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

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Partie Orientale de la Nouvelle France ou du Canada. Jacques-Nicolas Bellin. [Paris],1975. Reproduit a partir d'un original de la Collection nationale de cartes et plans aux Archives publiques du Canada dans la Série de cartes fac- similes de l' ACC. carte No. 114 (ISSN 0827-8024).

PRESIDENT'S MESSAGE

I have always found writing a column challenging since I want to touch on every major issue that may have an influence upon our work as Map/GIS Librarians. But since this is my first President's Message as your new president, I am going to introduce you to our new executive and committee members, as well as remind you about the future work/tasks that came out of our excellent conference held at the Université Laval. Thank you to all the people who made this a very successful conference – Stefano Biondo, Joe Bouchard, and Gaston Quirion from the Université Laval, Nancy Lemay from the University of Ottawa, Lucie Gendron from the Université de Sherbrooke, Dan Jakubek from Ryerson University, Jennifer Marvin from the University of Guelph, and Marcel Fortin from the University of Toronto. All of you along with all of your volunteers did a wonderful job!

First of all, I want to thank the following executive members who served for a number of years on the executive: Past President Colleen Beard from Brock University, Treasurer Susan Greaves from Queen's University, and Secretary Susan McKee from the University of Calgary. Your work and dedication on the executive are greatly appreciated by the members of ACMLA.

Next I want to introduce the new executive to you: Andrew Nicholson from the University of Toronto Mississauga is now Past President, Rosa Orlandini from York University is 1st Vice President, Wenonah Fraser van Heyst from Brandon University is 2nd Vice President, Deena Yanofsky from McGill University is Treasurer, and Jasmine Hoover from the University of Saskatchewan is the Secretary. Thank you all for your willingness to volunteer your time for ACMLA.

Our long time editor of the Bulletin, Cathy Moulder, has stepped down from this position and I want to reiterate the membership's gratitude and thank her for her long time service. At the Annual General Meeting at Laval in June, the motion was unanimously carried that the Paper Award be renamed the Cathy Moulder Paper Award in recognition of her many years of service with the Bulletin and the many other committees with ACMLA. I personally want to thank you not only for your official work with ACMLA, but also for your mentoring. I still fondly remember our chat about Map Librarianship and Librarianship in general we had during the tour of Fort Edmonton Park at the 2000 conference in Edmonton. I has just completed my MLIS degree from the University of Alberta and your words of wisdom and encouragement were, and still are, greatly appreciated – thank you!

Thus, we have a new editor of the Bulletin and this issue is her first of what I hope will be many issues. Eva Dodsworth from the University of Waterloo is now at the helm of our publication. I want to welcome and thank her and her editorial staff for taking on this major service for our organization - good luck! And to the membership, please send in your articles, reports, etc. to keep the Bulletin what is has become, a valuable form of communication for the Canadian Map/GIS community.

Several committee chairs have also stepped down this past year – Trudy Bodak from York University has stepped down from the Bibliographic Control Committee (BCC) after many years of service. Thank you Trudy! Erin Forward from the University of Ottawa is no longer in charge of our membership committee, but is staying on the committee to help the new chair get started.

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WIKIS WORK: ENHANCING STUDENT ENGAGEMENT WITH COLLABORATIVE TECHNOLOGY

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ABSTRACT

This paper documents experiences using a wiki in teaching large undergraduate classes. A wiki is a web-based tool used to enhance student engagement and collaboration. This paper presents experiences using wikis as the major term assignment for two senior classes; one in human geography, the other in earth sciences. The advantages of using wiki technology are examined, as well as some of the challenges presented, including evaluation. While some of these challenges were significant, the experiments were successful enough to warrant further use. The paper concludes with some recommendations for others considering using wikis in their courses.

Introduction

Those involved in the teaching of geography and earth sciences (among many other disciplines) at the university-level have seen dramatic changes in the last decade with respect to the way that students learn (Côté and Allahar, 2007). In the era of Web 2.0 (the use of second-generation wed-based communities and services such as blogs, wikis, and social networking sites which collectively aim to foster creativity and collaboration) the use of traditional term papers, assignments, and other evaluative tools is less relevant than in the past.

In an effort to tap into these Web 2.0 sources of creativity and to encourage student collaboration in an innovative way, the authors experimented in 2007 by modifying two courses to include major assignments involving wikis. These two courses, while both offered by the School of Geography and Earth Sciences at McMaster University (Hamilton, Ontario), were quite different in terms of student enrolment and discipline focus. One course was a large enrolment (approximately 90 students), third-year course on the social geography of cities (Geo 3HZ3), while the other was a small (approximately 35 students), fourth year course on glacial sedimentology (Geo 4G03).

This paper presents the experiences of the authors in using a wiki as the major term assignment for senior undergraduate classes in both the social and natural sciences. We address the advantages of using the wiki as well as some of the serious challenges it presented, not least of which was evaluation. The paper concludes with some recommendations for others considering using wikis in their courses.

What is a Wiki?

A wiki is a website that allows visitors to add, remove, edit and change content (Wikipedia, 2007). It is one of a growing species of emerging technologies that mark a sea-change from the characteristics of the original World Wide Web to the new Web 2.0. Typical of most Web 2.0 applications, a wiki emphasizes collaboration and end-user responsibility for content creation. Wikis are not read-only documents published by authorities—they are dynamic democratic creations, dependent on collected contributions from a broad community of participants. The best known example is Wikipedia, a popular online encyclopaedia written by voluntary contributors all over the world.

The wiki concept was originally developed in the mid-1990s as a discussion and resource management device for software developers (Leuf and Cunningham, 2001, p.15). Earliest applications saw wikis used within an enterprise, to facilitate sharing of ideas and development of collaborative information repositories and reports. Generally these wikis were restricted to the group members involved and were mounted on intranet sites.

Adoption of the technology to educational use started in about 1997, with the CoWeb project at Georgia Tech. A list of early student uses of CoWeb suggests many functions similar to a course management system, with collaborative data gathering, information sharing and writing being the most common application (Georgia Institute of Technology, 2000).

Evolution of technology gradually reduced the very high programming overhead required for the early wiki explorers. According to Klobas (Klobas, 2006, pp.16-17), the major period of wiki evolution occurred between January 2001 (with the launch of Wikipedia) and the end of 2005. During this brief time-span, wiki editing became simplified to the extent that users no longer required any knowledge of hypertext markup language (html) coding; commercial softwares were developed and their functionality expanded; the 'wiki appliance' was introduced, which is a turn-key server

configuration containing all necessary software to run a wiki; and 'wiki farms' were developed, allowing remote hosting and setup of a wiki within minutes.

By 2004, discussion of wiki uses in education began to appear in the literature (Augar et al., 2004; Lamb, 2004; Schwartz et al., 2004). Schwartz et al. describe a survey of 24 wikis in use in university settings:

"Many of the wikis surveyed are currently in the early stages of development. Most are purely text-based with few images. In general, university wikis appear to be used more by specific departments or for particular topics, than for campus-wide uses (e.g., institutional information). The use of wikis for administrative scheduling, faculty use, learning support materials, and course management, appears to be rare. Of those we examined, more dealt with activities, events or clubs, than with curricular issues. Project management is a fairly common function, by course/group projects in particular fields including music and languages. University-based wikis seldom appear to be used for entertainment, student feedback, or journaling purposes." (Schwartz et al., 2004, p.2)

Engstrom and Jewett (Engstrom & Jewett, 2005) describe an inquiry and problem-solving wiki assignment involving 11 teachers and 400 middle school students. Some of the concerns they report resulted from the novelty of the problem-based learning model, the students' level of information literacy skills and limited access to technology, rather than directly with the wiki platform. Bold (Bold, 2006) describes the use of wikis for online interaction among graduate students in distance education courses at Texas Woman's University, as a tool to increase students' sense of connection and community. Grant observes that, as of spring 2006, "The use of wikis in education is still a relatively recent development, and the formal research literature on this subject is limited." (Grant, 2006, p.2), and describes a history-based research project for students aged 13-14 in Gloucestershire, England

At the start date of the project described here (January 2007), there were still very few instances of wiki use to support curriculum content at the university level reported in the literature of information science or of education.

Wiki potential

One of the most frequently mentioned expectations of emerging Web 2.0 technologies, and especially of the wiki, is the fostering of collaborative group learning. "Wikis are thought of as tools for multiple authors rather than a single author. The authors of a wiki jointly edit pages to produce a single, collaboratively-authored resource." (Klobas, 2006, p.2) Students can work on their assignments at any time and from any location using the Internet, and can meet "virtually" as their schedules allow. The dreaded group-work dilemmas of team members who do not meet deadlines or contribute their share are made manageable, as the postings of each individual are recorded with time-stamps for review and appropriate response by the instructors.

Through a process of group authoring it is expected that students will build and edit their wiki documents progressively, resulting in stronger final products by sparking idea development and collaboratively building on each other's work. "People not only put their ideas in; they also build on the ideas of others, sharing information and collectively developing knowledge." (Klobas, 2006, p.3) Used positively, the wiki is a valuable form of peer learning, allowing the instructors and all students to view content evolution over time and to contribute suggestions or resources to the communal effort.

Wikis are very appealing for educational use because they allow students to create and post web pages quickly and simply, with

minimal training or instructions. In theory, students should be able to concentrate on course content and research skills, rather than on hypertext markup language (html) syntax and file management.

They are also appealing for technology challenged educators. Unlike most highly-secured university servers, wikis hosted on Internet wiki farms do not require any administrative permissions in order to upload files or attachments. Site security is managed by the wiki host, and site etiquette (or SoftSecurity) is largely imposed by the participants "watching out" for each other. Inappropriate additions can be traced to their originator and the wiki can be easily reverted to an unsullied version.

Much has been written about the characteristics and educational needs of Net Gen students (for an introduction to the issues, see Côté and Allahar, 2007; Prensky, 2001; Oblinger, 2003; Oblinger and Oblinger (Eds.), 2005). They are identified as digitally literate, connected, social, comfortable with team work and achievement-oriented (Oblinger and Oblinger, 2005, pp.2.5-2.7). They like to participate actively in learning: "Rather than being told, Net Geners would rather construct their own learn¬ing, assembling information, tools, and frameworks from a variety of sources." (ibid., p.2.12).

"The social nature [of] Net Geners, as well as their desire for experiential learning, implies that interaction is an important technique for colleges and universities to employ. The importance of interaction is not new; learning science has consistently demonstrated that students learn more when they interact—with material, with each other, and with faculty. The "talk, text, test" approach to teaching is not highly effective with most learners. Students do best when they actively construct their own knowledge. In addition, there is a positive correlation between interaction and student retention." (ibid, p.2.12)

Most of these Net Gen characteristics match well with the potentials and opportunities offered by wikis. Wikis offer a platform for learning that is social, participatory, and requires much interaction with curricular materials in order to describe and display them for the understanding of others. Our decision to use this emerging technology seemed like a very good match to the needs of our students.

The two pilot courses

Wikis were tested as learning outcomes in two courses taught in McMaster University's School of Geography and Earth Sciences during the Winter term (January to April) 2007.

Geo 4G03, Glacial Sediments and Environments, was taught by Dr. Carolyn Eyles, to 36 students. The Geo 4G03 students were assigned the initial data gathering for the "Canadian Glacier Inventory Project" (CGIP), an ongoing initiative led by Dr. Eyles. The research objective of the CGIP is to gather and analyse information on the form and extent of Canadian glaciers, to establish a 'baseline' against which to measure future changes in glacier form and ice margin position that may be related to global climate change. Each student group was assigned a geographic region of Canada and given the task of locating and organizing all available information about the glaciers in that region. Student feedback from previous Geo 4G03 classes identified a desire for their course-related research work to reach a broader audience. The wiki offered this opportunity, by allowing students to create a database that can be expanded by future researchers and accessed as a resource by a wide Internet audience.

Geo 3HZ3, Urban Social Geography, was taught by Dr. Michael Mercier, to 90 students.

The Geo 3HZ3 students were working on the topic "Segregation in World Cities". In this case, each group was given a city and asked to report on the nature of its social segregation, be it based on racial, religious, economic or political dimensions. In earlier assignments within the course, students had learned how to create maps of segregation using ArcView GIS and calculate indexes of segregation using supplied data. With the wiki, student groups were challenged to find or tabulate their own data sources, produce maps, calculate levels of segregation, and to merge these findings with the existing research literature on the issues pertaining to their city. Groups then organized their findings into a wiki in ways that seemed most appropriate to them.

For both courses, the educational objectives would have been the same, with or without the wikis. The alternative student output for Geo 3HZ3 would have been a group report (term paper) and an in-class presentation. The alternative output for Geo 4G03 would have been presentation of research data in a mini-symposium format. The wiki alternative was suggested by the Geography Liaison librarian, as a way of incorporating an emerging technology into existing curriculum. Risk was minimized to mostly technological issues by working within a known pedagogical setting for the pilot project.

Selection of wiki and start-up

For many wikis exist, all providing slightly different features and functions. For our class use, we identified the following wiki characteristics as most important to us:

1) Remotely hosted. It was very important that students could upload and edit their work independently, without the need for staff assistance or for security clearance privileges normally required to access institutional servers.
2) Free.
3) WYSIWYG (What You See Is What You Get) interface. This means that students did not have to know html coding in order to create an attractive wiki page.
4) Minimal learning curve for participants. Again this was related to the ability of students to succeed in webpage creation quickly and without staff support.
5) Edit history, page comparison, user reports, backup or revert functions. These are functional elements that make it possible for educators to assess the students' progress and activities, and to restore the wiki if sabotage or 'accidents' occur.
6) Discussion and comment areas. These were important to capitalize on the collaborative nature of the wiki technology.
7) Minimal advertisements.

The WikiMatrix.com website provides an excellent aid for selecting a "wiki farm" (i.e. a remotely-hosted wiki). WikiMatrix allows comparison of many available wikis, based on the end-user's selected criteria.

Ultimately we selected Wetpaint as our wiki of choice for these class projects. Wetpaint offers a simple and attractive interface, with a minimum of commercial advertising. (Since this was written, Wetpaint has incorporated the option of "No advertising" for educational users.) It is extremely user-friendly, with clear and simple function buttons that resemble familiar word-processors. It offers a variety of user reports and tracking devices that make it easy to check students' contributions by date or by user. Creation of wiki pages within Wetpaint is virtually intuitive, although a FAQ and some help are provided. Furthermore, Wetpaint is free and all wiki pages are hosted off-campus by commercial servers.

The initial wiki sites for the two classes were created by Library staff (one by the Geography Liaison librarian and one by the Map Collection library assistant). In each case, the staff member had no previous experience with wikis. Setup was extremely simple—a matter of

following a few on-screen prompts. Library staff populated the new wikis with an organizational structure of page "stubs" (just blank pages with titles) for the students to start with and some standard informational pages (e.g., "Copyright Matters", "Finding Periodical Articles", citation guides and links appropriate to the subject). The instructors provided the content for the home pages and "Instructions for Students". Figures 1 and 2 illustrate the basic wikis.

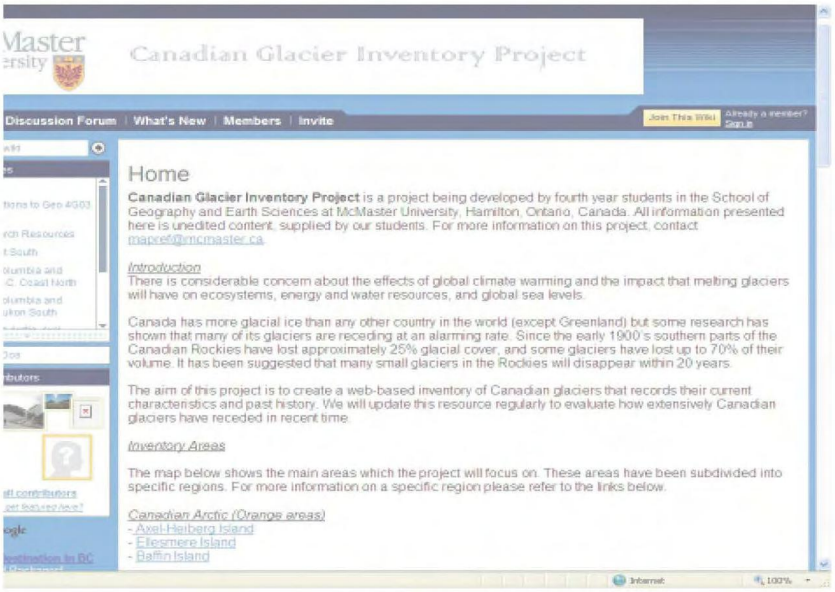

Figure 1. Basic wiki for Geo 4G03. Left navigation frame provides access to instructions and research resources, as well as to the page stubs for each student group.

Figure 2. Basic wiki for Geo 3HZ3, displaying the Research Resources page. Standard research instructions were supplied on start-up, and additional resources were added as students asked for guidance from the Library and the instructors.

The Library staff member creating the wiki was automatically assigned the role of "Administrator". Faculty members and teaching assistants (TAs) were "invited" to join the wiki as "Moderators", and the TAs in turn "invited" the students to join as "Writers". These different levels of participation determine what functions are permitted. The "Public" (i.e. those not 'invited' to participate by the site Moderators) may view and comment on any page, but cannot edit, add or delete information. "Writers" may edit any page, including those created by other students, and can add pages. "Moderators" can move, lock or delete pages and ban undesirable users. The "Administrator" can establish the page template, upload a unique logo, and change settings and permissions for the site.

Experiences and observations

Students in Geo 4G03 started work on their wikis as soon as the assignment was announced and worked steadily throughout the term. By contrast, activity on the wikis in Geo 3HZ3 was more uneven, with some students starting early on their assignment but most showing a flurry of activity towards the deadline date. Initially, this variation in activity was attributed to a difference in the class composition, Geo 4G03 being composed mostly of highly-motivated Honours Earth and Environmental Science students in their final year and Geo 3HZ3 being a much more varied group including some non-Geography students taking the course as an elective. Subsequent student comments in Geo 3HZ3 revealed that some groups had deliberately "held back" the reveal of their best ideas, so as to not have them copied by others. This was a very surprising revelation, in light of the general expectation that Net Gen students are deeply committed to collaboration and group process and that the wiki tool itself is all about collaboration. Clearly there are still residual elements of competitiveness among our students!

Library staff and TAs reported very few requests for technical help. Wetpaint exceeded expectations in terms of allowing students to create simple wiki pages without instructions or staff support. Some display problems were encountered when students attempted to paste heavily formatted Microsoft Word documents into their wikis. Wetpaint responded best when text was typed in directly or when only unformatted text was pasted in. More complex formatting effects, such as tables and text wrapped around graphics, were difficult to achieve and caused students some frustration. In using Wetpaint again, we will inform students of these limitations as part of the Instructions for Students.

Overall, content created in the wikis far exceeded expectations. The students, digital natives accustomed to slick graphics and ubiquitous audio, quickly incorporated photographs, colourful visuals and a multitude of web links into their wiki pages, amalgamated with the more traditional essay text and expected academic references to books and journals. Many students created their own maps, using ArcView and statistical data they found on the internet or in paper sources. In Geo 3HZ3, a number of groups linked to You Tube and streamed videos with sound, many of them with solid relevance to their topics. One particularly enterprising group interviewed a former native of Belfast about segregation and posted the video and sound to You Tube themselves, before streaming it back to their wiki (Figure 3).

Most students experimented with webpage navigation elements, such as Tables of Contents, Back and Next buttons, keyword tagging and a hierarchical navigation bar (left nav). Success here was varied and some efforts displayed more emphasis on graphics than on logic (Figure 4). But this consciousness of webpage structure, logical sequence and navigation was recognizable as a very important learning outcome of the wiki exercise. This

awareness was perhaps the clearest example of life learning skills gained, as students became more conscious and more critical of the devices that webpages use to draw them towards content (Figure 5).

Figure 3. Wiki results demonstrated initiative and technological savvy. In this example, students scripted and recorded a very relevant interview, posted it to YouTube and then streamed the video back into their wiki page. (Illustration used with permission of the students)

Figure 4. Example of graphics used for webpage navigation. Students demonstrated awareness of the role of navigation aids (like back/next buttons and tables of contents) in helping the reader progress logically through multiple pages of information.

Assessment

Faculty, the librarian and TAs met before the wiki projects were assigned to collaborate on the appropriate marking structure for the students' products. Because the students' potential adaptations of the wiki were unknown, it was decided for both Geo 4G03 and 3HZ3 that the marking schemes would recognize standard essay writing skills (completeness and analysis of content, information sources used, evidence of interpretation, organization and expression), artistic elements (creativity, originality, graphic design elements) and participation (number of comments, evidence of collaboration).

Geo 4G03 was graded on the basis of four components—a 'concept map' of the site, site content, data sources and an oral presentation. Each group was assessed on all components of the project and satisfactory performance was required in every component. However, individual groups were allowed to determine separately the proportion of marks allocated to each component (within reasonable limits and with approval of the TA) prior to submission of the first element. This provided the Geo 4G03 students with a certain degree of 'ownership' of the assessment scheme and allowed them to give more weighting to components of the project they identified as their strengths.

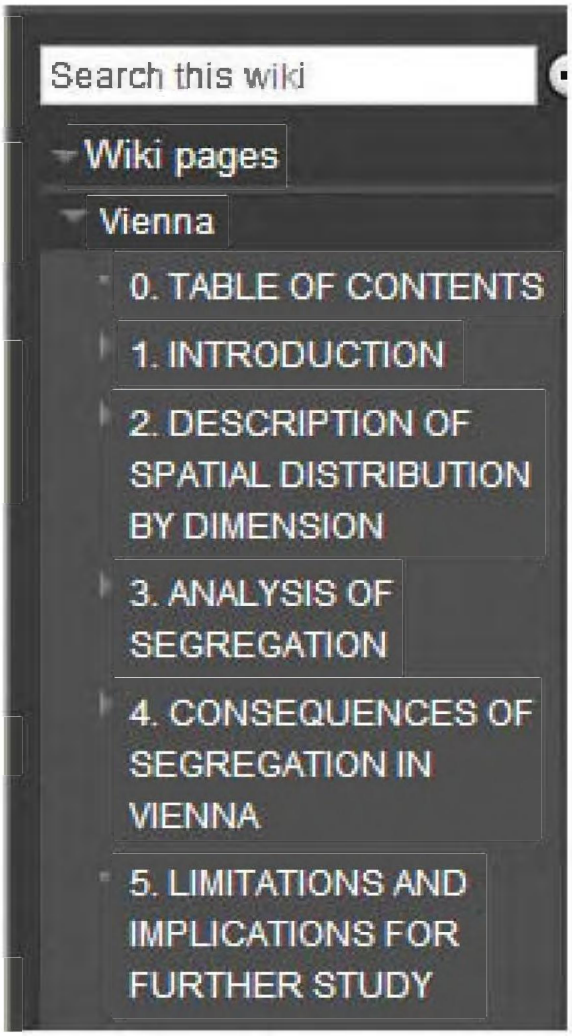

Figure 5. Example of internal wiki structure used for webpage navigation. Some students were able to effectively overcome the default alphabetical order imposed by the wiki and provide their readers with additional ways of logically accessing their webpage contents.

The oral presentation was the first component of Geo 4G03 to be assessed, about two-thirds of the way through term, and was intended as a 'progress report', identifying highlights of the group findings and problems/issues/challenges faced by the group. This was an excellent opportunity for students to further develop their oral presentation skills and explain to others what was and was not working for them. It also provided an opportunity for the instructor, TAs and Liaison librarian to question each group of students on the content of their wiki and to valuate their comprehension of the subject material. As this was a fourth year course, there was a relatively high expectation for the amount and quality of research, analysis and synthesis of information communicated through the final wiki product. Student groups were also able to ask each other questions during these oral presentations, often identifying issues that were of shared concern.

Each of the final Geo 4G03 wiki sites was thoroughly evaluated by the instructor and TAs, and detailed written comments were given to each group. The time spent on assessment of the wiki sites was approximately equivalent to the time that would be spent marking individual fourth year essay assignments.

The students in Geo 3HZ3 were graded entirely on the final wiki product, in a two-stage collaborative process that involved the faculty member, the Liaison librarian, the Map Collection library assistant and two graduate TAs. A marking rubric using Likert scales was initially used, with the rubic focusing on nine factors including originality, research quality, data analysis and aesthetic features. This traditional rubic proved too cumbersome and difficult to implement in the case of these wikis, and so rather than using a criteria-based evaluation an innovative two-stage evaluation process was used. This evaluation was considered a more summative evaluation of each group's wiki.

Ethnically, politically and culturally diverse cities such as Rio de Janeiro, Jerusalem, New York, and Montreal were studied as part of the Geo 3HZ3 project. Given this diversity, access to data sources and existing literature was variable for each group. As such, it was difficult to critically assess the wikis without consideration of the advantages and challenges that each group faced. To overcome these discrepancies in available data sources, the wikis were graded

according to geographic location, such that all wikis on American cities were compared and assessed together, and all Canadian cities were assessed and compared together, etc. This took into consideration the assumption that students would be working with comparable data sources, and would face similar research challenges such as foreign language or data availability.

After grouping the wikis by geographic area, they were ranked through a collective process which assessed their quality, variety of information resources used, as well as the selection, synthesis, organization and presentation of that material. An electronic classroom was used for this "marking meeting" so that each marking participant could view the wikis first individually at their own workstations and then collectively using a data projector. This collaborative process of marking worked extremely well, with instructional participants (faculty member, graduate TAs) contributing heavily on course content matters and the library participants (Liaison librarian, Map Collection library assistant) commenting on information resources and media literacy issues. The collective ranking process effectively dealt with the large number of projects, as well as the large volume of written work which was organized in a hierarchical (non-linear) structure.

The second stage of this evaluation process was a more traditional and empirical marking process undertaken by instructional staff exclusively. The wikis were evaluated based on the factual content presented, selection and use of resources, and organization and communication of the informational content. The rankings from the initial "marking meeting" and this second stage of the evaluation process were brought together to determine final grades for the wiki projects, with each student in a group receiving the same mark. Detailed comments from the instructional staff, including the rationale for the grades assigned, were provided to the groups.

Reactions

Student reaction to the wiki projects was initially cautious. Many students were familiar with Wikipedia, but no student had ever contributed to a wiki themselves prior to this assignment. Most students found the exercise new and exciting, and reported that they had never done anything like this in previous years. Some commented that they had in fact worked harder on the course content as they became engaged with the wiki. One student remarked, "The CGIP project was a great interactive assignment—a good way to enhance our research techniques and increase[d] our understanding of glaciers in practical ways." Another wrote, "CGIP project was very stressful as there were no boundaries which can be fun but stressful." Many students were enthusiastic about the collaborative nature of the projects; one student, from the urban social geography class wrote, "I liked how we could read and learn from the other groups. Most term papers aren't like that. You do your own thing, hand it in, and that's it. This way I learned about other places, and got good ideas for our site."

Some students reported technical difficulties: inability to copy/paste heavily formatted text from Word into Wetpaint; trouble embedding large images and formatting text around images; maximum size limits for images and file attachments, and issues with upload speed. Students who were knowledgeable about html and webpage creation reported frustration with the very simplistic tools and functions available within the wiki. One rather bitter student summarized this frustration when he/she wrote, "Wetpaint sucks! The interface is brutal compared to others out there, and man, it is so slow!" While these frustrations were clearly valid, it is not certain, despite this student's claim, that other free commercial wiki farms are in fact better, faster, and any more user-friendly.

Faculty reaction to the wiki project was enthusiastic and both instructors reported that they would definitely use the technology again. They felt that students had been required to consider the potentially world-wide audience of the wikis and to write carefully. Students also had to consider physical organization and logical structure of their information, as well as content. The general calibre of the results was judged to be higher than the usual symposia or written term papers. In addition, there were far fewer issues with group dynamics compared with more traditional group assignments. The 'creative' aspects of the wiki project appealed to those students who may not otherwise have been fully engaged in the research process. All students felt they had something important to contribute to the project.

Both faculty members felt the wiki technology offered an excellent tool for engaging students, because it was new and never experienced before. Students liked having the opportunity to show their work to peers, friends and family and were proud of their completed products. Figure 6 illustrates a group of students having fun with the course content, as they model the zones of a glacier—they are engaged and clearly learning in a memorable moment.

Figure 6. Example of student engagement with the wiki projects. This group is having fun as they model the parts of a glacier. But they will probably retain this memory of course content far beyond the completion date of their assignment. (Illustration used with permission of the students.)

One difficulty was identified after the students' wiki projects were completed. Both faculty members wished to retain a "copy" of the students' work. Dr. Eyles wished to capture the Canadian Glacier Inventory Database content to develop a long-term project which eventually could include content added by colleagues and their classes at other institutions. Dr. Mercier wished to retain the original wiki content as a benchmark, but to erase the completed wiki so that the assignment topic could be studied again by a future class. It proved extremely difficult and labour-intensive to copy/paste content out of a commercial wiki like Wetpaint into an archival format and to clean up and re-establish links. It is also difficult to "erase" content from a wiki, by the very nature of the edit history and revert functions that it provides. Any future venture into wiki-based projects will consider this as one of the key criteria in selecting which wiki farm to use.

Library staff were also very pleased with the outcomes of the wiki projects. The project required an absolute minimum of technical or educational support from the Library's instructional staff. Student questions in the Library focussed almost entirely on course content and finding appropriate resources. The wiki project presented an opportunity to work closely with two enthusiastic and receptive faculty members and their TAs, in teaching and learning roles as well as in more traditional information roles.

The success of these two projects has encouraged other Liaison librarians to promote wikis for course assignments in different disciplines. Additionally, McMaster University Library has now launched a wiki-hosting site on an internal server, to allow faculty more control over the long-term archiving of created content. This in-house wiki farm should enable greater collaboration between disciplines and with external partners.

Conclusions

The overall experiences of using wiki-based assignments in the two senior undergraduate courses reported here are extremely positive and are shared by all those involved—the instructors, students and librarians. Some of the greatest benefits of using the wikis lie in the provision of a tool that encourages and stimulates collaborative learning and also allows the development of 'real world' lifelong learning skills of high value to the students. In particular, the wikis allowed students to blend and develop research, communication and creative skills in a way that is not generally possible in a more traditional assignment format. The fact that the final product was publicly visible encouraged students to write and edit the content carefully, and in a manner that was interesting to a broad and diverse audience. This is a great improvement over traditional written assignments where students often produce bland and uninteresting commentary as they mimic what they perceive to be 'good' academic writing. Student groups that produced particularly high-quality wiki sites were diligent about the critical evaluation of content they posted, and all groups were careful to provide full citations for their sources of information. These skills, in addition to those involved in webpage design, organization and navigation, are invaluable to students graduating in the 21st century.

As well as developing essential skills, the wiki assignments also appear to have enhanced the students' learning of the course content through their increased engagement in the learning experience and the amount of effort involved in creation of the wiki content. Although no quantitative data are available regarding enhanced learning of discipline content for either course, both instructors felt that students learned and retained more of the subject material than in previous years. Student responses to instructors' questions during formal presentations in the Geo 4G03 course

demonstrated in-depth understanding of the subject content and a relatively high level of learning as evidenced by the students' ability to apply learned concepts to new situations. This was communicated particularly well through students questioning one another during the oral presentations, in which they were able to identify issues that were shared among the regions which each group was studying. The wiki projects also provided enormous benefits to the instructors and librarians involved through the opportunity to collaborate on a project that was new, exciting and stimulating.

Despite all of the benefits described here, wikis may not be suitable for use in all courses and not all instructors will enjoy or find use for them in their classes. The introduction of a wiki-based project requires a considerable degree of willingness on the part of the instructor to empower the student body—students are essentially in control of the content of the wiki site and the instructor must feel comfortable with this. As noted by Lamb,

"To truly empower students within collaborative or co-constructed activities requires the teacher to relinquish some degree of control over those activities. The instructor's role shifts to that of establishing contexts or setting up problems to engage students. In a wiki, the instructor may set the stage or initiate interactions, but the medium works most effectively when students can assert meaningful autonomy over the process." (Lamb, 2004, p.45).

Handing over the responsibility for generating and organizing wiki site content to students may also leave instructors frustrated with their inability to comprehensively edit and check for errors when large amounts of material are posted. In this situation, even though a broad-scale audit of the quality of the material can be conducted by the instructor and TAs, a note should be added to the site alerting users that the content was student-generated and largely unedited. Instructors considering the use of wikis in their courses may also be discouraged by the time-consuming nature of the assessment process. The type of assessment should closely align with the learning objectives of the course or project, and this will often determine whether emphasis is placed on assessment of wiki content or on presentation style. Assessment strategies involving student input and/or collaborative teams of evaluators can also be explored.

This first pilot of wiki use in undergraduate courses at McMaster University strongly suggests that there are no major technological impediments to the collaborative learning process and that in fact there are many benefits from their use in appropriate classes and assignments. Wikis provide a very flexible platform on which to enhance engagement of students in a range of collaborative learning projects that can cross disciplines and even institutional boundaries. It is exciting to consider the possibility of community, cross-institutional and international wiki-based projects being established where students can use their own local expertise to contribute to the collaborative growth and development of a significant body of information. Wikis work now—and have even greater potential for enhancing student engagement in the future.

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WANTED:

FEATURE ARTICLES

The ACMLA Bulletin is comprised of regular columns, but also feature articles written by map and GIS users like you. Please consider sharing your research, your knowledge and experience in the form of a research paper.

Every year, ACMLA offers the ACMLA Cathy Moulder Paper Award. To be considered for this award, your paper must be at least 3 pages long, and must contribute to map/GIS librarianship, curatorship or archiveship. For complete guidelines, please visit the ACMLA Award Committee's website: http://www.acmla.org/awards_committee.html

ACMLA AWARDS

The ACMLA Awards Committee is responsible for three awards given by the Association. We invite nominations for these awards and encourage members to participate in the selection of the awards for outstanding accomplishments in our field.

ACMLA Honours Award

The Awards Committee invites nominations for the ACMLA Honours Award. According to the guidelines for the award, the nominee should be a person who has made an outstanding contribution in the field of map/GIS librarianship. The contribution may either be for a specific activity or for general services and contributions such as continued membership in the Association with active participation either as an executive officer, committee chairperson, or committee member. Normally, membership in ACMLA is a prerequisite, however that does not preclude considering outstanding non-members.

- Deadline : March 31, 2012

ACMLA Cathy Moulder Paper Award

To be nominated for the Paper Award, which carries a $200 monetary prize, a feature article by one or more authors consisting of at least three pages in length must have appeared in issues 138-139 of the ACMLA Bulletin.

- Deadline : March 31, 2012

ACMLA Student Paper Award

The Student Paper Award will consist of a prize of $250 and free membership in the Association for one year. The award includes an invitation to present the winning paper at the Annual Conference. The Association will waive registration fees and provide a travel stipent of $250. The award will normally be given on an annual basis to a student from Canada or studying in Canada currently enrolled in a post-secondary institution (college or university). The essay shall be original and published and of no more than 3000 words. Priimary consideration for the award will be given to the essay's originality and its contribution to new knowledge and inight. Other considerations include the author's demonstration of the relevance of the subject, the quality of the presentation and documentation, and the literary merits of the essay.

- Dealine: March 31, 2012

For more information on ACMLA Awards, contact:

Eva Dodsworth
Chair, ACMLA Awards Committee
edodsworth@uwaterloo.ca

ANNOUNCING

A new ACMLA Bulletin column

On the Map: The Map Trend Locator

Do you wish you had more time to read GIS newsletters and online e-zines? Do you feel like you can't find the time to read up on the changes and upgrades and the latest "GIS in the news"? Well then...the ACMLA Bulletin is excited to announce a new column that is geared to provide you with the latest GIS news and updates. Courtney Lundrigan, Ryerson University, will be compiling a list of the latest and neatest GIS tools released. Effective 2012, Courtney joins the ACMLA editorial team and will gather a collection of all the buzz apps and stories you may have heard about.

45e Congrès annuel de l'Association des cartothèques et archives cartographiques du Canada (ACACC)

45th Annual Conference of The Association of Canadian Map Libraries and Archives (ACMLA)

PROGRAMME
PROGRAM

CARTO 2011

Cartothèques et archives cartographiques : le futur, c'est maintenant!

Map Libraries and Archives: The Future is Now!

Bibliothèque de l'Université Laval, Québec
7 au 10 juin 2011

Université Laval Library, Quebec City
7 to 10 June 2011

UNIVERSITÉ LAVAL
Bibliothèque

ACMLA CARTO 2011 CONFERENCE REPORT

June 7th - June 10th, 2011

Tuesday June 7th : Pre Conference Workshops

FOSS QGIS: Mature enough for University use?

Daniel Brendle-Moczuk and Eva Dodsworth
Report by: Daniel Brendle-Moczuk

As part of ACMLA / CARTO 45th annual conference "Map Libraries and Archives: The Future is Now", held in June 2011, a 3 hour workshop was conducted on QGIS, a FOSS (free and open source software) GIS. The workshop was entitled: "FOSS QGIS: Mature enough for University use?"

Why was a workshop on FOSS-GIS even conducted? As Donnelly in his 2010 article stated "As adopters of open source technology, academic libraries should consider adding FOSS GIS and becoming involved with the open source movement. GIS and data librarians are in a unique position as they gain familiarity with several applications of GIS under many circumstances, since they have patrons from many different fields whose needs for GIS range from basic to advanced."

Some conference attendees had heard of QGIS and other FOSS-GIS but the workshop was conducted because many had never spent considerable time with FOSS-GIS and specifically QGIS. The title of the workshop, "FOSS QGIS: Mature enough for University use?", was a bit of a misnomer as open source GIS (and other open source software) have been used on university campuses world-wide by advanced researchers and neophytes for a number of years. Steiniger and Hunter in their 2010 article "Teaching GIScience with free and open source software" stated "We believe that free [GIS} software has achieved a level of maturity that enables it to replace proprietary desktop GIS software when teaching GIS I & II level courses." In addition, Ming-Hsiang Tsou and Smith in their 2011 white paper, stated "We hope that GIS educators can realize the potential of open source GIS software for their courses and instructional tools."

Very talented people are behind FOSS-GIS including QGIS. Some advanced researchers, for example, Carson Farmer, PhD (UVic Geography) currently on a post-doc in Ireland, is a QGIS developer and has written a "R" statistical functionality plug-in for QGIS. Advanced researchers have the advantage of knowing the "math" behind the functions of QGIS; they can (re-)write new programs, add-ins, plug-ins, etc. In other words, QGIS is not "immature".

Approximately 30 attendees participated in the QGIS workshop. There was a range of GIS users; from seasoned GIS veterans to intermediate users to others who had never used a GIS. The workshop began with an introduction FOSS-GIS which has grown substantially over the last number of years as evidenced by the number of articles published (using both Web of Science and Google Scholar) with the terms "open source" and "GIS" doubling in the last 3 years and almost quadrupling since 2005.

The workshop continued with a brief overview of Esri's ArcInfo / ArcGIS and the parallel development of GRASS-GIS (Geographic Resources Analysis Support System). GRASS-GIS was

originally developed by the U.S. Army Construction Engineering Research Laboratory (CERL) in the 1980s, the same time period as ArcInfo. In 1995 US CERL officially ceased its involvement in GRASS after release 4.1 and by 1999 the license of the public-domain GRASS software was changed to the GNU GPL in version 5.0. In 2002 some of the same developers from GRASS began to work on QGIS and it became an incubator project of the Open Source Geospatial Foundation in 2004. QGIS, after GRASS, is one of the "older" desktop GIS.

The ACMLA / CARTO workshop could have selected any number of FOSS-GIS but QGIS was selected because of its "maturity" and "pedigree" as outlined above. In addition, Chen, et al, in his 2010 article "Assessment of open source GIS software for water resources management in developing countries", stated that on a [very outdated] Pentium III 450 MHz, 328 Mb RAM, with MS Windows 2000, "QGIS outperformed others in very poor computing conditions. The gvSIG and openJUMP packages [other FOSS-GIS] performed reasonably well but their startup times were long, while MapWindow struggled."

For the hands-on portion of the workshop, Eva Dodsworth, University of Waterloo, conducted a 1.5 hour session (first half of the 3 hours) using vector data in which participants used several QGIS vector functions and mapped the locations of hotels near Universite Laval in Quebec City. Participants used DMTI's Enhanced Points of Interest and Street Network file and made a final map copy complete with hotel and street labels. Daniel Brendle-Moczuk conducted the second half of the 3 hour workshop with raster data in which participants used several QGIS raster functions and plugins.

QGIS workshop attendees

Photo courtesy of Stefano Biondo

Nothing is perfect in this world including proprietary and/or FOSS-GIS and there were a few hiccups in the workshop. But as Ming-Hsiang Tsou and Smith (2011) quote Ramsey (2007), "the change to open source requires a different mindset. Rather than one program or one suite of programs delivering everything you need, you go over to different programs that all communicate with each other and use the same (standard) protocols and data formats."

Finally, Donnelly puts it well when he states "Students pursuing geography, planning, or earth sciences degrees may want exposure to ArcGIS as they are likely to use it in their future careers. However, [my emphasis] students studying biology, business, or sociology who are interested in taking GIS as an elective so they can apply it to their field may benefit from learning GIS through FOSS GIS, as they will have easy access to the software after they graduate." Librarians serve all students, not just geography students and thus need to be very aware of alternatives to proprietary GIS.

Selected Sources:

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Census and Business Data Made Easy Using Simply Map Canada 2.0

Dan Jakubek, Suzette Giles, and Trudy Bodak
Report by: Dan Jakubek

This half-day hands-on workshop provided a special preview of SimplyMap Canada 2.0, which has been completely redesigned with superior usability and performance, and a host of new features. Simply Map Canada is a web-based application that enables users to quickly create professional-quality thematic maps and reports using demographic, business, and marketing data.

Using SimplyMap Canada 2.0, workshop participants learned how to access and map Canadian data sets from the Environics Analytics Group. Examples from the following datasets were demonstrated in lecture and presentation format, nationwide for all Canadian Census geographies (Provinces, Census Divisions, Census Subdivisions, Census Metropolitan Areas, Census Tracts and Dissemination Areas):

- Adjusted 2006 Census Data,
- Current Demographic Estimates and Five-Year Projections, and
- Current Estimates for Household Expenditure Potential (HEP)

In addition, the group worked with Canadian business locations extracted from the D&B Canadian Business Directory.

SimplyMap Workshop. Trudy Bodak, Suzette Giles, Stefano Biondo, and Dan Jakubek

Photo courtesy of Stefano Biondo

FIRESIDE CHAT

Facilitator: Andrew Nicholson, President, ACMLA
Note taker: Susan McKee, Secretary, ACMLA

The Fireside Chat was held at the CARTO 2011 opening day Icebreaker. The purpose was to have an informal discussion on questions arising from the 2010 ACMLA member satisfaction survey.

How can we improve communication and networking opportunities among ACMLA members?

Responses to this question included holding more frequent meetings, making better use of the CARTA listserv, and looking into use of social networking tools such as LinkedIn and Facebook. ACMLA could hold conferences several times a year, form local chapters, and arrange small group discussion opportunities. CARTA is not used that much; often responses to questions posed are done off-list. More use should be encouraged. Possibly some members don't know that they're on the list.

Are there areas of interest as geospatial information professionals that we are not currently capturing in our Association activities?

Suggestions were: defining geospatial literacy and the future of map libraries.

Should new committees or working groups be struck to look at these areas?

Responses included the possibility of dropping some existing committees, and resurrecting inactive committees.

Are there ways we can better promote the Association to bring in new members and/or bring out the untapped expertise of current members?

Ideas for promotion included: using social networking tools; changing the ACMLA name and website; forming a marketing group for new members; targeting Geography and Library school students; sponsoring a map/GIS contest; and using GIS Day to promote the ACMLA. Providing maps/GIS/data outreach and assistance to other groups would utilize members' expertise.

Are there steps we can take to make ACMLA Committee participation more valuable for professional development, while minimizing the time commitment?

There was discussion on the topic of committee work. While there is a lot of important and even complex work to be done, there is an ongoing issue with recruiting committee members. This is because committee work can be daunting, and also there are language issues for some. Committee members can explain the details of duties and time commitment. Committee work is not onerous and an online model using social networking tools including blogs and wikis could reduce time. Some employers are more supportive of committee work than others. Committee structure could be changed to be more goal oriented. Rather than using committees, another model could be

forming task forces to deal with issues as they arise. Does ACMLA need a totally new structure; can we dismantle it and start over?

ICEBREAKER

Wednesday June 8th

OCUL's Geospatial Portal Project
Leanne Hindmarch

OCUL provided an introduction to the Geospatial Portal Project. This data storage and discovery tool, along with the social science data delivery system <odesi>, will provide a portal to Ontario researchers to access numeral and spatial datasets. The portal system will provide a secure repository for geospatial files and include an integrated online mapping tool to improve the accessibility and ease of use of geo-referenced data. For an update on this project, see page 47.

Le projet Septentrionalium: Mercator sous l'angle de Drupal et Open Layer!
Stéfano Biondo and Joë Bouchard

Les conférenciers partagent leur expérience d'un projet de publication portant sur la carte géographique de Gérard Mercator Septentrionalium Terrarum descriptio (1595). Ils expliquent les trois phases qui composent le projet : 1) l'acquisition à Prague de l'état 1 du premier document cartographique entièrement dédié à la représentation de l'Arctique, véritable document fondateur de la nordicité 2) leur collaboration avec Louis-Edmond Hamelin, professeur émérite de géographie de l'Université Laval, à la réalisation du livre L'Apparition du Nord qui constitue une analyse approfondie de la carte (étude du mythe du pôle Nord, de la représentation de la banquise et des variations climatiques , de la présence de faits géographiques précédant leurs découvertes officielles , de l'utilisation de toponymes multilingues, etc. et 3) la réalisation d'une carte géographique interactive et collaborative faisant le lien entre la planche de Mercator et l'ouvrage. Cette dernière étape est marquée par l'utilisation de logiciels libres tels que Drupal et OpenLayer et conduit à une nouvelle mise en valeur de la carte.

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The Septentrionalium Project : Mercator in Drupal with Open Layers
Stéfano Biondo and Joë Bouchard

This presentation centred on the experience of two Laval University librarians in developing a published volume on the subject of Gerard Mercator's Septentrionalium Terrarum Description (1595). They explained in this presentation the three phases of the project: 1) The acquisition in Prague of a first print of Mercator's map depicting the Arctic. A map which is considered to be a very important part of the foundation of the concept of nordicity, a concept developed by Geographer Louis-Edmond Hamelin of Laval University in the 1960's. 2) collaboration between the librarians and Professor Hamelin (emeritus) and the idea of publishing a book "L'Apparition u Nord", which devises a deep analytical structure to the map (The myth of the North Pole, Pack Ice, Climate Change, pre-official discovery of territory, multilingual toponymy use, etc. and d3) the development of an interactive map project linking the original work and the analyses. This

last stage of development was done using free and open source software, Drupal and OpenLayers and contributed to new importance and value to the map.

NRCan Library's Historical Topographic Maps Project

Barb Cloutier, Natural Resources Canada Library

Historical topographic maps are in demand, but are not readily available online. Making them so is a challenge. They occur in multiple editions in various institutions, with limited sources of quality metadata and few existing digital images. The resources needed to identify maps and editions, acquiire metadata, scan maps, and store, preserve, and render them accessible, requires a collaborative effort from the map community. The NRCan Library is proposing a longterm project, in partnership with Canada's map community, to make these maps accessible online. The focus was the NRCan's historical series accessible through the GEOSCAN database.

For more information on this project, see feature article on page 43.

Conference room

The Inuit Land Use and Occupancy Project – 1974 and 2010

Marc Cockburn, Bill Kemp and Susan Ell

Inuit traditional knowledge has become increasingly valuable for use by today's Inuit organizations and communities with responsibilities for the protection, management and sustainable development of the lands, waters and biological, cultural and physical resources of Nunavut.

In November 2010, The Qikiqtani Inuit Association (QIA) of Nanavut announced the formal launch of QIA's Inuit Land Use and Occupancy Project Database (ILUOP Database) which draws together an expansive collection of information collected from local hunters in 1973-74 for the Inuit Land Use and Occupancy Project conducted by Milton Freeman Research Limited under contract with the Department of Indian and Northern affairs.

The ILUOP field records, which include approx. 1,800 individual map biographies, ecological maps, and cultural maps, 20 boxes of textual material and 150 audio tapes of oral interviews, have been preserved at Library and Archives Canada (LAC) since 1976, but remained largely untapped by researchers until 2009, when the QIA initiated a pilot project in collaboration with LAC, the QIA Lands Department and the Montreal-based environmental consultancy Strata360 to process this information into digital formats and user friendly databases.

The results have yielded useful summaries and detailed maps of Inuit land use history and ecological knowledge for all of the traditional territory that comprises the Baffin Region of Nunavut. Many possible applications of this database are now being anticipated by QIA and the Baffin Region communities. Currently the information is being used to support Inuit participation in the discussions, planning and decision making for establishing the proposed National Marine Conservation Area in Lancaster Sound.

The presentation focused on the challenges and advantages of today's digital technology to transform traditional knowledge into accessible sources of data, and the LAC's role in working in association with partners to develop ways to return valuable information and resources to aboriginal communities.

Don't wait! Challenges in Digital Archival Preservation

Heather Tompkins and Elizabeth Doyle

Archival preservation isn't always easy. The digital realm and its associated archival records are creating different preservation challenges and the learning curve is steep. Innovative tools, standards and procedures are required and due to the time-sensitive nature of digital records, waiting for a complete solution is not an option.

The presentation focussed on the challenges faced while processing digital archival collections at Library and Archives Canada (LAC). Topics such as hardware and software obsolescence, file formats, metadata, and access were discussed as well as how LAC is working towards becoming a trusted Digital Repository.

Photos courtesy of Stefno Biondo

Thursday June 9th

How I Infiltrated the Geography Department to Teach Information Literacy

Marcel Fortin

Qui moi? enseigner? Teach? Me? - GGR375, the evolution of geographic information

Information literacy and instruction are important aspects of most GIS and Map librarian positions. Usually our teaching sessions are limited to one class or two per course to work with students. In 2010 I was lucky enough to have been asked by the Geography department at the University of Toronto to create a course to teach in the winter of 2011. Instead of creating a GIS course, or an historical GIS, two areas I am very comfortable with, I chose instead to create a course called "The Evolution of Geographic Information". Initially the course was to be a survey of the digital evolution of geographic information but ended up being mostly about the critical use and interpretation of maps and digital data. In other words, a large part of my course was on geospatial and map literacy. The presentation discussed the subjects covered in the class highlighting the areas that functioned well or did not function. But mostly, this paper was about the invaluable learning experience I obtained through teaching an entire course, the things I learned, how I changed some student views on some topics, and finally the invaluable experience of seeing the library, its resources, and it services from a different standpoint as an instructor.

The initial challenge of putting together the course was coming up with a syllabus. With good advice from my colleague at the time Laine Ruus, now emeritus at the University of Toronto, I simply broke down my world of map and GIS knowledge into twelve topics representing the twelve weeks of a term; simple! Well, not that simple, but certainly a good start. The teaching aspect, once compartmentalized did fall into place quite nicely with the confidence gained from having understood that I did know enough to teach a course. We began the course by trying to find what the best definition of Geographic Information was. Interestingly, the best definitions that were the most meaningful were short and to the point yet very insightful. An example was John Pickles who wrote in 2004 that "Cartographic institutions and practices have coded, decoded and recoded planetary, national and social spaces."

Where a U turn or at least a fork in the road was encountered in the flow of the course though, was when we began to tackle the history of cartography. Far from wanting to simply do a survey history of cartography, I introduced several methods of thinking critically about maps and GIS. The shift in focus truly set the tone and I think made the course more fun and more insightful.

Topics covered during the course included geographic information literacy and the difficulties around defining what this term means. We also looked at alternative sources of geographic information such as native wood carvings, stick charts, belts, etc. as well as hand drawn maps, art, music, and literature. We also examined the intersections between art and geography where art pieces become part of the geography. Examples included Robert Smithson's work on the Spiral Jetty in Utah.

We also examined children's perceptions of our geographic world, which lead us to cognitive cartography and how as human beings we interpret the world around us and what some of the issues surrounding our interpretations develop into. Several assignments were really fun and exciting as well. We started with the first assignment being a test and acclimatisation with map library resources. The second dealt with paper map literacy; and the third assignment was on deconstructing a map. This third assignment was quite difficult for many students, especially geography students used to using and interpreting maps, but not used to thinking of them critically. This assignment and the lectures surrounding this topic were incredibly rewarding and enlightening to me as an instructor who has found it difficult to pin down exactly what information literacy in a mapping context truly meant.

Some of the real difficulties with teaching a course such as these included the hours and hours spent getting used to course management software, marking, working with a teaching assistant. Although, the teaching assistant did save countless headaches with the course management software and marking!

The experience of teaching a full-year geography course was extremely fun and invigorating, and truth be told was probably more of a learning experience for me than for any of the students. The course research and delivery both made me a better librarian in many aspects.

Photo Courtesy of Stefano Biando

Le portrait provincial en aménagement du territoire

Anne-Marie Dion and Martin St-Hillaire

Le ministére des Affaires municipales, des Régions et de l'Occupation du territoire (MA MROT) est responsable de la gestion de la Loi sur l'aménagement et l'urbanisme au Québec. De plus, il est le dépositaire de tous schémas d'aménagement produits par les MRC depuis 1979.

En 2007, le MAMROT a entrepris de géoréférerncer les cartes schémas d'aménagement pour mettre en place base de données numériques sur l'aménagement du territoire du Québec, qui est maintenant constituée d'un peu plus de 18 000 plans.

Le présentation portera sur la mise en place de la base de données, ainsi que sur ses modules de diffusion.

Historical GIS of Newfoundland Elections

Dan Duda

One thing that has always impressed me since I moved to St. John's ten years ago is the sense of history Newfoundlanders have, especially their own history. One question we're received several times in the Map Room is if there are electoral maps for a number of past elections, especially those around the time of the First World War. This presentaiton discussed how these inquiries have led to a project in creating a Historical GIS of Newfoundland Elections.

Natural Resources Canada's One Stop Geoportal

Yvan Désy

Natural Resources Canada's maps and related geomatics and geoscience data, or, "geodata" have historically supported economic development and governance of Canada. With advances in technology, NRCan's open and accessible location-based information is ever more important to enabling innovation and informing decision-making.

Lés cartes et les données connexes, ou <<géo-données>>, de Ressources naturelles Canada ont toujours appuyé le développement économique et la gouvernance du pays. Avec les progrés technologiques, l'information ouverte, accessible et relative a la position de RNcan est de plus en plus importante pour permettre i'innovation et éclairer la prise de décision.

Best Seat in the House: exploring the significance of pew assignment in Knox Church, Toronto 1882 –1887

Andrew Hinson, Jenny Marvin, and Cameron Metcalf

The presentation outlined the collaboration between a researcher (Hinson), GIS Librarian (Marvin) and Systems Librarian (Metcalf) to gather data from various sources and create a GIS that explores and answers socioeconomic questions related to the Knox Presbyterian church between 1882 and 1887.

The chief data sources, thus far, are pew records and communion rolls. Pew rent values are based on one's pew location and its proximity to the alter: the closer a congregant is sitting to the alter, the higher the rent for the privilege of having this "better seat". It is supposed, that one's pew location in the church may be a reflection of one's social status.

Congregant address information was collected from communion rolls. Once added to the GIS, conclusions can start to be drawn between Toronto neighbourhoods, social status, pew seatings, and occupation (also recorded in the pew rents). Using the address information made it possible to generate various visualizations which analyze proximity, movement, and population distribution. Together, these visualizations combine to start to form a street level picture.

It was shown that congregants were dispersed, sometimes as far as 5 kilometres from the church. With other churches being passed over, as the congregants made their way to their Knox during a Sunday walk, what further conclusions may be drawn about Knox and its level of prestige among Toronto presbyterian churches?

There were several issues encountered in this project that led to broader questions related to historical GIS research. The presentation outlined decisions that had to be made when recording data from paper sources and importing it into a conventional database without losing details of that data as it is fit into a structured, yet expandable database design.

There were further questions and demonstrations of the appropriateness of GIS analysis on historical data: how the tools and maps can accurately present findings, all the while being wary of distorting the original data. Background for the project was also outlined along with technologies that contributed to facilitate collaboration and documentation during the project's progress.

Lastly, there were indications of future direction for the project: additional data sets that are to be incorporated into the GIS (assessment rolls including property information, city directories, and census data) and the means and intentions to open access to the data outputs, along with the data itself.

Trending: Map Libraries and Geospatial Data Collections, this is your future

Larry Laliberté

The presentation began by noting the current crisis in the codex as libraries shift from printed monographs to ebooks. While this accelerating shift in collecting and accessing digital material is new for many libraries, map librarians have been part of the digital shift for well over ten years and as such, are positioned to lead during the current explosion of digital spatial data alongside an exponentiation growth in the methods to collect, manage, visualize and curate this data. The presentation notes that this call to action was part of an article by Peter Keller, The Map Library's Future, which highlighted that the map library can not base its reputation solely on the maps and related information stored in its collection, but on how it can help patrons locate and access spatial information in the online world. The presenter argues that this was a call to shift the emphasis from the contents of the collection and its passive, print based, delayed depository model, to the character of the curator, who is the face of the place and the shoulders upon which the collection

rests. A curator, who is fluent in spatial literacy, while embracing the evolving trends in the always on, always with us, always connected digital world of open source software and crowd sourced data, geovisulization, gaming, augmented reality, near field communication and the ever converging cloud. All of which, is increasingly accessible and shared via location aware mobile devices and social media. The presentation ends by stating that while the trends are new, their framework will be driven by and held together through individuals and groups and their all important relationships, that are and will continue to, impact the future of map libraries and archives. Ceci est ton futur!

Keller, Peter. The Map Library's Future. Cartographic Perspectives no. 38, Winter 2001.

Dan Duda

Larry Laliberté, Jenny Marvin, Cameron Metcalf

Photos courtesy of Stefano Biondo

Exploitation d'un inventaire de données géospatiales et d'une banque d'indicateurs statistiques à l'aide des nouvelles technologies

Sonia Rivest and Eveline Bernier

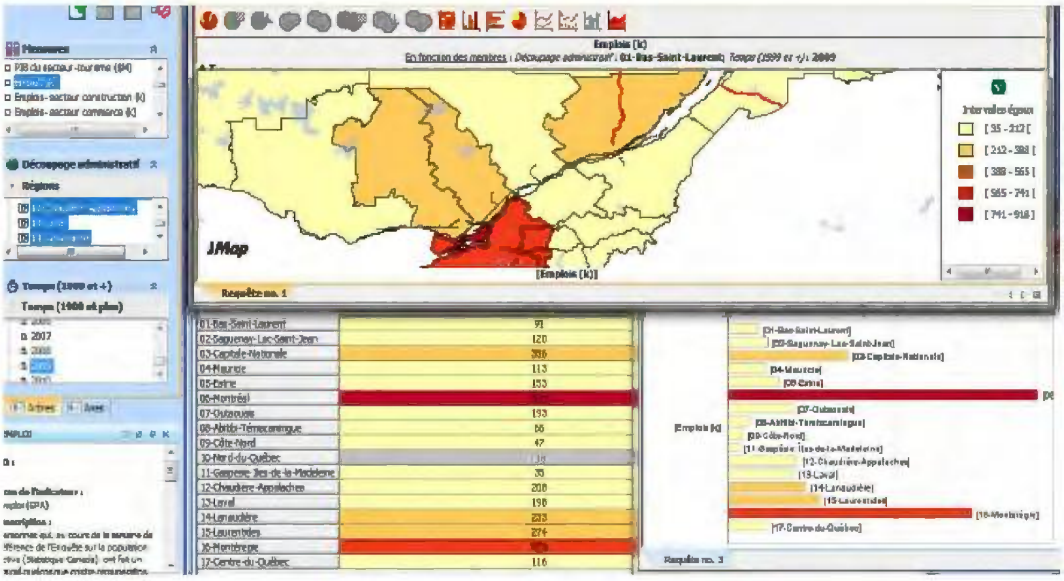
De plus en plus d'organisations utilisent des données statistiques et géospatiales pour analyser le portrait de leur secteur d'activité, que ce soit un portrait économique, touristique, de mobilité, de santé, etc. Ce portrait est généralement analysé à plusieurs niveaux géographiques, d'un niveau local à un niveau plus général (ex. régional ou même global). La multiplication des sources de données géospatiales permet à différents utilisateurs d'avoir accès à un éventail complet des données couvrant un territoire, pour différentes époques, différentes précisions et selon divers formats. Toutefois, cette grande quantité et variété d'information complexifie grandement la gestion et l'exploitation efficaces d'un tel inventaire de données.

Afin de résoudre cette problématique, une nouvelle famille d'outils dits géodécisionnels a vu le jour. Ces outils sont basés sur les concepts multidimensionnels, où chaque thème d'analyse (ex. le temps, le territoire, les caractéristiques de la population, etc.) devient une dimension comprenant plusieurs niveaux de détails; et où chaque métrique, ou indicateur (ex. le taux d'emploi, le nombre d'accidents, etc.), devient une mesure. L'exploitation d'une structure multidimensionnelle permet de visualiser ou d'analyser les mesures en fonction du contenu des dimensions. Cette structure permet un accès à toutes les combinaisons d'information possibles, très facilement (aucun langage de requête n'est nécessaire et l'interface est très facile à utiliser) et très rapidement (les temps de

réponse sont constants et de quelques fractions de secondes en général). La visualisation des données est réalisée à l'aide de tableaux, de diagrammes et de différents types de cartes géographiques.

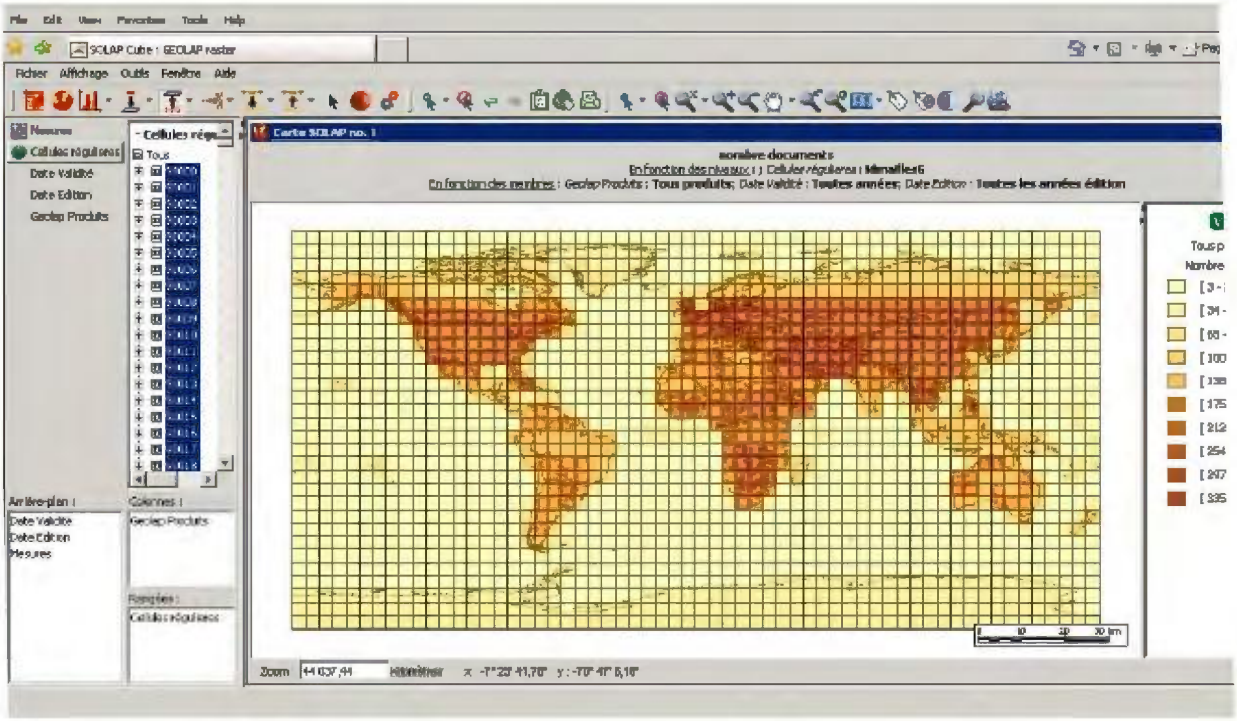
Simples de mise en œuvre et flexibles, les outils géodécisionnels sont utilisés dans de très nombreux contextes, pour répondre à des besoins variés. Entre-autres, ils peuvent permettre à un organisme de publier ses propres données, de produire ses propres analyses et de les diffuser facilement sur le web à une communauté d'utilisateurs, ces derniers étant de plus en plus friands d'interfaces élégantes et faciles d'utilisation.

Un premier exemple d'utilisation d'un outil géodécisionnel (ici, Map4Decision) est l'analyse d'une banque d'indicateurs socio-économiques. Ce type d'analyse peut permettre de comparer facilement les valeurs d'indicateurs socio-économiques d'une zone géographique (ex. ville ou région) à l'autre, d'une période à l'autre, d'un groupe de population à l'autre, tel que présenté à la figure suivante.



Analyse d'une banque d'indicateurs socioéconomiques
(Nombre d'emplois toutes catégories, par année, par région administrative)

Un autre exemple d'utilisation est l'analyse d'un inventaire de documents (ex. des documents cartographiques) permettant de voir les volumes de documents disponibles par type de document, date de publication, territoire couvert, tel que présenté à la figure suivante.



Analyse de la disponibilité de documents et jeux de données géospatiaux
(Nombre de documents par type de produits et date de validité)

Ce type d'approche supportant de grands volumes de données et présentant le résultat des analyses sous forme de cartes, de graphiques, de listes et de tableaux est une voie d'avenir.

La production cartographique à partir des images satellitaires

Maurice Carignan

Actuellement, plus de 30 satellites commerciaux scrutent et analysent la surface de la Terre sur une base quotidienne. Ceux de moyenne résolution comme LANDSAT, ASTER, SPOT, et Rapid Eye permettent de produire des cartes de base et thématiques à des échelles variant entre le 1/25 000 et 1/100 000. Par contre, les satellites utilisant la haute résolution tels GeoEye et Worldview offrent la possibilité d'effectuer une identification beaucoup plus précise des éléments au sol, comparable à celle des photographies aériennes. Cette communication et le suivi cartographique dans différents d'applications.

Friday June 10th

Le Québec Géographique, le portail de l'information géographique gouvernemental

Nathalie Michaud

Le Québec géographique est un portail guide sur l'information géographique gouvernementale destiné au grand public. Il résults de la collaboration de 23 ministeres et organismes du gouvernement du Québec. L'un de ses objectifs est de regrouper en un seul lieu toute l'information concernant l'expertise en géomatique détenue au gouvernement du Québec. Il vise aussi à faire connaitre les produits et les services de nature géographique qui y sont offerts: cartes géographique, atlas et localisateurs.

Cette conférence portera sur l'historique du portail et son mode de gestion en partenariat. Par la suite, une présentation sommaire du contenu des différentes rubriques sera effectuée. L' évolution souhaitée du portail sera finalement abordée.

Banque de données des statistiques officielles sur le Québec (BDSO)

Valérie Barrette et Hugo Leblanc

La banque de données des statistiques officielles sur le Québec (BDSO) : un partenariat durable pour un système statistique intégré et une diffusion conviviale appuyée par la cartographie

Depuis 1999, l'Institut de la statistique du Québec (ISQ) a pour mission de produire, d'analyser et de diffuser des informations statistiques officielles, objectives et de qualité pour le Québec. Celles-ci enrichissent les connaissances, éclairent les débats et appuient la prise de décision des différents acteurs de la société québécoise. Depuis plus de 10 ans, l'Institut offre une expérience et une expertise de haut niveau dans différents domaines de production statistique ou de soutien à la production et à la diffusion. Pertinence, fiabilité, objectivité ainsi que comparabilité sont les critères de base qui orientent la gestion de la qualité à l'ISQ.

Grâce à un important partenariat gouvernemental (27 ministères et organismes actifs), un répertoire unique centralise l'information statistique produite par les principaux ministères et organismes québécois. Avec une interface conviviale et des outils dynamiques à la portée de tous, les utilisateurs de la BDSO peuvent accéder facilement et gratuitement au plus large éventail de données statistiques touchant tous les aspects de la société québécoise.

La diffusion statistique est appuyée par un module de cartographie interactive qui permet à l'utilisateur, en temps réel, de représenter les données sur le territoire. La cartographie statistique interactive est un véhicule intéressant pour vulgariser l'information et appuyer les analyses.

Dans le but d'améliorer l'accès à l'information statistique et de maximiser le potentiel d'analyse, la présentation sous forme de tableaux de bord offre un ensemble de tableaux et de graphiques interactifs pour des indicateurs clés.

Ainsi, avec la BDSO assure la pérennité du patrimoine statistique québécois grâce à l'accès à un entrepôt unique garantissant la cohérence et la qualité de l'information et maximisant les possibilités de représentation

T24R1W5 Revisited – Calgary's River Lots and the Dominion Land Survey

Iris Morgan

By 1883, the land rush into southwestern Alberta and the Calgary area in particular, saw the Dominion Land Survey (DLS) laying out sections just days in advance of the CPR laying down track. At the junction of the Elbow and Bow Rivers, in now downtown Calgary, Township 24, Range 1, West of the 5th Meridian (T24R1W5) was being subdivided by Charles Eugene LaRue, using rules established in the 3rd edition of the DLS Manual. In addition to 1 mile square grid survey that formed the cadastral fabric of the prairies, the manual stipulated that

"The lands adjoining the Saskatchewan, Battle, Bow, Red Deer and Belly Rivers are laid out in lots twenty chains wide, fronting on the river, and about one mile deep. The side lines are parallel to the section lines."[1]

The purpose of this alternate survey of river lots is unclear; however the existence of this additional work is recorded by correction surveys which were completed by 1886. All posts and mounds from 181 townships that had been surveyed with river lots were removed following the 1885 Northwest Rebellion.

In an effort to determine pre-emption rights versus squatting on land for speculative purposes, LaRue was also required to take statutory declarations of any occupants he encountered on the land, as well as measure out any improvements made, such as log buildings, fences or garden plots. His work is recorded on the 1883 sectional map of T24R1W5 and shows the names of Calgary's early residents, three of whom were Métis families associated with either the HBC post or the Roman Catholic Mission established near the NWMP post. All were in the area by early 1876.

Analyzing LaRue's survey work using a GIS, enabled a better understanding and visualization of this early period in Calgary's pre-boom history. Within the context of environmental factors, as well as social and political conditions, intriguing questions remain as to how settlement policy and practice were applied to the Calgary region and the larger watershed of the South Saskatchewan River, where river lots were surveyed and then quickly removed.

[1]Manual, 3rd ed. 1883, pg. 5 [http://clss.nrcan.gc.ca/standards-normes/toc-domlan-terredom-1-3-v1-eng.asp]

Discovering our Past: The Applications of Spatial Technologies to Explore Regional Environmental History

Barbara Znamirowski

The final paper of the conference "Discovering our Past: The Application of Spatial Technologies to Explore Regional Environmental History," was given by Barbara Znamirowski from Trent University. Barbara reviewed Trent University Library's Maps, Data and Government Information Centre's involvement in a collaborative project to create a web-based Regional Environmental Historic Atlas of South Central Ontario. This area extends from Lake Ontario in the south to Haliburton in the north, and from Oshawa in the west to Belleville in the east. It encompasses several counties and the Trent River watershed, and is centered on Peterborough and Trent University, the home of the project. The project is led by Barbara and by Stephen Bocking from Trent University's Environmental and Resources Studies / Science Program, and is intended to organize and communicate knowledge of the environmental history of the region. Trent Library is managing the GIS and computing design aspects of the project, and staff of the MaDGIC Unit (Tracy Armstrong, Mike Kyffin, and David Lang) have been key to the project's technical development.

In focusing on the spatial and computing design aspects of this project, Barbara stressed that one goal is to make use of different software and spatial technologies. She showed how MaDGIC has used the Google Maps API to display historic editions of topographic maps. She also demonstrated how the library has used ArcGIS Server and the ArcGIS API for JavaScript to show thematic content. In the context of the ArcGIS Server project she demonstrated how the unit has made use of ArcGIS Online base maps (including World Imagery, World Street Map, World Topographic Map, World Shaded Relief and Open Street Map) allowing users to choose a base map on which to display their themes. In addition, MaDGIC has added several provincial data sets to the ArcGIS Server project, including Ontario Ministry of Agriculture, Food and Rural Affairs soils data, Ontario Ministry of Natural Resources Ontario Hydro Network (OHN) data, and Natural Resources Canada's Toporama maps. In the case of the OHN data, annotation labels have been enhanced for the region, to show key names information at desired scale dependencies.

Mapping historical information is key to this project. Barb demonstrated how MaDGIC has georeferenced early topographic maps and aerial photographs of the region. Another example involved locating and mapping over 300 mills in the region. Many communities in the area were established as sites for grist or saw mills and the mapping of these sites is considered important to understanding changes in agriculture and forestry, and the growth of industry and formation of transportation routes in the area. Arranged as overlays, these resources can be used to study evolving patterns of land use, settlement and industrial growth. The project has been fortunate to receive funding from NICHE, GEOIDE and the Ontario Work Study Program to hire student researchers to assist with the above mentioned initiatives.

In closing, Barbara stressed that the Atlas project is a pilot initiative: a foundation for collaboration and not a finished product. The project has received considerable interest from faculty, students and members of the local community and their involvement will be essential to continued growth of the project and to the telling of the stories of this region.

OCUL MAP LIBRARY ASSISTANTS' WORKSHOP REPORT

JUNE 22-24, 2011

UNIVERSITY OF OTTAWA & CARLETON UNIVERSITY, OTTAWA ONTARIO

Erin Forward, University of Ottawa & Joël Rivard, Carleton University

The University of Ottawa and Carleton University co-hosted the 5th biannual OCUL Map Library Assistants' workshop from June 22-24th, 2011, for library assistants associated with geographic information services. Eighteen library assistants from twelve different Ontario universities and one technician from Scholars Portal attended. The event was organized by Erin Forward (uOttawa), Pierre Leblanc (uOttawa), Joël Rivard (Carleton), and Sherri Sunstrum (Carleton).

Wednesday, June 22

The first day of sessions took place at the University of Ottawa and consisted of presentations from guest speakers and participants. The first guest speaker was Leanne Hindmarch from Scholars Portal and she gave an update and a live demonstration on the much anticipated OCUL geospatial portal. The portal will allow users from Ontario Universities to explore, view, and download select GIS datasets directly from the web (http://geo.scholarsportal.info/).

Leanne's presentation was followed by our other guest speakers, Dr. Michael Sawada and Dr. Elizabeth Kristjansson from the Ottawa Neighbourhood Study (ONS). Their project brings together the University of Ottawa, the City of Ottawa, local Community Health Centres, Arts Ottawa East, United Way/Centraide Ottawa, Just Food, and other community-based partners and was designed to better define Ottawa neighbourhoods by measuring and mapping social determinants of health in each neighbourhood amenable to policy intervention. Many of the geographic datasets that they used in their study are ones that most of us use at our Universities; DMTI Spatial Inc., Statistics Canada, Quickbird Imagery, etc. For a closer in depth look at the ONS and a look at some of the maps that they have created, please visit them online at http://www.neighbourhoodstudy.ca/.

The next session focused on map cataloguing and was led by Frank Williams from the University of Ottawa. He showed the group the various resources from the Library of Congress website. Followed by an explanation of the differences between authority records and bibliographic records and talked about the use of the new 655 genre/form tag. Discussion then moved onto topics on how to deal with jurisdictional name changes and using several gazetteers such as the one produced by the U.S. Board of Geographic Names (geonames.usgs.gov).

The afternoon session included a Google Earth race where Sharon Janzen from Brock University explained some of the functionalities of Google Earth before letting us embark on a race across the world using Google Earth. The group finished off the day with a special tour of the Library of Parliament on Parliament Hill. The tour included an in depth look at the many carvings and statues of the historic gothic library, a walk on the many floors of the library stacks and a look at extremely valuable historic cartographic materials.

Group photo outside Parliament Hill

Thursday, June 23

Sessions the following day were held at Carleton University and began with a presentation by Monica Ferguson from Carleton University about the use and marketing of paper maps. She showed the group the various map displays that she has created for various course labs. The displays in return also show off the collection to faculty, staff and students. Monica then lead a group discussion on how map resources are used in course work and the group talked about how each University's map collection is used by students and faculty. Examples of how map resources are used were given, such as having a scavenger hunt include the map collection in frosh week and teaching geospatial literacy to those coming to the map library. It was noted that most Universities used GIS Day as a means for promoting their map collection but agreed that more needs to be done to promote each other's collection.

In the following session, Joel Rivard from Carleton University gave a presentation on how to use geospatial resources for non-GISers. There was a look at the different types of users and how we go about preparing datasets for each type of user. Joel showed how they used Global Mapper for the creation of contours for CAD users and how they used Lizardtech's GeoViewer for the viewing of MrSID or JPEG2000 images. There was also a look at ArcGIS.com and MapSherpa for general users needing to create basic maps online. Gerald Romme then gave the group a demonstration on LIDAR data that the University of Toronto acquired for teaching purposes. Gerald showed how to process unclassified LIDAR data to generate terrains, feature classes, rasters and intensity images using ArcGIS 10.

In the afternoon, Sherri Sunstrum from Carleton University showed how she uses web 2.0 technologies to gather and disseminate information relating to maps. She showed how she uses

twitter, RSS feeds and blogs to promote the cartographic collection at Carleton. The day ended with a tour of several libraries at Natural Resources Canada (NRCan). The group saw the National Air Photo Library (NAPL) and the Earth Sciences Library and had a chance to interact and ask questions with staff from NRCan. The group was then brought to the basement to see where the recent 1:50,000 topographic maps are being printed for dissemination.

Tour of Natural Resources Canada. Discovering where the NTS maps are printed.

Friday, June 24

On the final day, Teresa Lewitzky from Guelph University gave a presentation on using Footprints at the University of Guelph Data Resource Centre to help manage and track user questions. Allison Tremblay from Laurentian University then gave an overview of several GIS datasets that are available to most Ontario universities. She discussed licenced data such as Statistics Canada boundary files, DMTI, data through OGDE, ESRI as well as free data sources such as Geobase.ca, Geogratis.ca and data available from the Ontario Ministry of Northern Development and Mines. Ultimately, she remarks that each of these datasets has a value, depending on the needs of the user and what they are trying to achieve. The last session was dedicated to each participant giving a brief demonstration of their Maps and/or GIS website to the group.

Overall, the 2.5 day workshop was full of presentations and tours that were well received by the participants. The interpersonal contacts made at this workshop and previous ones continue to be highly valued by participants. New participants gain a sense of their counterparts at other institutions and along with veterans, are more aware of each participant's strengths or focus, and encourages participants to be more active on the map library assistants' listserv.
Copies of the presentations and notes from discussion sessions can be found on the OCUL Map Group webpage: http://www.lib.uwaterloo.ca/ocul/lamg/lamg.html.

NRCAN LIBRARY'S HISTORICAL TOPOGRAPHIC MAPS PROJECT

Barb Cloutier, Natural Resources Canada Library

[This article is derived from the presentation made at CARTO 2011]

Why Digitize Historical Topographic Maps?

Canada's historical topographic maps are important national information assets. Those of us who work in map libraries and archives understand their importance not only because we are experts on cartographic information and its many applications, but because we regularly receive requests for them from a wide variety of clients who require these maps for equally varied purposes.

Historical topographic maps are often the only source of historical topographic data, given that computerized cartography is very recent compared to the history of systematic mapping of our country. These maps are also a rich source of historical cultural data about Canada.

While they are a wonderful source of information for historical research, historical topographic data continues to have relevance for the present and future. Changes in the landscape provide critical information related to natural hazards like landslides, flooding and earthquakes, and to environmental issues like climate change and its impact on water supply (e.g., recession of alpine glaciers and shrinking ice caps and water bodies). The numerous editions of topographic maps of urban areas are invaluable to urban planners in understanding what strategies of development worked well and which did not. As more Canadians opt to live in cities, more effective approaches to city planning are needed.

Very few of Canada's historical topographic maps are available online. In the age of web 2.0 and cloud technologies, mobile devices and geospatial information, there is a need to have these national information assets available in digital form. Not only does this make the maps more accessible to all Canadians, but also means they can be georeferenced for use in a wide range of GIS applications.

The Challenge

Creating accessible digital copies of these maps is a challenge for a combination of reasons:

- thousands of map sheets were produced, most of which have multiple editions
- few maps are available online
- there is very little digital metadata available for the maps – in quantity and quality
- the maps are located at various institutions across Canada
- institutions individually have limited resources for undertaking a digitization and image delivery program on this scale

The Proposal

Collaboration across the map library and archive community provides an effective solution.
This collaborative approach has three components: 1) a discovery/access system; 2) a long-term system for storage and preservation of digital images and metadata; and 3) map digitization and metadata creation.

The Natural Resources Canada (NRCan) Library already has a discovery and access tool – GEOSCAN [http://geoscan.ess.nrcan.gc.ca/site.php?id=geoscan_e] - that can be used to deliver these maps to Canadians. GEOSCAN is the database for NRCan's earth sciences publications. Managed by the NRCan Library, it provides bibliographic, geospatial and subject metadata for every publication, as well as direct links to the downloadable digital documents. The current topographic maps are already accessible through GEOSCAN. With the metadata gathered in this project, we can create a GEOSCAN record for each historical map as well and maintain the metadata in the long term.

Library and Archives Canada (LAC) and NRCan Library are committed to ensuring the long-term storage and preservation of the digital map images. LAC will store and preserve the high-resolution master archival image of each map as part of Canada's historical heritage [http://www.collectionscanada.gc.ca/archivianet/020154_e.html]. For its part, NRCan Library will ensure long-term access to the map images by storing and preserving a high-resolution image of each map for the derivation of accessible file formats for download, as required formats may change over time.

The map library and archive community will share the tasks of map digitization and metadata creation for each map. At CARTO 2011, it was agreed that the ACMLA [http://www.acmla.org/] will put together a task force to coordinate the project. This task force will develop and oversee digitization and metadata standards, assign coordinators for each map series, and gather all information resources available for generating master lists of all map sheets and editions ever produced in each series. They will also put together web content about the project (web site to be determined) and make use of GIS technology to track progress.

Target Series

This project is aimed at federal topographic maps since they are the specific responsibility of NRCan Library and LAC. These maps have been produced by three main federal agencies: the Centre for Topographic Information (NRCan) and its antecedents, the Geological Survey of Canada (NRCan) and the Department of National)

Defence (DND). Besides those produced by DND, most topographic maps were, therefore, made by NRCan and its antecedents. Many public (civil series were produced jointly with DND. This project will target only those federally-produced series that were made for public consumption. Thus, we will not be covering military maps made solely for military purposes.

Here is the list of series we are targeting:

Sectional Maps of Western Canada

- 3-Mile (old and new styles)
- 6-Mile
- Chief Geographer's Series/Standard

Topographic Maps

- 1:250 000 (1904-1908)
- 1:500 000 (1905-1948)
- 1:126 720 (1927-1974)
- 1:125 000 (1960-1979)
- 1:253 440 (1926-1957)
- 1:250 000 (1948-)
- 1:506 880 (1929-1960)
- 1:500 000 (1957-?)

- Photomap Series A001 (colour)
- Photomap Series A002 (b&w)
- Photomap Supplement Series A003 (no contours)
- International Map of the World 1:1 000 000 - Canadian sector (1928-1988?)

The initial estimated total of all editions of all maps is about 33 000 maps. The estimate may increase as more precise research is done, but that puts us in the right ballpark.

There are various print resources that will be helpful in the creation of master lists for each series and in understanding those series as we work with them:

- NTS index maps
- Printed map catalogues
- Progress of mapping indexes
- Annual Reports of the Topographical Survey (1903-1936)
- Other publications like ACMLA publications, Nicholson & Sebert's The Maps of Canada, CIG's Significant Dates in Canadian Surveying, Mapping and Charting, etc.

Where possible, the NRCan Library and LAC will work to have these resources digitized and available on the web via GEOSCAN

Metadata Creation

The collection of metadata from individual maps is a great student project and also provides an opportunity for libraries to review their holdings.

NRCan Library has identified the following metadata elements needed (where applicable) :

- Map sheet number
- Map sheet name
- Map title (E & F)
- Author & Publisher
- Publication date
- Edition (incl. version, "provisional", shaded relief, etc.)
- NTS values
- Province/Territory
- Latitude/Longitude
- Scale
- Projection (and UTM zone)/Datum
- Map Language(s)

NRCan Library would like to receive metadata in a spreadsheet in xls or csv file formats. These files will then be used to load metadata into GEOSCAN.

Metadata handbook, template file and sample file have been prepared and will be available on the web to ensure metadata is consistent and to standard.

Digital image Creation

LAC is developing the scanning standard for this project to ensure a high-quality archival tiff file is produced from the outset. This file can then be used to derive other needed file formats such as pdfs, jpgs, or any new formats that are developed in the future. It is important to ensure that the map being scanned is a good, clean copy and that both sides of maps are scanned where legend information is given on the back of the map.

What about georeferencing the digital images, you may ask? Although it is not part of the current project plan, we do hope that a successful outcome of the digitization effort will eventually lead to the next logical step of georeferencing.

What Is Already Online?

1) Map Images

The bulk of the maps targeted are from the NTS 1:50 000 and 1:250 000 series, of which almost 15 000 have online images available on GeoGratis (CanTopo and CanMatrix collections), and they are also discoverable through GEOSCAN.
Other available online images:

(i) via GEOSCAN and MIRAGE [http://gdr.nrcan.gc.ca/mirage/index_e.php] are:

- A-Series maps (1937-1949) by Topographical Survey (GSC and SMB)

• Pre-1937 GSC maps with topographic info

(ii) via the Atlas of Canada [http://atlas.nrcan.gc.ca/site/english/maps/archives/imw]:

• International Map of the World 1:1M – most recent editions

(iii) via Library and Archives Canada's Western Land Grants e-exhibit
[http://www.collectionscanada.gc.ca/databases/western-land-grants/index-e.html]

• Sectional Maps of Western Canada "old style" 3-mile maps

2) Metadata

For current and recent maps, the Centre for Topographic Information (CTI) [http://www.ctis.nrcan.gc.ca/site/eng/index.html] provided complete geospatial metadata to the NRCan Library for GEOSCAN. However, bibliographic metadata in GEOSCAN is not as accurate since topographic databases do not keep the same kind of metadata as library databases do. NRCan Library was able to massage the metadata provided by CTI to generate bibliographic metadata following general principles, but with 15 000 map records, much verification still needs to be done. Our experience has shown us that topographic maps exhibit a lot of variation over time in the way this kind of information is provided on the maps, so each map needs to be verified.

LAC's library catalogue (Amicus) [http://amicus.collectionscanada.gc.ca/aaweb/aalogine.htm] and the NRCan Library catalogue [http://catalogue.nrcan.gc.ca/] also contain metadata for those historical topographic maps they have in their collections that were analyzed at the map level (some only have series records). However, the older the catalogue records are, the less complete is the metadata. In addition, Amicus records are not readily available for data all the existing metadata from our own catalogue and as much as possible from Amicus using BookWhere software.

LAC's archival Tracker database is another source of basic metadata. Though these sources are often incomplete, together they provide an excellent foundation for the series master lists, giving us fairly complete lists of maps and editions produced.

Most other libraries only have series records for topographic maps. A few libraries do have individual map records, but usually only have maps for their region of the country and they do not always have all editions. Nonetheless, where data is extractable, we will be able to obtain metadata for those portions of series they do cover.

CTI also has images of recent but superseded maps that are no longer available on GeoGratis. They also may be able to mine metadata from some of their historical datasets. In addition, they have a map collection that includes some never-published map sheets from older series that we will be able to scan and make available as well.

Valuable Exercise

Besides the obvious value of having Canadian historical topographic maps readily available on the web, this project gives us the opportunity to learn more and add to the documentation about these maps and map-making in Canada. For those in the academic community, it will also undoubtedly raise interesting questions for future research projects.

It is also my personal hope that this collaborative approach will build new working relationships within Canada's dynamic map-geospatial library and archive community, providing a foundation for future collaborations.

INTRODUCING SCHOLARS GEOPORTAL

Leanne Hindmarch

Data & Geospatial Librarian, Scholars Portal (a project of the Ontario Council of University Libraries)

For Ontario university map and GIS librarians, a much-anticipated project is nearing completion. For the past three years, the Ontario Council of University Libraries (OCUL) has been building a geospatial portal, in order to improve data access and support GIS teaching and research in Ontario universities. Issue 136 of the Bulletin included an article by Eva Dodsworth and Andrew Nicholson entitled "Visualize your Research for Teaching and Learning: The OCUL Geospatial & Health Data Portal", which introduced the rationale for and spatial literacy goals of the project. This paper will provide a tour of tools available in the recently released Scholars GeoPortal Beta in support of these goals, and provide an overview of possible future development directions.

Building the GeoPortal

Back in 2008, OCUL's Map, Data and GIS Librarians developed a comprehensive list of required functionality for the portal, which included a metadata editor for the creation of standards-compliant metadata, an online mapping tool which would provide access to geospatial data, and offer features supporting the use of web mapping in courses and assignments. From this, a project proposal was written for the Government of Ontario, which has provided support for this project through its OntarioBuys initiative. A structure of working groups and advisory committees was developed and staff hired at Scholars Portal[1].

The ArcGIS suite of software from ESRI Inc. was chosen as the platform for serving geospatial data and creating a web portal application (the online mapping tool). The ArcGIS Javascript API provided the tools needed to develop discovery, exploration, and download functionality, as well as additional features supporting teaching and learning. Finally, the metadata is stored in MarkLogic (xml database software) and a metadata editing application was built which allows OCUL Librarians to create and edit metadata records (compliant with the North American Profile of the ISO 19115 geospatial metadata standard)[2].

Development of the Scholars GeoPortal and the metadata editor application, storage and serving of geospatial data, metadata editing, and ongoing system maintenance all occur centrally at Scholars Portal. Project working groups with members drawn from the OCUL Map Group and beyond, have provided invaluable support in driving important decisions about standards, data collections, priority features for development, and interface design.

Take a Tour

The team of developers at Scholars Portal have completed a beta version of Scholars GeoPortal, which was launched in August 2011 (http://geo.scholarsportal.info). The portal interface and metadata collection is open to the world, while data access is restricted to the specific OCUL institutions which have licenses to access each data collection. New features are being added to the portal regularly, and an official launch is planned for early 2012. This "tour" of Scholars GeoPortal provides a snapshot of the feature set available when this article went to press.

Discovery. The portal provides several methods of accessing the metadata repository: browse options, basic and advanced search tools (Figure 1), and geographic searching by place name or by drawing a bounding box (Figure 2). The user can then view a full North American Profile-compliant metadata record (Figure 3).

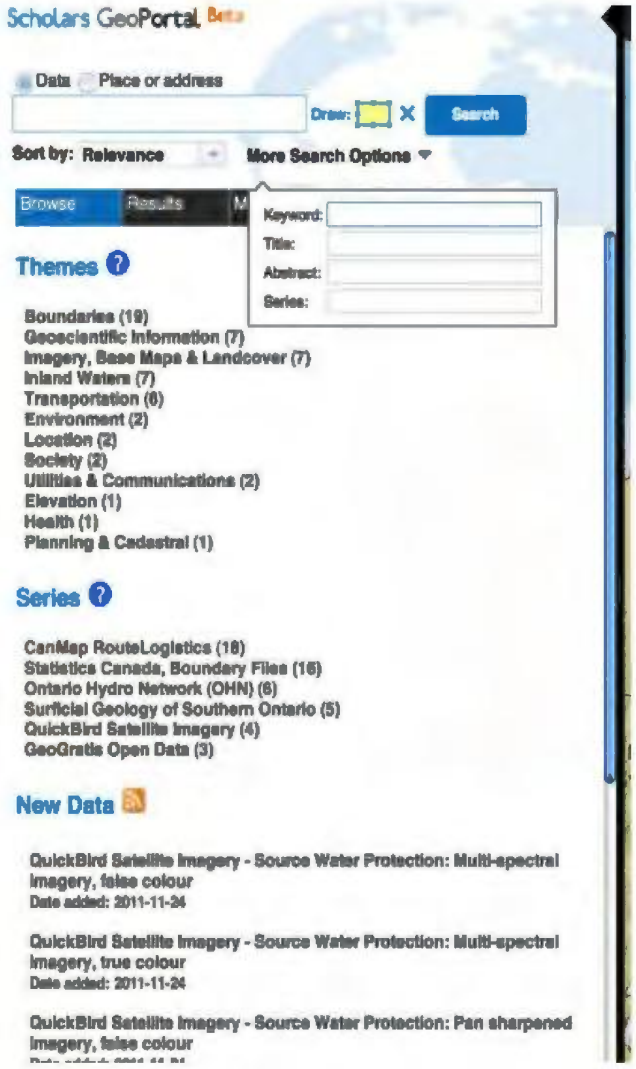


Figure 1. Scholars GeoPortal search options include browsing, basic search, and advanced search options.

Figure 2: Scholars GeoPortal allows for searching by place name.

Figure 3: Scholars GeoPortal - metadata detail view.

Place names come from the Canadian Geographic Names Service and from an ESRI-hosted geocoding service (which allows for searching by address). Clicking "Explore" beside the chosen result zooms the map, while clicking "Search" finds data available for that location. The "Draw" option beside the search box provides another method of geographic searching, by drawing an extent on the map.

Exploration

When a user has identified a dataset of interest, they can then "add" the data to the map at the click a button. Behind the scenes, this action invokes an ESRI web mapping service which has been created and published to ArcGIS Server by Scholars Portal staff. The service is overlaid onto the portal's basemap, allowing users to experience one view of how the data can be represented spatially (currently it is not possible to re-symbolize the data on the fly from within the portal). Any number of layers may be added to the map in this manner.

Once one or more layers have been displayed on the map, users can work with the data from within the "Map" tab. They are able to toggle layers on and off, re-order layers, and change layers' transparency (Figure 4). In addition, clicking on the map will provide attribute information about the features at the location clicked on.

Figure 4. Five data layers have been added to this map. The "Map" tab provides tools for reordering layers and altering transparency

Download

The exploration tools allow the user to decide whether a dataset has the information they require. They then proceed to the "Download" tab to extract their data for use in their own desktop software of choice. Scholars GeoPortal offers "clip & ship" functionality, whereby the user can select layers, an area of interest, and an output format/projection, and the system will generate the file for download (Figure 5). Downloading is available for both vector and raster datasets (with some size limitations on raster data downloading). Future releases of the GeoPortal will continue to improve the options available for downloading, including offering ways of clipping the data using known boundaries, or downloading full vector datasets (no clip).

Figure 5: The smaller polygon shows the user-defined "clip" area. After submitting the job, the system displays the number of raster data tiles the "clip" area intersects with (if the user has requested raster data for download). It then processes both the vector and raster downloads requested, and displays the resulting files as they are completed in the "My Downloads" area.

Teaching and learning support

Not all students have sophisticated GIS software skills, and one of the roles of the portal is to provide tools to make it easier for faculty to integrate content into their non-GIS courses which promotes spatial literacy and the use of maps, and to allow students to create a simple online map using the library's licensed data.

The tools described above, which allow the user to reorder layers and change transparency, are a first step. Once the map layers have been arranged as the student desires, the next step is to share their map with others. The portal offers several options. The "Link" tool generates a permalink that can be shared between or among students and faculty – this loads the portal website with the user's selected data layers, zoom level and extent, recreating their map (Figure 6). The "Export" tool allows the user to select from several preset map layouts in order to generate a map with title, legend, and scale bar (Figure 7). This map can be exported to a range of formats such as PDF, PNG, or JPG, depending on what the map will be used for. Thus students can insert a map as an illustration within a paper, or a professor can assign the creation of a map as an assignment, which could be handed in either in print-ready form or as a link to an interactive online map.

Figure 6. The "Link" option generates a permalink which can be copied and shared with others.

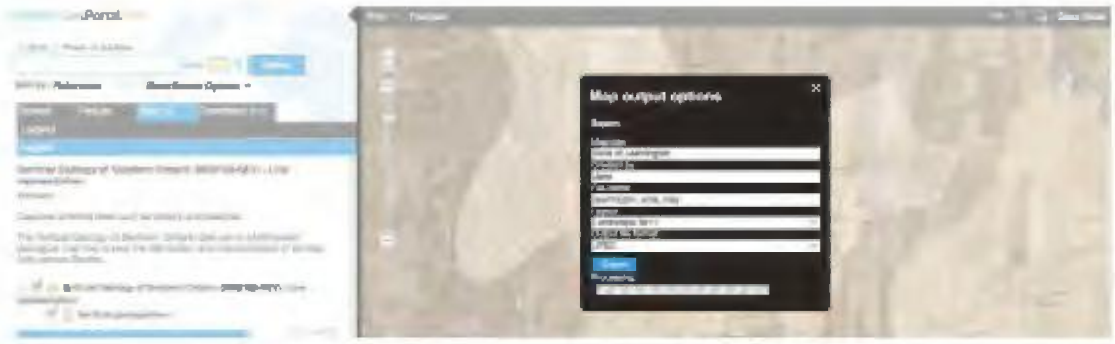


Figure 7. The "Link" option generates a permalink which can be copied and shared with others.

One of the most recently developed features is user accounts (this feature will appear in the GeoPortal in December 2011). This allows users to log in to a personal space (via Shibboleth or OpenID) in which it is possible to store maps, searches, and drawn extents (e.g. the shape drawn for clipping via the download tool) (Figure 8). This allows users to come back to their work at a future date, reusing the same study area and map settings.

Figure 8. A user account where one extent (user-defined download area), two searches, and one map has been saved. Clicking on the map loads it into the map view.

Finally, one of the most important features which supports spatial literacy is the provision of useful information at the point of need. For many students, there are terms and icons used in the GeoPortal which will be unfamiliar to them. Scholars Portal has begun the process of integrating short tips and definitions in key places on the user interface, some of which provide links to more information (Figure 9). One of the key sources of additional information will be the Scholars GeoPortal's User Guide, maintained by the Teaching & Learning Working Group (http://guides.scholarsportal.info/GeoPortal). This guide provides more detailed examples of how to accomplish different tasks within the GeoPortal, and in the future will offer video tutorials and other useful tools.

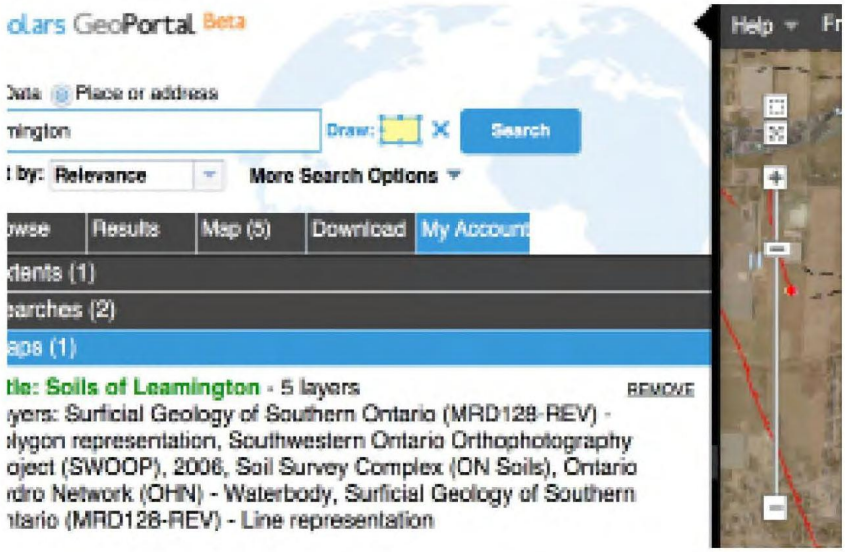


Figure 9. An example of a help tip. After clicking the question mark beside the word "Themes" a small definition appears, which can be closed when no longer needed.

What next?

The development of Scholars GeoPortal is still in progress, and will continue until the 2012 official launch and beyond. Some of the tasks the Scholars Portal development team is working on include:

- Support for browsing and querying of attribute tables, which will improve users' ability to select the right data to meet their needs
- Map annotation, which will allow users to enhance their online map by adding their own points, shapes, or lines, and to associate notes or images with these markers
- Improved user interface based on feedback from librarians and users, via a usability study to be conducted in the coming months

And after that, where could we go next? Analysis tools in the browser? 3D or time-series visualization? The sky is the limit!

Of course, there are technical challenges which Scholars Portal will continue to investigate and hopes to address in time. For example, the current model does not allow users to edit symbology on the fly, which limits map creation both visually and in terms of what data can be mapped. Another challenge is the use of one projection (the ESRI supported Web Mercator projection) within the mapping application. While this does not affect downloaded data (which can either be obtained in the projection provided by the data producer, or converted to a wide range of projections at the user's choice), maps created, saved, or shared online via the portal tools are more limited. The options available to Scholars GeoPortal developers will continue to improve as web GIS technology improves and the ArcGIS software evolves.

The Geospatial and Health Informatics Cyberinfrastructure Portal Project's formal project phase comes to a close in March 2012, with the creation of a robust data access tool that fills a distinct gap in Ontario library services. It supports OCUL Map and GIS libraries by centralizing the management and distribution of consortially licensed data collections, as well as offering online search, preview, and download tools for students, staff, and faculty across the province. The project would not have been possible without many hours of hard work contributed by OCUL Librarians, the Scholars Portal Development Team, and the community members who participated on the project's External Advisory Committee. It will be exciting to see how Scholars GeoPortal grows as a result of ongoing collaboration.

Comments and feedback about Scholars GeoPortal are always welcome, and may be sent to:

gis@scholarsportal.info.

[1]More information about the project's working groups and their members can be found on the Scholars GeoPortal's wiki site: http://spotdocs.scholarsportal.info/display/geospatial/

[2]Canadian General Standards Board. (2009). North American Profile of ISO 19115:2003 – Geographic Information – Metadata (NAP – Metadata). CAN/CGSB-171.100-2009. Gatineau, Quebec: Canadian General Standards Board.

NEW BOOKS AND ATLASES

Compiled by Peter Genzinger

Bradnock, Robert W. 2011. Routledge atlas of South Asian affairs. London: Routledge. 240 p. $42.95 US. ISBN 9780415545129.

Brunn, Stanley D. 2011. Routledge atlas of Central Eurasian affairs. London: Routledge. 240 p. $42.95 US. ISBN 9780415497527.

Carrera, Magali M. 2011. Traveling from New Spain to Mexico: mapping practices of nineteenth-century Mexico. Durham, NC: Duke University Press. 325 p. $25.04 CAN. ISBN 9780822349914.

Crow, Ben. 2011. Atlas of global inequalities. Berkeley, CA: University of California Press. 128 p. $22.50 CAN. ISBN 9780520268227.

Daniell, Christopher. 2011. Atlas of medieval Britain. London: Routledge. 168 p. $33.96 CAN. ISBN 9780415602235.

Dodge, Martin (ed.). 2011. Classics in cartography: reflections from influential articles from Cartographica. Oxford: Wiley-Blackwell. 408 p. $125.95 CAN. ISBN 9780470681749

Dym, Jordana (ed.). 2011. Mapping Latin America: a cartographic reader. Chicago: University of Chicago Press. 360 p. $25.67 CAN. ISBN 978-0226618227.

Fleet, Chris. 2011. Scotland: mapping the nation. Edinburgh: Birlinn. 304 p. $50.00 CAN. ISBN 9781841589695.

Gilbert, Martin. 2011. Routledge atlas of British History. 5th ed. London: Routledge. 224 p. $30.96 CAN. ISBN 9780415608756.

Gilbert, Martin. 2011. Routledge atlas of civil resistance: a century of nonviolent conflict. $32.96 CAN. ISBN 978-0415486521.

Guoyu, Li. 2011. World atlas of oil and gas basins. Oxford: Wiley-Blackwell. 496 p. $142.95 CAN. ISBN 9780470656617.

Grossinger, Robin. 2012. Napa Valley historical ecology atlas: exploring a hidden landscape of transformation and resilience. Berkeley, CA: University of California Press. 232 p. $40.34 CAN. ISBN 9780520269101.

Hayes, Derek. 2011. Historical atlas of Washington and Oregon. Berkeley, CA: University of California Press. 240 p. $43.50 CAN. ISBN 9780520266155

Hinrichsen, Don. 2011. Atlas of coasts & oceans: ecosystems, threatened resources, marine conservation. Chicago: University of Chicago Press. 128 p. $23.11 CAN. ISBN 9780226342269.

Krygier, John and Denis Wood. 2011. Making maps: a visual guide to map design for GIS. 2nd ed. New York : Guilford Press. 256 p. $51.50 CAN. ISBN 9781609181666.

Lambert, Johann Heinrich, 1728-1777. 2011. Notes and comments on the composition of terrestrial and celestial maps; trans. by Waldo R. Tobler. Redlands, CA: ESRI Press. 135 p. $28.96 CAN. ISBN 9781589482814.

Lyew-Ayee, Parris. 2011. Natural hazards atlas of Jamaica. Kingston, Jamaica: University of the West Indies Press. 160 p. $35.66 ISBN 9789766402594.

Ruggles, Richard I. 2011. Country so interesting: the Hudson's Bay Company and two centuries of mapping, 1670-1870. Montreal: McGill-Queens University Press. 300 p. $49.96 CAN. ISBN ISBN 9780773538856.

Sokhi, Ranjeet S. (ed.) 2011. World atlas of atmospheric pollution. Rev. ed. London: Anthem Press. 144 p. $50.52 CAN. ISBN 9781843318910.

Strassberg, Gil, Norman L. Jones, and David R. Maidment. 2011. Arc Hydro Groundwater: GIS for Hydrogeology. Redlands, CA: ESRI Press. 250 p. $64.95 CAN. ISBN 9781589481985.

Tomlinson, Alan. 2011. Atlas of sports: who plays what, where, and why. Berkeley, CA: University of California Press. 144 p. $22.50 CAN. ISBN 9780520268241

Unwin, Mike. 2011. Atlas of birds: diversity, behavior, and conservation. Princeton, NJ: Princeton University Press. 144 p. $23.50 CAN. ISBN 9780691149493.

World Bank. 2011. Atlas of global development: a visual guide to the world's greatest challenges. 3rd ed. Washington, DC: World Bank. 144 p. $30.24 CAN. ISBN 9780821385838.

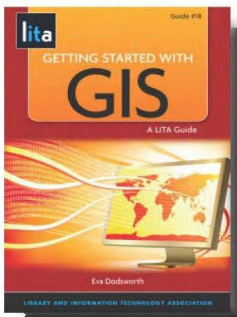
Wright, Dawn J. (ed.). 2011. Coastal informatics: web atlas design and implementation. Hershey, PA: IGI Global. 321 p. $180.50 CAN. ISBN 9781615208159.

Getting Started with GIS : a LITA Guide
Eva Dodsworth

Neal-Schuman Publishers

ISBN: 978-1-55570-775-0.

2011. 6 x 9. 200 pp. $70.00



President's Message

(continued from page 2)

I want to welcome Leanne Hindmarch from the University of Toronto for heading up the Membership Committee. As for the BCC, David Jones from the University of Alberta has stepped forward to head this group and is looking for a co-chair, so if any of our membership has an interest in cataloguing/metadata challenges, then this is the committee for you.

To our new members – please contact people on the committees and the executive if you have questions about anything, or you want to introduce new ideas or issues to be dealt with. Our organization is strong because people care about their work and profession – let's keep that momentum going.

In conclusion, I want to highlight some of the work the executive will be doing in the next few months leading up to the Toronto conference in June 2012. We'll be looking a possible name change for ACMLA. Yes, we went through this a number of years ago, but as always, things do change and the membership at the last AGM felt it was time to look at this again. Also, there are some major projects such as the digitizing of all the NTS map series and editions for the whole country – more information will be coming about this project. We will also be looking at better ways to share teaching and learning initiatives, maybe through existing committees or establishing a new one, or collapsing existing committees into a new one – more information to follow. The digitization of the Bullein is another big project we are also looking at.

Much to do...much to do...take care till next time...

Danial Duda

NEW MAPS

Compiled by Cheryl Woods

Commercial Nuclear Power Plants: Europe and Russia – Operable, under construction, or ordered – 2011/2012
Scale: variable
Publisher: American Nuclear Society
Year of Publication: 2011

Commercial Nuclear Power Plants: The Americas, Africa and Asia – Operable, under construction, or ordered – 2011/2012
Scale: variable
Publisher: American Nuclear Society
Year of Publication: 2011

United States Commercial Nuclear Power Plants: Operable, under construction, or ordered – 2011/2012
Scale: NA
Publisher: American Nuclear Society
Year of Publication: 2011

Canada
Scale: 1:6,400,000
Publisher: National Geographic Society
Year of Publication: 2011

Middle East
Scale: 1:1,200,000
Publisher: Reise Know-How
Year of Publication: 2011

Peru
Scale: 1:1,750,000
Publisher: Borch Map
Year of Publication: 2011

Venice
Scale: 1:6,500
Publisher: Borch Map
Year of Publication: 2011

Central Asia
Scale: 1:1,750,000
Publisher: Gizi Map
Year of Publication: 2011

Croatia
Scale: 1:750,000
Publisher: Michelin
Year of Publication: 2011

Lebanon
Scale: 1:200,000
Publisher: GEOprojects Ltd.
Year of Publication: 2011

Pakistan
Scale: 1:2,000,000
Publisher: Gizi Map
Year of Publication: 2011

Yemen
Scale: 1:1,250,000
Publisher: Gizi Map
Year of Publication: 2011

Poland
Scale: 1:750,000
Publisher: Michelin
Year of Publication: 2011

Brazil
Scale: 1:3,850,000
Publisher: Michelin
Year of Publication: 2011

Thailand – North
Scale: 1:750,000
Publisher: Berndtson
Year of Publication: 2011

Hometown heroes : Birthplace distribution of Canadian born NHL hockey players,1919-2005
Scale: NA
Publisher: Andreas N. Korsos : distributed by Arc-

turus Consulting
Year of Publication: 2006

Posts and forts of the Canadian fur trade, 1600-1870
Scale: NA
Publisher: Andreas N. Korsos : distributed by Arcturus Consulting
Year of Publication: 2006

Athens
Scale: 1:7,500
Publisher: Borch Map
Year of Publication: 2011

Beijing
Scale: 1:30,000
Publisher: Berndtson
Year of Publication: 2011

Cairo
Scale: 1:20,000
Publisher: Berndtson
Year of Publication: 2011

Costa Rica
Scale: 1:650,000
Publisher: Berndtson
Year of Publication: 2011

Unexpected encounters : Sasquatch Sightings in Western North America
Scale: NA
Publisher: Andreas N. Korsos : distributed by Arcturus Consulting
Year of Publication: [2010]

Unexpected encounters in California
Scale: NA
Publisher: Andreas N. Korsos : distributed by Arcturus Consulting
Year of Publication: [2010]

The explorations and travels of Simon Fraser in British Columbia 1805-1808
Scale: NA
Publisher: Andreas N. Korsos : distributed by Arcturus Consulting
Year of Publication: 2007

Columbia enterprise : David Thompson on the Columbia River, 1807-1812
Scale: NA
Publisher: Andreas N. Korsos : distributed by Arcturus Consulting
Year of Publication: 2006

David Thompson in Alberta 1787-1812
Scale: NA
Publisher: Andreas N. Korsos : distributed by Arcturus Consulting
Year of Publication: 2006

David Thompson in central North America : Saskatchewan, Manitoba and northwestern Ontario
Scale: NA
Publisher: Andreas N. Korsos : distributed by Arcturus Consulting
Year of Publication: 2008

David Thompson in the Eastern Townships 1834
Scale: NA
Publisher: Andreas N. Korsos : distributed by Arcturus Consulting
Year of Publication: [2008]

World Oil & Gas Map
Scale: NA
Publisher: Petroleum Economist
Year of Publication: 2011

Slovenia Road Map
Scale: 1:300,000
Publisher: Kartografija Slovenia
Year of Publication: 2011

Aruba Road Map
Scale: 1:50,000
Publisher: Berndtson
Year of Publication: 2011

Baltic Sea Region Travel Map
Scale: 1:1,300,000
Publisher: Reise Know-How
Year of Publication: 2011

GEOSPATIAL DATA AND SOFTWARE REVIEWS

Andrew Nicholson

Over the last few years, we have seen many Canadian cities launch "open data" portals in which municipal collected and produced datasets are made available to the public for their own use. Although an exciting and positive development for anyone who works with local maps and data, it has nevertheless been frustrating for information professionals when they see such initiatives never going quite far enough in terms of being truly open. Policies on what layers can be available vary widely from city to city. While some cities have uploaded many datasets, others seem to be barely out of the gate in making data available for public use. There has also been great variance in formats made available with some cities making the same layer available in multiple formats, while others only go with just one format which may or may not be useful for geospatial use. Another contentious issue with open data is with "Licensing" or "Terms of Use". Many cities retain copyright and ownership of the data even after it has been downloaded and used by a citizen for their own use. This could negate potential benefits that a truly open data initiative can offer a city.

Over the next several Bulletin issues, I wish to encourage ACMLA members to provide reviews of a municipal open data initiative that they are interested in. To get us started I am going to review an open data initiative that is closest to home for me: Mississauga.

"Mississauga Data"

http://www.mississauga.ca/portal/residents/mississaugadata

http://www.mississauga.ca/portal/residents/publicationsopendatacatalogue

Description

Inspired by the open data roll outs in Vancouver and Toronto, the City of Mississauga launched "Mississauga Data" in March 2010. Led by the City's Planning Department, this web portal includes urban planning documents and datasets. On arriving at the main site, a user is greeted with a web based table providing some basic demographic and business data for Mississauga. From here there is a link to the "Publications and Open Data Catalogue", which is in fact a listing of available files sorted by most recent first.

Examining the file names reveals a good collection of information that might appeal to students and academics interested in the Mississauga area. The content of "Mississauga Data" includes Vacant Lands, Land Use, Natural Areas Survey, Employment Profile
Business Locations with 300+ employees, a Multi-unit residential directory, Population growth, Wards, Planning District, and Census Results.

Currency and Formats

What is especially impressive from this data collection is the date range of the files. When this reviewer examined the data on the website on November 13, 2011, the most recent file listed was the "2011 Vacant Lands—Site Maps" dated September 28, 2011 and the oldest was "Mississauga Population and Employment Growth Forecasts" dated May 1, 1991.

At first glance, having 20 years of this data available on an open website is phenomenal, however on closer scrutiny of the files, this reviewer loses his enthusiasm. Perhaps the biggest limitation with this data is that the vast majority of the 230 files available for download are in PDF format. In collating the files on November 13, 2011, the tally came out as: CSV (2), KML (10), PDF (214), SHP (2), XLS (2).

For the usable GIS formats such as KML and SHP, the data includes the most recent layers for Existing Land Use, Natural Areas Survey, and 2010 Business Locations (300+ employees). Embedded in some of the KML files are additional layers including such as a saved "3D tour" of Businesses in Mississauga. This is an interesting file well suited for civic boosterism, but of limited value for academic use.

The older Mississauga data is not surprisingly limited to the PDF format, and even with these files, many have been available for years to the public on other parts of the City website and /or in hard copy in local Mississauga libraries including my own. While it is certainly nice to see all of this information in one place on a website, it can be argued that such data has been "open" for years and does not represent significant change in disseminating public data.

What's Not Included

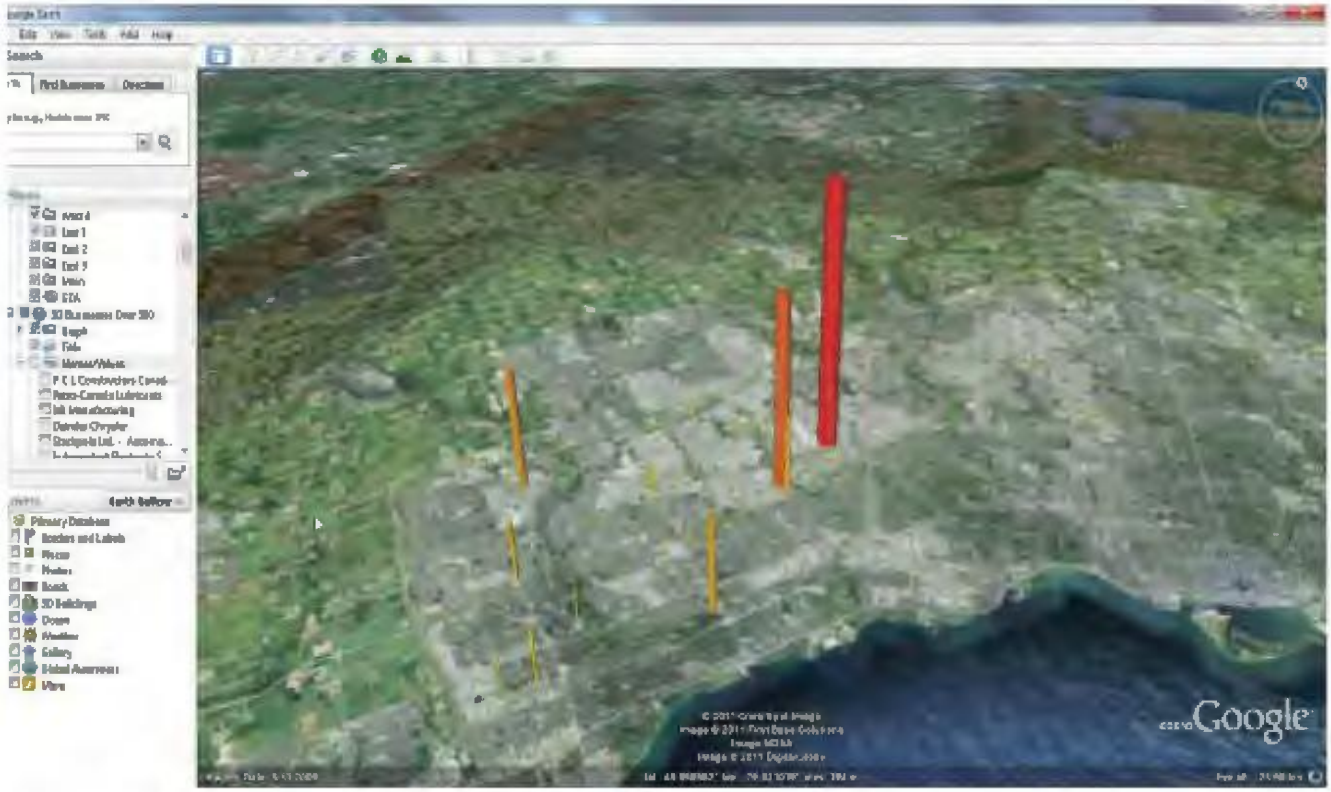
Most noteworthy of the Mississauga Data is actually what it does not include. As "Open Data Mississauga" is a City Planning Department initiative, geospatial data created in other City of Mississauga departments are not currently part of the open data plan. The Transportation and Works Department for example offers a separate fee based subscription service for their data collections which includes roads, building footprints, and Mississauga Transit bus routes. None of these layers are part of the Mississauga Open Data package.

Terms of Use/Licensing

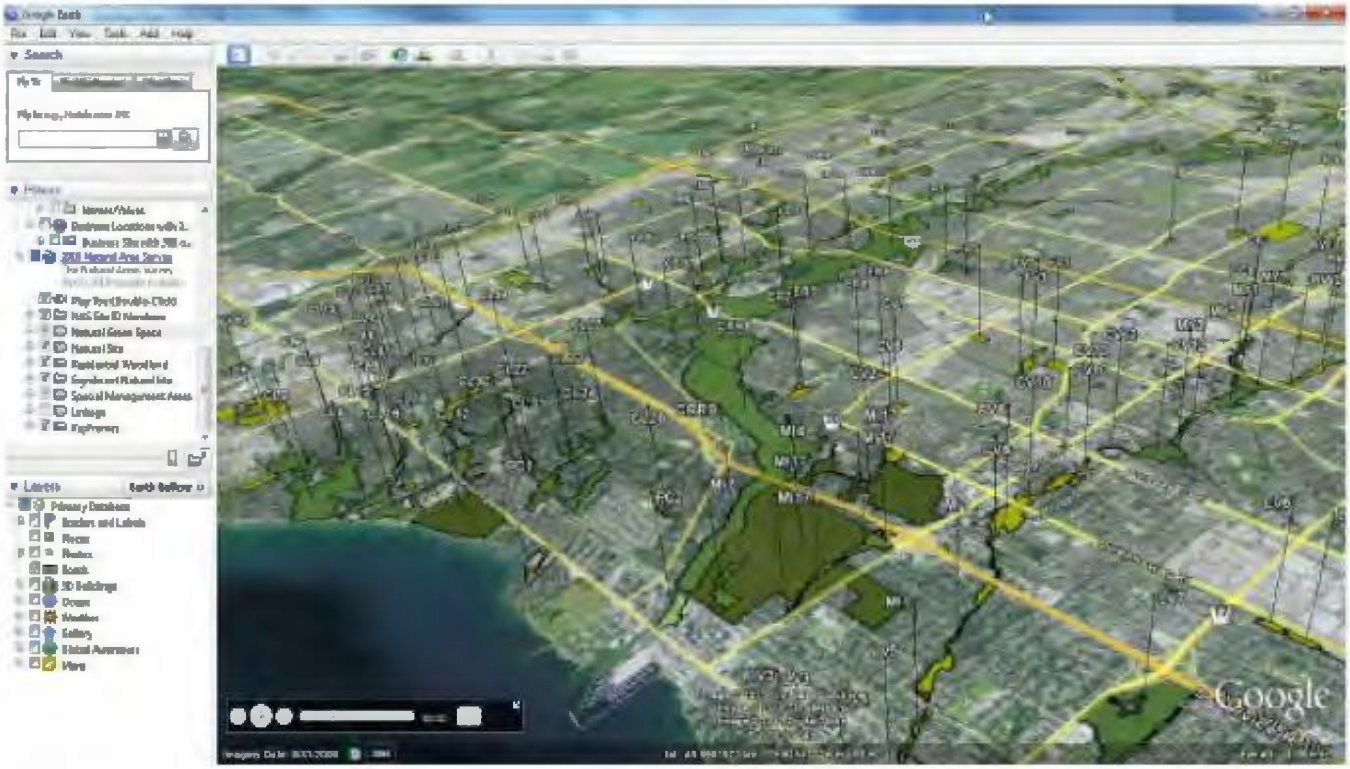
Like some other Open Data initiatives in Canada, Mississauga has retained the copyright to the datasets, even going as far asking the user of the data to share the "Terms of Use" policy with anyone who then uses the data. Strangely, the Mississauga Data Terms of Use appears to have borrowed the City of Toronto Open Data Terms of Use, as the "City of Toronto" text is still in the wording of the document!

Conclusion

Mississauga Data should be commended for wanting to take part in the Open Data Initiatives now blossoming across the Canada. Nevertheless, what is included as "open data" (at the time of this review) is of limited use for the general public, let alone educators and students. The City of Mississauga is encouraged to take a bolder approach in releasing more data under the "open data" banner, including both more geospatial and numeric data content, as well as having such data available in multiple formats



Mississauga's Biggest Employers, City of Mississauga (KML)



Natural Area Survey, Mississauga Data (KML)

REGIONAL NEWS / NOUVELLES REGIONALES

Compiled by Tom Anderson

Alberta

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It is mid-November and winter has finally arrived in Edmonton – after the longest snow-free fall on record our first snow (less than 1 cm.) arrived on Nov. 12th, conveniently missing the Remembrance Day ceremonies.

It has been quite a while since my last report and the William C. Wonders Map Collection and its Map Librarian have seen some significant events. In December 2010 I took an early retirement, but I haven't left yet. The Academic Agreements allows for a retirement followed by a 2-year ½-time contract. Thus in January I formally become the Map Cataloguer, but have continued as Acting Map Librarian while we seek my successor. Finding a new Map Librarian has turned out to be a challenging task for the selection committee -- two postings and two rounds of interviews but nothing worked out. It's a curse to be 'irreplaceable'! Eventually we found, in our own ranks, Virginia Pow (BA [Geography], UNBC; MLIS, Dalhousie) who will become Map Librarian when she returns from maternity leave in February 2012. This will allow me to put aside the Acting Map Librarian duties and focus on map cataloguing. We are also in the process of hiring a GIS Librarian to complement the new Map Librarian and fill out the team.

On the topic of Map Cataloguing, I have recently become co-chair of the ACMLA Bibliographic Control Committee (BCC). This has been a year of change for the BCC with several members stepping off due to retirement, maternity, poor health and other reasons. The reconstituted committee is getting back on track to face several key issues – the impact of RDA and the handling of geospatial metadata to name just two. There is room on the BCC for additional expertise – please contact me to join this team!

Last January we were saddened to hear of the death (on Jan. 24th) of Dr. William C. Wonders, founder and namesake of our collection. (http://www.uofaweb.ualberta.ca/CCI/nav01.cfm?nav01=101724). Although he retired in 1987 and left Edmonton for Victoria, he maintained his interest, concern and support of the collection and was a frequent visitor. He will be remembered and missed.

Digitization activities continue with a focus on western Canadian maps being scanned for inclusion in the Peel's Prairie Province site (http://peel.library.ualberta.ca/index.html). Over 1000 have been scanned to date and are being georeferenced. The interface is under development and we hope to have public access available early in the new year. We have also participated in a collaborative project with a local Hungarian historical society – Corvin History Society – to digitize four sets of World War II ethnographic maps of Hungary, Slovakia, Yugoslavia, and Romania. These were edited by Wilfried Krallert, in 1939-1943 based on prewar census data showing the distribution of various ethic groups across the countries. We had all but one of the 100+ sheets of these sets (the missing one provided by Harvard Map Library). The Society covered the scanning and production costs while we provided the maps. The final product is available from BackBone Cartographics (c/o Michael Fisher BackBone.Cartographics@gmail.com) for research and teaching purposes

(Creative Commons) and will eventually be on our website.

Although, regrettably, I could not attend CARTO-2011 in Quebec City I did attend two interesting map related events. In September I was in Portland, Maine at the Osher Map Library, University of Southern Maine, (www.usm.maine.edu/maps/) for the annual meeting of the Society for the History of Discoveries (www.sochistdisc.org). Not only were the presentation fascinating – including topics such as: *The Maps of 66: How Roadmaps Built the American Legend // Columbus's Ultimate Goal: Jerusalem // Educational Outreach at the Osher Library // David and Samuel Thompson's Exploration and Survey Work for the International Boundary Commission along the Great Lakes Westward to Lake of the Wood, 1817 – 1827 // World Upon Worlds: The Waldseemuller Map of 1507 / /* - the visit to the Osher Map Library was worth the trip itself. The Osher is a recently completed, purpose-built three-storey map library building housing a number of collections and excellent facilities both for care and storage of maps and for educational and outreach activities.

In early October I happened to be in Brussels and had the opportunity to meet the BIMCC (Brussels International Map Collectors' Circle (www.bimcc.org/) for their fall field trip – this year to Ghent to view an exhibit Liber Floridus 1121 : the world in a book (http://stamgent.be/en/activities/detail/p/liber-floridus-1121-the-world-in-a-book). Liber Floridus is an early 12th Century encyclopaedia in which Lambert, Canon of Saint-Omer, describes the world and the cosmos, and man's life within that greater whole. His own contribution was mainly in the fields of cosmography, geography and cartography. The entire work is available online at (http://www.liberfloridus.be/online_eng.html).

Back home, the William C. Wonders Map Collection has again contributed cartographic content to an exhibition in the Cameron Library. In this case, to a Holodomor (Famine-Genocide in Ukraine) Awareness Exhibit mounted by the University of Alberta Ukrainian Students Society in conjunction with the 78th Commemoration of the anniversary of Holodomor, 1932-1933. Our contribution was a map showing 1932-1933 famine memorials, commemorative monuments, and affected towns in Ukraine (1930s boundaries). (http://www.library.ualberta.ca/permalink/opac/4903520/WUAARCHIVE)

Finally, GIS Day is not to be missed. This year the U of A GIS Day (www.ualberta.ca/~gis) features a ½ day symposium with presentations from Biological Sciences, Earth and Atmospheric Sciences, Humanities Computing, Web Strategy, and ESRI Canada.

Calgary

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There have been some major changes this year for MADGIC, now Spatial and Numeric Data Services. Just as the new fall term was starting, we moved to our new space in the newly opened Taylor Family Digital Library. The space includes a small training classroom, 2 large wall monitors and a wide format scanner, in addition to four dedicated GIS and data workstations. In addition, our extensive map and air photo collection has been moved to storage. Air photos in particular are still very popular and we have had to very quickly develop a retrieval procedure. Another challenge we are facing is adapting to GIS/map reference without a print collection. We are hoping to be settled in and up to speed within the next few months.

Manitoba

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The U of Manitoba recently hired Cynthia Dietz as GIS Environmental Studies Librarian. She comes from Stony Brook University (SBU) where she curated the SBU map collection, facilitated geographic literacy and GIS efforts, helped patrons with ArcGIS and ERDAS Imagine needs, and provided subject expertise for Geosciences and for the School of Marine and Atmospheric Sciences.

Larry Laliberte was first appointed to a part-time position as a GIS Librarian with the University of Manitoba Libraries from October 13, 2003 to April 2, 2004. This eventually led to his appointment to a full time position as the GIS and Map Librarian, plus the liaison librarian for the Faculty of Environment, Earth and Resources. This lasted from September 1, 2004 until his resignation on September 30, 2010. Although Larry has left the University of Manitoba Libraries, his legacy lives on through his digitizing and posting of Winnipeg and Manitoba maps on his Manitoba Historical Maps' photostream site, located at: (http://www.flickr.com/photos/manitobamaps/).

In other news, the Manitoba GIS Users Group (MGUG) had a one-day conference on September 30th, 2011. It was quite an good program, but what is most interesting is that over 350 people attended. (http://www.mgug.ca/workshop/mgug-fall-conference-september-30-2011#).

Ontario

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There were big changes in Maps, Data and Government Information Centre (MADGIC) staffing over the summer. With great sadness we said good bye to Beth Ray who retired at the end of June. Beth has been a mainstay of cartographic expertise at Carleton, both in the Map Library and in MADGIC for several decades. Her deep knowledge of both our collection and the cartographic information universe made her our 'go-to' specialist for any and all complexities. Her work with faculty to create new areas for instruction using cartographic resources was greatly appreciated. Those who know Beth will understand how much we miss her.

However, we are very pleased that Joel Rivard has stepped in to take up the challenge of Map Specialist. Joel comes with extensive GIS experience and general cartographic knowledge which will be well used. One of his areas of expertise will be creating instructional units and extending our use of social media.

The position previously held by Joel, Data Technician, has been filled by a new member of MADGIC, Carys Carrington. Carys brings extensive data management experience with particular strength in health statistics which fits well into new directions for GIS.
In other areas, the library underwent a total website redesign. The new map and GIS home pages were revealed and have been well received. When looking for MADGIC on the library website, click on 'more' at the top of the page and our landing pages will appear; or, click on the 'Find' link and see us in that list.

Congratulations to the staff of MADGIC and the University of Ottawa GSS for providing an excellent OCUL workshop for map library assistants. This was a great learning event for all.

University of Ottawa
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The Geographic, Statistical and Government (GSG) Information Centre is pleased to announce Talia Chung as the new Head. Prior to joining the GSG in January 2011, Talia worked at the Library of Parliament since 1995, most recently as Chief of the Current Awareness and Strategic Analysis Section.

As of September 2011, Erin Forward has taken on the role of GIS & Geography Librarian. Erin is replacing Nancy Lemay who is away on maternity leave. Erin was among the first graduating class of the new Master of Information Studies (M.I.S.) program at the University of Ottawa and holds a B.A. in Geography & GIS. Prior to her new role, Erin worked at the GSG as the Centre's Cartographic Metadata Analyst since Aug. 2005.

Caroline Desrochers is replacing Erin Forward as the Centre's Cartographic Metadata Analyst. She holds a B.A. in Geography from the University of Ottawa and has been working at the GSG, on a part-time basis, since September 2010.

We're looking forward to welcoming back Susan Mowers, Data Librarian, from her professional development leave. Susan has been on professional development leave since May 2011 and will return in January 2012. Susan's research relates to the current state of research data management in Canada with a view to improving Canadian research data preservation and access.

In terms of our collection, the GSG has recently acquired the complete 1:20,000 Québec topographic map and geospatial data series, the uOttawa Library becomes one of the few libraries with this complete collection and the only Ontario library which holds this complete series in its collection. We are in the midst of processing these new collections which include over 2500 sheets/tiles.

We wish everyone the best in their new roles and are looking forward to an exciting year ahead.

Ryerson University
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The Ryerson University Library and Archives - Geospatial Map and Data Centre - is pleased to announce that Kevin Manuel was hired to replace Suzette Giles (who retired at the end of August 2010) as the new Data Librarian.

Kevin started in 2007 as Data Librarian at Brock University after graduating in 2006 from the Faculty of Information and Media Studies at the University of Western Ontario. He has an Honours Bachelor in Anthropology and a Masters in Sociology from the U of Windsor.

During his time at Brock University, Kevin was an active member of the Ontario Council of University Libraries' (OCUL) group - Data in Ontario (DINO) - and was a contributing member in the development of the OCUL data portal <odesi>. He also attended numerous training sessions for Statistics Canada's Data Liberation Initiative. Now at Ryerson, Kevin continues to work with OCUL's data projects and is collaborating with Dan Jakubek, GIS and Map Librarian, in teaching and data literacy, as well as planning for a new Ryerson Data Commons.

University of Waterloo
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Big changes are in store for the University Map Library. We are moving from our current location in the Faculty of Environment Building and into the Dana Porter Library, probably in late April or early May 2012, or possibly mid-year We will be moving into a smaller space, perhaps on the order of 2,000 sq ft. This smaller footprint means that we cannot take everything with us when we go. For the past couple of years I have carefully reviewed our print collections—sheet maps,

folded maps, atlases, and air photos—and weeded extensively. During this exercise Map Library staff made sure that every map in the collection is barcode labeled and that each has been repaired and laminated as necessary.

My retirement from uWaterloo will have an impact on the Map Library. I retire at the end of December 2011 and my Map Library duties will be taken up by Eva Dodsworth, Geospatial Data Services Librarian. Eva will manage day-to-day operations in the Map Library until the physical relocation in mid 2012. During this interim period all Map Library staff will report to Eva and she will assume responsibility for data selection and acquisition. In the meantime I have ensured that our local datasets for Waterloo, Kitchener, and the Region of Waterloo are current to 2011.

Eva, Jon Morgan and Steve Xu have been very busy providing reference and instructional services to our clients. A recent Map Library development is the completion of the Waterloo Historical Street Network project. This is an on-line resource at: (http://www.lib.uwaterloo.ca/locations/umd/streets/index.html). Visitors can track changes to city boundaries, urban growth, streets, and street names since 1955. Another recently completed project is: Digital Historical Air Photos of Kitchener-Waterloo and Surrounding Area: (http://www.lib.uwaterloo.ca/locations/umd/project/). This resource provides access to scanned and geo-referenced air photos of the local area for years 1930, 1945-47, and 1955.

GIS Day is always a time of excitement at uWaterloo and this year is no different. ESRI Canada's GIS Day press release includes special mention of uWaterloo and our involvement with GIS technology.

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As part of the transition to Western Libraries the Map Library web site has migrated to a Drupal format. If you have (http://geography.uwo.ca/maplibrary/) bookmarked, will you please change it to (www.lib.uwo.ca/madgic) which is now referred to as the Map and Data Centre within the Serge. A. Sauer Map Library (for the time being).

The physical relocation of this Centre to the Weldon Library will not likely occur until late 2012. Transition planning meetings to discuss service and space in the new area are ongoing. Presently, a proposal is being submitted to transfer one-third of the material to off-site storage.

Cheryl has hired 4 casual assistant students for the academic year to work on a variety of projects.

The migration of the map catalogue from InMagic (presently used) to Innovative (Western Libraries') continues with the inputting of historical Canadian map records into InMagic.

Cheryl attended the map curator's group workshop sponsored by the British Cartographic Society in York, September 7 & 8, entitled "How to do more with less: promoting and running a map collection in a time of austerity." It was a wonderful opportunity to compare strategies.

Quebec

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La direction de la Bibliothèque de l'Université Laval a été ravie du succès connu par l'événement Carto 2011 tenu sur le campus de l'Université en juin dernier : merci encore à vous tous pour votre participation!

Le réaménagement du 4e étage de la Bibliothèque où se trouve le Centre d'information géographique et statistique (Centre GéoStat) est maintenant complété. Les clientèles apprécient grandement ce nouvel environnement de travail, en témoigne l'accroissement significatif de leur présence dans nos locaux depuis la fin de ces rénovations majeures.

Le Centre a fait l'acquisition de trois facsimilés de globes anciens : les globes terrestre (1541) et céleste (1551) de Mercator ainsi que le globe terrestre de Behaim (1492). Il s'est également porté acquéreur de la première édition française du troisième voyage de James Cook (1785) comprenant quatre volumes et un magnifique atlas.

Le projet de publication avec le professeur émérite de géographie M. Louis-Edmond Hamelin d'un livre portant sur l'étude de la carte de Septentrionalium Terrarum descritio de Mercator va bon train. La version finale sera déposée aux presses cet automne et nous prévoyons que la publication sera disponible au printemps 2012.

Martin Ouellet et Stéfano Biondo présenteront la nouvelle plate-forme de gestion et de diffusion de données géospatiales Géoindex+ Bêta le 1er décembre 2011 dans le cadre du Congrès des milieux documentaires du Québec. On souhaite faire une présentation sur GéoIndex+ lors du congrès Carto 2012 à Toronto.

Saskatchewan

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November 16, 2011 is GIS Day around the globe and the DR. JOHN ARCHER LIBRARY will celebrate by hosting the 2011 GIS & Data Expo hosted by Spatial and Numeric Data Services. Posters will showcase the role data plays in research and teaching by faculty, students and staff researchers at the U of R. Several posters will exhibit how GIS can be utilized across a broad spectrum of subjects. Presenters represent a broad spectrum of departments and faculties on campus including:Arts, Business Administration, Graduate Studies, Johnson Shoyama Graduate School of Public Policy, Kinesiology & Health Studies, Science, Social Policy Research Unit and the Saskatchewan Population Health Evaluation Research Unit. Other presenters will include Agriculture and Agri-Food Canada, ESRI, SaskTrends Monitor, Statistics Canada and more. Light refreshments and draws for door prizes will be part of the celebration.

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GIS Library Services at the University of Saskatchewan is involved in some exiting changes. First of all, we are involved in a new unit called The Spatial Initiative. (http://spatial.usask.ca/) The Spatial Initiative is a unit within the Office of the Vice-President Research (OVPR) to support GIS related to research, training, and engagement with and for the campus community and local, regional, and provincial partners. The Library is an important member of this group, and offers access to the GIS data and software. Once the new office is built in the Arts Building, the GIS librarian will have some hours there to aid students coming in for drop in help.

Another change is the merging of Data and GIS Library Services with Maps and Government Information. We are currently working on an online merged presence: the Spatial, Numeric, & Government Information Portal. We are hoping to have a one-stop shop for all things data, simplifying the hunt for users. A physical merge may happen in the future.