Zoomify Converter

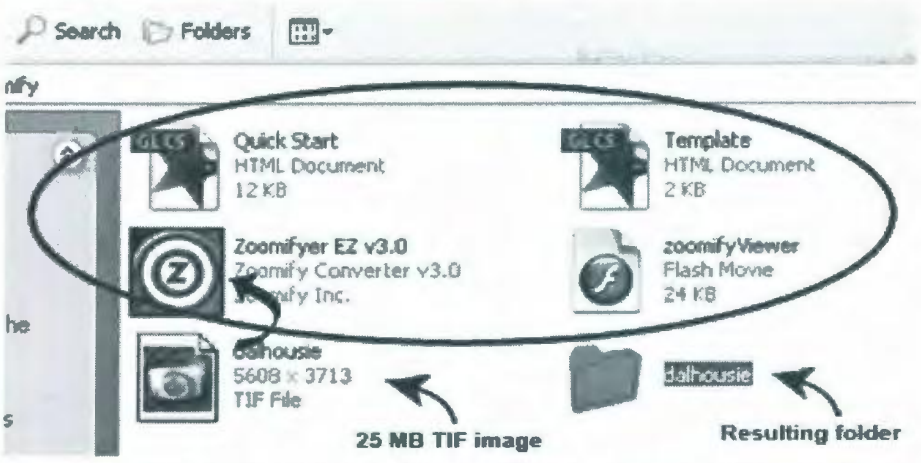

Figure 1. Zoomify files, with the TIF image and resulting JPG image.folder.

The third step involves using FTP to upload the three files to the web server: the 'dalhousie' JPG folder, the html template document, and the zoomifyViewer.swf—a tiny Flash movie that permits the zoom, pan and display functions. Once completed, the URL that points to the template.htm file (in this case: www.brocku.ca/maplibrary/dalhousie/template.htm) is entered in a web browser, such as *Internet Explorer*, to view the results, shown in Figure 2.

icon. The program instantly divides the image into smaller tiled and tiered JPG images, referred to as 'pyramidal tiling'—a technology that is not unique to Zoomify. During this process, each tile is repeatedly tiled using several different levels of resolution, thus the tiered result. The resulting folder (Figure 1) takes the name of the original image (in this case, 'dalhousie') and holds these tiny JPG files. The converted image is also reduced in file size from 25 MB to 5 MB, as is any JPG compression.

The template.html document provides the necessary html coding to set the web path of the image folder. The second step involves adjusting this file. Using *Dreamweaver* (any webpage editor will do), the "zoomifyImagePath" coding is set to point to the 'dalhousie' JPG image folder on the local server. This line of code resembles the following: where "*zoomifyImagePath=http://www.zoomify.com/content/test/*" is replaced with the path to the local server: "*zoomifyImagePath=http://www.brocku.ca/maplibrary/dalhousie/dalhousie/*". The location of where these coding adjustments is made within the template is outlined in the accompanying Quick Start documentation provided with the *Zoomifyer EZ* software.

The entire process takes as much time as it does to read through the instructions. It is THAT simple!

Zoomify Display Features

The Zoomify display shown in Figure 2 allows for viewing at different zoom levels using a sliding triangle tool, or the + - symbols. Panning can be

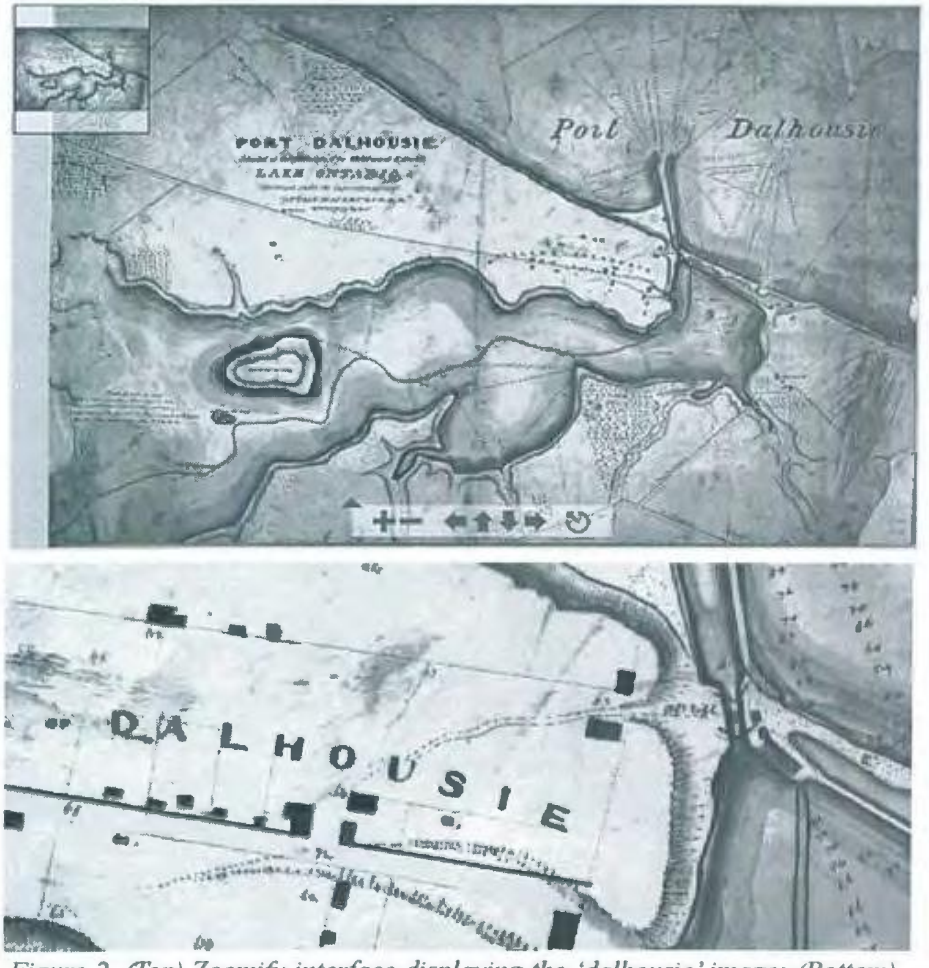

Figure 2. (Top) Zoomify interface displaying the 'dalhousie' image; (Bottom) zoomed-in section.

done directly from the image or by using the directional arrows. A small navigation window is also provided. By comparison, Zoomify does not offer the zoom resolution of the MrSid technology. However, the image quality is similar when compared at the same zoom level.

The advantage of Zoomify over other technologies is that it does not require downloads or plug-ins. Visitors to the site use a Flash movie, the zoomifyViewer.swf (accessed from the owner's local server), to view the images. The only software that is required by a visitor is *Flash Player v6* or higher, however most internet users have this since it is a 'loaded module' software imbedded in most web browsers, such as *Internet Explorer*.

The process just described shows how a single zoomified image is displayed using an individual html page. However, zoomifying just one image is like trying to eat just one potato chip! You will want to create many images using this technology once you "get the hang of it". Instead of creating a separate html page for each image and uploading them one at a time, multiple images can be viewed using a single template.html document. This is called URL-driven Zoomify, and is used to display the 1921 air photos of Niagara on the Brock Map Library website. Full documentation for creating an URL-driven webpage is also available on the Brock Map Library website at www.brocku.ca/maplibrary/digital/zoomify/zoomify_URL.html.

The Map Library has created two projects that use the Zoomify technology.

1921 Niagara air photo collection

http://www.brocku.ca/maplibrary/airphoto/1921/1921_index.htm

Air photos are the ideal collection to pilot any digitization project, since the scanning process can be done in one swipe with a large format scanner. The 1921 air photo digitization project imitates the in-house paper index using a scanned image of the 1920 federal 1:63,360 topographic map of Niagara (Figure 3)—a gem in itself! *Adobe Illustrator* software was used to superimpose the flight lines and photo locations represented by "clickable" dots. Using *Dreamweaver*, each dot is hot-linked with an URL that includes embedded zoomify parameters. The URL-driven technique ensures all the images display in a single web page with a customized header, footer and background colour—have a look! Most impressive is the detail that can now be seen from a zoomified image which is not visible on the original contact photo. This is not unique to Zoomify, but a general comment about digitization projects overall... the enhancements are quite exciting!

Further details with examples can be downloaded from http://www.brocku.ca/maplibrary/digital/ZoomifyExample.zip.

The scanning standards used for the air photos include: use of a 12 x 17 colour Microtek Scanmaker 9800; scanning resolution of 600 dpi; reduced to 50% grayscale; saved as TIF (no compression). This results in a file size of about 6 MB per photo.

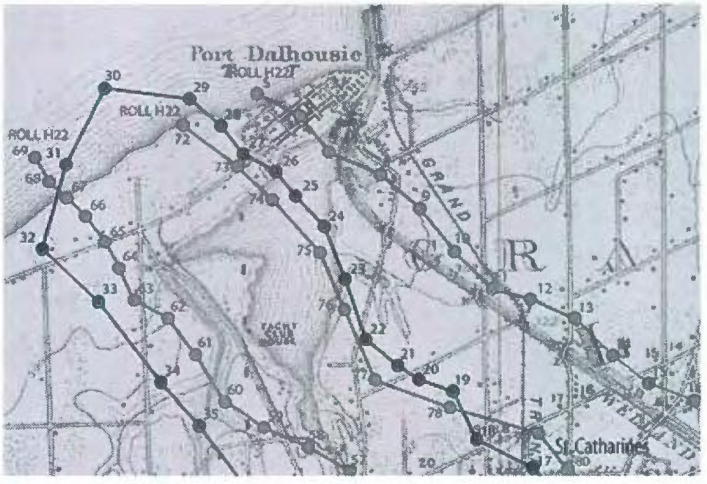

Figure 3. 1921 air photo index.

Historical maps of Niagara

http://www.brocku.ca/maplibrary/digital/MAPzoom/MAPhome.html

This is a "must see" display! The *Zoomifyer for Flash* was put to the test—or rather staff were put to the test—to create a more intuitive display of the images. Although the task was challenging, the results are impressive (Figure 4).

In an effort to increase the content of our Niagara historical maps collection, high-resolution TIF images of historical maps were purchased from Library and Archives Canada. The fifty images were then converted to a zoomified image using *ZoomifyerEZ*. The *Zoomifyer for Flash* product provides the Zoomify components (scripting and

Figure 4. Zoomify images shown in the Flash environment window.

tools) for the Flash authoring environment to produce customized zoom-and-pan applications. It requires the program *Flash MX* or higher, such as *Macromedia Flash Professional*. The difference between this method and the URL-driven interface is that there is an entire "stage" available to utilize customized buttons, hotlinks, animation, etc. Discussion of the technical details is beyond the scope of this paper, but the display can be described.

The Niagara project includes a list of maps that can be sorted by geographic location and year. Each map has descriptive detail displayed below the listing. The *Zoom* button opens a larger window for viewing the images. The *Details* button links to the MARC catalogue record in the Brock Library catalogue. The *Download Map* button links to a JPG image for printing.

Although the result of this project was a success, it all comes with a price! The learning curve associated with the Flash authoring environment requires considerable staff time since it is highly technical. But once a result is achieved, additional images can be added very easily. In the end, it is all worth it!

Summary

Digitizing our fragile collections for the sake of preserving them seems like the way to go. It is important to note that a digitization project only begins at the digitizing stage, and it should also include zoom-and-pan functionality to enhance detail, and web viewing for ultimate access. To embark on a digitization project for the first time may seem overwhelming. However, it has been demonstrated here that applying the *Zoomifyer EZ* technology to air photo collections is a good starting point. Imagine if all of us created web access to our historical air photo collections!

Zoomify is easy for both the creator and the end-user, and provides quick and interactive access to web images while preserving the quality of the image. And the results are pleasing. The biggest benefit of all: it's free!

The Brock Map Library has adopted the Zoomify technology, not only to enhance collections but also to create learning tools. Currently, Zoomify is being used to enhance the viewing of the CanMatrix raster

images (which are available from GeoGratis) for a first-year Geography project. An Environmental course is using Zoomify to view an image of side-by-side air photos representing different time periods to analyse land use change. The possibilities are endless!

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Zoomify Homepage. September 28, 2007. <http://www.zoomify.com>.

Notes

For further details regarding the URL-driven technique of Zoomify, see the technical procedure provided on the Brock University Map Library procedures page at http://www.brocku.ca/maplibrary/procedures/procedures.htm.

The *Zoomifyer EZ* viewer and examples (including URL-drive Zoomify) can be downloaded from the Brock University Map Library's website at http://www.brocku.ca/maplibrary/digital/ZoomifyExample.zip.

Additional Sites Using Zoomify

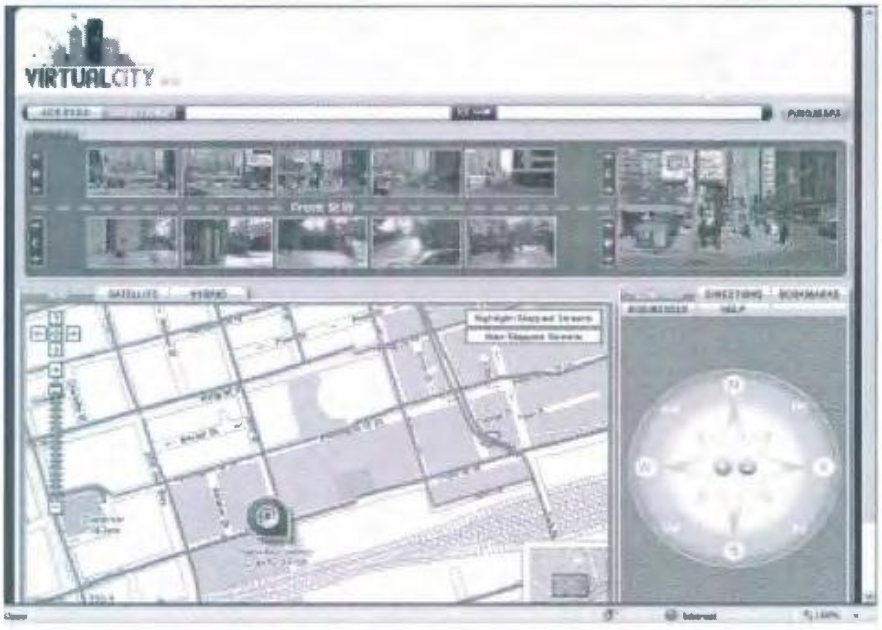
Satellite imagery displays by GeoEye Corporation (http://www.geoeye.com)

Lewis & Clark on-line exhibition hosted by the Missouri Historical Society (http://www.lewisandclarkexhibit.org/)

The Metropolitan Museum of Art (http://www.metmuseum.org/Works_of_Art/index.asp)

Big Brother is Watching... http://toronto.virtualcity.ca/

Something interesting (and controversial?) on the web is the VirtualCity Beta website, which uses a Google Map base to link to thousands of photographs at the city street level for Toronto and Montreal. VirtualCity offers all the standard Google Map search, zoom and pan features, including the ability to search for a specific address. The website is apparently aimed at those who need to see a building in order to prepare their heads for arrival. The photography is pretty amateur—mostly those kinds of poor snapshots which one takes while driving past a tourist site at full speed, capturing wires and parts of vehicles and passersby at random. Have a look—perhaps you'll see yourself! I notice that the most recent release is dated October 2006, so perhaps questions arose about privacy aspects. CM



<URL first posted to CARTA-L by Marcel Fortin>

WHERE IS GEOMATICS IN LIBRARIES? AND DO I HAVE A MAP TO GET THERE?

CANADIAN LIBRARY GEOMATICS SERVICES SURVEY, 2006

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Résumé

Ce document interpr te les résultats d'un sondage détaillé effectué en 2006 aupr s des départements de géomatique des biblioth ques d'établissements d'enseignement supérieur du Canada. Ce sondage poursuivait deux objectifs : obtenir des preuves documentaires sur les départements de géomatique des biblioth ques canadiennes et aider les professionnels des biblioth ques planifier les politiques de leur département de géomatique.

Les sondages effectués selon la méthode d'établissement des faits reposent sur des preuves plutôt que sur des présomptions. Les faits dont nous avions besoin étaient : qui sont les utilisateurs des départements de géomatique, dans quels environnements et de quelles façons ces départements fournissent-ils leurs services, quelles personnes fournissent ces services, comment proc dent-elles et quels niveaux, quelles formations sont données, de quelle façon les collections sont-elles conçues et finalement, les services offerts font-ils l'objet du marketing?

Les résultats du sondage ont été compilés et sont disponibles sur un serveur web de données.

Abstract

This paper examines the results of comprehensive 2006 survey sent to Canadian academic libraries on their geomatics services. The survey had two purposes: to obtain documentary evidence on Canadian library geomatics services, and to assist library professionals in planning their geomatics service policies.

Fact-finding through surveys supports the discussion based on evidence, as opposed to assumptions. Facts we needed were: who are the users, what is environment, how are geomatics services provided, by whom and how much, at what levels, what teaching activities, how are collections developed, and finally, are the services marketed?

The survey results have been tabulated and made available on a Web data server.

Background

The impetus for this survey was originally to help ourselves in planning a workshop. As members of the local organizing committee for the 2006 Association of Canadian Map Libraries and Archives (ACMLA) conference in Ottawa, we had volunteered to organize a GIS[1] Library workshop. Given that this was to be a full-day workshop, we were concerned about what to present. Although we knew our own libraries, we wondered, would our perspective be relevant and interesting to everyone else?

One of the strengths in working together was our different backgrounds. Our Geomatics

backgrounds are very different—Heather has a long experience of providing Geomatics services at Carleton University Library, while Susan has a data background at the University of Ottawa Library.

So there we were, but where, we wondered, was "everybody" else? Was everyone at the same place as we were? And in that case, what to present? What Topics? What User Services? What Tools and Programs would make the day interesting and relevant for everyone?

How could we find this out? Another survey! But what we wanted were lots of information and details. We wanted answers to all the standard library questions about users and resources, and we also wanted answers to the issues relating to specialized Geomatics Library Services.

What is Special about Geomatics Services in Libraries?

Geomatics is "one of the fastest growing technology sectors over the last decade"[2] worldwide. This is reflected in the growth of University Geomatics courses, Geomatics research, and of course, in library reference statistics for geomatics (spatial data) questions.

1. Spatial data is not like the traditional databases[3] that librarians are familiar with, such as the Web of Science. Text-based databases can be read directly, but data requires software programs as well as metadata to use and read.

2. Understanding and analysing numeric or spatial data is very different from using text information. Spatial data and geomatics software use require a range of specialized knowledge.

3. Geomatics users need specialists in order that the data meets their needs in terms of accuracy, relevance, skill level and technical requirements. Geomatics users have varying abilities, as do traditional library users. Likewise geomatics library specialists need to understand what their users' capabilities and needs are.

4. Geomatics has a very steep learning curve and a librarian without proper training or experience with spatial data will simply not provide an effective geomatics service. Geomatics theory and skills need to be learned and continuously updated.

Theoretical Background to the Survey

Libraries choose their levels of service, whether by policy or by practice. Because spatial data sources and the software are now well-established and available, there's an assumption that geomatics library services are very similar from one university to another.

But are they? Fact-finding through surveys supports interesting discussion as it is based on evidence. We needed to know: what are the libraries' environments and users, how are geomatics services provided, by whom and how much, at what levels, what are teaching activities, how are collections developed and how are the services marketed? Geomatics data services are complex and are influenced by many factors, which our survey needed to reflect.

The Survey

Six weeks before the workshop, we sent out the survey, in English and French, to our academic library colleagues across Canada. The survey was emailed to ACMLA members in a "form" format which could be completed with simple mouse clicks. Many of the recipients were already registered in our workshop, and the survey indicated that the results would be discussed in the workshop.

The survey was organized into categories to make it quicker to complete:
1. University environment/Library context (9 questions)
2. Who are your data users (disciplines using geomatics) (22 questions)
3. Specialists providing geomatics services (Library Personnel) (20 questions)
4. Data/Spatial Literacy Instruction (9 questions)
5. Geospatial Data Collection (12 questions)
6. Geospatial Data Services (32 questions)
7. Marketing (5 questions)
8. GIS Day (10 questions)
9. Software (office/public) (25 questions)
... Total: 144 questions

Survey Analysis: Finding Meaning in Data

Out of 51 surveys sent, we were very pleased to receive back 31 completed surveys in a short period of time. Although the surveys were sent to ACMLA

members, we asked each institution to return only one survey.

When the results were returned, an initial look made our choices of what to present at the ACMLA workshop obvious, which covered:

- The Survey (results and discussion)
- Geomatics reference services (using a game to make it fun and interesting and to ensure discussion)
- Tools (a hands-on exercise for MrSid format images and the software GeoExpressView) and
- Marketing (GIS Day marketing, using a custom ArcGIS project developed in-house)

We thought we knew what we would see as survey results. We thought other libraries were providing services in similar ways and were basically at the same place. The detailed picture and variation of daily services was surprising and interesting. When was the last time you went to a conference and discussed not only how big your computers were but how many and what software should you install? Not only the kind of service you have, but how many people are in the service and who you are reaching?

What Influences Geomatics Services?

When analyzing the survey data, there were initially no patterns. The results that particularly puzzled us were the range of answers for the question: *When Libraries started offering geomatics services.* This question was the key to understanding the data and the rationale behind it which is so obvious in hindsight, but not initially when the data show no clear relationships. With this question in mind, we stepped back and asked ourselves questions about the libraries themselves and their service mandates. We considered various library groupings, including Maclean's groupings and geographic groupings. Finally we applied a grouping by membership and non-membership in the Canadian Association of Research Libraries (CARL)[4]. With the CARL/non-CARL grouping, there were patterns everywhere in the data, including the question: *When Libraries started offering geomatics services.*

The reason for the importance of the CARL/non-CARL grouping is historical. The Canadian component of the Association of Research Libraries GIS Literacy Project was launched in the Spring of 1995, with the participation of 28 libraries, including Carleton University and the University of Ottawa. This did launch many CARL libraries into geomatics services and give them a head start.

About the Libraries Themselves...

The tables below break down library responses by (1) "When the service was started", (2) Type of library, and (3) When the service was started for Type of library.

Table 1

When Library started offering Geomatics service	1970-1980	1981-1990	1991-1995	1996-2000	2001-2005
	3.2%	3.2%	19.4%	38.7%	32.3%

Table 2

Type of Library (total and percentage)	CARL Members	Non-CARL
	21	10
	67.7%	32.3%

And in the same survey responses as Table 1, but now grouped by type of library, patterns become apparent.

Table 3

When Library started offering Geomatics service	1970-1980	1981-1990	1991-1995	1996-2000	2001-2005	Total
Non-CARL	0.0%	0.0%	11.1%	33.3%	55.6%	100.0
CARL	4.8%	4.8%	23.8%	42.9%	23.8%	100.0

All the survey results which follow are grouped by type of library.

Service Requirements

Geomatics Services are a product of many factors including maturity, and current needs and resources. It would be interesting to know how service factors, including user demand and resources, change in the future. Table 4 shows "level of user demand (number of questions)" and Table 5 shows the presence of a key library resource, a geomatics specialist.

Table 4

Number of Monthly Reference Questions	1-10	11-30	31-50	51-70	71-90	91 and above	Total
Non-CARL	30.0%	40.0%	10.0%	10.0%	10.0%	0.0	100.0%
CARL	10.5%	31.6%	10.5%	10.5%	10.5%	26.3 %	100.0%

Table 5

Library has a Geomatics Specialist	Yes	No	Total
Non-CARL	40%	60%	100.0%
CARL	71.4%	28.6%	100.0%

Levels of Geomatics Services

According to sources[5], there are distinct levels of service[6] for data services. The levels of service we identified from the data are basic (passive), intermediate (active), and advanced (proactive).

The majority of non-CARL and CARL libraries provide active data services at the intermediate, or level 2. Committing to a level 2 service is to "serve as the Campus Centre for numeric and geospatial information"[7], and to provide services based on the needs of the individual users themselves.

Level 2: Intermediate (Active) Geomatics Service

Based on survey responses, it appears that the following are requirements for a level 2 geomatics service:

- Library management support of the Geomatics service
- Library management support for geomatics related software and hardware support
- Library management support for IT service support, including server hardware
- Library management support for a highly educated and experienced specialist, with library, data, cartography and software expertise
- Library management support for ongoing specialized training
- Library Geomatics specialists to support user needs

Virtually all libraries, CARL and non-CARL, provide user consultations and at least half of all libraries support different data options depending on user needs. We note that all library Geomatics services support more than their Geography departments and more than specialized geomatics users.

The results in Tables 6 and 7 are indicators of a level 2 service.

Table 6

Give data in Standard file formats	Yes	No	Total
Non-CARL	60%	40%	100.0%
CARL	85.7%	14.3%	100.0%

Table 7

Give clipped spatial data	Yes	No	Total
Non-CARL	50%	50%	100.0%
CARL	76.2%	23.8%	100.0%

Service Level 3: Advanced Geomatics Service

Over the years, there has been a move towards increasing levels of service in geospatial libraries. The following factors are providing the momentum to increase the level of service:

- More users
- Better-educated users
- Recognition of the role of GIS/Geomatics and spatial analysis in research across the campus
- Recognition of the Library as the depository of data in the university and of the specialist's role
- Introduction of GIS/Geomatics into the high school curriculum (e.g., Ontario)

• More specialized training opportunities for library specialists
• GIS/Geomatic Librarian-Specialist positions are becoming an accepted specialty in academic libraries
• The success and sometimes high profile of geomatics library services increases demand for new and better services with Library Management
• GIS Day as a library marketing venue on campuses
• The popularity of MapQuest, Google Earth, and other Web-based initiatives, is increasing the demand for map data
• Improved access of Canadian spatial data at all levels of government

As the geomatics library service more actively serves the needs of its users, the service will respond to the overall needs of its users with more data and tools. We suggest the factors in Tables 8 and 9 as indicators of the presence of more developed level 3 geomatics services.

Service Level 3 and Beyond... Building and Growth

Alliances and team-building, both internally and externally, as well as marketing, will position geomatics library services as vital growth services in their libraries. Professional development of geomatics specialists is crucial to excellent geomatics library services. The support and collaboration of an organization of your peers as exampled by the Association of Canadian Map Libraries and Archives (ACMLA) should not be under-valued.

Alliance-building and marketing are indicators of a level 3 advanced geomatics service (Tables 10 and 11).

Table 8

Give Access to Spatial Metadata Information	Yes	No	Total
Non-CARL	10%	90%	100.0%
CARL	38.1%	61.9%	100.0%

Table 9

Give Access to / Have Collection funds for - Data	Yes	No	Total
Non-CARL	40%	60%	100.0%
CARL	76.2%	23.8%	100.0%

Linking GIS and Data: Making the Survey Accessible[8]

The complete survey and metadata, including the questionnaires, have been published for the Web on a Library Nesstar data server. The responses from the survey were input with labels into SPSS and then loaded into Nesstar. In Nesstar, additional metadata was added and the survey indicators were finely broken down into categories for online browsing[9]. Basic survey responses, or frequencies, are available online. Cross-tabulations are not possible online. CARL / non-CARL tabulations for each question are available in a separate document on the Nesstar data server.

Summary and Recommendations

We recommend a similar, continuing survey be conducted on a five year basis. The results and resulting trends would be a valuable planning

Table 10

Promotes geomatics on Campus in General	Yes	No	Total
Non-CARL	50%	50%	100.0%
CARL	66.7%	33.3%	100.0%

Table 11

You have GIS Day on your Campus	Yes	No	Total
Non-CARL	0%	100%	100.0%
CARL	52.4%	47.6%	100.0%

tool for policy-making for geomatics services by geomatics specialists and library management. For the data specialist, a similar survey focused on Numeric Data Services in Canada is also recommended as a useful complement, given the close ties between the two services.

Readers may view the complete, aggregated survey responses which have been archived at Carleton University, Ottawa, on their Library Nesstar Data Server.

Notes

1. In Canada, GIS is called ***Geomatics***. In the UK and Europe, GIS is called *Geographical Information Systems.* In the United States, GIS is called *Geographic Information Systems.* In this article, we will refer to ***Geomatics***.

2. "Geomatics." Ottawa: Natural Resources Canada (Remote sensing technology series), June 2007. (http://ess.nrcan.gc.ca/intl/intl_activities/brochure/pdf/30093_remote_english.pdf)

3. Spatial data is organized by data structure:
   a. Vector – ESRI shapefiles, etc.
   b. Raster – MrSID, GeoTiff, etc.
   c. Numeric – GPS, Census data, etc.

Spatial data is made up of two components: Location (or spatial or geospatial) and Attribute linked to map coordinates. Geomatics software links the location data and the attribute data.

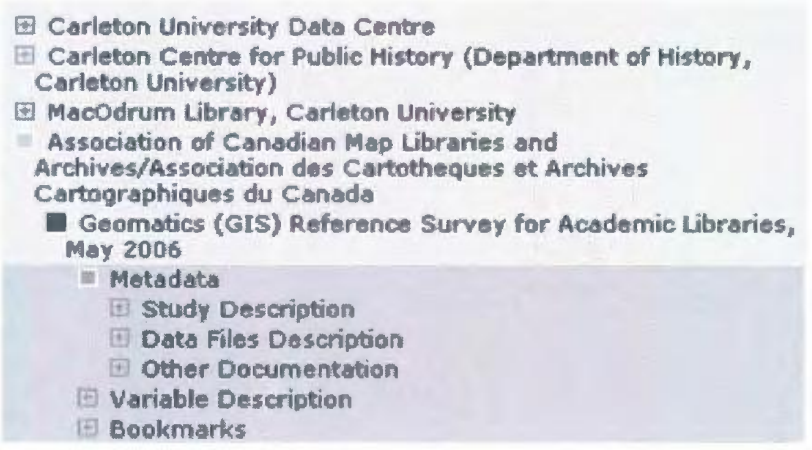
4. For information and a membership list, see the Canadian Association of Research Libraries Web site, http://www.carl-abrc.ca.

5. Colleen Beard, "Reference Service Levels for Spatial Data Delivery and GIS Activity in Libraries: A Local Assessment." *ACMLA Bulletin* no. 118 (Fall 2003), pp.4-8.

6. Active data services are considered a level 2 service (and not simply a pass-through level 1 service, or sometimes called passive data services). See Jacobs, Jim. "Providing Data Services for Machine-Readable Information in an Academic Library: Some Levels of Service." *The Public-Access Computer Systems Review* 2, no. 1 (1991): 144-160. (http://epress.lib.uh.edu/pr/v2/n1/jacobs.2n1)

7. Barbara Znamirowski, "Reference Service Levels for Spatial Data Delivery and GIS Activity in Libraries: Trent University, a case study of a small academic library." *ACMLA Bulletin* no. 118 (Fall 2003), p.10.

8. http://nesstar.library.carleton.ca:8080/webview/ Select the folder: "Association of Canadian Libraries and Archives / Association des cartothèques et des archives cartographiques du Canada", and select the options as displayed, (click on the icons to the left of the text, (particularly the "+" and table icons) to view the survey (variables) and metadata (including questionnaire).



9. We gratefully acknowledge the co-ordination and expertise of Jane Fry, Data Specialist, Library Data Centre, Carleton University.

COMMUNITY OUTREACH: SHARING THE PASSION AND THE EXPERTISE

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Revised version of a paper presented at the "Community Relationships" session, ACMLA Annual Conference, CARTO 2007, Montreal, May 10, 2007.

During the past decade, we have seen a burgeoning of National Geography Awareness Week activities in ACMLA libraries, from modest posters announcing the event to packed venues with activities, presentations and week-long celebrations. The argument of this paper is that ACMLA libraries can connect with their local communities during National Geography Awareness Week in a way that provides user-centred learning using the particular strengths of the Map Libraries: our collections, our skills and our expertise. This paper outlines an approach that brought together a wide variety of talent from various geographical and geomatics pursuits and which revealed much about relationships with our community.

Introduction

One of the objectives of the ACMLA is the encouragement and support of activities which further the awareness, use and understanding of geographic information. It was a natural fit for ACMLA to support the National Geography Awareness Week, which originated in the United States in 1987, and GIS Day, which has become a theme day within that week. Many of the activities associated with GIS Day, or National Geography Awareness Week, have been featured at ACMLA conferences or highlighted in the ACMLA *Bulletin*.

In Canada, the University of New Brunswick Libraries have been relatively slow off the mark in getting activities surrounding GIS day activities rolling. Our experience began in 1998 with a small, but enthusiastic, group of four individuals who had been involved in negotiating an academic license agreement with Service New Brunswick: Ron Bagnell, David Fraser, Siobhan Hanratty and Elizabeth Hamilton. The successful negotiations were an achievement to be celebrated, and the week in November surrounding GIS day was far enough in the future to use as a target date for the celebration.

We did plan and execute a formal forum for GIS, complete with mailing lists, invitations, dignitaries, displays and poster sessions. There was also a public presentation in the evening, open houses in participating agencies and departments, news releases on the event, and cake. The amount of activity, planned and executed in a very short time by a very few number of people, was exhausting and team members promised each other that (a) we would only do a major event every two years, and (b) we would not plan anything quite as ambitious in subsequent years.

Of the events offered, the most enduring and successful in terms of community relationships has been our work with schools. This article presents the approach to geomatics used in the classroom and the unexpected benefits from this initiative.

Background

A particular strength of ACMLA members is the collections to which we have access. Though many geography and geomatics professionals can teach the elements of mapping and GIS, the richness in our collections is generally uncelebrated. Our approach with the classes began on a small basis, with an approach to a few teachers who were willing to include the sessions into a busy November class curriculum. One hesitation on their part was the concern that we should not promote any particular GIS vendor or software, and that the sessions should be technical—but not too technical.

Our first task, then, was to build trust within the local education system that we had the students'

education at the core of the session design, first and foremost, not our own interests. For our part, that did require a bit of negotiation among the group and we were firm that all volunteers in the endeavour must check their products, loyalties, recruiting goals, and hopes of commissions or sales at the classroom door. Several exercises were planned, from simple neighbourhood awareness with crayons and paper, to geocaching exercises.

Much to our amazement, the teachers let us select the activity we felt would be appropriate for each class. To our further amazement, the Superintendent of District 18 called to find out why not all schools in District 18 were offered the opportunity for a session. After the first foray into the classroom, we had proven ourselves and word had gotten out. We were judged an asset to the learning experiences of the students and it was the curriculum coordinators in the District 18 head office who promoted the event to their teachers.

When we contacted School District 18 this past year to offer a variety of field trips or in-class sessions relating to maps and/or GIS and/or anything geo-related, the response was outstanding. By the end of two weeks, we had gone into 30 classes in eleven schools offering sessions in English or French, with students from grades 3 to grade 11. We had more demand that we could accommodate and had to start a priority list of teachers for 2008.

Our teaching cadre has grown in the intervening years as well. From our initial core team of three people, we now include colleagues in the library, across the campus, professionals from the New Brunswick Dept. of the Environment, Natural Resources, Service New Brunswick, the Association of Land Surveyors of New Brunswick, as well as CARIS, a GIS software firm. We have tremendous cooperation from the industry; the City of Fredericton and DMTI Spatial have been strong supporters of the initiative from the beginning, as has ESRI and CARIS. Natural Resources Canada and Statistics Canada have also offered the use of their products from the beginning of the project.

Methodology

The exercise that proved most popular with the teachers and with the classes involves the development of critical thinking. It is not a unique approach but, as the ACMLA *Bulletin* has just begun to highlight GIS Day activities, it may serve useful for those who have not tried a classroom exercise in the public school system. In this exercise, each class is given the task of designing their own map. The facilitators are introduced as the technical team, with the class in charge of the key decisions relating to audience map theme. The principal message we deliver is that it is the thinking process that is the most valuable contribution they can make to map design and map use. The technology never fails to excite students, but without the critical thinking that goes into planning, the product will rarely be as good as it could be.

How do we emphasize that learning objective?—with an incredible amount of Mylar and some of the very best and very worst examples of effective maps in our collection. When we go into the class, we arrive with enthusiasm, flipcharts and markers, computers and projectors and, depending on the class size, over 100 maps of all varieties and flavours. We begin by breaking the class into small groups, throwing maps at random onto desks assembled for the purpose—or on the floor, if there is insufficient desk surface area. The students are directed to examine the maps in front of them and come to an agreement, as a group, on the following:

- Which map do you, as a group, like the best?
- Which map do you, as a group, really not like?
- Can you see your school or house on any of the maps?

It is a noisy exercise, and not for the timid. The facilitators for the session walk around and encourage the discovery process; they may ask the occasional question of students to highlight particular features of an odd map, or provoke exchanges about who the item is really intended to serve. Students argue amongst themselves about what makes a map work and what attracts their attention both positively and negatively.

Each group summarizes their decisions for the rest of the class and the facilitators have a chance to point out special features of the map that may have been overlooked or may warrant emphasis. With the gravity maps, for example, we will often do a demonstration of gravity by jumping up and down and explaining the importance of gravity in discovering differences in the makeup of the earth.

In the exercise with the ACMLA conference participants, the maps that were given a "thumbs-up" rating were described with evocative descriptors:
"clear"
"lots of information"
"colourful"
"good historical information"
"visually interesting"
"novel!"
"rarely seen information"

The list of adjectives for the maps that delegates did not like:
"boring"
"purpose fuzzy"
"homely colours"
"not enough information"
"painful to look at"

Figure 1. Group comments for best/worst maps.

The participants in this exercise learn what decisions need to be made in the design of maps, the importance of determining the purpose of the map and its intended audience, and some of the observations on maps viewed were particularly insightful. A junk yard map of New Brunswick was seen as ugly by many, but one group noted how useful it would be to people in search of auto parts or those making decisions on building a home. A Landsat image of New Brunswick which was initially visually pleasing was rejected because there was no interpretation of the image colours, no reference points, and no indication of the purpose of the map.

Because District 18 extends into the rural area surrounding Fredericton, the maps with natural habitat for fishing and hunting came under particular scrutiny. It was noted that many of the forest roads on property owned by the Irving Group were omitted because of liability issues; the students scoffed, and said that they knew where the private forest roads were: they use them for ATV or snowmobile travel throughout the year and they could draw them on a map themselves. More than one class rejected historical maps with cartouche insets because they featured statuary or figures not fully clothed. "Inappropriate for our age group!" seemed to be the rallying cry for the rejection of artistic representations of the human body—although, in discussing the reasons why a cartographer might add cartouches, one student noted that, if the intended audience was a king, naked women might be a good selling point and get the cartographer more money.

The exploration and discovery process invariably generates debate and the temptation is to let it serve as the lesson. But it is now time to turn those observational talents into a creative mode. The facilitators act as a design team and ask the class to decide on a theme for a map and an audience for the map. The audience is often other students, but we have had unusual audiences specified: twice, we have been asked for a map for extra-terrestrials to use. Themes vary as well, from maps that show students (males only though) at one school how to get to a dance at the school doing the mapping exercise, maps showing neighbourhood change over time, and maps to help an impoverished high school student hitch-hike to Halifax for a rock concert.

We work with the flipcharts to decide on the scale (what needs to be seen), what topographic detail should be included (roads? contours?), what cultural information should be on the map (beer stores? jails?) and what cartographic symbols or tools would help the audience use the map for the intended purpose (legend, colour, scale bar).

If the classroom is set up for it, one of the facilitators will launch a GIS package and use spatial data to demonstrate how, once the choices are made, they can be added, deleted or changed using mapping software. Orthophotographs are sometimes added, or special purpose data, such as population density from Statistics Canada. The degree of involvement with a GIS package depends on the class, the learning setup (laptop classes are fabulous for this) and the teacher's preferences.

At the end of the session, we gather up the flipcharts with the design specifications and create a version of the map for the teacher to review with the students. The map usually has a few deliberate flaws and students are asked what they would do differently if they had the chance to do the map themselves, or work with professionals in refining the map. It provides the teacher with a good focus for teaching points that she wants included in this exercise.

Discussion

It would be fair to say that, even in our most timid classes, the participation level is extremely high. With the questions asked and comments made in the display of favourite and least favourite map, we inevitably talk about the source data (showing the underlying attribute tables for spatial files) and the importance of the collection and documentation of accurate and detailed geographic attributes. There is a growing appreciation of the importance of the data underlying the map—and an appreciation for historical mapping when compared with modern maps.

Because we bring a wide sample of geographic representation into the class in the form of Landsat images, oblique aerial photographs and stellar mapping, we do have the opportunity to discuss questions such as the role of Google Earth in the perception of the world around us. It is clear that Google Earth has raised expectations of the geographic information available to the public and of the tools these student expect will be available to them to manipulate geographic data.

Our experience has ranged from a grade 2 class to grade 12 and, more recently, a group of more experienced map and GIS professions (CARTA conference 2007). Critical skills are definitely variable across the classes and age groups, but all were ready and keen to get their hands on the physical object. The students sat on the maps, pointed and traced routes, and flung maps into discard/accept piles with abandon. Most of them had not seen this many maps before, nor the variety that we were able to bring from our working map collection. We anticipate more hands-on sessions as laptops in the schools increase and we have tailored a GIS exercise that focuses more on the technical aspects of map creation for students to use on their own after we leave.

The question has been asked as to whether it would not be easier to have the students come to the library. In this instance, we do make a conscious effort to go to the students, rather than to have them bussed to the university library. By going into the classroom, we move into their geographic home base and are able to work with the classroom teacher and protocols (i.e. discipline).

Conclusion

Our next foray into classrooms is not planned until 2008. In the interim, we can anticipate advances in geomatics: more interactive internet mapping applications, new challenges in the schools and classrooms to "keep up" with technology, and students that are hungry for student-focussed learning. We do respond to requests for sessions on geo-caching, but that is coordinated through the Department of Geodesy and Geomatics Engineering as part of their school outreach and recruitment program.

The benefits within the community have been surprising. There is a major increase by students and teachers in the awareness of the richness in our map collection (and ours is a small one compared to the national standard). There is a greater awareness of the expertise available through library staff. Without a doubt, there is greater "non-partisan" cooperation between the agencies and departments that assist with this project. There are always requests for more sessions and from diverse groups that had heard of the school exercise, from the Fredericton Public Library summer program to the YMCA youth activities group. Student maps are posted in every school, some in the front lobbies. Because full credit is given for the software, the spatial data, the design team, and the participating teacher and class, parents stop and ask about the map; teachers ask for copies.

This exercise is not for everyone. It does require a bit of physical stamina in hoisting the maps around and there is some risk to the maps themselves. The audience does not consist of voters or policy makers; it is doubtful that the grade 3 students will now go out and lobby for updating of the topographic map series at the federal and provincial level. But they have all seen a topographic map of their community at the 1:50,000 and 1:10,000 scale. And many of the students can tell you if such a map would be useful to an alien, trying to decide where to land to fix their spacecraft!

What Makes a Good Teaching Map?

Bring along examples of the hard-working maps in your collection:

- Topographic maps
- Geological maps
- Hydrographic charts
- Add maps with a variety of projections and scales (we bring a very large Australian map), features, or cartographic symbology, such as aeromagnetic maps and gravity maps.
- Search for interesting thematic maps. We have an ozalid copy of a junk yard map, a ship-wreck map, a salmon license fishing map, and an MCE map of the training areas at nearby CFB Gagetown.
- Not-to-scale artistic maps can be found in various tourism shops, and the ACMLA facsimile series birds-eye maps have served as good examples of perspective.
- Because of our involvement in both French and English classes, we use many federal maps as well as foreign maps to provide language choice. Geographic and linguistic recognition definitely increases enthusiasm for the exercise.

Example of one of the maps created by students and the visiting GIS expert, in the New Brunswick classroom outreach initiative.

UNIVERSITY OF WATERLOO MAP LIBRARY OFFERS NEW GEOSPATIAL INFORMATION LITERACY PROGRAM

Eva Dodsworth
University Map Library
University of Waterloo

The University of Waterloo's Map Library satisfies well over 1,000 geospatial data requests every year. Approximately 25% of these requests are from students who know how to use geospatial data with a GIS software program. The rest of our users require GIS assistance, which can often range from creating a simple map – to calculating polygon areas – to editing Shapefiles. Over the years our clientele has increased and broadened: from geography students studying GIS, to students in over a dozen disciplines who have never come across geospatial concepts before. The library is evolving with the needs of these students and has developed a geospatial information literacy program to assist interested students with geospatial rudiments.

The Map Library describes their geospatial information literacy program as a collection of geographically and spatially-related resources that educate students, faculty and staff in accessing, evaluating, and using geospatial data and software. The program includes the following themes:

- Accessing geospatial data from the Map Library
- Accessing geospatial data from the internet
- Open source and free viewer software programs
- Introduction to ArcMap software program
- Evaluating geospatial data
- Geospatial citation guidelines

This program is made available through a variety of means: hands-on workshops, seminars, guides and brochures, webpages and events.

Workshops and Seminars

During September, the Map Library offered a series of free 1.5 hour hands-on workshops and seminars that were open to the entire campus. The themes of the workshops were chosen to specifically fill the knowledge gap that is being demonstrated to us by our users. These workshops and seminars consisted of:

1. A hands-on workshop entitled "**Introduction to ArcMap**". Content covered:
   a. A definition of GIS and GIS components
   b. A live GIS demonstration using Natural Resources Canada NTDB data downloaded live from the web
   c. Hands-on exercise that guided the participants in creating a simple map and viewing and manipulating data

- This workshop was offered twice in a GIS Lab that had ArcMap installed on the machines. The classroom limit was 15. The first session was full and the second had 7 participants.

2. A hands-on workshop entitled "**Introduction to GIS Open Source and Viewer Software**". Content covered:
   a. A definition of open source and viewer software
   b. A summary of recommended open source and viewer programs
   c. An introduction to TatukGIS Viewer–description, pros, cons
   d. A live demo of TatukGIS Viewer
   e. An introduction to ArcGIS Explorer–description, pros, cons
   f. A live demo of ArcGIS Explorer
   g. Hands-on exercise using TatukGIS Viewer that guided the participants in creating a simple map and viewing and manipulating data

- The workshop was offered once in the Map Library using laptops that had both products installed. Workshop limit was 12. 7 participated.

3. A seminar entitled "**Locating, Evaluating and Using Geospatial Data**". This was an informal gathering around a table. Content covered:
   a. Definition of GIS and geospatial data
   b. Locating geospatial data on the web–a demonstration of online mapping (creating a map on the internet) and online downloading of Shapefiles. Pros and Cons of online mapping were discussed.

c. Locating geospatial data in the Map Library– an overview of the map library's webpage and a summary of the datasets available to the campus and other geospatial resources available to them
d. A discussion and paper hand-out on evaluation elements of geospatial data - topics included scale and resolution, positional accuracy, attribute/ thematic accuracy and metadata
e. A discussion and paper hand-out on citation guidelines for digital and geospatial data

• The workshop was offered once in the Map Library. No workshop limit. 5 attended.

4. A hands-on workshop entitled **"Mapping your House and Neighbourhood"**. This informal workshop used a fun theme to introduce users to all of our resources – especially orthoimagery and parcel data. Content covered:

a. Online Mapping : a demonstration of several websites that use orthoimagery and vector data at a scale where homes and neighbourhoods can be seen
b. Library geospatial data: a summary of the library's orthoimagery resources
c. A live demo using ArcMap and the library's vector and raster data. This included a brief introduction to ArcMap and a discussion on information and patterns that can be seen using GIS.
d. Analysis of aerial photography over the years. Every participant had a package to analyse which consisted of aerial photographs of the local area from 1930s to 2006. The group looked for changes in neighbourhoods and individual homes.
e. Every participant was offered a customized print-out of an orthoimage of their home or neighbourhood

• This workshop was offered four times in a span of one week. Total participation for the week was 15.

These types of workshops will be offered again next fall with slight variation in themes. *Mapping your House and Neighbourhood* may become *Mapping your Vacation* for example, and the open source workshops will focus on a different product. We are considering offering the open source and ArcMap workshops in the winter term as well.

Guides and Brochures

The Map Library is continuously creating new guides and brochures on geospatial themes. Many are specific to a software program, such as instructional guides for ArcMap, TatukGIS, GeoExpress View. Others are informative brochures such as a recommended list of GIS software and pathfinders for specific datasets held by the Map Library.

Webpages

The Map Library has detailed webpages outlining every resource and features within each resource. The webpages have been recently revamped to provide GIS Services with its own category. Under one page, users have access to:

• The Map Library's 'catalogue' of their geospatial data collection
• Online Mapping Resources –a list of sites that offer interactive mapping
• Library Instruction and Information Literacy–a description of our program and a list of current workshops
• Instruction Guides and Geospatial Library Resources–a list of downloadable instruction guides and brochures that are geospatial in nature.
• Recommended GIS Software
• GIS in Environmental Studies –a link to the faculty that offers the Geomatica program
• GIS Online Resources–a long list of Canadian resources that offer free downloadable data

All of this information is available from our webpage: http://www.lib.uwaterloo.ca/locations/umd/digital/geospatial_serv.html

Events

Annually, the Map Library co-hosts GIS Day, with a focus of educating visitors in GIS and geospatial data. With back-to-back presentations, users have the opportunity to gain a great deal of in-depth knowledge of software programs, data and real-life GIS applications that students are either working on or have completed. The Map Library takes part in the presentation schedule as well and offers information about the library's resources through one-on-one talks, brochures and displays.

Something new this year was the Map Library's Collection Exhibit. Although focussing more on local historical paper maps, GIS was promoted

through orthoimagery displays, historical designation maps created using municipal data files, and posters from governmental organizations promoting their own GIS services. The exhibit ran during building hours for one week in September and had over 300 visitors. Several brochures were given out that described the library and its resources. Although it was not on a GIS theme per se, visitors left the library knowing GIS exists. On the last day of the event, we had a 'closing ceremony' with dozens of door prizes and an 'edible map' pictured below.

Many of the concepts taught during scheduled workshops, outlined in brochures, webpages and events are also emphasized during one-on-one consultations and discussions with our users during reference hours. Providing 35 hours weekly of reference services provides both staff and users with the best opportunity to promote, educate and utilize geospatial resources.

The Map Library's Geospatial Information Literacy program will continue to evolve and change with the needs of our clients. The most challenging part is knowing what they need before they do, and offering information that is refreshing and relevant to their studies. GIS is not just a field in geography– all disciplines and all individuals can and are using it in some way or another. The library's role is to demonstrate to campus researchers how GIS can be used in their studies – and then to support those needs and fine-tune their knowledge with an information literacy program.

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CALL FOR PAPERS COMING SOON!!

NET SIGHTINGS & WORLD WIDE WONDERS: MAP MASHUPS AND MAP TOOLS

Darlene Fichter
University of Saskatchewan

There are emerging technologies popping up online every day. This column will pull together some of the recent developments in web-based resources and services to help you keep abreast of the changes. In this first installment, get a bird's eye view of how some companies and libraries are developing and sharing map mashups and tools to enhance service delivery. Future columns will include wikis, blogs, simulations and all the latest "sightings" on the web!

Google Maps Launches Its Own Map-Making Tool for End Users

This spring, Google Maps launched their own map-making tool, My Maps (maps.google.com), with the blog post headline "so easy that a caveman could use it". Without a doubt, My Maps is easy to use. Anyone can create a map and add markers, lines and polygons as well as embed images and videos. One drawback of this service when it was first launched was that the maps you created could not be embedded on your web site or blog. As of August 21, 2007, Google added a simple way to copy the code and add it to your own web site.

Embedding a Google My Map in your web site or blog is quick and easy to do. Just follow these three steps:

1) Simply select a map or create a map with the map-making tools.
2) Click "Link to This Page" in the upper right hand corner of your map.
3) Cut and paste the HTML code into your web page or blog.

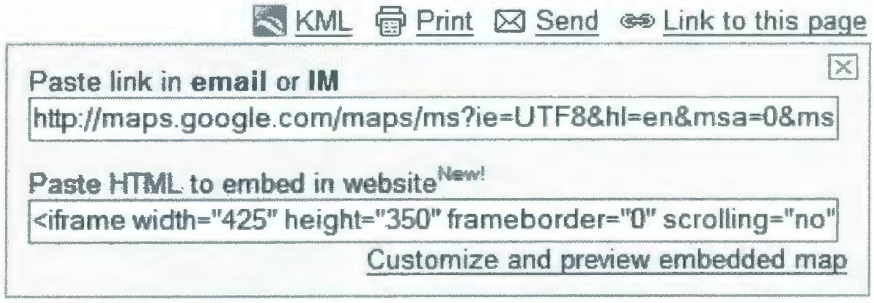

Figure 1: Code to embed a Google Map in your web site

Fascinated by the Night Sky

The night skies and twinkling skylines of city lights fascinate many people. In August, Google Earth added a new feature – sky maps (http://earth.google.com/sky/skyedu.html). To explore the night sky, click the "Sky Button" in Google Earth or go the View menu and choose "Switch to Sky". Rotate, pan and zoom to explore constellations, planets, and stars.

Figure 2. View of the planets moving in their orbits from Google Sky Maps.

Peter Pesti, a Computer Science PhD student at Georgia Institute of Technology, also found the night sky interesting and he combined images of the Earth at night with Google Maps to create Earth Nightime (http://www-static.cc.gatech.edu/~pesti/night/).

The images are from NASA's Visible Earth catalogue (http://visibleearth.nasa.gov/view_rec.php?id=1438) and have been used to study urbanization patterns.

Exploring Streets and Views

Stephen Chau, a Product Manager at Google Maps, announced the Street View project and sparked a torrent of discussion about privacy. Google worked with Immersive Media, a company that has designed an eleven lens camera that takes full, high-res video while driving along city streets. The good, the bad and the ugly get captured on film as the car zooms along city streets filming 360 degree images.

The 360° imagery of street view scenes has been praised as providing a rich level of detail for touring and business traveling, allowing you to immerse yourself in streets that you will be visiting to find restaurants, shops, museums, office buildings, or other points of interest.

Not everyone was happy about street views, however. Viewers started to post sightings that infringe on an individual's privacy, from a cat sunning itself inside a house, to individuals leaving strip clubs, even an apartment burglar caught in the act. New galleries of Street View images sprang up overnight called "Street View Sightings" showing funny streets, signs and events, filming bloopers, and examples of privacy invasion. Google responded to privacy complaints by allowing people to report inappropriate images. You can report a particular image by clicking on "Street View Help." Jennifer Stoddart, Canada's Privacy Commissioner, has commented that if Street Views were expanded to Canada without any changes it could violate privacy laws. (http://www.msnbc.msn.com/id/20743803/from/RS.1/)

Google has only loaded street view images for selected cities and so far none are outside of the USA. If street views are available for a particular city, a "Street View" button will appear on the upper right hand side of your map. (See Figure 2.) Zoom in on the map until the street details appear. Then, click "Street View" button. This will outline streets with a blue border if they have imagery available and place a human shaped maker on your map. Click the icon or on the street to the load the viewer.

Figure 3. Embarcadero street view in San Francisco, CA.

Originally, street views launched with 5 cities: San Francisco Bay Area, New York City, Las Vegas, Denver and Miami. Recently they expanded to include San Diego, Los Angeles, Houston and Orlando.

Microsoft® Live Search Maps offers 3D Views of Canadian, UK and US Cities

Microsoft Live Maps already offered 2D views of cities, aerial and bird's-eye, but Local Live added a 3D view this spring. Three dimension models are constructed by compiling images of cities and terrain for various cities. To switch to 3D mode, click 3D on the floating map control toolbar on the left (see Figure 4).

Figure 4. 3D Model of Parliament Buildings from Microsoft.

Especially For Bibliophiles and Map Lovers

Last spring Google started displaying places geocoded from literary works as part of the Google Book Search. For example, if you bring up the About page for the book *The Rough Guide to Toronto*, by Helen Lovekin and Phil Lee, one section of the page will display a map mashup with pushpins of places mentioned in the book.

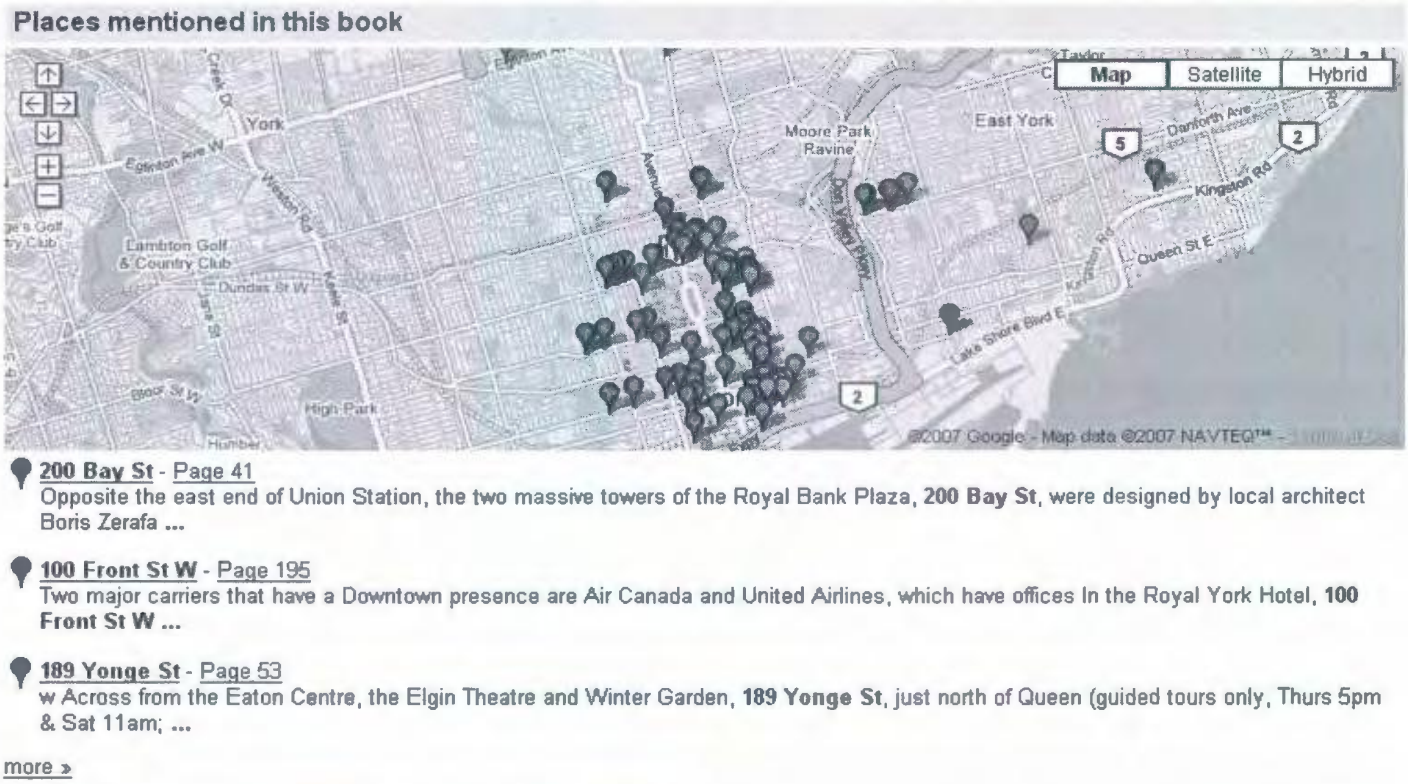

Figure 5. Places Mentioned in The Rough Guide to Toronto.

Not to be left behind, Google Earth announced a "Google Book Search" layer this summer. To view this layer, check the "Featured Content" folder in the "Layers" menu. Small book icons will pop up. Click on an icon to display a snippet of text that references that location.

Library Mashup Sightings

Morraine Valley Community Library

Many libraries have added a map mashup to show branch locations. Some libraries have started to put map mashups to work to for information services. Referrals are part and parcel of library information services. Sometimes using a map is a quicker and better way to provide directions to other local libraries, archives, colleges, print shops open 24 hours and so on. Morraine Valley Community College Library has created a Google map mashup and added it to their web site to help with these types of questions (see Figure 6).

Illinois Metropolitan Library Interlibrary Loan Mashup

Would you like to answer the question about where in the world does your library send and receive interlibrary loans? Just map it. Kate Boyle mapped the loans sent and received using the Community Walk site to create the mashup. (http://www.communitywalk.com/map/41991). Click on the markers to see the title of the item, the library name and photo of the lending library if available.

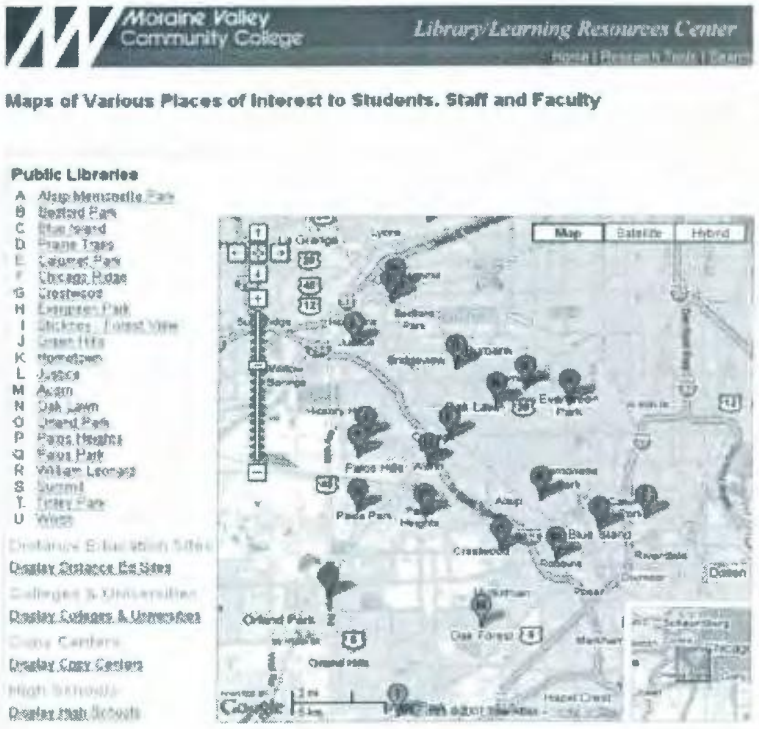

Figure 6. Maps of Various Places of Interest to Students, Staff and Faculty (http://www.morainevalley.edu/library/maps/public_libs.htm).

McMaster University Library Aerial Photo Index

How about creating a map to find aerial photos? Cathy Moulder did just that for McMaster University Library's Map Collection. (http://library.mcmaster.ca/maps/airphotos/1919.htm)

Thomas Ford Memorial Library

The Western Springs History site publishes photographs and descriptions of some historic homes in the Western Springs, IL area. Aaron Schmidt created a Western Springs History interactive map that displays markers for each of the historic houses and links to information about the houses. (http://www.westernspringshistory.org/map/)

In the past six to nine months there has been a flurry of new features added to online mapping services from Yahoo, Google and Microsoft. There's no sign of a slowdown from these companies who are enhancing their geospatial data and services.

If you spot something noteworthy that you'd like to see covered in this column, please email Darlene.Fichter@usask.ca

REGIONAL NEWS / NOUVELLES REGIONALES

Compiled by Andrew Nicholson

Alberta

University of Alberta
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Summer has come–and gone. Students are back, can winter snows be far behind? The summer was a busy time for the staff here at the William C. Wonders Map Collection. As I noted previously, our building is under a multi-year renovation and 're-stacking' program. No, 're-stacking' does not mean new shelving units–it's the current jargon for reshuffling the functions and facilities to more effectively meet the service goals for our students and researchers. The first stage is the gutting of the entry level to create a high tech, functional and aesthetically pleasing environment for the provision of services and adaptable study and work space.

By mid-June, we had moved the ~250 map cabinets from the 1st to the 4th floor where we had also acquired some additional workspace for the processing of the many donations received in the past few years. The Map Room (Archives, Air photos and work room) was also moved to the 4th floor. A subsequent discovery that the air photo stacks in the Map Room were unstable resulted in a decision to remove the photos to the Library's Book and Record Depository (BARD) and establish efficient retrieval procedures. This involved numbering all ~2,800 boxes, establishing a master spreadsheet, recording (briefly) the contents of each box, in many cases photographing the box content labels, and repairing and relabeling many boxes. Eventually the boxes were moved to the BARD. The silver lining of all this was the release of additional space for staff workstations and consulting tables in the Map Room. We are still settling in to the new space and developing our work flows and procedures.

Manitoba

University of Manitoba
Larry Laliberte
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The University of Manitoba Libraries would like to announce the donation of digital aerial images of Winnipeg by ATLIS Geomatics. These full colour images were taken in May 2005 at a scale of 1:10,000 and have been ortho-rectified to a pixel resolution of 20cm. The acquisition of ATLIS's 2005 DOQs will be very useful to all members of the university of Manitoba community carrying out research in the fields of geography, landscape architecture, city planning, engineering, history and other studies focused on urban issues.

Newfoundland & Labrador

Memorial University of Newfoundland
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It's that time of year that I really look forward to for the weather. The fall here is really gorgeous and is about the only time of year where the weather is somewhat predictable. This past spring and summer were not that great so a nice fall is a pleasant experience.

There has been one major change in the Map Library at Memorial. Suanne Reid, who has worked in the QE II Library for seventeen years, most of them in the Map Library, resigned early in September. She is taking the next few months to be a full-time Mom while her youngest child starts Kindergarten and then will pursue other interests. Her wonderful personality and sincere approach to all people who walked into the library will be sorely missed, but we wish her all the best in your new endeavors. We will be filling her position sometime later this fall.

As for the other Library Assistant in our Map Library, Joanne Costello, she is very busy preparing an art exhibit for this next year. The exhibit takes place in May in the Pollyanna Gallery here in St. John's.

The Map Library has been in its new space for one year now and it has been a successful move. It's easier for library users to find the collection and, since the hours of access are the same as the building hours, more people use the space for study purposes or the various geography assignments that use maps. The public stations that have GIS are also used by the students who need to create maps for their projects. This greater access to resources has increased our overall function of access to service. Stay tuned for news with future projects... Until then..."long may your big jib draw".

Nova Scotia

Dalhousie University
James Boxall
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The GIS Centre welcomes Ian Bryson to our staff as GIS Analyst and, sadly, we bid Jennifer Milne a fond 'best wishes and good luck' as she moves along on her career path. Her work here has been fantastic to say the least, and the growth and continued enhancement of services, teaching and research support via the Centre was due to many of her efforts (which included developing a GIS course for the Planning school).The GIS Centre is being presented the ESRI Award of Excellence this year in recognition of our support for GIS and GIS education, the position of leadership that the Centre holds in the region, and the fact that our model is being copied in other places where ESRI has supported the GIS in Libraries initiatives. The Centre continues to support teaching and research at Dalhousie and has begun to extend support to other institutions and the wider community, government agencies and collaborative work with the private sector that links academic research with innovation in geomatics.

Ontario

Carleton University
Susan Jackson
susan_jackson@carleton.ca

Between July and mid-August the physical space in the Maps, Data and Government Information Centre underwent a massive reorganization with a view to providing more seating in the area. As a result, the map collection was compressed into a smaller area but was reintegrated into a single sequence. This move brought the collection closer to our service point as well. The new floor plan can be seen at http://www.library.carleton.ca/help/FloorPages/Flr2mpl.html

We are still managing two classification systems as we move gradually from Public Archives to LC call numbers but, with the excellent redesign by Monica Ferguson, we can find things much more easily. The new arrangement has been heavily tested as we are experiencing very high volume traffic this term with class assignments.

On another front, our small collection of print air photos now has collection level records in the OPAC including a link to an indexing system which is also available from the Air Photos Web page at http://www.library.carleton.ca/madgic/maps/airphotos.html

Ryerson University
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Ryerson University Library is pleased to announce the appointment of MadeleineLefebvre as Chief Librarian, effective August 28, 2007. Madeleine was the University Librarian at Saint Mary's University in Halifax since 1999. Previously, she was Director of Library Services at Mount Royal College, Calgary for 12 years, and Public ServicesLibrarian at Okanagan University College in Kelowna, British Columbiafor 7 years.

In addition, Dan Jakubek has been appointed to the new position of GIS and Map Librarian at Ryerson University Library, effective May 14, 2007.

Dan worked in the Geospatial Map and Data Centre (GMDC) supporting Suzette Giles as the GIS and Data Technician since January 2005. Previous to this appointment, Suzette was responsible for Map, GIS, and Social Science resources within the Ryerson University Library. In her new position as Data Librarian, Suzette intends to further develop Ryerson Library's data collections, and to continue providing access and instructional support for the increasing demand for these data resources.

As of August 13th, 2007, Noel Damba assumed the full-time permanent role as GIS and Data Technician, supporting the GMDC in the Ryerson University Library. Noel spent two years working part-time with Suzette Giles in the Work Study Program (as a GIS assistant) while completing an undergraduate degree in Geographic Analysis at Ryerson University. He graduated in 2006, and was on contract as the GIS and Data Technician since his convocation. In his new position, Noel will continue to support the GMDC, faculty, staff, and students with Ryerson's geospatial, mapping and social science resources.

During the summer months, efforts were directed towards a complete re-design of the GMDC's Maps and Data at Ryerson (MADAR) website. Ryerson University's Office of University Advancement has implemented a new Content Management System (CMS) in an attempt to standardize the institution's web applications. We hope to launch our new website by the end of October 2007. A re-organization of the library's paper Map Collection was also accomplished, intended to allow for continued growth of the collection.

University of Waterloo
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It has been an exceptionally busy fall term for the staff in the Map Library. The highlight of the fall orientation and user instruction program was the Map Library Collection Exhibit, organized and delivered by Eva Dodsworth with assistance from Jon Morgan, in early September. The following are quotes from some of our publicity materials:

"Held in the Map Library, and open during operating hours, we are exhibiting a large number of local historical maps, atlases, and aerial photos. We have a special exhibit detecting changes in Kitchener and Waterloo spanning over 150 years. There will be a hands-on workshop offered once every day over the five days presenting participants with different maps that can be used to research changes in neighbourhoods. With access to high quality, high resolution imagery, visitors will have the opportunity to not only locate their neighbourhood, but their home as well (local residents, anyway)." Our webpage describes the exhibit as well as the workshop : http://www.lib.uwaterloo.ca/locations/umd/digital/exhibit.html.

Further details on this outreach event include the following:

"Historical maps of the campus and of downtown Kitchener have been particularly popular, drawing a lot of interest and questions. Visitors have been using stereoscopes to view aerial imagery in 3-D and have been leaving the library with dozens of gifts sponsored by popular vendors and organizations. The Map Library will be celebrating the closing of the exhibit this Friday afternoon with cake and dozens of door prizes. Winners will be drawn at 2:00 with gifts ranging from 1 GB USBs to electronic Kitchener atlases to hard cover books. One of the more unique prizes includes a customized aerial map sponsored by the Region of Waterloo. The exhibit will close on Friday at 4:30 p.m." The workshop "Map Your House and Neighbourhood" is being offered daily — today a 2:00, tomorrow at 11:30 —and more workshops (http://www.lib.uwaterloo.ca/locations/umd/digital/EventSchedule.html) on geospatial information systems are planned over the next few days."

There have been some recent staff changes in the Map Library. Jon Morgan was recruited in late June to fill a long standing vacant Library Assistant position. His principal duties are to share in providing reference service and to assist Eva Dodsworth with user instruction. He is also responsible, in consultation with Eva, for creating displays, instructional webpages, and publications both electronic and print. On 28 September, Ksenia Bronicki, Library Clerk in the Map Library, began her 10-month parental leave, delivering a healthy

baby girl Natalia that same day. On 1 October Ksenia's duties were assumed, on a temporary basis, by Jeanette Chapman, who returns to the Map Library after working in another library department for the past two years. She is responsible for processing course reserves, providing in-depth circulation services as well as clerical office support.

University of Western Ontario
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Plans are well underway for our second annual GIS Day, November 14. Two GPS modules, live demonstrations, poster display, and an afternoon speaker session are firmed up. For details visit our website at http://geography.uwo.ca/gisday/. We hope to have the same enthusiastic response to this Open House as we did last year.

An exciting project that is presently taking shape is to put images of the London 1892, revised 1907 fire insurance plan on a website. We were given the TIFF images of this plan and will convert them to JPEGs and using *Zoomify* software will develop viewing and download access to this important historical document.

Cheryl will be taking an 8-week study leave early in 2008 to work on updating the information in the "Catalogue of Canadian Fire Insurance Plans 1875-1975," (Dubreuil, Lorraine and Woods, Cheryl A., Ottawa: Association of Canadian Map Libraries and Archives, Occasional Paper Number 6. 2002). The updated entry information will be sent to Library and Archives Canada for inclusion into AMICUS with the hope that researchers will eventually be able to search a specialized site for fire insurance plans where they will see a complete description (similar to that in the initial publication) and identify the collections that hold these plans throughout Canada.

Four work study students will be hired to assist clients in the Map Library during peak times of the day and work on special projects until April.

Welcome!
New ACMLA Members

Sandy Jones (Full member)
Carleton University MADGIC Centre
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Welcome!
New ACMLA Committee Members

Natalie LeBlond,
from Library and Archives Canada,
is our new ACMLA Publications Officer,
taking over from Louis Cardinal as he retires
from this position after 10 years
(or maybe 11 – we've lost count).

We also welcome Erin Forward,
University of Ottawa, who is taking on the
Membership responsibilities,
from Beth Ray who has done this task
for many years. Beth continues her ACMLA
activity on the newly formed
ACMLA/NRCan Working Forum.

For a complete list of committee members,
please visit the ACMLA Committees webpage
http://www.ssc.uwo.ca/assoc/acml/
committ.html

If you are interested in participating
on any of the ACMLA Committees,
please contact the Committee Chair.

Colleen Beard
ACMLA President

CALL FOR PAPERS, PRESENTATIONS, WORKSHOPS

CARTO 2008

Tuesday, May 13 - Friday, May 16, 2008
Vancouver, BC
Hosted by the University of British Columbia

Papers based on original research on any of the listed topics are welcome.
All presenters, for paper presentation or poster session, must submit an abstract electronically
(in either English or French) of 250 words or less. The abstract should fall under one of the conference themes which include:

Analytical Cartography
History of Cartography
Map Production Technology
Cartographic Education
Map Use and Design
Political Aspects of Cartography
GIS/GPS
Teaching Cartography in academia
Mapping Health Data
Public Cartography (google earth, maps, etc)
Mountain Cartography
Other aspects of cartography

Cartographic Archives & Libraries
Metadata
Cartographic Material Cataloguing
Statistical Data and Maps
Open Source software
Geospatial Data Providers
Geospatial Data Services
Digitization Projects
Status of Topographic Mapping
Community Projects
Other aspects of map librarianship and archiving

Persons wishing to organize special sessions with invited speakers or joint sessions with ACMLA/ACACC or workshops should contact the local coordinator.
All participants must meet the abstract deadline.

Send your proposals to: Susan McKee (smckee@ucalgary.ca)
by: **February 1, 2008** for first consideration

Authors are responsible for spelling, grammar, and typographical errors.
The merit of each proposal will be assessed individually.
The time for each oral presentation will be approximately 20 minutes, which includes discussion and questions.

Program Committee: Dan Duda, Majella Gauthier, Diane Lacasse, Susan McKee, Roger Wheate, Alberta Auringer Wood and Clifford H. Wood
Local Arrangements: Sally Hermansen, Dawn Mooney, Walter Piovesan and Tim Ross

NEW BOOKS AND ATLASES

Compiled by Eva Dodsworth

Abdul-Rahman, Alias et al. 2006. *Innovations in 3D geo information systems.* New York : Springer. 760 p. $219.00 US. ISBN 9783540369974.

Asher, R.E. and Christopher Moseley. 2007. *Atlas of the world's languages.* New York : Routledge. 400 p. $655.00 CAN. ISBN 0415310741.

Buisseret, David. 2007. *Oxford companion to world exploration.* Oxford : Oxford University Press. 1072 p. $250.00 US. ISBN 9780195149227.

Canada Year Book 2007. 2007. Ottawa : Statistics Canada. 532 p. $24.00 CAN. ISBN 0660197472.

Cole, Roy and H.J. De Blij. 2007. *Survey of Subsaharan Africa : a regional geography.* New York : Oxford University Press. 768 p. $87.95 US. ISBN 0195170806.

Dawson, Joan. 2007. *The mapmakers legacy–nineteenth century Nova Scotia through maps.* Halifax : NIMBUS Publishing. 152 p. $29.95 CAN. ISBN 9781551096070.

Dicken, Peter. 2007. *Global shift : mapping the changing contours of the world economy.* 5th ed. New York : Guilford Press. 600 p. $58.00 US. ISBN 1593854366.

Dow, Kirstin and Thomas Downing. 2006. *Atlas of climate change : mapping the world's greatest challenge.* Berkeley : University of California Press. 112 p. $19.95 US. ISBN 0520250230.

Edson, Evelyn. 2007. *World map, 1300-1492: the persistence of tradition and transformation.* Baltimore : Johns Hopkins University Press. 312 p. $50.00 US. ISBN 0801885892.

Fenna, Donald. 2007. *Cartographic science : a compendium of map projections, with derivations.* Boca Raton : CRC Press/Taylor and Francis. 491 p. $89.95 US. ISBN 084938169.

Galati, Stephen. 2007. *Geographic information systems demystified.* Boston : Artech House Publishers. 302 p. $89.00 US. ISBN 158053533.

Gartner, Muriel. 2007. *Townships of the province of Ontario, Canada : a complete index of the townships in all the counties and districts.* Toronto : Ontario Genealogical Society. 55 p. $14.95 CDN. ISBN 9780777934111.

Gorr, Wilpen and Kristen Kurland. 2007. *GIS tutorial : workbook for ArcView 9, 2nd ed.* Redlands, CA : ESRI Press. 374 p. $69.95 US. ISBN 9781589481275.

Grand atlas de la province de Quebec/Quebec the road atlas. 4th ed. Markham : Rand McNally. 272 p. $29.95 CAN. ISBN 2895700206.

Harrison, Trevor. 2007. *21st century Japan : a new sun rising.* Montreal : Black Rose Books. 204 p. $19.99 US. ISBN 9781551643069.

Harwood, Jeremy. 2006. *To the ends of the earth : 100 maps that changed the world.* Cincinnati, OH : F & W Publications. 192 p. $35.00 US. ISBN 9780733319372.

LaRosa, Michael and German Mejia. 2007. *Atlas and survey of Latin American history.* Armonk : M.E. Sharpe. 169 p. $26.69 US. ISBN 0765615975.

National atlas of Russia. 2007. Moscow : Ministry of Transportation and the Federal Agency of Geodesy and Cartography of Russia. 496 p. $495 US. ISBN 5851202505.

For more information about each item listed in this column, please visit:
http://www.lib.uwaterloo.ca/locations/umd/acmla.html

Ofori-Amoah, Benjamin. 2007. *Beyond the metropolis : urban geography as if small cities mattered.* Lanham, MD : University Press of America. 365 p. $45.00 US. ISBN 0761835857.

Ontario municipal directory 2007. 2007. Mississauga : Association of Municipal Managers, Clerks and Treasures of Ontario. $49.95 CAN.

Petto, Christine. 2007. *When France was king of cartography : the patronage and production of maps in early modern France.* Lanham : Lexington Books. 248 p. $70.00 US. ISBN 0739114409.

Phadke, D.N. 2006. *Geographical information systems (GIS) in library and information services.* New Delhi : Concept Publishing Company. 162 p. $19.00 US. ISBN 818069271.

Sinton, Diana and Jennifer Lund. 2007. *Understanding place : GIS and mapping across the curriculum.* Redlands, CA : ESRI Press. 308 p. $49.95 US. ISBN 9781589481497.

Sisson, Richard et al. 2007. *The American Midwest : an interpretive encyclopedia.* Bloomington : Indiana University Press. 1890 p. $75.00 US. ISBN 0253348862.

Tomlinson, Roger. 2007. *Thinking about GIS, 3rd ed.* Redlands, CA : ESRI Press. $24.95 US. 254 p. ISBN 9781589480346.

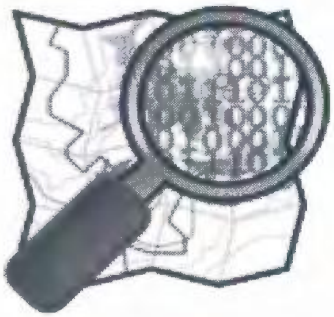
Whitfield, Peter. 2007. *A life in maps.* London : British Library Publishing. 208 p. $46.54 CDN. ISBN 9780712349192.

Williams, Jack. 2006. *East 40 degrees : an interpretive atlas.* Charlottesville : University of Virginia Press. 320 p. $50.00. US. ISBN 9780813925851.

Woodward, David. 2007. *The history of cartography : cartography in the European Renaissance.* Chicago, IL : University of Chicago Press. 2272 p., boxed. $400 US. ISBN 9780226907321.

Xiurong, Du. 2007. *Atlas of China.* Beijing : Sinomaps Press. 283 p. 70. ISBN 9787503141782.

Have You Seen This?



OpenStreetMap
a worldwide project aimed at creating open access street maps
http://wiki.openstreetmap.org/

strange maps

Strange Maps
a blog collecting cartographic curiosities
http://strangemaps.wordpress.com/

Maps@NYPL

Maps @ NPYL
Beta blogsite for New York Public Library's Map Division
http://beta.nypl.org/blogs/maps/

Geographic Travels with Catholicgauze
a geographer who likes to virtually travel the globe
http://catholicgauze.blogspot.com/

REVIEWS

Compiled by Michele Shular

Roychoudhury, Samit. ***The Great Indian Railway Atlas***. Kolkata, India: Samit Roychoudhury, 2005. 84 p. $24.99 US. ISBN: 81-901457-0-3

As I waited for this atlas to arrive for review, I thought that it would be something similar to *Lines of Country: An Atlas of Railway and Waterway History in Canada* (1997) with over 200 ledger size pages of maps, photographs and text explaining a major part of Canada's transportation history. However, that was not to be the case.

The *Great Indian Railway Atlas* is a self-published work done by Samit Roychoudhury, an ardent admirer of India's railway system. His purpose is to create an accurate atlas of the rail system in India for fellow admirers of the system. At first glance, you might think that there is not much information in the thin volume; but that would be an incorrect assumption.

The heart of the atlas is the 54 schematic maps done at 1:1,500,000 scale showing all the major and minor routes and future routes. Every community, junction, shed, station, etc. are indicated on the various routes. The index map on page 6 can quickly point you to your needed region(s) or the 20 page index containing the 10,000 plus communities will also get you to your desired spot. Metro maps of Delhi and Kolkata, not to scale, are included along with sectional maps of the following regions: Delhi, Patna, Ahmadabad, Kolkata, Mumbai, Coalfields, Secunderabad and Chennai. Also included are an "At a Glance Colour Map," an "India Rail Network Map of 1893," and a list of sources used in preparing the work. The legend is in English, French and German. It is located on the back flap, so when you use the atlas the legend can be unfolded and displayed as you page through.

Although it is a self-published work by an amateur railway enthusiast with some background in graphic design and cartography, this small atlas does have merit. The presentation of this atlas is similar to that of Baker's *Rail Atlas of Britain* (1980), or the Rand McNally *Handy Railroad Atlas of the United States* (1988), or the Railway Association of Canada's *Atlas Canadian Railways*. Like these atlases, the *Great Indian Railway Atlas* shows the spatial relationship between communities, the rail lines, political administrative boundaries, and India's rivers. There are over 63,000 kilometres of track comprised of four different gauges. "More than 13 million passengers travel on 14,000 trains and well over 1.4 million tonnes of freight are transported every day in 6,000 freight trains between the 8,000+ stations, aided by a fleet of over 7,300 locomotives, 45,000 coaching vehicles and 280,000 goods wagons" (p. 2). Another feature of the atlas is the website www.indianrailstuff.com/atlas, a site for Indian rail enthusiasts. There is a link that updates information about material in the atlas. However, understanding the good intentions of such a site, the last update for the atlas was July 2006 (accessed on June 14, 2007) and as a librarian/researcher, I wonder if that is the last time anything was done, or has the designer no time to keep the site current?

While publishing costs are a factor, one feature of many railway atlases is they do not depict any sense of the topography or terrain upon which the rail lines are built. The information in the atlas would be richer if photographs, as in *Lines of Country* mentioned earlier, or some examples of topographic maps of the various regions of the country, were also displayed. Though references are given, it is not clear where the data is from and if this is available for others to use to create maps of India. Another thing that would have added value to the presentation is the displaying of routes and regions that have the heaviest flow of passengers and/or freight. Users of the atlas are given a sense of the volume with the statistics mentioned above, but not where this occurs.

These questions and observations aside, map collections or libraries that collect transportation information or material on India could find this atlas a useful addition to their collection.

Danial Duda
Map Librarian
Memorial University of Newfoundland
St. John's, Newfoundland and Labrador

Krygier, John and Wood, Denis. ***Making Maps—A Visual Guide to Map Design for GIS***. New York: Guilford Press, 2005. 303 p. $43.00 US. ISBN: 1-59385-200-2

Making Maps—A Visual Guide to Map Design for GIS was a wonderful introduction to the world of GIS. Starting out with the definition of a map and presenting an historical overview of where maps began and the different medias used over time helped to put the modern GIS into context. The approach presented in this book was practical from beginning to end, always bringing the visual aspect of a map to the forefront of the material presented.

The progression of chapters was well done, starting macro with "Why are you making your Map?" and slowly narrowing down to the finer points of map creation with "Map symbolization" and "Color on Maps". Chapters followed the same format, providing the reader with an overview and goals of the chapter by posing a series of questions. Each question was answered as a section within the chapter.

The book did not get caught up in discussions about software packages or the details on how to accomplish topics discussed in the book. This was a refreshing approach. Learning about GIS and learning about the software at the same time can become very intimidating. Good and Bad examples were presented for every situation and topic discussed in the book, giving the reader a visual for each topic.

The last chapter entitled "Finishing your Map" provides a list of questions every map creator should ask and evaluate when creating a map. A great resource to point new students to and one that this reviewer will be using.

The only distracting aspect of this book was the pages dividing the chapters. These were filled with quotes from a variety of sources, chosen because of their map references, and the random art pages used to separate chapters. The reviewer tried without success to relate the art pages to the topic at hand. I'm not sure whether this was the goal or whether the goal was simply to separate the chapters.

Overall, this is a great primer book for new GIS users. The progression of the book helps the new user visualize their map before creating it. If the reader is a visual learner, this is a great approach and easy to follow.

A. Michelle Edwards, PhD
Data Resource Centre Coordinator,
University of Guelph
Guelph, Ontario

Kashuba, Melinda. ***Walking With Your Ancestors: A Genealogist's Guide To Using Maps And Geography.*** Cincinnati, Ohio: Family Tree Books, 2005. 226 p. $22.99 US. ISBN 1-55870-730-1

In her recent book, Melinda Kashuba boldly declares, "The truth about genealogy is that, although you might believe that is has something to do with history, it actually has something more to do with geography." This statement sets the theme for this valuable genealogy instruction guide.

Most genealogy books include small sections on using maps but Kashuba's is one of the only—if not the only—book written with emphasis on maps and geography and written by a professionally trained geographer. Kashuba has a PhD in geography from the University of California, Los Angeles and specializes in nineteenth and twentieth century American maps and records. In this book, she brings her years of experience as a professional genealogist, researcher and writer, and combines this with her

knowledge and formal training in geography. She offers a straightforward look at using maps and geographic concepts to solve genealogical questions. Her insights assist both the beginner and the advanced researcher.

Whether reading this book from cover to cover or using the detailed index and descriptive table of contents, this book is full of research nuggets of wealth. Within the text one learns how to effectively read and understand basic maps, use gazetteers, identify the location of land records, locate a settler's homestead, identify migration routes of ancestors, understand the significance of boundary changes in genealogical research, and apply modern technology including the internet and GPS.

Ten different chapters cover concepts such as the basics of reading and understanding plat maps, topographic maps, military maps, fire insurance maps, gazetteers, atlases and GPS. At the end of each chapter is a bibliography and summary. Illustrations and map examples are effectively placed throughout the text to enhance its usefulness. The appendix lists the major map collections in the United States, noting those collections with significant fire insurance map holdings.

This book is an affordable guide for modern, genealogical researchers. It is highly recommended for librarians and genealogists conducting research for their U.S. ancestors.

Angie Cope
American Geographical Society Library
Milwaukee, Wisconsin

The Festival of Maps, Chicago

November 2, 2007 - January 27, 2008

November 2007 in Chicago will be a wonderful time for historians of discoveries, cartographers and map aficionados.

The Society for the History of Discoveries (SHD) will link its 48th Annual Meeting in 2007 with a number of other events occurring during *The Festival of Maps, Chicago.*

The Festival will include the Newberry Library, which will have two major exhibitions on display, and will also include the Sixteenth Kenneth Nebenzahl, Jr. Lectures in the History of Cartography, organized by Professor Richard Talbert of the University of North Carolina, Chapel Hill. The Festival of Maps will include a major exhibition of over 100 of the world's most significant maps, in an exhibit simply called ***MAPS*** which will be on display at the renowned Field Museum; these maps are being assembled from public and private collections worldwide. The Festival will also include many more institutions in Chicago which have agreed to exhibit map treasures in their collections. And, yes, the Festival will include the 48th Annual Meeting of the Society for the History of Discoveries.

For more information on The Nebenzahl Lectures, November 8-10, 2007, see http://www.newberry.org/smith/nebenzahl/neb16.html

For more information on The Festival of Maps, Chicago, see http://festivalofmaps.org/

<information from Webster's Fine Maps and Books to the Upper Canada Map Society>

NOTES FROM THE ROUNDTABLE DISCUSSIONS

OCUL Map Group Library Assistants Workshop,
Queen's University, Kingston, Ontario, June 7 and 8, 2007

Reference Services Offered at Libraries

Facilitator: Diane Boyd, University of Guelph

Overview

•Most new articles relating to reference services suggest that the number of queries are decreasing
•Interestingly, we (on the whole) seem to be busier and yet our services offered seem to be decreasing
•How can we do reference services smarter and better?

Nipissing

•Nipissing has a small print map collection achieved mostly through donations. This collection was based upon user demand
•They now have a website which has a section on print maps and geospatial data
•The library offers one (1) GIS computer which hosts ArcGIS and ArcView.
•Services are available on a drop-in basis or through appointment
•There is one (1) staff member in the library whose duties include providing map and geospatial support

McMaster

•McMaster is noticing a shift in the types of questions that are being received. There are less high volume questions and more in-depth questions. This has led to dealing with fewer students, but spending more time with each of them. Overall reference statistics have decreased
•McMaster has a new GIS/Data lab consisting of eight (8) PCs in addition to the two (2) existing ones in the Map Collection. All PCs have GIS and statistical software. Students can sign out secure work spaces on the Library server to store their projects over the term. This service is targeted at those students who do not have access to the GIS lab because they are not registered in a GIS course. It is open longer hours than the Map Collection
•McMaster has other computer labs on campus that have ArcView but their IT staff does not support it so those who need help must come to the library
•There are two (2) support staff and one (1) librarian.

York

•Data is provided by the Libraries and comes from the GIS/Map Librarian
•York does have computer labs on campus that host GIS software. These labs have assistance available when a technician is on duty

Guelph

•The Data Resource Centre located in the Library has developed a tiered approach to help users with geospatial (and statistical) data
•Recently the Library made the decision to close the help desk on the second floor and consolidate all help services on the main floor of the library (research, IT and Learning and writing help). The library staff on the research help desk provide Tier 1 or basic assistance for GIS questions. They can direct users to the GIS website and explain services provided by the DRC. If more help is required users are referred to the DRC staff
•Tier 2 queries require more specialized knowledge of geospatial and statistical data and are handled by DRC staff. Some examples include finding the appropriate GIS data, importing data into mapping software, performing basic geoprocessing and knowing product licenses
•Tier 3 service requires an advanced level of knowledge for GIS and statistical software. Examples would include providing assistance creating maps, helping with advanced mapping processes such as using Spatial Analyst or importing CAD drawings into ArcMap
•The DRC has five staff: 1 librarian, 2 Analysts (GIS, Statistical) and 2 Library Research Help Associates. Help is provided in person Monday to Friday, 10-4 and at others times by appointment

Ottawa

• •Reference services have increased due to more and larger labs/classroom sizes (they have doubled). Intro to GIS courses along with more advanced classes and the use of GIS in other courses (i.e. Medical Geography, Climatology,

Geomorphology, Hydrology, etc.) are now being offered
•Ottawa is also finding that more exposure to computers and GIS in early years (i.e. high school) is demanding more knowledgeable assistance (today)

Toronto—St. George Campus
•Three (3) computers with ArcGIS are available within the Library. This area is available Monday through Friday from 10 am to 5 pm. This area is available to students, faculty, and staff
•St. George also offers scanning services on their small 11 x 17" format scanner and while they do have a drum scanner it is not in use as of yet due to copyright issues
•Support staff includes a Map Librarian, a GIS Analyst, two (2) graduate student assistants who work part time

Toronto—Mississauga Campus
•New Technology Centre which hosts four (4) GIS computers and two (2) Instructional technology computers. Support staff is available 9 am through 5 pm, Monday through Friday. The Technology Centre hosts a new large format scanner, plotter, and digitizer as well as an 11 x 17" scanner
•One (1) technician and one (1) Librarian are available for GIS support

Other Discussion
•Many universities are continuing to ask patrons to sign data release agreements for data sets such as the DMTI data. On the other hand just as many universities do not ask for these signed agreements because authentication is required when logging onto the website where data retrieval occurs. Please note that this does not apply to all datasets. Some are provided by the government and a release agreement must be completed.
•Many Universities provide the data to students on a CD. There are a few who ask for the CD back after the data is used, as these students have already signed an agreement which stipulates that they use the data for academic purposes only
•It was noted that this appears to produce the same problems as photocopying

A discussion of a shared location was deemed useful where assistants could deposit their help sheets and guides that are used for training purposes. Perhaps a Wiki? Other options are a Del.icio.us account, (tagging system), that all of the assistance would have access to. Del.icio.us is a Web 2.0 tool website. This tool tags URLs within the account, including descriptors, keywords, title headings to find searching ease.

Materials Libraries are Scanning/ Photocopying

Facilitators: Dana Craig & Vito Ciraco, York University

York
•Project 1: Digitization of a set of fire insurance plans from 1914
•Reason: to provide better access and preserve originals
•11 x 17" scanner too small to scan entire plan
•Used digital camera instead to avoid having to "stitch-together" images
•Had to improvise tripod and work table. Equipment/tables from Art Department were expensive and still were not large enough to hold the FIPs
•Quality control issues surrounding attempt to maintain consistency of images when image creation is being shared by various staff members (full-time staff, student assistants, etc.)
•Images saved as TIFFs but resulted in large file sizes which required them to be shifted from workspace to a more permanent storage space frequently during the process
•Implications of copyright restrictions not clear. No clear-cut answers. Dependent on age, type and source of material

•Project 2: Scanning blank outline maps and mounting them on the web in PDF format
•Reason: to provide students with a selection of maps to be used as base maps for class assignments

Western Ontario
•Project: Scanning of indexes to foreign topographic map coverage for mounting on the web

Carleton
•Project: Digitization of local Ottawa topographic maps at various scales
•Reason: To make better use of older topo series

(1968-1980) and to complete local holdings. Any information about the local area is of high value to their students for use in class projects
•Outsourced the scanning to Kovatec (Recommended by National Capital Commission)
•Provided with TIFF and DWG formats. Carleton used these to produce PDF and will generate either MrSID or JPEG2000 images in the near future
•Images will be mounted on the web and open to the public
•Copies will be shared with the City of Ottawa, University of Ottawa and the National Capital Commission
•University of Ottawa and NCC to share more material and images with Carleton in an ongoing partnership

Toronto—St. George Campus & Toronto—Mississauga Campus
•Acquired a 3' and a 5' drum scanner for digitization and making paper copies of topographic maps. Cost of printing paper maps is proving to be prohibitive
•Use of scanner is presently under suspension pending further examination of copyright issues

McMaster
•Project: Digitization of WWI trench maps and aerial photographs
•Reason: to provide better access and preserve originals
•Outsourced scanning to Perimeter Digital in Toronto area due to size of maps, volume of collection, equipment, expertise, multiple file formats, speed of delivery, etc.
•Materials were free of copyright restrictions
•Will be available to the public on the web, linked from existing web indexes in the near future
•Just received grant from the Federal Government for $100,000 for digitization of collections relating to war & peace in the 20th century

Brock
•Project: Zoomify images of 1921 aerial photographs and Historical Maps of Niagara
•Reason: to provide better access and preserve originals
•Historical maps were acquired from Government already in digital form and with permission to mount on the web
•1921 Air photos (St. Catharines-Niagara Falls-Port Colborne) were scanned in-house
•Zoomify software applied to both collections to make zooming and panning images possible
•Basic Zoomifyer EZ software free for download. Deluxe package, Zoomifyer for Flash $129 US

Most institutions provide access to an 11 x 17" scanner within the map library. The ambiguity of copyright laws as they apply to scanning in general, but especially scanning of non-book items like maps, air photos and fire insurance plans seems to be the largest obstacle to any digitization project. Much debate about this is currently taking place on the CARTA listserv and much time was spent on the discussion of this issue at the roundtable with no clear solutions.

Most Valued and Most Used Map Library Resources

Facilitator: Gord Beck, McMaster University

McMaster
•Gord Beck from McMaster showed the City of Hamilton's "Map.Hamilton" web site, and described how it is being used by their map library. The iMapper and Map Gallery sections of the site were described as being especially useful for non-GIS patrons who required maps of Hamilton and area.

Sites from the City of London, Kingston, Toronto and Niagara Region were also mentioned as being useful resources.

Nipissing
•Nipissing has compiled a collection of maps produced by students for assignments and research papers. Tom Power explained that this collection is being used as a visual catalogue to help library patrons choose the best product for their own needs. This is mostly being used by non-GIS students who aren't familiar with the map resources currently available. Maps from ESTAT and Search Map 2001 were used as examples from the collection.

York
•Three products were featured by York
•Dana Craig reviewed "The Dictionary of Imaginary Places" by Alberto Manguel and Gianni Guadalupi. This reference book includes descriptions, with

graphics and maps, of imaginary places featured in literary works

•Mary McDowell reviewed "uTOpia—Towards A New Toronto" edited by Jason McBride and Alana Wilcox. This resource is a collection of "passionate and visionary" essays about Toronto written by Torontonians. Some topics covered are Queen Street West, public washrooms, innovative houses and public art. The book includes two maps, and could be used as a source of information on the environment, history, urban planning, architecture, etc.

•Vito Ciraco discussed maps in films, citing examples such as weather maps in the movie Groundhog Day. An image of the Marauder's Map from the Harry Potter novels was shown as an interesting example of a magical map

Guelph

•Diane Boyd demonstrated the Ontario Flow Assessment Techniques (OFAT) system

•OFAT, a GIS based tool, allows the user to estimate various flow regimes for Ontario watersheds. OFAT has been developed by the Ontario Ministry of Natural Resources

Brock

•Sharon Janzen introduced Ann Holtby as being a valuable resource in their map library. Ann catalogues maps and related items, making searching much easier and more efficient. Special attention has been directed to the use of accurate and thorough descriptive keywords in the catalogue records.

•Brock has also produced Digital Data Fact Sheets and Sample Images, which are linked from the catalogue records

•Another useful resource is a binder of "best datasets" for specific uses (i.e. best streets database).

Participants at the workshop also discussed Global GIS, Encarta Premium 2007, RACER, and Internet Public Library (IPL) as being valuable map library resources.

Cataloguing Geospatial Data

Facilitator: Bernie Disonglo, University of Toronto, St. George Campus

Introduction

•We will discuss the current developments in cataloguing geospatial data

•We will also deal with certain issues discussed in the 2005 workshop at Nipissing as well as the workshop in Ottawa last year

•Growth of digital geospatial data has affected all aspects of map libraries operations: acquisitions, reference and information services as well as cataloguing have been affected

•Electronic resources are now permanent component of map library collections; therefore cataloguing rules and procedures have to catch up with changing needs. At the moment, we are in evolutionary stage

•Mary Larsgaard, guru of cataloguing gave a workshop at ACMLA last year. There was discussion re: new bibliographic descriptive fields for geospatial data, these fields have now been added. They are:

-field 342-Geospatial reference data

-field 343-Planar coordinate data (pixel resolution)

-field 352-Digital graphic representation (vector/raster)

•First 2 fields refer to description of coordinates in data set and third field refers to description of method of referencing

•Two other geospatial metadata schemes are being used by some libraries to enhance the cataloguing record so users can evaluate the usefulness of the digital resource. They are the Dublin Core, US Federal Geographic Data Committee (FGDC) and ISO standards

•At this moment in time, the new procedures provide better description of the cartographic material being catalogued but unfortunately subject analysis has not been updated

•Some libraries add the words maps and digital along with geographic information systems tools. Also the words raster and vector re used as free-floating subdivisions

Follow-up on 2005 workshop in Nipissing

•Discussion–to catalogue or not to catalogue and are current practices meeting demands of users?

•ACMLA document was revised in 2004

•AMICUS has 145,000 cataloguing records but uniformity is needed

•Need a core level cataloguing guide for fixed field tags

•Cataloguers derive records from AMICUS but

records need more information and description

Toronto—St. George campus
•There is no immediate plan or urgency to catalogue geospatial data. We are presently using a search engine on the map library home page and record does not appear in OPAC. Information is added to template and number given to CD or DVD
•GIS data sets can be searched by keyword, subject, geographic area, title, in advanced search on map library web page but again, this is not possible in OPAC

Ryerson
•Their access point to geospatial data is on their web page
•Search engine has Marc format
•Cold Fusion was used to create page as a template, also Dreamweaver
•Oracle was the data base used
•There is a license agreement for each record

Brock
•Is only university with data records in main catalogue
•Uses similar system which allows keyword searching
•Does not catalogue layers at this time
•Series level cataloguing is what the user sees, numeric values don't cut it with some layers
•Metadata goes to notes
•Marc 21 is very descriptive and comprehensive although it is labour intensive
•Metadata in notes: no order, they tried organizing tags as much as system allowed, there are 500 tags so they created own order and there is no hierarchy in the notes
•Subject headings contain 650 tags

•There is hope for a crosswalk; this is a method of translating metadata formats
•Non-Marc fixed fields are merged into Marc records
•Many libraries are using a non-Marc cataloguing scheme and moving away from Marc cataloguing but there still has to be uniformity

In conclusion, the bottom line has to be from the users perspective. We must catalogue geospatial data in a uniform and consistent manner as the final question is why are we here? The answer, to help users access information.

Participants in the OCUL Map Group Library Assistants workshop, Queen's University, June 2007.

CALL FOR PAPERS, PRESENTATIONS, WORKSHOPS

CARTO 2008

Tuesday, May 13 - Friday, May 16, 2008
Vancouver, BC
Hosted by the University of British Columbia

Papers based on original research on any of the listed topics are welcome. All presenters, for paper presentation or poster session, must submit an abstract electronically (in either English or French) of 250 words or less. The abstract should fall under one of the conference themes which include:

- Analytical Cartography
- History of Cartography
- Map Production Technology
- Cartographic Education
- Map Use and Design
- Political Aspects of Cartography
- GIS/GPS
- Teaching Cartography in academia
- Mapping Health Data
- Public Cartography (google earth, maps, etc)
- Mountain Cartography
- Other aspects of cartography
- Cartographic Archives & Libraries
- Metadata
- Cartographic Material Cataloguing
- Statistical Data and Maps
- Open Source software
- Geospatial Data Providers
- Geospatial Data Services
- Digitization Projects
- Status of Topographic Mapping
- Community Projects
- Other aspects of map librarianship and archiving

Persons wishing to organize special sessions with invited speakers or joint sessions with ACMLA/ACACC or workshops should contact the local coordinator.
All participants must meet the abstract deadline.

Send your proposals to: Susan McKee (smckee@ucalgary.ca)
by: **February 1, 2008** for first consideration

Authors are responsible for spelling, grammar, and typographical errors.
The merit of each proposal will be assessed individually.
The time for each oral presentation will be approximately 20 minutes, which includes discussion and questions.

Program Committee: Dan Duda, Majella Gauthier, Diane Lacasse, Susan McKee, Roger Wheate, Alberta Auringer Wood and Clifford H. Wood

Local Arrangements: Sally Hermansen, Dawn Mooney, Walter Piovesan and Tim Ross