
Alternate Format Production Service in Nova Scotia

A University and Community College Collaborative Study

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The Atlantic Centre of Research, Access,
and Support for Students with Disabilities*

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It is our hope that the result of this study will be the implementation of a centralized alternate format production service for the many print-challenged students in Nova Scotia who rely on these materials in order to successfully complete their academic studies.

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Executive Summary

Studies have shown students with print and other disabilities face challenges in obtaining post-secondary credentials, however, there are specific supports that can increase their chances of success. While commendable efforts have been made to increase the availability of support services for post-secondary students with disabilities in Nova Scotia by both the Province of Nova Scotia and individual educational institutions, the provision of alternate format materials for print-challenged students remains problematic. Students aren't receiving consistent service across the province, nor are efficiencies in production and delivery being realized.

In 2006, the Atlantic Centre of Research, Access and Support for Students with Disabilities at Saint Mary's University initiated a research project to assess the feasibility of a centralized alternate format production service intended for post-secondary students across the province. The Feasibility Study was informed by interviews with a minimum of two people (disability services staff and library representatives) at post-secondary institutions and related organizations from across Nova Scotia; as well as a full review of best practices in other provinces through interviews with staff from existing services in BC, Manitoba and Ontario; reviews of selected reports addressing access to alternate format materials in Canada; and a roundtable session with Nova Scotian stakeholders. The study resulted written documentation of findings, the compilation of which is this report. Its main highlight is the recommendation of a proposal for a consortial model for province-wide service.

Other points of interest from the findings are below.

1. There are challenges common to all post-secondary alternate format providers.
2. There are no standard models of service in Nova Scotia or other provinces.
3. Generally, local models are able to provide faster service to students, though at a relatively high cost.
4. In general, centralized models not only demonstrate highly efficient service, production quality and adherence to standards are extremely high.
5. Funding for services comes from a variety of sources, though centralized services generally receive a substantial portion of their budgets through provincial departments of education.
6. When support services for students with disabilities are established, the numbers of students using them increases disproportionately to overall enrollment.
7. Nova Scotia has an exceptionally high percentage of students already registered for alternate format services.
8. Improvements in the area of alternate format materials provision is a national concern, particularly with regard to inefficient use of public funds.

All Nova Scotian stakeholders were invited to attend a roundtable session held in Truro on February 16, 2007. At the end of the meeting, all parties represented agreed they should work together as a group. A consensus was reached on the formation of

an advisory committee to oversee the activities of such a group, and it was felt one of the main goals of the service should be advocacy to publishers.

It is recommended that a proposal for consortial service be put forward, including the creation of four new staff positions: two library technicians, one administrative assistant and a director for the service. Some additional equipment should be purchased to support their work. After the Roundtable meeting took place, stakeholders engaged in further discussion with regard to the number of staff required to support such activities. Nevertheless, this report maintains the original pilot project proposal recommendation of four additional staff positions.

Further, it is recommended that while administration of the proposed pilot project should be shared between Saint Mary's University and the Nova Scotia Community College, overall responsibility for the service should fall to an advisory committee. Two representatives from each institution and a representative from the Department of Education should form the committee, and several subcommittees should be formed as working groups to deal with specific issues, such as standards. Discussions for services to blind and visually impaired post-secondary students should be initiated with APSEA.

Evaluation of the proposed pilot project should be undertaken at regular intervals and against criteria agreed upon by the advisory committee and the Department of Education. The recommended total timeline for the project is three years, with final assessment in March 2010. At that time, full evaluation of the service should be undertaken, taking into account any substantial changes that may have occurred in the publishing industry.

The total proposed budget for the pilot project is roughly \$825,000 over three years. It is recommended that a request for approximately \$675,000 should go to the Province and a further \$150,000 in in-kind funding should be contributed by member institutions.

Summary of Recommendations

The main goal of this study was to assess the feasibility of a centralized service for alternate format materials in Nova Scotia. Because the study findings did indicate additional centralized and coordinated efforts would result in improved services to students, many, but not all, of the recommendations are based on the core recommendation of putting forward a proposal for such a service. The following is a summary of all 17 recommendations.

1. More promotion of library e-books and other electronic collections should be undertaken. (p. 24)
2. The Office for Disability Issues (HRSDC) and Library and Archives Canada could be approached for project or matching funding. (p. 24)
3. A proposal of consortial service should be put forward for consideration to all stakeholder groups and Nova Scotia's Department of Education. (p. 31)
4. Four new staff positions should be created to support central activities. (p. 31)
5. Cape Breton U should assist with the scanning of materials from all institutions in the northern part of Nova Scotia. (p. 32)
6. Centralized staff should act as the sole point of contact to publishers for e-copies. (p. 32)
7. An advisory committee made up of two representatives from each member institution plus a representative from the Department of Education should be formed and meet one or two times annually in person, as well as every three months by teleconference, video conference or other technological means. (p. 34)
8. Subcommittees should be formed as working groups to address operations/production standards; formatting standards; equipment; student services; training; reporting and authentication; publisher advocacy; bylaws; human resources; service evaluation and finances. (p. 34)
9. Talks with APSEA should be opened to discuss an agreement for service to blind and visually impaired post-secondary students. (p.35)
10. Several national groups should be informed of this work. (p. 35)

11. As lead institutions, Saint Mary's Atlantic Centre and Nova Scotia Community College should share administration of the proposed centralized services. (p. 35)
12. Provincial alternate format holdings, or records of produced items should be associated with Ferguson Library. (p. 35)
13. Standards and procedures should be developed in the following areas: production; formatting; service (outlining procedures for working with students to determine appropriate formats); and holdings/records contribution to Novanet and AMICUS. (p. 35-6)
14. All stakeholders should have the opportunity to receive training at regular intervals.(p. 36)
15. Evaluation of services should be done by appointed subcommittee. (p. 36)
16. A three-year timeline should be established for all recommendations. (p. 37)
17. Funding in the amount of \$675,000 (approximately \$9,782 per campus per year) should be requested for the consortial service through the Nova Scotia Department of Education. In-kind contributions totaling approximately \$150,000 should come from participating institutions. (p. 38)

Definitions

AMICUS – Canada's union catalogue of library holdings; provided by Library and Archives Canada

APSEA – Atlantic Provinces Special Education Authority

CADSPPE – Canadian Association of Disability Service Providers in Post-Secondary Education

CAER – Canadian Association of Educational Resource Centres for Alternate Format Materials

CBU – Cape Breton University

CILS – College and Institute Library Services (Langara College, British Columbia)

CLA – Canadian Library Association

CNIB – Canadian National Institute of the Blind

DAISY – Digital Accessible Information System

Electronic Clearinghouse For Alternative Format Production Pilot Project – a pilot project carried out as a first phase of the National Network for Equitable Library Service for Canadians with Print Disabilities; led by CLA

LAC – Library and Archives Canada (formerly the National Library)

MOU – Memorandum of Understanding

MSVU – Mount Saint Vincent University

National Network for Equitable Library Service for Canadians with Print Disabilities – a newly created network of service providers and producers being proposed and formed as a recommendation from *Opening the Book: A Strategy for a National Network for Equitable Library Service for Canadians with Print Disabilities* by the Working Group to Define a National Network for Equitable Library Service (Canadian Library Association)

NEADS – National Educational Association of Disabled Students

NLS – National Library Service for the Blind and Physically Handicapped of the US Library of Congress

NSAC – Nova Scotia Agricultural College

NSCAD – Nova Scotia College of Art and Design

NSCC – Nova Scotia Community College

RFB&D – Recording for the Blind and Dyslexic, a non-profit corporation based in New Jersey. While production has traditionally focused mainly on educational materials, their digital collection remains inaccessible to Canadian users, though their Classic Cassette collection continues to be available to individual members at the present time.

SFU – Simon Fraser University

SMU – Saint Mary's University

StFX – Saint Francis Xavier University

UBC – University of British Columbia

UID – Universal Instructional Design. The University of Guelph is considered to be a leader in this area. For more information, see: <http://www.tss.uoguelph.ca/uid/>.

VCC – Vancouver Community College

Introduction

In 2006, the Atlantic Centre of Research, Access and Support for Students with Disabilities at Saint Mary's University initiated a research project to assess the feasibility of a centralized alternate format production service intended for post-secondary students across the province.

The initial strategy was an eight-month Feasibility Study to explore the current availability of alternate format materials in Nova Scotia and the willingness of post-secondary institutions to share their knowledge and resources for the benefit of print-challenged post-secondary students.

This document is the final report of the research and includes findings and recommendations. One of the recommendations is the creation of a centralized alternate format production service for post-secondary institutions in Nova Scotia. This report may also be useful for other members of the post-secondary community who may be interested in both the research project and future collaboration in the field of alternate format production in Canada.

It is not the intent of this report to be a comprehensive overview of services offered and needs analysis at the national level, as there appears to be literature produced in the last decade readily available addressing the Canadian situation for both post-secondary and general public user groups. Of particular note are two recent publications:

Access to Academic Materials for Post-Secondary Students with Print Disabilities: Final Report: May 2005 by Dr. Liam Kilmurray and Neil Faba, with support from Laurie Alphonse and edited by Frank Smith and Neil Faba (NEADS)

Opening the Book: A Strategy for a National Network for Equitable Library Service for Canadians with Print Disabilities: September 2005 by the Working Group to Define a National Network for Equitable Library Service (CLA)

Background

The Setting

Young Canadians seeking the training necessary for successful employment face a difficult road after graduating from secondary school. According to a website from Nova Scotia's Department of Education designed to attract young Nova Scotians to skilled trade careers, "only 48% of Canadians are accepted in college or university," (2005a). The site continues to say that "by 2007, 1/3 of jobs in Canada will require a skilled trade certification or college diploma" and given the current economic climate, Canadians will need to continually train and attract significant numbers of skilled workers to fill an ever-increasing shortage (Nova Scotia, Education, 2005a). The

conclusion drawn from these statistics is that all Nova Scotians need to have access to high quality post-secondary education opportunities, whether through the Community College system or one of the province's many highly-regarded universities, in order to be able to fully contribute in this new economy.

According to Statistics Canada, more than 87,000 or 14% of Nova Scotians between the ages of 15 and 64 self-identify as having some form of disability. 44% of those people have either a visual, learning, memory or developmental disability, all of which are good indicators of a resulting print challenge (Canada, Statistics, 2001).

Finally, according to Nova Scotia's *2005/06 Annual Report* for the Canada-Nova Scotia Labour Market Agreement for Persons with Disabilities, "People who have disabilities are less likely to have finished high school or to have achieved post-secondary education than people who do not have disabilities," (p. 33). Another US study found that when students do go on to post-secondary education, "[those] with disabilities are also less likely than their counterparts without disabilities to stay enrolled or to earn a post-secondary degree or credential. In a survey of undergraduates who had enrolled in post-secondary education for the first time within the previous five years, 53% of students with disabilities had attained a degree or vocational certificate or were still enrolled, compared with 64% of their counterparts without disabilities," (Burgstahler, Duclos, & Turcotte, 2000). To further support the importance of ensuring access to post-secondary education for persons with disabilities, the *2005/06 Annual Report* states that "Graduation from post-secondary education is a very positive investment for preparation for transition to the labour [force] for either men or women with disabilities. Post-secondary graduates with disabilities are employed at a higher rate than their non post-secondary trained peers, earn higher salaries, and have the self perceived opportunity to advance within employment without their disability presenting as an advancement barrier," (p. 20).

What do these statistics tell us? There is a growing need to enroll students in recognized post-secondary programs in Nova Scotia. A pool of potentially successful graduates can be found in the approximately 7% of Nova Scotians of working age who potentially identify as having a disability related to print challenges. And students with disabilities need specific, known supports in addition to those required by the non-disabled population in order to complete the work necessary to obtain the recognized credentials in their chosen careers.

The Government of Nova Scotia has clearly recognized this reality. For the past several years, strong programs have been implemented through the Departments of Health, Community Services and Education. Solid financial support has not only been provided for programs that directly benefit Nova Scotians with disabilities, but it has also been used to leverage additional funding from the federal government in order to extend these programs to all eligible participants.

Through the Department of Education's Post-Secondary Disability Services, a number of services have been made available to students with disabilities. A description in the *2005-06 Annual Report* for the Canada-Nova Scotia Labour Market Agreement for Persons with Disabilities follows (p.7):

Goods and service supports offered by the department ensure that students

have an equal opportunity for participation and academic achievement in post-secondary environments. These supports include American Sign Language Interpreters; recruitment, training and monitoring of tutors and note-takers; ergonomic equipment and assistive technology; arrangements for tests or exams, including additional time, quiet rooms, assistive technology or segmented testing; and support from an adult daily-living needs attendant. To accommodate the delivery of goods and services, the department funds campus based Disability Resource Facilitators to provide direct client services that reduce or remove identified barriers for students with disabilities.

In addition, the Department of Education has found “Students with special needs may benefit from technological devices and software so they can participate fully in their education. These devices and software are commonly referred to as assistive technology. Examples includes voice-recognition software, special keyboards, or touch-screen technology,” and to this end, has made generous funding available to school boards serving the P-12 grades (2005b, p. 10). In many cases, these types of assistive technologies are used to enable students to access printed and other written materials in formats suitable to each individual's print disability.

A conclusion can be drawn that having supports in place increases a student's chance of academic success. Ontario's Learning Opportunities Task Force (LOTF) *Final Report Summary* states that “95% of responding (those who completed and returned questionnaires to the LOTF) students stated that the [disability support services] pilot project contributed significantly to their academic success” and “53% of students have been receiving As and Bs in their courses and only 7% have marks below a C” (p. 5).

The Problem

What's different between the service to students with print disabilities and service to students without print disabilities?

- ✓ time needed to produce in individualized, appropriate alternate formats
- ✓ time needed to deliver materials to the end user
- ✓ time needed to use the alternate format materials
- ✓ overall cost
- ✓ finding aids, e.g. accessibility of library catalogues

Common sense indicates that access to required course readings and other research materials is a key factor in successful course completion. Receiving required text materials late in the semester or not at all makes it difficult, if not impossible, for any student to pass individual courses and ultimately graduate with a recognized credential. While several post-secondary institutions in Nova Scotia are to be applauded for their efforts in assisting students who are print-challenged to acquire scanned, recorded or Brailled materials, it is a minute amount of material that is actually produced. This is because the production of e-texts, recorded materials, Braille, and diagrams at the post-secondary level in Nova Scotia is at best, a

piecemeal approach with varying degrees of success and lacking any form of standardization (for a full description of the varying levels of service in Nova Scotia, see the appendix entitled *Overview of Current Nova Scotia Situation*).

The original mandate of the Community Tape Resource Library – later the Ferguson Library for Print-Handicapped Students – was to provide recorded materials to university students and working professionals within Nova Scotia. Limited financial resources and an increased demand for services by a broadening population of persons with print disabilities necessitated a constriction of services to only those students attending Saint Mary's University. And yet some 30 years after the creation of what is now the Ferguson Library for Print-Handicapped Students, no other post-secondary educational facility in Nova Scotia possesses a similar production capability. Despite this fact, there has been a steadily increasing population of individuals who, through no fault of their own, find themselves unable to easily access the reams of academic printed materials that are necessary for successful completion of courses and research in a timely way (*for a detailed look at enrollment statistics, see p. 23*). Universities and Community Colleges continually find themselves balancing increasing demands on tight budgets. For many, provision of materials in alternate formats to print-challenged students seems to be a burden that they simply cannot cope with alone.

Many Nova Scotian post-secondary institutions do not utilize already existing cataloging mechanisms such as AMICUS or Novanet to facilitate the sharing and distribution of alternate format materials, too often resulting in needless reproduction. Rather than being housed on a single, secure digital repository, books and other course-related materials are produced for individuals; never to be used again until someone else repeats the scanning or recording process for yet another student (*for more detail on duplication, see p. 22*). This, according to the Canadian Association of Disability Service Providers in Post-Secondary Education (CADSPPE), is a national problem.

The motivation behind the Feasibility Study is the belief that the confluence of the above stated pressures necessitate a “common sense approach” to the production and acquisition of alternate format materials. The consolidation of a province-wide, collaborative and equal partnership amongst universities, the Community College and the Nova Scotia Department of Education resulting in a steering committee to oversee and directing the development of a working model for a standardized approach to the acquisition, production and secure storage of e-text materials at a centralized location is one such common sense approach.

While a move toward greater sharing, publisher advocacy, and Universal Instructional Design are desirable goals, for the time-being, scanning of required readings is still necessary. At least 95% of published works are inaccessible to persons with print challenges. A consortial approach addresses this gap by not only creating economies of scale, it puts the resources in place to facilitate sharing of existing and new alternate format materials as well as to perform an advocacy function. An implicit belief of the Feasibility Study is that students with print disabilities have the right to access required readings and library materials in a timely way without having to re-publish them on their own time.

Further, the Kilmurray/Faba report indicates that experienced disability service providers also believe students should not be put in a position of having to scan their own materials. Below is a passage from a discussion group of post-secondary disability service providers representing four provinces: “The group then discussed whose responsibility it is to produce the alternate formats. Participants said that students should have a choice—it depends on the individual, the nature of the disability, and whether it’s seen to increase independence and vocational skills for life. However, delegates agreed that technology should primarily remain a learning tool for students, not a production tool. Students are there to learn, not to work, and the time they spend producing materials could be better spent studying. Furthermore, it must be kept in mind that disabled students are already disadvantaged due to their disability. They face a host of systemic barriers and already have much more difficulty negotiating the environment than non-disabled students. Their critical study time should not be compromised” (p. 172).

Ultimately, the goal of such a project is student satisfaction in obtaining and utilizing the learning materials they need in appropriate formats. Typically, the information needs of students with learning disabilities or other print disabilities can be summed up with the following expressions: “what I need; when I need it; and with the same access as other students.”

A special note on copyright

A growing body of support for copyright reform is developing in Canada, particularly addressing the issue of equal access and publisher practices. In addition, an incongruence of international legislation is affecting the lending and borrowing of alternate formats. While it is beyond the scope of this study to directly address these issues, a regional partnership could appropriately join a national effort to continue this lobbying.

For the purposes of this study, the following two premises are used:

1. Section 32 of the *Copyright Act* allows for the majority of works to be freely reproduced in alternate formats such as e-text, audio (digital and analogue), and Braille for those with perceptual difficulties.
2. The *Copyright Act* specifically excludes large print reproduction, however, the Access Copyright agreement negotiated with Colleges and Universities in Canada does allow for the creation of this particular format.

Project Description

In 2006, a steering committee was formed to develop project goals, guide activities and review progress. The chair of the committee was Barry Abbott from Saint Mary's Atlantic Centre of Support for Students with Disabilities. Other committee members were from Mount Saint Vincent University, Dalhousie University, Nova Scotia Community College, Saint Mary's Patrick Power Library, a student representative, and the Director of the Atlantic Centre.

In July 2006, a project researcher was contracted to carry out many of the tasks outlined by the committee. Those tasks included:

- interviews with disability services staff and library representatives from ten Nova Scotia universities and the Community College (it was determined that the first phase of the project would focus solely on English language formats, therefore, representatives from l'Université Ste Anne were not contacted)
- interviews with representatives from two related programs in Nova Scotia: APSEA and Novanet
- a Student Focus Survey of a representative sample students in all Nova Scotia institutions (unfortunately, only 13 surveys of the 700 distributed were returned – because this sample size is not statistically valid, these data were not considered)
- reviews of selected existing resources including the models of service for post-secondary students in BC, Manitoba and Ontario, through interviews and surveys with selected representatives
- reviews of a selection of reports addressing access to alternate format materials for both the educational and public sectors in Canada
- a documented proposal of a consortial model for province-wide service
- a roundtable session with invitations extended to all interviewed Nova Scotian representatives, plus additional guests from the ten universities and Community College
- written documentation of findings from these activities including recommendations, the compilation of which is this report.

Stakeholder Groups

1. Acadia University Office for Students with Disabilities and Library
2. Atlantic Provinces Special Education Authority (APSEA)
3. Atlantic School of Theology Office for Students with Disabilities and Library
4. Cape Breton University Office for Students with Disabilities and Library
5. Dalhousie University Office for Students with Disabilities and Library
6. Mount Saint Vincent University Office for Students with Disabilities and Library
7. Nova Scotia Agricultural College's Office for Students with Disabilities and Library
8. Nova Scotia College of Art and Design Office for Students with Disabilities and Library
9. Nova Scotia Community College Office for Students with Disabilities and Library
10. Nova Scotia Department of Education
11. Novanet

12. St. Francis Xavier University Office for Students with Disabilities and Library
13. Saint Mary's University: Atlantic Centre/Ferguson Library/Patrick Power Library
14. University of King's College Office for Students with Disabilities and Library
15. National organizations such as CNIB, CAER, CADSPPE and NEADS, the National Network for Equitable Library Service for Canadians with Print Disabilities, the Council on Access to Information for Print Disabled Canadians

Formats and Resources

Alternate format production can take many different forms, depending primarily on student need and cost, and to a lesser extent, copyright provisions. While analogue recording has played a large role in this industry's past, current production methods are largely based on digital formats and include:

- Electronic text files (KES, RTF, PDF, ascii, etc.)
- Audio (MP3 and DAISY)
- Large print
- Braille
- Tactile Graphics

In this report, these formats will be considered standard. Additionally, several resource databases exist and will be considered to be at the disposal of the stakeholder groups:

- AMICUS/CANWIP
- CNIB
- Novanet
- Individual library catalogues and university/college bookstores within and outside NS
- Other intra-provincial and international databases of holdings when appropriate

Findings

Consultations

Generally, it was found that centralized, decentralized and local models of service have advantages and disadvantages. Based on interviews in other provinces as well as those with Nova Scotian stakeholders, it was found that while completely local services can have the appearance of a high degree of student responsiveness, costs can be prohibitive and quality of materials can be lower. The conclusion of higher costs are based on higher staff to student ratios observed in those programs collecting this type of statistic (e.g. UBC, CILS, WRMS, *see below, pp. 19-20*) and non-standards-based productions and raw scans fall into the category of lower quality materials. Two of the centralized models profiled, CILS and Manitoba's Special Materials Service (*see summary profiles on p. 61-2 and p. 64*), are leaders in alternate format production in Canada. Their staffs are involved in the creation and establishment of production guidelines nationally, and CILS staff participates in this internationally (*see p. 62*).

Limited resources are used to produce or reproduce items that can be obtained a little or no cost from other producers. In addition, challenges common to all post-secondary providers include:

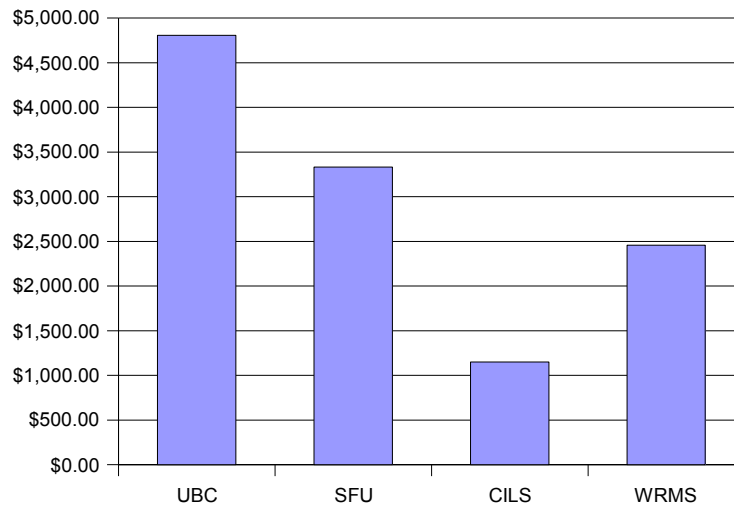
- bottlenecks at the beginning of the fall semester;
- difficulty in obtaining appropriate files and/or printed books;
- materials that are challenging either because of content or layout (e.g. math and science texts; graphs, charts, sidebars; etc.); and
- a lack of training and awareness within local educational communities.

Other provinces

Generally, no standard models of services are available in this sector in Canada. Ontario, British Columbia and Manitoba have a centralized approach, yet really the only thing all three have in common is provincial funding. This indicates a precedence for funding in that these services are covered in three provincial jurisdictions as basic post-secondary educational supports, as evidenced by the provincial support they receive. Along with other institutions profiled in this project, the other commonality is that **all** rely on some inter-institutional sharing of materials (*see the appendix entitled Overview of Related Services for further details on those institutions' resource sharing activities*).

The following analyses are based on interviews with staff in other jurisdictions conducted between August and December 2006. At the low end of the cost scale is the model most appropriately studied for the purposes of this project: the BC College and Institute Library Services (CILS). Their mandate is to serve students from 22 colleges and institutes across BC. While at first appearance this model is totally centralized, institutions they serve report having to supplement the CILS service with in-house production and scanning. Strictly from the CILS point of view, the average cost for each of the approximately 426 students served falls at about \$1,200 annually. Requests on this service are low at approximately two items per student

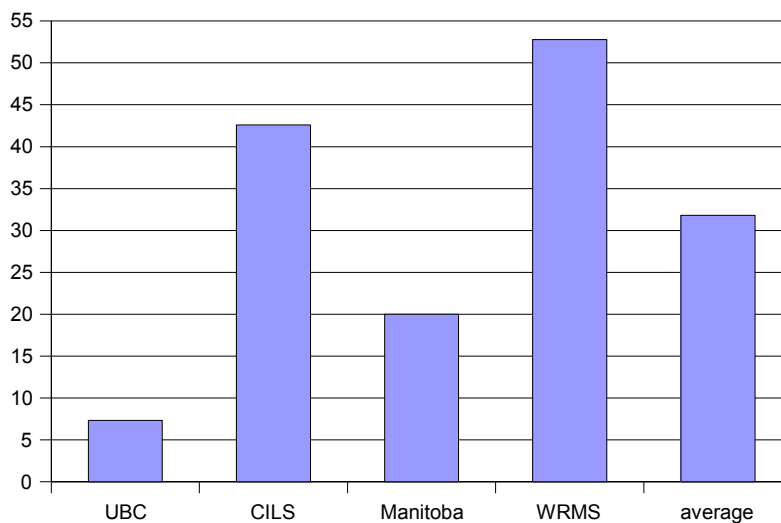
Annual cost per student



and their staff to student ratio falls at about 1:42. Turnaround times at the beginning of the semester can be problematic with this service.

Somewhere in the middle in terms of cost is the W. Ross Macdonald School in Ontario. This provincial service is geared toward both the elementary/secondary and post-secondary sectors. The intent of the service is to serve all those who qualify from this central service, however, like CILS, colleges and universities using this service report the need for hybrid production, that is, some in-house scanning is done at the local level. The average cost per student falls at about \$2,400 annually, with each of the 475 or so students requesting about 3.5 items. Their staff to student ratio is about 1:53.

Staff to student ratio



UBC offers a direct service to its students. At just over 48,000 students, this one institution serves slightly less than Nova Scotia's total post-secondary population. They have a highly responsive service to students and faculty and aim for a 48-hour turnaround time to deliver completed alternate format items where an existing copy is available. Their annual costs per student are high at approximately \$4,500. One reason for this could be the large average numbers of items produced for each student, as well as an irregular demand for Braille production (obtained through outside service providers on contract). They also have high service standards with a minimum ratio of one staff member for every seven students served, plus a large number of volunteers participating in production. While they cooperate with other institutions (e.g. approximately 100 items are lent to institutions across Canada from their collection annually) their production service is focused solely on the UBC community.

In general, the local model (Crane) is able to provide faster service to students, though at a relatively high cost. In general, the centralized model (CILS, Manitoba, WR Macdonald School) not only demonstrates highly efficient service, the production quality and adherence to standards are generally extremely high. Manitoba's service seems to combine fast response times with high quality in a centralized service. In BC and Ontario, demand on those central services seems to be greater than staff can meet.

For students scanning a large portion of their required reading themselves, up to 20% or more of their study time is squandered. This figure is based on the observations of experienced alternate service providers and can refer to required and/or supplementary readings. Interestingly, none of the institutions contacted expressed a high demand for supplementary research materials. Required reading, especially textbooks, and course support materials make up the bulk of the materials provided. Anecdotally, all institutions mentioned students supplement these services by doing their own scanning – particularly of short, handout type documents.

The potential hidden demand for alternate format production is tremendous. Because disability service providers are often the only point of contact for these students, they are not being referred to the vast resource collections held in their institutions' libraries which are created to supplement their learning. According to the the Kilmurray/Faba report, "There is growing evidence that students are not always asking for the resources they require. Self-advocacy is very difficult for students with print disabilities. They need to be encouraged overtly to discuss their issues. The 'hidden demand' means that a great deal more effort needs to be put into outreach strategies, communicating about existing services, developing products that meet the students' needs, planning services in a strategic manner, and strengthening partnerships and awareness at the institutional level to invite student participation in the services" (p. 220). Students are not completely and fully served by totally centralized models. Local staff need to be involved in service to students, plus the students themselves should also have the option of scanning if that is their choice.

All reviewed institutions see the enormous benefit of resource sharing, both nationally and internationally, though incongruous copyright laws make international cooperation increasingly difficult. Within Canada, the use of union catalogues, particularly AMICUS, seems to be one of the most beneficial tools for resource

sharing. A greater effort could be made to share 'works in progress' lists, whether through CANWIP or other channels. With efficient resource sharing, higher production rates and shorter turnaround times are possible, leaving room for fulfilling hidden demand and greater learner achievement.

Through the aforementioned interviews, the institutions reviewed in this report demonstrated that there is no standard for funding. In BC, UBC funds the Crane Resource Centre and Library through its Access and Diversity office, SFU pays for materials through its main library collection budget, and the rest of the public colleges are completely funded by the Province through the Ministry of Advanced Education's contract with Langara College (CILS). Manitoba's model sees direct provincial education funding for all production and distribution for both K-12 and post-secondary blind and visually impaired students (post-secondary students with other print disabilities are not included in this service). In Ontario, the WR Macdonald School is entirely funded through the province, but each post-secondary institution seems to be subsidizing this through their own Disability Resource Office or Library budget by way of additional production and acquisition.

Nova Scotia

The issues list below were identified in Nova Scotia. Further detail can be found in the appendix entitled *Overview of Current Nova Scotia Situation*.

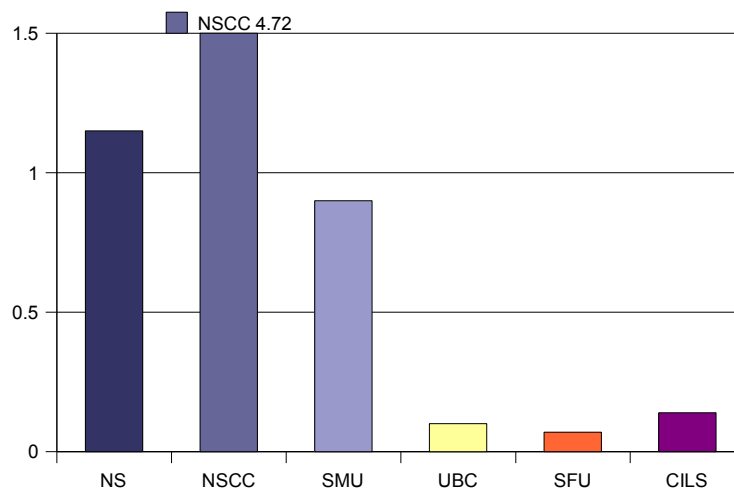
1. A hybrid approach to scanning currently exists consisting of Disability Resource Facilitators (DRFs) staff and students. The current approach does not report the number of items scanned annually, nor their associated costs. It also results in duplication of scanned materials. At one Feasibility Study steering committee meeting, an example was noted of an instance of 10 copies of one item being found at various locations. Later, it was noted that another item produced was found to have at least five existing copies available, including one in the campus library.
2. There is no standard approach to the provision of textbooks and/or textbook listings in a timely manner for scanning, especially within the university system.
3. Post-secondary institutions do not have separate budgets available for the acquisition or production of alternate format materials.
4. Central services provided through the Province (time permitting, NSCC will scan items for other institutions – no additional funding is supplied for this service, *see p. 56 for more detail*) and the Ferguson Library do not offer satisfactory turnaround times. Anecdotally, the ideal scanning turnaround time for students is about one day.
5. The Nova Scotia Community College system is unique in that it already operates its own provincially-funded central service. It was created to increase efficiencies with regard to duplication in that system – it is now serving as a best practice.
6. Only the Ferguson Library is making records of the scanned works available to others (for borrowing). Raw (unedited) e-copies of books are stored in-house when disability office staff do the scanning. Students who scan their own materials may keep the copies for themselves.
7. Contacting publishers for e-files is a key issue.

National Findings: Conclusions

Demographics

Once services for students with disabilities are established, the numbers served increase annually (disproportionately to the number of enrollments). Nova Scotia's Department of Education found in the 2003/2004 academic year, 1600 students self-identified as having a disability and registered at their local institution for financial and other support. By 2005/2006, the number had increased by 42%, up to 2273 students! (Nova Scotia, p. 10). Another study in British Columbia found similar results (British Columbia, Advanced Education, 2000). Anecdotally, several institutions in Nova Scotia (Nova Scotia Community College, Saint Mary's University, Nova Scotia Agricultural College, Acadia University and Cape Breton University; see appendix entitled *Overview of Current Nova Scotia Situation*) have also found this trend to occur when appropriate accessibility services are put in place.

Further, it is interesting to specifically compare the percentage of registered students in Nova Scotia receiving alternate format support services with those from other provinces.



Note that the statistics below were gathered from interviews conducted between August and December 2006. In addition, annual reports and institutional websites were reviewed. They are approximate. An average of 1.15% of students from the total enrollment in Nova Scotia are receiving alternate format services. These numbers are compared to University of British Columbia (UBC) at 0.1%, Simon Fraser University (SFU) with 0.07% and College and Institute Library Services (CILS – as a percentage of all college students in the province) at 0.14%. Within Nova Scotia, the two institutions with the highest percentages are NSCC and Saint Mary's University, with an astounding 4.72% and 0.9% respectively.

When the registration and enrollment process for NSCC is examined, a noticeable focus is placed on individual accommodation. “Jamie Fillion, Manager, Disability Services, Nova Scotia Community College, explained that Nova Scotia Community

College (NSCC) has moved from 130 students self-disclosing and accessing services in 1999, to 700 students this year. That change has given the college an opportunity, as the youngest college in Canada, to set up a good model for dealing with students with disabilities. The college takes a learning approach to education and has created a model to adapt that approach to students with disabilities. Rather than creating a modified curriculum for students with disabilities, the college focuses on providing appropriate services so that each student can follow a program of study based on their interests. The new model reflects a shift in attitude” (NEADS, 2004).

Another finding centred on the students and educational providers is that the vast majority of students with print disabilities have either a learning or psychological disability, with very few being visually impaired or blind. This was observed at every institution reviewed.

Process and collections

In addition to these reviews, the work of national groups such as CAER, CADSPPE, NEADS, the Council on Access to Information for Print-Disabled Canadians, and the National Network for Equitable Library Service for Canadians with Print Disabilities indicate there is a need regionally and nationally to better coordinate production and delivery of alternate format materials for post-secondary students, in the interest of decreasing delivery time to the end user, avoiding duplication, developing standard procedures, and ultimately to be able to increase overall alternate format production to more than the 2%-5% of published print works currently available. There is also a need to increase awareness of the needs of students with print disabilities, both in terms of agency coordination (e.g. disability offices and libraries within an institution as well as with other institutions) and staff training (e.g. faculty guidelines for Universal Instructional Design).

While it is true that every professor and each course may have different required readings, there are instances where the same text is used in different institutions, whether within the province or from across the country. Specifically within the alternate format realm, UBC lent approximately 100 items to other institutions across the country in one year, (*see p. 21 for more detail*), Saint Mary's lends several dozen items to other institutions annually (*see p. 57 for more detail*), and CILS fills approximately 39% of their requests by borrowing from other institutions (*as indicated in an interview with Mary Anne Epp, Director, on August 15, 2006*). Because a robust set of statistics does not exist for Nova Scotia, precise production output and resulting duplication are difficult to determine.

With the support of the Council on Access to Information for Print-Disabled Canadians, the newly forming National Network for Equitable Library Service for Canadians with Print Disabilities proposes a model for general public service consisting of a central coordinating office, distributed production centres and service libraries (Canadian Library Association, Working Group to Define a National Network for Equitable Library Service, 2005). Key roles of the central coordinating office that could be applied to a provincial educational model include:

- working with publishers to increase the availability of production-ready digital content

- coordinating the acquisition, production and distribution of titles, including streamlining and promoting to producers the Canadian Works in Progress (CANWIP) program and reviewing the process of reporting alternative format titles to AMICUS
- providing advice to libraries and publishers on best practices and developing training programs in service delivery to library users with print disabilities
- delivering communications programs and templates that can be adapted locally

Their recommendations for production centres include on-site production, standards development and the development of copyright expertise, as well as local file storage and retrieval systems. Within a regional partnership, central storage and archiving facilities could also be applied and then fed into a national service.

Finally, e-books and other electronic collections are becoming more common in library collections, resulting in positive outcomes for students with learning disabilities – more promotion of these resources should be undertaken.

Funding

Funding comes from a myriad of sources for alternate format production services. No standard model can be applied, though centralized services are usually directly or indirectly funded by supplementary provincial education dollars. All post-secondary education funding in Canada is coordinated provincially. Indirect funding comes through general institutional budgets; grants are a direct form of funding where provinces can more closely stipulate the conditions of its expenditure. While this same provincial funding plays a large part in overall funding for post-secondary institutions in Canada, two federal departments that could be approached for project or matching funding include:

- Human Resources and Social Development Canada for their Social Development Partnership Program through the Office for Disability Issues <<http://www.sdc.gc.ca/en/hip/odi/sdppd/sdppd.shtml>>; and
- Library and Archives Canada as the goals of the potential Nova Scotia partnership would support the work of the Council on Access to Information for Print-Disabled Canadians.

The main costs of the service in Nova Scotia are comprised of a portion of the work week from at least 23 staff members from across the province. Because statistics regarding the amount of time to produce these items are not collected in a standardized way in Nova Scotia, it is difficult to know what the exact cost of production is. Statistics collected in other jurisdictions were used as a comparison tool to inform the study.

Roundtable

On Friday, February 16, 2007, staff from the Atlantic Centre invited all stakeholders in Nova Scotia to a roundtable meeting in Truro. The purpose of the meeting was to share information about the research, discuss the proposal of a consortial alternate format service for the province, and to gain consensus on key issues around the proposal. All provincial stakeholders were sent an electronic copy of the proposal one week in advance of the roundtable meeting. The meeting was held outside the metro Halifax area in recognition of the strength and importance of rural institutions.

The day opened at 10:00 am with Dr. David Leitch, Director of the Atlantic Centre, welcoming the delegates. Barry Abbott of the Atlantic Centre and Project Coordinator, then gave some background remarks. Following these opening remarks, Cheryl Stenström, the Project Researcher, gave some background on the report findings following her research of national models and her interviews with Nova Scotian post-secondary institutions (see the *Slides from the Roundtable* appendix.)

Due to the high degree of positive feedback from meeting participants, the original agenda was changed slightly to reflect an open discussion on how a province-wide consortial service could be implemented. The following notes reflect main themes as well as specific points identified.

Questions arising from the findings and the proposed model

Q: Do the costs found at other institutions reflect the total overall cost for alternate format production?

A: No. It is difficult to compare actual costs as each institution reviewed has a different funding structure. Because detailed funding at the production level is often not available, the numbers reported sometimes do not include additional costs such as unofficial staff time (e.g. administration), infrastructure (e.g. space) and other supports (e.g. information technology support to maintain production servers as well as staff supports). Statistics for NS production are not available. Costs reported at other institutions are also difficult to compare as their funding comes from different sources and flows to different structures, e.g. some funding is reported in a detailed way only at the disability services office level (e.g. UBC), other models have detailed numbers for production only (e.g. CILS).

Q: What is the source of revenue for services in other provinces?

A: In most cases, with the exception of UBC (Crane), it is predominantly provincial funding. Crane gets direct funding from the university. In addition, the Access and Diversity Office originally received a significant grant of \$6 million raised from across the country through the Rick Hanson "Man in Motion" foundation.

Q: Apart from the universal availability of e-texts, what are some of the other

difficulties in working with publishers?

A: Publishers clearly don't understand accessibility from the user point of view (e.g. forms are often long and complicated). They are not timely in terms of responding to request for e-texts. Files received may often need a lot of editing work to make them 'machine-readable'. Also, there are differences between Canadian and American publishers in terms of their willingness to cooperate. A small but growing number of publishers is getting better at delivering electronic books, though finding cooperative publishers can be difficult. Most importantly, publishers are asking for information they have no legal right to request, such as the date and place of purchase of the printed text, what courses students are enrolled in, etc. Many colleges are refusing to provide this information as it can impact on Human Rights issues.

Q: What is meant by Universal Instructional Design (UID)?

A: Universal Instructional Design means courses are designed in a way that all materials used (readings, software, lectures, etc.) are in formats which can be accessed by any student, regardless of their learning styles, disabilities, geographic location, etc.

Q: Until all texts are readily available in electronic format, how is it possible to deliver services more efficiently?

A: While students still require scanning services, professors need to prepare book lists earlier. One approach to address this could be a meeting with NS representatives of the Canadian Association of University Teachers (CAUT). In addition, a key component of the proposed service is searching for existing items in alternate format to avoid the processes of shipping printed items and scanning.

Q: How does the presence of Novanet work with a proposed secure online environment?

A: Authentication would be an issue. A possible solution would be to draft an agreement allowing DRFs or Disability Service Officers (DSOs) reciprocal access to materials. So far the server at SMU has been providing institution-to-institution service. CBU also shares its materials and scanner. DSOs and DRFs would need to ensure eligibility of students.

Q: How could the same level of service for all institutions be achieved?

A: Efforts could be made to meet a standard for best turnaround time. DRFs waste time scanning when they could be doing other things, so it makes financial sense to invest in alternate format expertise. The consortium model would require skilled individuals to scan items to a certain standard and coordination would be essential. If all current resources were coordinated, improvements would follow. A few lead institutions already have usable resources – scanners, servers, etc.

Discussion and comments

Strengths:

- a consortium role could help eliminate the need for constant forms at the local level
- the representation of a group rather than individuals gives a position of strength when speaking with publishers
- as significant buyers of materials, libraries could be brought on side to express the need for electronic texts from publishers
- building on existing infrastructure augments rather than replaces existing best practices – stakeholders have a clear picture of what is needed
- the implementation of standards would ensure students receive equitable services at all NS post-secondary institutions
- working as a group would increase the chances of receiving adequate funding for the service
- the benefits of an initiative designed to serve persons with print disabilities would go well beyond this group; adapting for this market would mean everyone gains
- the service in its proposed form is seen as finite – as e-text becomes more ubiquitous, the need for scanning would be reduced or eliminated

Challenges:

- there may be way more work than even four centralized people could do – achieving all the goals of the group may be beyond the capacity of such a service
- the proposed model is reactive rather than proactive; there are many reasons why students may have difficulty accessing material and UID would address all students' needs, resolving many accessibility problems at the same time
- it will take money to do things well
- all primary readings for courses should be included in the proposed service, not just textbooks
- another organization has the potential to bog down delivery
- improvements won't happen unless determined leaders from across the province ensure they do
- in terms of scanning assistants, the existing infrastructure should remain to allow consortial staff as much time as possible for coordination activities

Opportunities:

- advocacy to publishers is key
- weaknesses in the current system must be identified in order to strengthen it

- consortial service wouldn't need to be centralized – upgrades can be made by adding extra staff and ramping up some equipment where needed
- additional staff would be necessary just to coordinate these activities
- agreement must be reached in:
 - consistency in tools such as scanners
 - consistency of product
 - standards for production and turnaround times
 - appropriate formatting standards (e.g. perhaps PDF could be a minimum)
- sub-committees would need to be formed to discuss detailed standards issues like formatting, processes, and materials reporting
- more than one server could be used for materials sharing
- proper cataloguing of materials would be vital – a sub-section within Novanet might be appropriate
- an advisory committee with representation across the province would need to be formed to ensure the service moves forward; sub-committees would work on specific issues
- more sharing would be required
- finding ways to better utilize present scanning resources is essential; standardized equipment would be necessary
- efforts should be focused on getting books from publishers, manipulation of files and efficient distribution – scanning is secondary
- support from and cooperation with Novanet is desirable
- utilizing both library and disability services expertise is important
- the proposal in its present form should only exist for three to four years – obtaining e-texts from publishers or other sources should be prevalent enough by then to significantly alter the service or eliminate it completely

Identified principles:

Throughout the meeting, Roundtable participants repeatedly mentioned several general themes they felt should be key to the operation of a consortial service. The are summarized as:

- the goals of the groups must be completely clarified
- time is of the essence – whatever governance is set up should be done quickly enough that momentum isn't lost
- the process and its evaluation should be designed so that eventually universal access prevails
- it's important to strengthen what already exists
- consortium members must adhere to the agreed upon standards and processes

- the consortium must have one voice per institution
- a multi-institutional approach is essential, especially in terms of financing
- additional partners will be approached where appropriate
- any student needing an item should be able to access it, i.e. universal design

Conclusions

1. A consensus amongst the group for the timeliness of the study was reached.
2. Attendees were comfortable with the leadership connected with this initiative; both in terms of the Atlantic Centre and the Steering Committee.
3. A natural relationship and mutual understanding exists between library services and disability resource centre staff.
4. The intellectual resources necessary for the realization of the proposed pilot exists within Library Services.
5. It is more important than ever to link with existing electronic mechanisms for the provision of alternate formats.
6. It is imperative not to 'reinvent the wheel'.
7. Extremely knowledgeable persons were present at the meeting. Integrating their ideas and encouraging their involvement as appropriate would be essential for the future success of a pilot project.
8. There was a consensus that moving forward should mean an attitude that takes the position with government of "for once do it right, provide sufficient funding to do it right or forget it!"
9. In this world you can choose to do nothing, wait until others do something or take the lead and do something.

Recommendations

In light of the above findings, it is recommended that the the following scenario for consortial service be put forward for consideration. The premise behind the proposal is that better service to students would be achieved for several reasons:

- Increased textbook scanning efficiencies and faster turnaround times would provide many students who are now doing their own scanning with the option of having their textbooks scanned or acquired through a consortial service in order to increase applied study time. This should result in better overall academic performance.
- It would reduce the scanning burden on local DRFs and DSOs so they could spend their time assisting students in other ways – grant preparation, acquisition of equipment and training, assistance with provision of tutors and note taking, monitoring and tracking of student progress, exam accommodation, making service referrals, etc.
- More time would be available for students and local DRFs to scan research information, class handouts and other non-textbook materials.
- A consortial service would make it possible to efficiently track both the progress of production and the availability of alternate format texts for distribution to print-challenged students.
- Publishers would be provided with a single contact point from which requests for e-books and other materials are put forward on behalf of the post-secondary institutions. This would allow for the much-needed building of a positive and trusting relationship.
- A coordinated service would ensure the sharing of materials over a secure environment to only those persons who are entitled to have access to alternate format materials. It should also virtually eliminate the needless duplication of materials across the province.
- Consortial service would allow for positive contributions to the national effort of increasing availability of alternate format materials.
- Building on existing infrastructure, the proposal would have an overarching goal of effective public spending.

Consortial Service

It is recommended that a request be made to fund the following four staff positions: one provincial post-secondary Alternate Library Program Coordinator/Director, two full-time Library Resource Facilitators (LRF) positions, and one Administrative Assistant. Both of the LRF positions should be qualified library technicians. Funding should be sufficient to cover annual salaries, equipment, maintenance, delivery costs and any Service Contract agreements, e.g. with the Atlantic Provinces Special Education Authority (APSEA) to serve the less than 50 blind or visually impaired students.

It is recommended that the core functions of the proposed LRF positions be:

- to act as a first point of contact for each of institutions for locating e-copies of textbooks province-wide;
- to perform high speed scanning of textbooks (including cutting and rebinding) in conjunction with existing DRF staff from around the province,
- to act as the sole point of contact to publishers for e-copies;
- to coordinate the cataloguing process;
- to ensure digital delivery of materials to local institutions;
- to oversee receipt and return of printed items (through couriers and Novanet Express);
- to liaise with external partners regarding direct student services (e.g. APSEA for blind and visually impaired student transcription services).

Whether or not books would need editing after scanning would be the determination of the local DRFs and the Coordinator. It is anticipated the two LRF positions could respond to initial requests for titles by searching existing sources within one day, and delivery time of a two- to five-day turnaround when scanning is required.

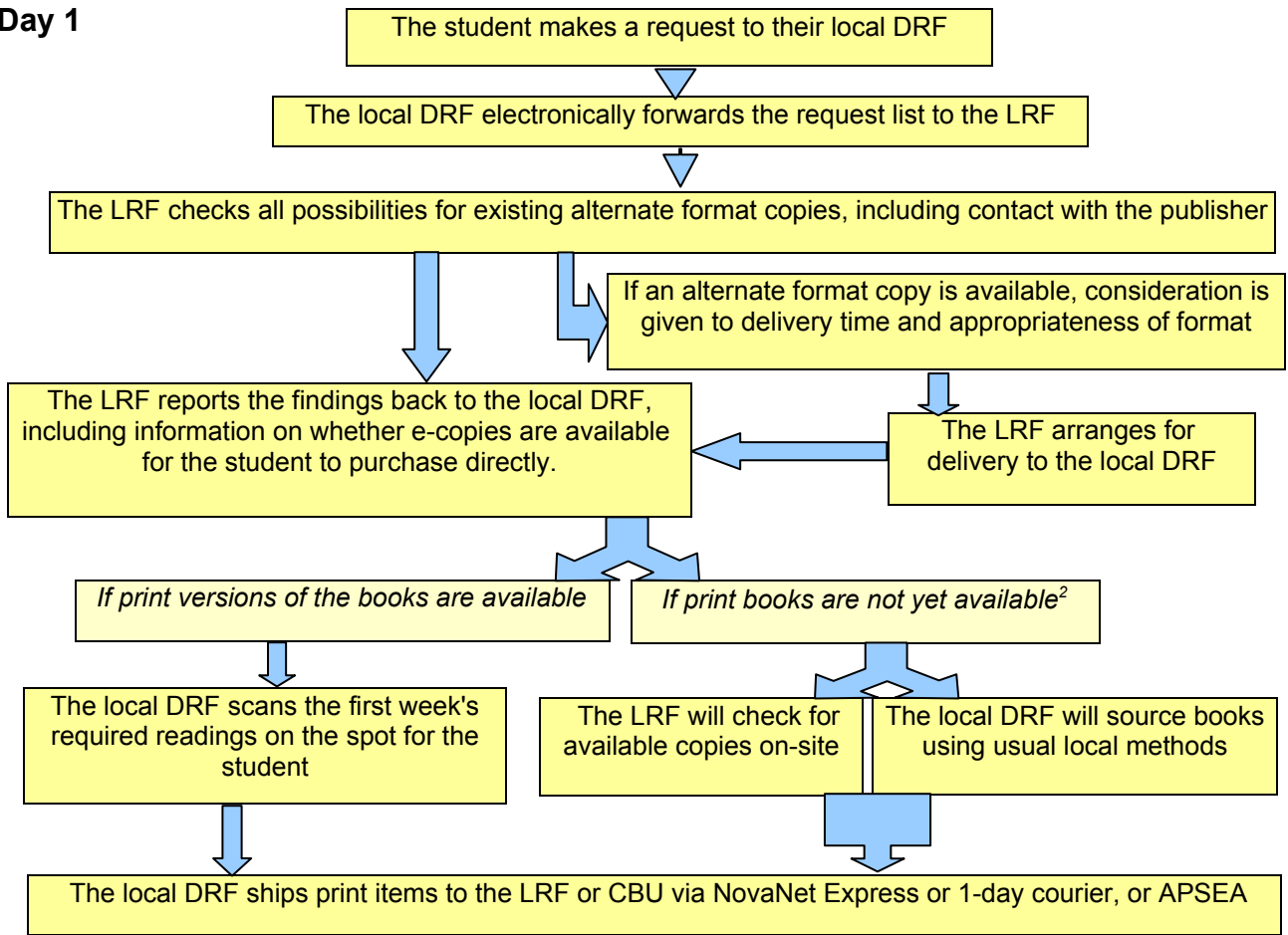
It is recommended institutions geographically close to Sydney send their materials to Cape Breton U for scanning. Compensation should be given on per-item basis and further file manipulation should be completed by the coordinated service.

An Administrative Assistant should assist with all of the various day-to-day office requirements. A Provincial Coordinator should oversee the day-to-day operation of the service and could be directly responsible to the appropriate supervisor as set forth in the final agreement. It is recommended that he/she be responsible for:

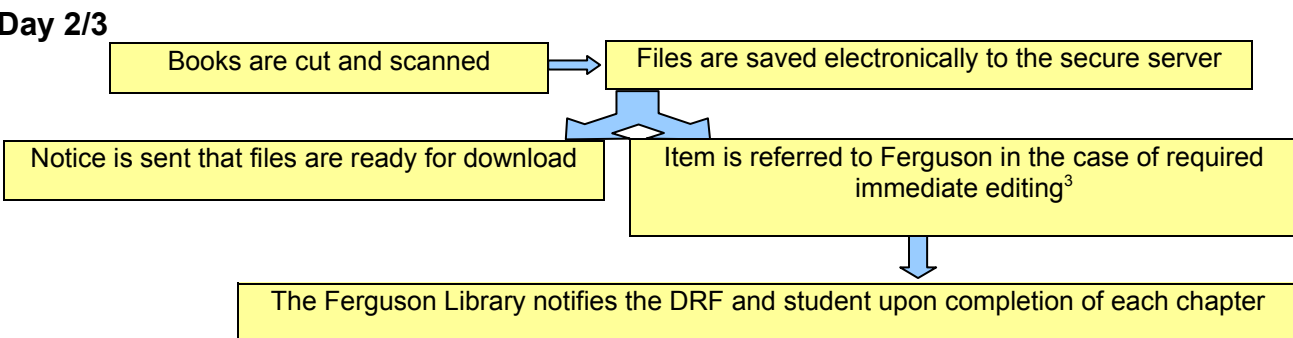
- supervising consortial service staff;
- long-range planning including drafting of policy and service evaluation;
- evaluating and implementing new technologies and standards related to digital production;
- seeking new partnerships and funding opportunities;
- developing and implementing training programs and materials for consortial service staff and other related parties as appropriate;
- acting as the final recourse for consortial service problem-solving;
- promoting the consortial service (including presentations) as appropriate;
- liaising with related provincial, regional, and national committees;
- participating in advocacy efforts on behalf of persons with print disabilities; and
- consulting with post-secondary staff when appropriate.

The resulting work flow for students requesting textbooks using this model would be as follows¹:

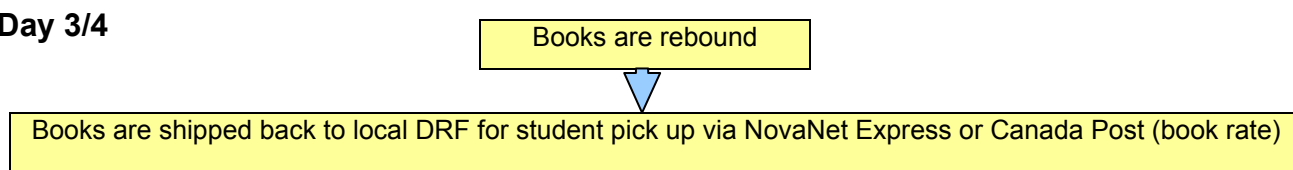
Day 1



Day 2/3



Day 3/4



Day 5/6 and beyond

Notice of scanned items and brief descriptions (e.g. 'raw unedited scan in ASCII format') is sent to the local institution's library for cataloguing

OR

LRF catalogues items

Catalogued records prepared for submission to NovaNet, CAER, AMICUS and CANWIP

Notes:

¹The scenario assumes textbooks, course packs and other required readings will comprise the majority of items going to the consortial service because of the cutting and rebinding process. With some exceptions, library items, ephemera and other items requiring photocopying would largely remain the responsibility of the local DRF.

²Sourcing print items can result in longer delivery times.

³Ferguson Library staff is currently the only source of editing expertise at the post-secondary level in the province. For items requiring full editing, longer delivery times will result.

Governance and Communication

It is recommended that an advisory committee made up of two representatives from each member institution plus a representative from the Department of Education be formed. Each institution should have one representative from disability services and one from library services. The chair and vice-chairs of the committee should be nominated from the group for one-year terms.

This committee should meet one or two times annually in person, as well as every three months by teleconference, video conference or other technological means. During the first six months after formation, it should work together to document the articulation of a clear vision and goals through a three-year strategic plan. Annual meetings should be conducted through agreed upon standard parliamentary procedures.

The director of the service should be an ex-officio member of the recommended advisory committee, and directly responsible to the chair, though day-to-day issues arising could be directed to lead institutions. The director of the service would be responsible for carrying out semi-annual evaluations under the guidance of the vice-chair, and the chair would be responsible for annual reports and any other accountability measures as specified by the Department of Education.

Subcommittees should be formed as working groups to address specific issues. Each subcommittee should have no less than three and no more than five members and no committee member should sit on more than two subcommittees. Each subcommittee should have representation of at least one disability services staff member and one library staff member and should elect its own chair (one-year term or less if project work is shorter in duration) who will be accountable for completing project work by established deadlines.

Subcommittees should include: operations/production standards; formatting standards; equipment; student services; training; reporting and authentication; publisher advocacy; bylaws; human resources; evaluation (chaired by the advisory committee vice-chair) and finance (chaired by the advisory committee chair). The work of these committees may not always be mutually exclusive.

A special effort should be made to open talks with APSEA with the goal of concluding an agreement for service to blind and visually impaired post-secondary students. Details of the agreement should be at the discretion of the advisory committee and APSEA representatives. These discussions should be conducted within the first year of the project.

Nationally, the following groups should be made aware of the project:

- the Council on Access to Information for Print Disabled Canadians,
- CAER,
- CADSPPE,
- NEADS, and
- the National Network for Equitable Library Service for Canadians with Print Disabilities.

Administration

Not intended to replace existing work hours, it is recommended that the proposed four staff positions not be attached to any one institution other than for administration purposes. Because of existing infrastructure, the positions should be split between Saint Mary's and NSCC's West End location. Flexibility exists in the functions carried out at each location as well as in scheduled staff hours to accommodate the cyclical nature of the academic year.

In order to facilitate cataloguing, reporting, and materials-sharing nationally, it is recommended that the resulting holdings, or records of produced items be associated with Ferguson Library.

Priorities for additional service functions such as extensive editing, acquisition and/or cataloguing of existing digital holdings from around the province should be at the discretion of the advisory committee.

Standards

In order to ensure equitable service to all students in the province, it is recommended a production standard be set. Turnaround times should be no more than *one day* for response to requests (i.e. "electronic copy located" or "no existing copy located, production will occur"). No more than *five days* should pass between the time a print copy is received for scanning and a raw e-text file is available for download.

Documented formatting standards are already available from other working groups, such as CADSPPE. It is recommended that the committee adopt these standards whenever possible to ensure consistency of high-quality materials for all students. Additional standards for scanning procedures should be developed by a subcommittee.

A minimum of three high-speed scanners should be located at different locations in the province: one at NSCC's West End location, one at CBU and a third at the Ferguson Library. This would necessitate the purchase of one additional scanner. Standards for equipment should be developed by a subcommittee consisting of representatives from NSCC, CBU and Patrick Power Library.

It is recommended that an underlying principle of service should be for any student to access materials in whichever format they require, therefore a minimum standard of service should be developed that outlines procedures for working with students to determine appropriate formats.

Easy-to-follow procedures should be developed for all institutions to contribute existing alternate format holdings to a central repository, whether for records of hard formats, or the electronic copies themselves. Working in conjunction with national groups, methods for contributing records for substandard or 'good enough' works could be developed.

All stakeholders should have the opportunity to receive training at regular intervals. A training subcommittee should set priorities and determine the frequency of sessions. Technological solutions should be used whenever possible to deliver training as a cost-saving measure. A face-to-face meeting of all stakeholder representatives should be held annually or semi-annually. Hosting and arrangements should rotate through each member institution.

Evaluation

Evaluation of service should be done by appointed subcommittee. It is recommended a baseline be established in each measurement and then compared at six month intervals (middle and end of each fiscal). Evaluation should be based both on inputs/outputs and outcomes.

Output statistics collected should include:

- requests received;
- requests filled through publishers;
- requests filled through other existing copies;
- items produced and where;
- length of time to fill each request, including

- searching outside databases,
- locating book and delivery,
- scanning,
- file manipulation,
- total length from student request to accessing materials;
- students requesting service and how many items for each;
- time spent on other activities.

Input measurement should be focused on a cost analysis of existing budgets and start up costs of the proposed pilot service; any special projects, and equipment (e.g. programming on secure servers); and should be conducted within the first fiscal year. In-kind costs are especially important.

Outcomes should be measured in part through annual student satisfaction surveys, including perception of whether or not the service is increasing their success. Additionally, outcomes should be measured against those set out in the advisory committee strategic plan.

Other factors should measure successes as defined by Department of Education annual goals, such as those outlined in the *2006/07 Business Plan*: “[to] enable the provision of relevant and high quality post-secondary education and training” (p. 7) through gathering “data on the participation of under-represented groups” (p. 1).

A special effort should be made to evaluate centrally accessed servers to determine the impact on performance and available space. As these servers would be provided in-kind for the duration of the pilot project, a negative finding should result in the purchase and configuration of a new server dedicated to the service.

Timeline

The following recommended timeline is a summary of major activities – see the *Project Timeline Appendix* for full details.

Year 1	
Mar 31, 2007:	submission of report and request for funding to Dept of Education
Apr 1-30, 2007:	confirm advisory committee members and appoint chair, vice-chair, and sub-committee chairs
Jul 1-31, 2007:	staff training (including shadowing of NSCC and SMU staff)
Aug 1, 2007:	full project launch date
Oct 1-31, 2007:	baseline evaluation complete; first report goes to Department of

	Education full advisory committee meets by teleconference or face-to-face to discuss progress-to-date and to share best practices
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Year 2	
Mar 31, 2008:	first annual report submitted to Department of Education
Oct 1-31, 2008:	third evaluation completed full advisory committee meets by teleconference or face-to-face to discuss progress-to-date and to share best practices

Year 3	
Mar 31, 2009:	second annual report submitted to Department of Education

March 1-31, 2010:

- advisory committee retreat to assess project, final report to Department of Education
- total project duration: three years

Funding & Budget

Funding should be requested for the consortial library service through the Nova Scotia Department of Education PSDS program as grants to the Atlantic Centre and NSCC. The total request should be approximately \$675,000 for the three-year project. Department of Education funding should cover staff, equipment, project costs, supplies, shipping costs, and any contracts. When spread out over the 10 universities and 13 college campuses in the province, the recommendation for total funds request is approximately \$9,782 per campus per year. Further in-kind contributions should come from each institution in the form of support for the service. Additional in-kind contributions should come from the Atlantic Centre and Patrick Power Library (in the form of a central secure server, at least of the duration of a pilot period), and the Nova Scotia Community College as the lead institutions, including staff administration, space, committee work, and travel and meetings. The total in-kind contribution should be approximately \$150,000.

The following is a summary of major costs – see the *Project Budget Appendix* for full details.

	Year 1	Year 2	Year 3
Contributed	\$209,250	\$229,725	\$236,025
In-kind	\$59,000	\$45,500	\$45,500
TOTAL	\$268,250	\$275,225	\$281,525

Appendices

Project Timeline

Year 1

2007

March 31, 2007:

- submission of report and request for funding to Department of Education

April 1-30, 2007:

- confirm advisory committee members and appoint chair, vice-chair, and sub-committee chairs
- human resources sub-committee prepares job descriptions and advertisements
- bylaw subcommittee begins to draft advisory committee documents

May 1-21, 2007:

- advertise for staff
- equipment sub-committee establishes inventory and needs assessment of service equipment
- finance sub-committee approves final budget

May 28-June 1, 2007:

- staff interviews

June 1-30, 2007:

- equipment sub-committee purchases additional equipment
- operations/production standards committee finalizes workflow
- formatting standards subcommittee finalizes adoption of format production standards
- student services subcommittee begins to meet
- bylaws sub-committee finalizes advisory committee documentation
- Strategic Plan released

July 1-31, 2007:

- staff training (including shadowing of NSCC and SMU staff)
- evaluation sub-committee begins to meet
- reporting and authentication sub-committee begins to meet
- full advisory committee meets by teleconference to discuss progress-to-date

August 1, 2007:

- full project launch date

September 1, 2007:

- evaluation sub-committee finalizes measurement tools
- reporting and authentication sub-committee finalizes procedures
- student services sub-committee releases first draft of guidelines for student

needs assessment

October 1-31, 2007:

- baseline evaluation complete; first report goes to Department of Education
- training sub-committee begins to meet
- full advisory committee meets by teleconference or face-to-face to discuss progress-to-date and to share best practices

December 31, 2007:

- full advisory committee meets by teleconference to discuss progress-to-date
- training sub-committee presents training plan to advisory committee for approval

2008

March 31, 2008:

- first annual report submitted to Department of Education
- conclusion of discussions with APSEA

Year 2

2008

April 1-30, 2008:

- second evaluation completed
- full advisory committee meets face-to-face, portion of the meeting devoted to training

July 1-31, 2008:

- full advisory committee meets by teleconference to discuss progress-to-date

October 1-31, 2008:

- third evaluation completed
- full advisory committee meets by teleconference or face-to-face to discuss progress-to-date and to share best practices

December 31, 2008:

- full advisory committee meets by teleconference to discuss progress-to-date

2009

March 31, 2009:

- second annual report submitted to Department of Education

Year 3

2009

April 1-30, 2009:

- fourth evaluation completed
- full advisory committee meets face-to-face, portion of the meeting devoted to training

July 1-31, 2009:

- full advisory committee meets by teleconference to discuss progress-to-date

October 1-31, 2009:

- fifth evaluation completed
- full advisory committee meets by teleconference or face-to-face to discuss progress-to-date and to share best practices

December 31, 2009:

- full advisory committee meets by teleconference to discuss progress-to-date

2010

March 1-31, 2010:

- advisory committee retreat to assess project, final report to Department of Education

Total project duration: 3 years

Project Budget

Year 1	Requesting	In-kind	TOTAL
staff	\$169,000		\$169,000
equipment	\$18,000		\$18,000
projects & contracts	\$18,000		\$18,000
supplies & shipping	\$2,000		\$2,000
administration		\$14,000	\$14,000
server use and administration		\$12,000	\$12,000
space		\$10,000	\$10,000
committee work, including travel & meetings		\$23,000	\$23,000
TOTAL	\$207,000	\$59,000	\$266,000
Year 2			
staff	\$186,500		\$186,500
equipment	\$10,000		\$10,000
projects & contracts	\$12,000		\$12,000
supplies & shipping	\$2,000		\$2,000
administration		\$14,000	\$14,000
server use and administration		\$12,000	\$12,000
space		\$10,000	\$10,000
committee work, including travel & meetings		\$9,500	\$9,500
TOTAL	\$208,5000	\$45,500	\$254,000
Year 3			
staff	\$204,000		\$204,000
equipment	\$8,000		\$8,000
projects & contracts	\$10,500		\$10,500
supplies & shipping	\$2,000		\$2,000
administration		\$14,000	\$14,000
server use and administration		\$12,000	\$12,000
space		\$10,000	\$10,000
committee work, including travel & meetings		\$9,500	\$9,500
TOTAL	\$224,500	\$45,500	\$270,000
Three-year SUB-TOTALS	\$640,000	\$150,000	\$790,000
+5% Administration fee	\$32,000	\$0	
Three-year TOTAL	\$672,000	\$150,000	\$822,000

Overview of Current Nova Scotia Situation

Acadia University

Of the 120 students registered at Acadia's Disability Office, about 100 (about 2.9% of student population) have a learning disability though not all qualify for funding assistance. A handful are requesting alternate formats (under ten) and textbooks and readings are prioritized. Scanning will be done for students on a weekly basis (about one to two partial days by student assistants). When Disability Office staff scan for students, a central copy of the work is retained. Staff feels that depending on the time of year, centralized scanning services can be extremely busy and that university book lists aren't always posted in a timely fashion.

Generally, first-year, first-term works are in highest demand, with more experienced students working more independently. One fourth-year visually impaired student works entirely independently meeting her information needs.

A close relationship exists between the Disability Office and the library liaison, to whom students are referred for extra research assistance. Staff at Acadia are eager to share best practices and information in this area, as well as work toward cooperative initiatives.

Atlantic School of Theology

Currently, no students at the Atlantic School of Theology have self-identified as having a print disability. Referrals would be made to the Ferguson Library and Atlantic Centre when appropriate. The library has a unique relationship with Saint Mary's in that the chief librarian is an employee of the Patrick Power Library on long-term secondment since 2001. While each institution has its own board, some operational efficiencies are realized through the AST/SMU relationship.

Cape Breton University

The DRF and staff at Cape Breton University serve approximately 156 students annually (a higher than average number at 4.7% of the student population). The total number of students requiring scanning (including those from the neighbouring NSCC Marconi campus) is around 23. Considering both locations, the service is supplying a higher than average per capita rate than the provincial average. The DRF's philosophy of service includes building strong ties with both the university community and in greater Cape Breton. Outreach visits are made to all high schools on the island at least once per year and new faculty orientation is provided. In addition, there is a strong attitude of trying new technology (e.g. moving quickly to universally adopting the 'Key to Access') and making it accessible through an equipment loans program. A CCTV is available in the library.

General Memorandum of Understanding (MOU) funding was used to purchase a high-speed scanner for student scanning as well as any Cape Breton community member who wishes to use it. Student assistants are hired to scan CBU students texts several hours per week (books are cut and rebound), in addition to texts

required by NSCC Marconi campus students on a fee-per-item basis. The Disability Service Office is currently meeting scanning demands with quick turnaround times.

Improvements could be made through a broader awareness of Universal Instructional Design, and a long-term plan to create a Universal Learning Commons is being considered. In addition, advocacy to publishers could improve their awareness of the growing market demand for e-text.

Dalhousie University

More than 500 hundred students are registered with the Disability Office at Dalhousie. This percentage of overall student population is slightly higher than average at about 4%. Over 70% of these have ADD, ADHD and a learning disability, and a small handful have a visual impairment (13 students – none are completely blind). Approximately six students are requesting scanning this year (a figure lower per capita than the provincial average). This ranges from periodic scans of a few pages from reading packages to three to four textbooks per person of 500 pages or more. In addition, some students are doing their own scanning. As all students don't necessarily ask for assistance, their numbers are hard to determine. The Student Accessibility Services is currently meeting the demand from students for scanning (whether internally or via Post-Secondary Disability Services at Department of Education), as well as having a fairly successful rate of acquisition of e-files from publishers. They've had no requests from students for audio or Braille production in the last three years. For in-house production, off-the-shelf software and formats are used including Kurzweil, and the central scanning service is used on a moderate basis (two-day to two-week turnaround time).

Each campus library has an accessible station available to students, staff and faculty, though usage of these is extremely low. In addition, more than 2,000 e-text titles are available through the Dal University Libraries collections.

Service improvements and enhancements to the general learning experience for students could be made if the relationship between student and publishers could be established, as well as an overall movement toward Universal Instructional Design. In addition, getting (federal) grants to students earlier in the semester would be beneficial.

Mount Saint Vincent University

Staff at MSVU leans toward a practice of enabling self-sufficiency and advocacy on the part of the approximately 100 plus students registered with the disabilities office (of those, approximately 3% are visually impaired). While scanning used to be provided when possible, two scanning stations are now available on campus. In addition, adaptive technology training is provided to students, as is assistance with obtaining funding for the purchase of personal equipment for home use (students can have purchased books cut at the print shop).

A number of accommodations are available in the library including 14 hours per week of Learning Support services (staffed by Disability Services); a selection of adaptive equipment; space for using alternate format materials (e.g. AV); a reserved carrel system; and a willingness to purchase alternate format texts when applicable.

Library staff participate actively in various Novanet committees, and feel the Emerging Services Committee may be interested in participating in future cooperative provincial alternate format work. Overall, there is a high degree of awareness among faculty and staff of disability issues, due in part to the professional development work of the Disability Services Office. Improvements could be made in the area of publisher relations.

Nova Scotia Agricultural College

The number of students served by the DRF at the NSAC has grown dramatically in the last three years, from four students to the current 32 (4.1% of student population). Of these students, about four require scanning services.

The DRF has a good relationship with the campus recruiter who can advise potential students of services available, plus the campus health centre is making referrals. In general, first- and second-year students require more assistance and support.

Normally text requests from students are sent to the central scanning service in Halifax with an average one-month turnaround time. In conjunction with the print shop, short works will be scanned on campus. Software and equipment advising is offered to students and two Keys to Access were recently purchased for lending. Kurzweil software was recently upgraded to version 9. Two CCTVs are available in the library. In addition, the library offers approximately 13,000 online journal subscriptions as well as reserve copies of all first-year texts. In recent years, a project was undertaken to increase the accessibility of library signage.

Nova Scotia College of Art and Design

Serving the six to eight students with print disabilities (of 50 to 60 identified as have a disability) at NSCAD comes in the form of a three-pronged approach: students are provided with assistance in obtaining federal and provincial funding and then are encouraged to purchase equipment they can use themselves to create alternate formats on the fly, especially in the case of library materials; staff in the disability resource office do some raw scanning for students on request (six-hour to two-day turnaround time); and publishers are approached for e-files, unfortunately with limited success. Currently, staff is able to meet scanning demand, though they are close to their limit and may turn to the centralized service when necessary (edited works with three-week turnaround). As a percentage of student population, the number of students using alternate format here is lower than the provincial average, at 0.64%.

In terms of library service, consideration is given for longer loan length for qualifying students who may be scanning borrowed items.

One of the barriers to service faced is relatively outdated technical infrastructure, e.g. course syllabi are for the most part only available in print; various campus systems aren't yet integrated; campus-wide email is in the implementation phase.

Nova Scotia Community College

Nova Scotia Community College is a relatively new institution, being formed in the 1990s as an amalgamation of various technical institutes and colleges around Nova Scotia. Throughout their 14 campuses, there is a higher than average number per capita of students with disabilities compared to other Nova Scotia post-secondaries, with approximately 8% overall of the student body self-identifying (encompassing a range beyond print disabilities). This is roughly on par with the national average for enrollment of students with disabilities in Colleges, according to the *Embracing Differences: Post-Secondary Education among Aboriginal Students, Students with Children and Students with Disabilities* (2005). In addition, their number of alternate format users is significantly higher than the provincial average, at just under 54% of those with disabilities or 425 students.

Library staff is confident the college as an institution is serving *all* students who use the campus libraries well. At the campus libraries, students rarely identify that they have a special need therefore they do not receive any special service. In addition, library staff participate actively in various Novanet committees, and it was suggested that the Emerging Services Committee may be interested in learning about the project. Overall, there is a high degree of awareness among faculty and staff of disability issues, due in part to the professional development work of the Disability Services Office.

In terms of process, each student meets with a Disability Accommodation Team, including faculty upon enrollment in order to develop a personalized approach to special services for their academic career at the College. For students requiring alternate formats, the campus-based DRF will work from a complete list of required textbooks (normally obtained in mid-May), searching first in the Central Disability Resource Office's locally produced central alternate format holdings database and then through the bookstore. The bookstore will supply a copy of the text which is later replaced either by the publisher or the Department of Education. E-texts are scanned centrally in Halifax on a the Disability Resource Office's high-speed scanner (Marconi campus excepted, an agreement for service is in place with Cape Breton University) and then distributed and stored as PDF on CD. Rebound print copies are retained. 400-500 texts are produced per year plus additional CD copies. Each campus has two or more Kurzweil units available for student use, though the Disability Services Office is in the process of networking Keys to Access software.

In addition to campus-based services, the high-speed scanning facility in Halifax serves as a central service for all post-secondary institutions. College scanning is done as a first priority, with other institutions requests being completed as scanning assistant time is available. Funding is provided through an MOU between NSCC and the Department of Education, Post-Secondary Disability Services. No additional funding is supplied to provide high-speed scanning for universities wishing to use the service.

Overall, staff feel the current model of service to their students is working very well and indeed, their view is that it is a model for other post secondary institutions. Annually, their goal is to have 90% of required texts scanned by August. Improvements could be made if relationships with publishers were strengthened, not only in timeliness of responses, but also in accessibility of processes (e.g. while a direct relationship between students and publishers should exist, having five screens of forms for an learning disabled student to fill out is unrealistic, and shows a lack of understanding of the nature of disabilities and required formats). Advocacy for students with print disabilities in general is role a central agency could play. In addition, it was suggested a provincial central service could be formally designated through the Department of Education, but implemented locally, This should come with financial assistance; the purchase of appropriate equipment (e.g. high speed scanners); and an obligation of file sharing.

St Francis Xavier University

Approximately 165 students (3.9% of student population) use the services of the Tramble Rooms at St. FX – the centre for serving students with disabilities. There, they can receive services such as registration assistance, course selection, options for accommodations, assistive technology training, locating note takers and tutors and provision of alternate format materials.

The DRF and other staff will scan for students (texts are cut and later rebound at the library) but encourages self-service as part of an overall philosophy of self-advocacy. E-copies of texts scanned in the Disability Services Offices are retained, though the record of such is not available to the wider community. Copies of student-scanned works are not retained. As with other institutions, students often like to keep the printed copy of the book as well.

In addition to the equipment available in the Disability Services Office, staff there maintains an accessible workstation in the library. Because this equipment is funded by the Province, regular St. FX systems staff are not responsible for its maintenance, so keeping the station functioning can be a challenge. General services offered by the library to accommodate students include being a member of CNIB's Visunet Partnership Program.

Students could be better served if faculty followed Universal Instructional Design guidelines on a larger scale and if there was information sharing among the DRFs province-wide. As with other institutions, Canada Study grants often arrive late in the semester for students, though Disability Services Office has access to an endowment fund that can be used for up-front costs until the loan arrives.

Saint Mary's University

Between the Ferguson Library and the services of the DRF, approximately 65 students requiring scanned texts are served annually at Saint Mary's. Scanning services are provided through both the DRF and the Ferguson Library and formats

provided are either PDF/KES or ascii/Text Aloud to MP3, depending on which department scans for the student. Turnaround times can range from a couple of hours to a day or two and generally will be raw scans. Editing is normally done retroactively (especially during the summer months). When requests to publishers are filled, turnaround time can be as much as two weeks. Scanning equipment at the Provincial central service is used directly by the DRF on an occasional basis.

E-copies of all texts are retained (either on CD, secure server for download, or on the DRF's hard drive) and those produced in the Ferguson Library are sent through to the Patrick Power Library for cataloguing. Records are submitted to Novanet and AMICUS. Several dozen requests from other institutions are made for Ferguson productions annually. For digital titles, delivery can be instant through the secure server or by email.

Improvements in services could be made through more awareness of Universal Instructional Design (course packs can be especially problematic) and more lead time for text choices. In addition, more student assistant hours could be used for scanning and editing, or long-term projects like analogue to digital conversion. The purchase of a high speed scanner for on-site use would be beneficial as would more information sharing among Ferguson staff and the DRF team province-wide.

University of King's College

Currently, no students at King's have self-identified as having a print disability. Student services in this area are provided in conjunction with Dalhousie. Additional referrals would be made to the Ferguson Library when appropriate.

Other Program Reviews

Atlantic Provinces Special Education Authority (APSEA)

APSEA has responsibility to serve children from birth to 21-years who are both hard of hearing or deaf and visually impaired or blind in Nova Scotia, New Brunswick, Prince Edward Island and Newfoundland and Labrador (with some exceptions). Main services include Referral, Assessment, Preschool, Transition, Orientation and Mobility, Consulting, Technology Assessment and Provision, and an Integrated School Program. In addition, APSEA provides itinerant teacher support to blind and visually impaired students in NS, NB and PEI (and for Deaf and hard of hearing in NS and NB). The funding for the entire service is split by formula between the four provinces and runs at several million dollars annually.

In addition to their service to blind and visually impaired students, which is of primary interest in the context of this report, they have a strong history of providing training to parents, teachers, provincial Departments of Education, health care personnel, service agencies, and interested community groups. They also have a robust career and transitional counseling program.

Tactile graphics and Braille transcriptions are produced on-site in Halifax along with analogue audio, and potential digital audio production. While large print production is contracted out to the Province of Nova Scotia, students are encouraged to make use of newer e-text formats when appropriate. In 2004/05, 3,600 pages of e-text were produced at APSEA and delivered to students via secure file transfer protocol. Seven and a half full-time equivalents (FTEs) make up the Braille and e-text production unit, and volunteers assist with proofreading.

APSEA is a member of CAER. In 2004/05, they borrowed 267 items from other Canadian partners, for a savings of approximately \$150,000. They were also able to lend 144 items to those same partners. In addition, they continue to be a partner in the Canadian DAISY Consortium representation, led by the CNIB.

A potential partnership opportunity exists between APSEA and post-secondary education institutions regarding the provision of standards-based digital format production for blind and visually impaired students.

British Columbia College and Institute Library Services (CILS)

CILS provides free services to students and instructors with disabilities in all public colleges in BC, plus one university under contract (Simon Fraser University). Their funding is wholly supplied by the Province of BC through the Ministry of Advanced Education. Typically, they serve between 400 and 500 students and instructors annually at an average cost of \$1,200 to \$1,500 per capita. Their service area extends from Dease Lake to Fort Nelson to Sparwood to Victoria, for a total of about 944,735 sq km.

While at first appearance CILS functions just as production unit, the organization also

provides materials sourcing and distribution; reference and information services (including chat-based service); and workshops to post-secondary library staff, disability coordinators, assistive technology specialists, information technology employees and public librarians across the province.

They produce materials in digital audio (straight MP3 files and DAISY), e-text including PDF, large print, and some tactile graphics. As well, they have developed expertise in textual analysis; library service and print disabled users; accessibility of online resources; and universal web design.

The strength of the CILS service lies in the extremely high quality of production and service they are able to provide as a dedicated unit. From their website: "Alternate formats produced by local institutions that do not meet the production standards may fall short of the goal of equitable access to information, shareability of resources and efficient use of limited public funds. When CILS produces a book, it is listed in the Canadian database of alternate formats and available on loan. The book produced by CILS also includes the necessary copyright information to meet the requirements of the Copyright Act. The centralized service is able to develop new technology and products, maintain production standards and ensure efficiencies that are almost impossible to achieve at a small institution."

In addition, students and instructors at local (and sometimes very small) institutions receive this excellent level of service with virtually no local budgetary impact. As with any remote service, it appears the main challenge users face is delays in receiving materials, both in terms of delivery and production output, particularly during bottleneck periods. In an effort to address delivery issues, CILS recently began providing digital files through a secure server so users can download files directly rather than wait for discs to be delivered, though this is only possible for locally produced items, not those borrowed from partner institutions.

Students and instructors can access CILS through their local disability coordinator, and in turn, CILS uses local library infrastructure for materials distribution.

CILS' formal partners and materials sources include CNIB, RFB&D, CAER institutions and NLS. Director Mary Anne Epp has been working with the organization since its inception in the mid-1980s and participates in a wide variety of organizations, including NEADS, DAISY and Canadian and American copyright groups.

Crane Resource Centre and Library

At the University of British Columbia, BC's largest post-secondary institution, students are served directly through the Crane Resource Centre and Library in the Access and Diversity Office. The organization provides full production services as well as materials distribution, and exclusively serves the wider UBC community (those living on campus but not affiliated with UBC excepted). Their annual production is in the range of 300-500 items and consists primarily of digital audio on MP3 CD, e-text and Braille (obtained through service contracts with external

providers). They serve students and faculty associated with both the Vancouver campuses and the Okanagan campus.

Director Janet Mee feels an apt description of the philosophy of service at the Crane Resource Centre and Library is to 'keep it simple'. Their production unit has been converted from the old, existing analogue unit to a digital production facility using off-the-shelf hardware and software. Volunteer and paid readers are largely in control of their own recording and at least one full-time equivalent technician oversees the operation and final production. In addition, a full adaptive technology lab is available for student and student assistant use in the main part of the library.

Having the production unit and lab in the same building as the Disability Resource Centre means students can often receive items immediately. As chapters or sections of a work are completed, students can drop into the adjoining library and retrieve materials on a 24/7 self-serve basis. Materials required at other campuses are delivered using existing inter-campus delivery systems.

Several years ago, responsibility for the Crane Resource Centre and Library was transferred to the umbrella of the Access and Diversity office, along with the Disability Resource Centre. The resulting partnership appears to have some advantages, mainly in funding and organizational structure. Funding for the Centre is almost entirely supplied by the parent institution (UBC) and is adequate. With such a broad mandate, budgets can be tailored as necessary to meet demand throughout the office. An example of this is the recent Library space renovation. From the April 2006 report to CAER: "Through the use of donor funds, matched by the University, we were able to make significant changes to this space – providing an open, attractive and user-friendly space for students with disabilities to socialize, study and work on group projects. A new 24-hour access seven-station computer/adaptive technology lab was created as part of this renovation...."

As students' first point of contact with the Centre is often through their Diversity Advisor, the awareness of the production service and materials availability is guaranteed. In addition, having a circulating library with paraprofessional reference assistance is an efficient method of distribution, and allows opportunities for further information discovery and increased information literacy.

While other services offered by the Access and Diversity office focus on rights access, there seems to be little crossover between the work of the Diversity Advisors providing disability services and those working on equality issues. Additionally, as the Crane Resource Centre and Library is not a branch of the UBC Library, there is less interaction between those two facilities than one might expect. Open houses for library staff in the Access and Diversity office along with workshop offerings may strengthen this relationship.

The Crane Resource Centre and Library is also a partner in CAER. While they are not a provincial resource centre like most other CAER members, they do participate fully in materials and idea sharing.

Overall, the service UBC students and faculty receive through the Access and Diversity office is exceptional. While the Centre faces several challenges common to all post-secondary alternate format providers, the integrated approach has advantages and provides a solid place for all the varied services within the university community. Because of the sheer size of the institution (over 50,000 students and faculty) it can be argued that this direct local service is warranted.

Manitoba's Special Materials Services – Ministry of Education, Citizenship & Youth

Manitoba has a comprehensive, province-wide model of production and service to both post-secondary and K-12 students. Their mandate is primarily to serve visually impaired students, though they also lend to a number of clients with other print disabilities (production not available for this student group). Funding is entirely supplied through the Ministry of Education and having services to both K-12 and post-secondary students in one department allows for budgetary flexibility and sharing of expertise. Their priority is obtaining (through interlibrary loan or production) required curricula materials. The on-site collection of titles includes more than 10,000 items in Braille, large print and audio (analogue and digital). Like other services, the biggest challenge is students receiving course outlines and book lists from professors in a timely fashion.

Donna Passey, Coordinator for the Service, feels the Manitoba model is highly successful. She believes one of the reasons is the strong communication channels her department has with the schools, the post-secondary Disability Resource offices and ultimately the students themselves. One half-time equivalent staff member works closely with each university and college resource office to ensure students receive materials. Combined with the K-12 sector, they normally serve around 100 to 150 clients in a year. Like CILS, the average cost of serving a student runs about \$1,200-\$1,500 annually, with normal exceptions applying (e.g. heavy Braille users).

Novanet

Novanet is the consortium of post-secondary libraries in Nova Scotia working together to meet student and patron service demands, particularly through shared technology. Started in the mid-1980s, the consortium has grown to include ten post-secondary institutions and is providing not only common integrated library system implementation, hosting and maintenance, but also coordination for the following systems:

- Novanet Express
- Return/Pay Anywhere
- after hours Live Help (chat reference using QuestionPoint software)

The Novanet website (<http://novanet.ns.ca/>) provides a wealth of useful documentation on their governance, structure and history. This documentation may be useful reference for later governance planning.

In terms of structure, Novanet is a non-profit corporation, governed by a Board of

Directors consisting of the Presidents of the member institutions. The Novanet Policy Board consists of member chief librarians. Two staff members are employed by Novanet and the Manager reports to the Policy Board.

While the funding formula reflects the size and budget restrictions of each institution, decisions are made by a 'one vote, one institution' policy. Libraries are billed annually for services provided. Under the formula, Dalhousie pays approximately the highest fee, and the Atlantic School of Theology approximately the lowest.

As is expected with such a small staff, many of the activities undertaken rely on staff in the member libraries. This may be done on a project basis, or on a more regular basis, either through in-kind contribution, or contract agreements. Novanet's main physical assets (three servers) are housed in leased space at Dalhousie University. In addition, local metro delivery for the Novanet Express is contracted out to Dalhousie's Book Truck. Other delivery is sent by courier.

Activities undertaken by Novanet generally fall into the category of 'patron demand'. Usually, one or two member institutions will try out a new service or program before Novanet takes on a coordination role. An example of this is the current trend of 'single search' software. Bill Slauenwhite, Novanet's Manager, mentioned one of the spin off cost-savings has been the natural evolution of more cooperative collection development and feels the greatest benefit of the consortial model is that smaller institutions are able to provide services they couldn't possibly handle on their own, both from a resource and financial point of view.

Simon Fraser University

The SFU Library has a contract with CILS to produce alternate format books for qualifying students and faculty. Additional alternate format materials are acquired through interlibrary loan (mainly through Crane, CILS, RFB&D and CNIB) and shorter works are converted to e-text at the library using commercial scanners and software when appropriate. Total cost for this hybrid service reaches between \$60,000 and \$75,000 for roughly 20 users annually.

Students can access services by working with the Centre for Students with Disabilities to determine required reading lists and preferred formats. The Centre provides the library with purchased print copies. Scott MacKenzie, coordinator for the service at the library comments: "In-house production works well as far as it goes. PDF files are created quickly but are not at the same standard as those produced by CILS. A library committee is currently reviewing this process." He sees the main challenge to the off-site service as acquiring materials in a timely fashion.

Vancouver Community College

Vancouver Community College qualifies for service from CILS. They have a unique program for learners with print disabilities and therefore, some unique requirements for alternate format materials.

From their website:

The Visually Impaired Adult Program is designed to give both blind and low vision students the basic education required for admission to further career and academic training to enhance their employability. Classes of individualized instruction are available in subjects ranging from English and mathematics, to training in communication skills such as braille and keyboarding. Computer courses include Windows 95, Microsoft Word, Microsoft Excel, using the Scanner and Internet training using speech, braille and large print access. Students at advanced levels are normally encouraged to integrate into regular upgrading or training programs at Vancouver Community College.

Betty Nobel is the Coordinator of the Visually Impaired Adult Program. Each year, 30 students participate in a fairly standard curriculum. Recording textbooks in alternate format is done as needed, and they are primarily supplied by CILS. As the curriculum is set well in advance each year, 30 copies of basic texts are provided in a timely manner to all students, in whichever format is most appropriate.

Staff of the Visually Impaired Adult Program will produce up ten titles per year (on average) in-house in addition to the standard titles received from CILS. Again, they'll produce in whichever format is most appropriate, though DAISY is by far the most popular. One of the advantages with in-house DAISY production is the ability to compress files to a preferred audio quality; in this case 32 k sample rate as opposed to CILS standard of 128 k. This reason for this is simply fewer CDs per title.

Another reason VCC staff are producing in-house are the electronic license restrictions of some of their texts. While the texts are provided in an ideal electronic format (MS Word and easily convertible to others) they are licensed for use at the VCC campus exclusively, so production is controlled with the local program.

WR Macdonald School – Ministry of Education (Ontario)

The W Ross Macdonald School in Brantford provides a residential program as well as production services. From their website:

The Resource Services Library at the W. Ross Macdonald School provides materials in Braille, large print and audio tape to students who are print disabled and attending Ontario's elementary and secondary schools. These materials are also available to students registered in courses at colleges and universities as well to approved private vocational schools.

In 2005, they served 475 students and produced a total of 688 original items. This number climbs to just under 1,700 items when factoring in duplicate copies (presumably the high number of duplicates is due to the large demand received for K-12 curriculum materials). They serve their students with their own and out-sourced production, but also rely on borrowing from other provincial sources if appropriate. Staff has noticed a shift in popularity of material type from DAISY to e-text in the last

year, and are able to fill most e-text requests within two to four weeks. Like some of other Canadian programs, they are funded entirely by their provincial government through the Ministry of Education and with a significant budget. Not surprisingly, they feel having better access to publishers' e-files would increase their success rate substantially.

To get a further idea of the infrastructure in Ontario, here is a snippet from one of the WR Macdonald School's client's websites (University of Toronto at Mississauga):

Transcription refers to the conversion of printed materials to alternative formats such as audio tape, electronic format, large print and braille. Alternate Format materials can be ordered from the W. Ross Macdonald School, the provincial co-ordinating Agency, through Microtext in Robarts Library. This service is available to patrons who are registered with the AccessAbility Resource Centre and/or have proper documents.

Services to Students with Disabilities in the Access and Information Services of Robarts Library is responsible for ordering required textbooks in accessible formats for registered University of Toronto students.

W. Ross Macdonald School (WRMS) is the provincial government coordinating agency responsible for providing alternate format materials for post-secondary students in Ontario. WRMS has asked each university to assign a staff member to register students, place requests for accessible formats, and act as the liaison between students, WRMS, and the producers of accessible formats. That contact person works in the Library. Requests for accessible formats are sent to WRMS and WRMS also holds accessible formats already transcribed.

WRMS provides transcription for the following:

- complete texts*
- partial texts up to 120 pages*
- other course-related materials, such as course packs, a series of articles, etc.*

Class handouts, notes, and examinations are not transcribed by WRMS.

List of Interviewees

Jennifer Adams, Academic Librarian
Acadia University – November 9, 2006

Donna Bourne-Tyson, University Librarian
Mount Saint Vincent University – November 8, 2006

Karen Case, Disability Resource Facilitator
St Francis Xavier University – November 16, 2006

Mel Clarke, Disability Resource Facilitator
Cape Breton University – November 16, 2006

Debbie Costelo, Public Services Librarian
Nova Scotia Community College – November 7, 2006

Jill Davies, Academic Support Coordinator
Acadia University – November 9, 2006

Marie DeYoung, Director, Library Services & Online Learning
Nova Scotia Community College – November 7, 2006

Dianne Edwards
W.Ross Macdonald School (Ontario) – December 7, 2006

Mary Anne Epp, Director, Contract Administration Library Services
BC College and Institute Library Services – August 15, 2006

Jamie Fillion, Manager, Disability Services
Nova Scotia Community College – December 4, 2006 and January 25, 2007

Bernadette Kehoe, Coordinator of Financial Aid and Student Counselling
Nova Scotia College of Art and Design – November 7, 2006

Sherene Kirincich, Disability Resource Facilitator
Mount Saint Vincent University – November 8, 2006

Ryan Klomp, Coordinator, Learning Technologies Specialist
University of Ottawa – November 29, 2006

Ilgja Leja, Director of Library Services
Nova Scotia College of Art and Design – November 7, 2006

Elaine MacInnis, Head of Circulation
University of King's College – November 14, 2006

Scott Mackenzie, Head, Document Delivery Service
Simon Fraser University – August 16, 2006

Elaine MacLean, Research Services Librarian
St Francis Xavier University – November 16, 2006

Mary Jessie MacLellan, Government Documents, Library Specialist
St Francis Xavier University – November 16, 2006

Bill Maes, University Librarian
Dalhousie University – November 14, 2006

Janet Mee, Director
Crane Resource Centre – August 11, 2006

Kim Musgrave-Beaton, Coordinator of Disability Services
Mount Saint Vincent University – November 8, 2006

Betty Nobel, Department Head
Vancouver Community College – October 31, 2006

Terry Paris, Collections Development Librarian
Mount Saint Vincent University – November 8, 2006

Kerry Pemberton, Disability Resource Facilitator
Acadia University – November 9, 2006

Kim Penny, Disability Resource Facilitator

Saint Mary's University – December 4, 2006

Donna Pletz-Passey, Coordinator, Blind and Visually Impaired Unit
Special Materials Service (Manitoba) – October 2, 2006

Lorieann Reeves, Disability Resource Facilitator
Nova Scotia Agricultural College – November 20, 2006

Bill Slauenwhite, Manager
Novanet – November 2, 2006

Laura Syms, Information Services Librarian
Cape Breton University – November 16, 2006

Paul Szymanowski, Disability Resource Facilitator
Dalhousie University – November 14, 2006

Walt Tanner, Coordinator, Ferguson Tape Library
Saint Mary's University – December 4, 2006

Richard Thompson, Director, Resources and Assessment Services
APSEA – November 14, 2006

Joyce Thomson, Library Director
Atlantic School of Theology – November 20, 2006

Bill Travis, Disability Resource Facilitator
Nova Scotia College of Art and Design – November 7, 2006

Bonnie Waddell, Chief Librarian
Nova Scotia Agricultural College – November 20, 2006

Peter Webster, Information Systems Librarian
Saint Mary's University – November 20, 2006

Slides from the Roundtable Presentation

Alternate Format Production Service in Nova Scotia: The Library Feasibility Study

February 16, 2007

1

Agenda

- **process**
- **findings**
- **discussion & questions**
- **BREAK**
- **proposal**
- **discussion & questions**

2

Introduction - Setting

- “by 2007, 1/3 of jobs will require post-secondary education”**
- students with disabilities have higher drop out rates than their non-disabled counterparts**
- specific supports beyond minimal student services increase the rate of success**
- because NS Government recognized this, several strong support programs are in place**

3

Introduction - Problem

- acquiring AF versions of required readings, research materials, educational documents and related ephemera in a timely manner is crucial**
- while NS students are largely receiving required course materials, a lack of coordinated and cooperative effort results in inefficiencies**
- creating alternate format materials is a small part of the complete support system – staff can direct expertise to other important functions**

4

Process

- **interviews across province: 10 universities, NSCC, APSEA, Novanet**
- **review of selected models in BC, Manitoba and Ontario**
- **review of selected reports**
- **roundtable session**
- **proposal of a consortial model for province-wide service & report**

5

Findings - Nationally

- **as better services become available, the percentage of students requiring them grows**
- **difficult to measure outcomes due to lack of meaningful statistics**
- **there is a lack of training and awareness within the educational community**
- **e-resources are common in library collections – can be especially useful for PD students**
- **ultimately, UID is the ideal**

6

Findings - Nationally (2)

- central and local models have strengths and weaknesses
- bottlenecks occur, partly due to difficulties obtaining appropriate files and/or books
- converting complex materials (e.g. math texts; graphs, charts, sidebars; etc.) is challenging
- sharing works isn't as efficient as it could be & obtaining publishers' files is a key concern
- AF research materials are rarely provided

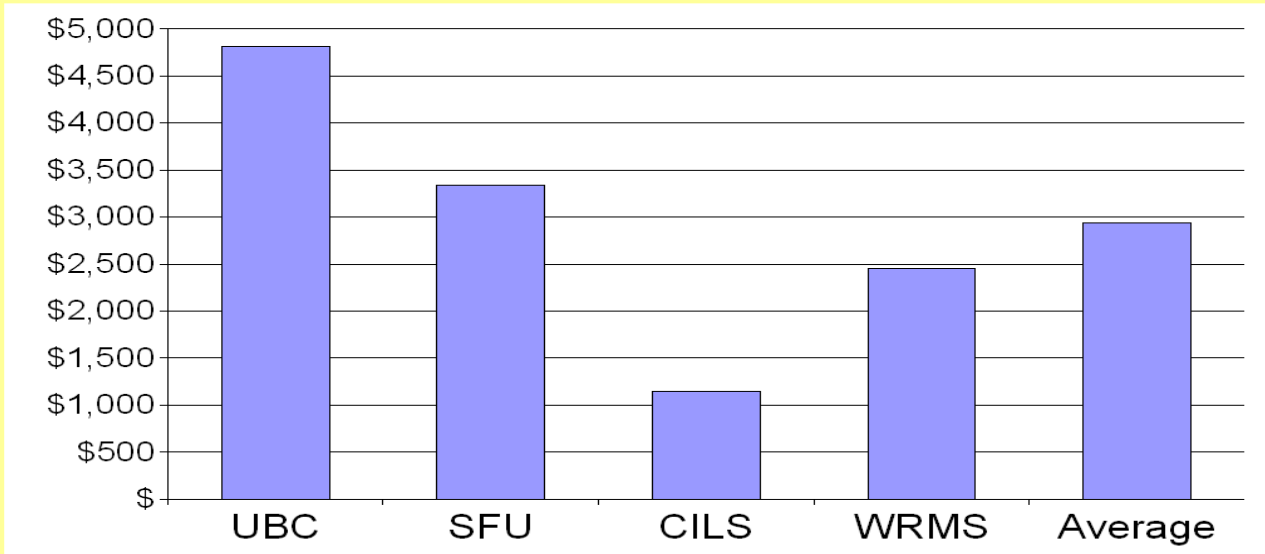
7

Findings - Other Provinces

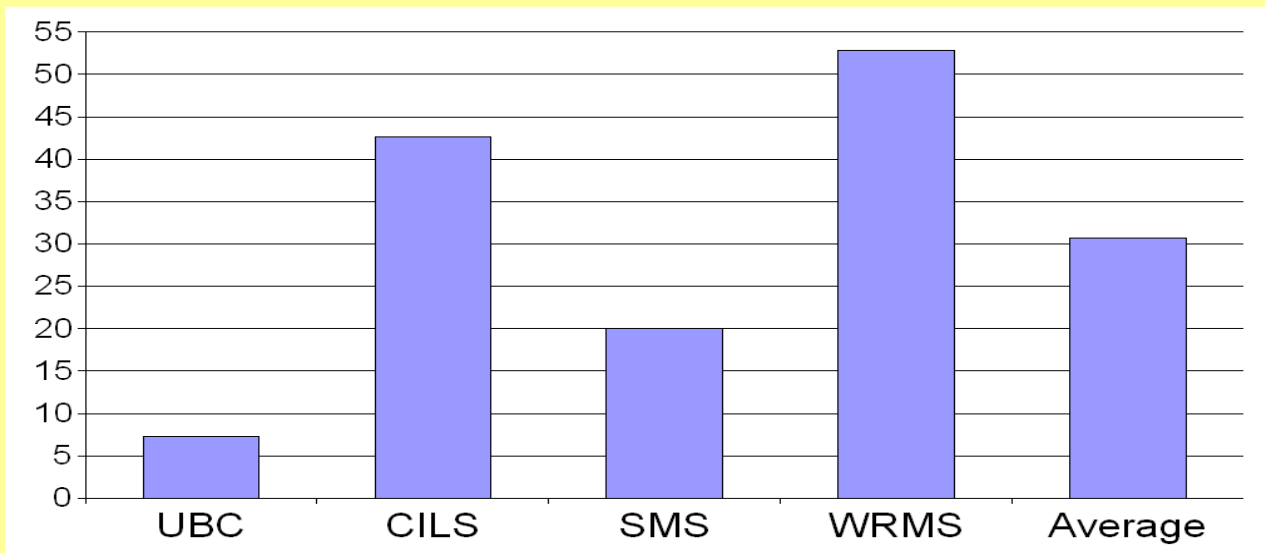
- no standard models but there are best practices
- anecdotally, central services work well at meeting demand some of the time
- many institutions rely on both in-house and central production
- local production is costly, all services profiled use some form of sharing materials
- central services are provincially funded (BC CILS, Manitoba SMS, Ontario WRMS)

8

Costs Per Student



Staff & Student Ratios



In Nova Scotia - Statistics

- approximately 49,200 total student population**
- approximately 565 students with print disabilities**
- NSCC serves the highest percentage followed by Saint Mary's**
- higher percentage of PD students than other institutions profiled – identification process is effective**

11

In Nova Scotia - General

- no specific funding for AF materials**
- duplicate production is problematic here, too**
- students prefer getting materials in about 1 day**
- lack of coordinated statistics makes it difficult to measure outcomes**
- NSCC system is a model service, however face same national issues**
- desire to share best practices**

12

Conclusions

- **best practices in NS and elsewhere**
- **adding to existing infrastructure frees up student and staff time – more focus on studying and learning**
- **coordinated effort with regard to publishers' files**
- **better record keeping adds to the strength of our stories**
- **many details and procedures to be determined!**

13

Questions?

14

The Proposal

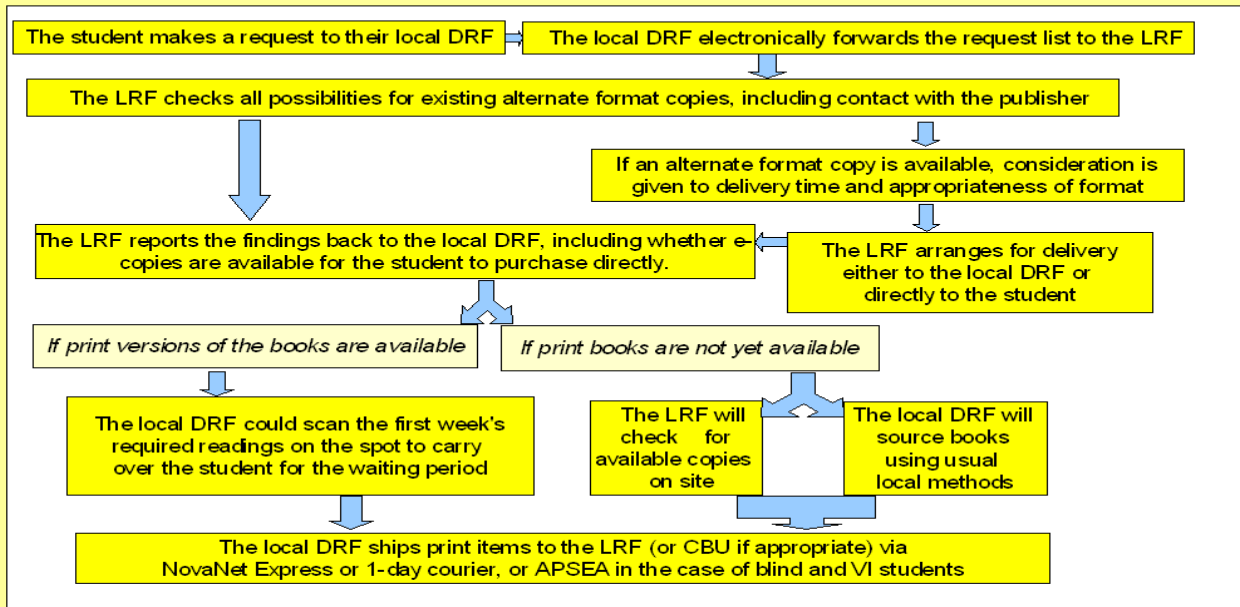
15

Suggestions

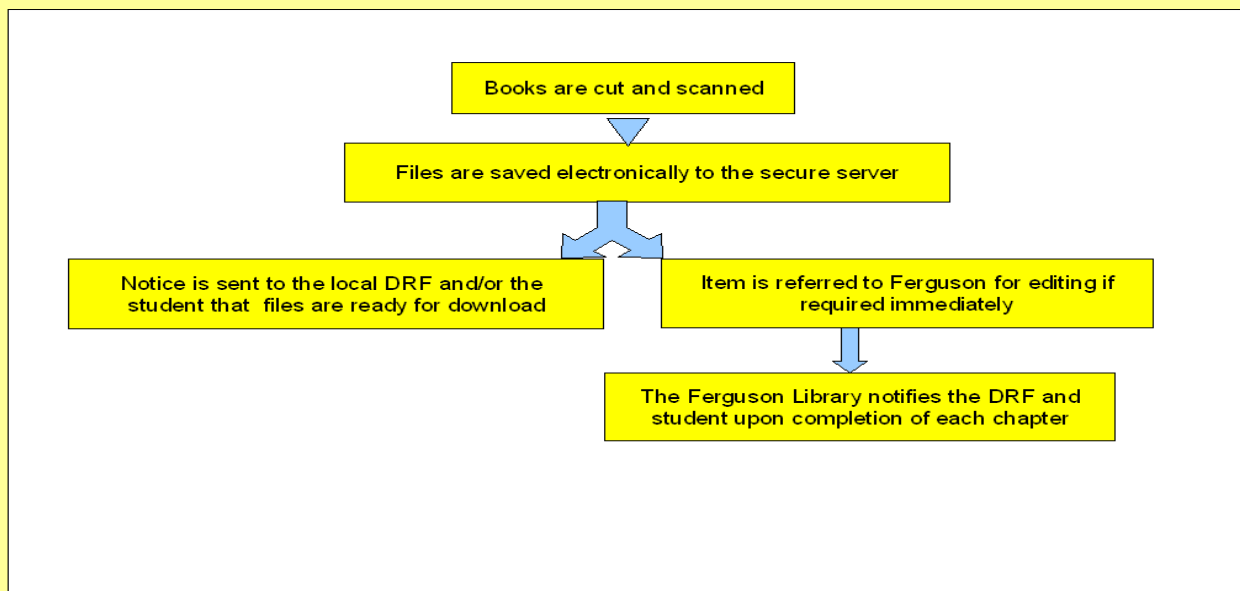
- **4 additional positions: 2 Library Resource Facilitators, 1 Coordinator and 1 Administrative Assistant**
- **incorporate existing equipment plus add scanners, server space and additional supplies where necessary**
- **use of a central, secure server to reduce delivery times to students**
- **piggyback on existing administrative structures & partnerships with other agencies**

16

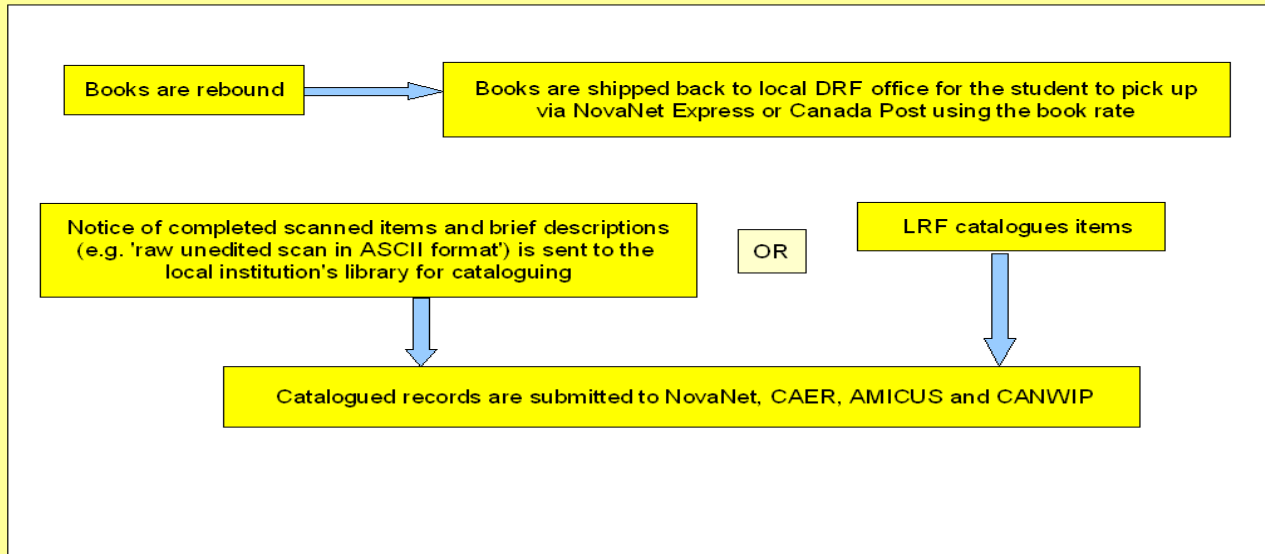
Model – Day 1



Model – Day 2/3



Model – Days 3/4 & 5/6



Consider....

- fast turnaround for scanned items – even faster if e-copies are found, priorities can be responsive to student needs
- pilot project with the ultimate goal of significant reduction in scanning activity in favour of full and equitable electronic access from publishers
- model based on supplemental scanning of required readings, bottlenecks at semester beginning still need to be addressed

Discussion

- administrative model: consortial governance, arms length body, advisory committee, Department of Education, etc.**
- staff locations: are there advantages to some locations?**
- long term goals and roles of the coordinated service, including information sharing and training**
- QUESTIONS?**

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