

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

**Year End Review
2002 - 2003**



Background

For 34 years, Saint Mary's University has played a leadership role in making higher education accessible to people with disabilities. The University's experience over those years motivates us to enhance the Atlantic Centre and to ensure that it fulfills its purposes as effectively as possible.

As far back as 1968, Saint Mary's University constructed a residence with 21 units specially designed for students with mobility impairments. Seven years later, in 1975, the University started a tape library, which continues to expand to serve visually impaired students at the post-secondary level. In 1981, efforts were directed towards accommodating hearing impaired students and establishing a formal program of educational support services for the increasing number of students with moderate to severe disabilities who sought to attend university.

Despite numerous petitions from 1980 to 1985, financial support for this program was not forthcoming. However, in 1985, the Federal Government through the Department of the Secretary of State provided two-and-a-half years of funding for three Canadian Centres of Specialization: The Western Demonstration Centre on Deafness at the University of Alberta, the Centre for Communication and Cognitive Disorders at the University of Western Ontario and the Atlantic Centre of Research, Access and Support for Disabled Students at Saint Mary's University.

In 1987 the Nova Scotia government arranged for partial funding for the Centre through the Department of Community Services. Remaining costs were covered by Saint Mary's University and other sources.

The Atlantic Centre received a major boost in 1988, when Employment and Immigration Canada provided a three year grant for The Employment Connection, an employment support services for persons with disabilities. In 1990, requests by the Centre for assistance in responding to students with learning disabilities resulted in two (one-year) grants from the Province. As well, the Centre began to receive additional financial assistance, through the allocation of Targeted Funds of the Nova Scotia Council on Higher Education for specific support components, such as the learning disability program. It should be noted that on March 21, 1998, the Nova Scotia Council on Higher Education communicated to Saint Mary's University that it had decided to fund the Atlantic Centre on a long term basis.

The Atlantic Centre at Saint Mary's has served as a model for other universities in Canada since 1985. Quite simply, without the Centre, Nova Scotia would be years behind the United States in providing higher education for persons with disabilities and would fall further behind other Canadian provinces in the level of

support provided to these students.

It was the Atlantic Centre that initiated training for Nova Scotians to become sign language interpreters. In addition, in the 2002-2003 academic year, Atlantic Centre staff spent more than **2800 hours** helping students with disabilities to write **900** tests and examinations.

As a result of the Centre's Employment Connection component over **242** people with disabilities whose education is at the post-secondary level have been helped to find significant, permanent employment. Currently, we have a part-time staff person who is assisting students with disabilities find summer employment and permanent jobs upon graduation.

The Atlantic Centre's vision for the future is rooted in 35 years of dedication to fully integrating persons with disabilities into higher education. We have drawn on the knowledge and experience developed through our work with hundreds of persons with a wide range of disabilities. It is our plan in the next five years to reinvigorate several of our core services, to expand our services as a resource to all Nova Scotia universities and to explore innovative strategies for making higher education accessible. The community is relying on the Atlantic Centre to continue to assume a lead role in providing these services. Nova Scotians with disabilities deserve and expect an opportunity to participate in higher education, and the Atlantic Centre will help ensure that this is achieved, not only at Saint Mary's University, but at all post-secondary educational institutions in the Province.

LIBERATED LEARNING



The Atlantic Centre's **Liberated Learning Project** is an applied research initiative studying a unique application of speech recognition technology, creating greater real time access for students with disabilities in the university classroom.

Because of its incredible potential, the J.W. McConnell Family Foundation provided core funding to the Atlantic Centre over three years to develop the Liberated Learning concept on a global scale.

THE LIBERATED LEARNING CONCEPT

- Professors develop a personalized voice profile by teaching *speech recognition software* ViaVoice to understand their individual speaking style.
- Professors use a wireless microphone connected to a robust computer system during lectures.
- Specially designed classroom Speech Recognition software works with IBM's ViaVoice to convert the spoken lecture into electronic text.
- Text is displayed via projector for class in *real time* – students can simultaneously see and hear the lecture as it is delivered.
- After class, comprehensive, speech recognition generated notes are available to students on line.

LLP ACCOMPLISHMENTS

The Liberated Learning project began its journey in October 1999, when a group of scientists, educators, and planners gathered in Halifax to chart the course for a three-year effort. The results of this collaboration are impressive:

- Successful Liberated Learning tests in six universities in Canada, Australia, and the United States. Over 1000 students, in 20 accredited university courses, have been exposed to Liberated Learning technology.
- Liberated Learning effort burgeoned into an international team including:
Stanford University, California University of the Sunshine Coast, Australia
Ryerson University, Canada Alexander Graham Bell Institute, UCCB, Canada
Durham College, Canada Aliant Telecommunications, Canada
IBM Research, USA
- Baddeck Symposium 2001 hosted by the Alexander Graham Bell Museum and attended

by Bell's family. The Bell family offers their support as the LLP continues Dr. Bell's groundbreaking work in technology and disability.

- Liberated Learning appears on the Discovery Channel, the Space Channel, and Canadian and Australian National television news programs
- Liberated Learning presentations are delivered at over 10 international conferences in Canada, UK, Australia, and the US.
- Our partner, University of the Sunshine Coast received \$500,000 to expand the concept to multiple Australian universities.
- Saint Mary's and IBM Research are collaborating on a unique Joint Study, developing a next generation speech recognition prototype: NETSCRIBE

WHERE TRADITION MEETS THE FUTURE

It was 120 years ago that Alexander Graham Bell, who had strong ties to Nova Scotia, began experimenting with voice recognition to help the Deaf. It seems fitting that a Nova Scotia university is assuming a major role in advancing speech recognition to help persons with disabilities in the classroom. The Liberated Learning Project's success demonstrates the viability of using speech recognition to increase accessibility. As such, we are actively pursuing a next-generation initiative of Liberated Learning.



**The Liberated Learning team at the Alexander Graham Bell Museum
Baddeck Nova Scotia, June 2001**

Services & Resources Provided in 2002 - 2003

Direct Support Services (Appendices 1, 2 & 3):

There were **194** clients of the Centre who received extensive support services including: pre-admission advice, assistance with course selection, note taking, interpreting, alternative exam procedures, counselling and computer training. Although most of these students attended Saint Mary's University, the Centre provided direct support for some students at most Nova Scotia universities.

Interpreting (Appendix 4):

The Centre's interpreting service provided **1368** hours of classroom interpreting. The Centre employs a full-time sign language interpreter who provides direct service and co-ordinates the services of contract interpreters.

Students with Learning Disabilities (Appendix 5):

A counsellor with a background in learning disabilities provides direct support for **108** students with learning disabilities. This service has been available since 1990. The counsellor conducts informal assessments, liaises with Faculty, arranges for note taking, and alternate exam accommodations, provides counselling and explores technological assistance.

Ferguson Tape Library (Appendix 6):

Since 1975, the Ferguson Tape Library for Print Handicapped Students has been assisting students. This past year, the Library responded to **59** students requesting material to be scanned, Brailled and/or put on tape/disk.

Employment Connection (Appendix 7):

The Atlantic Centre, since 1988, has operated a service called the "Employment Connection". The service is designed to help students going through the Centre prepare for the work place and to find employment. A part-time staff person helps students with their resumes, prepare for job interviews and apply for positions. The staff person also actively seeks out employers and works with those employers with respect to hiring persons with disabilities.

Exam Accommodation (Appendices 8 & 9):

Staff of the Centre arrange alternate exam accommodations for those students with disabilities who are not able to write exams in the regular exam setting. For example, they may require adaptive equipment. This year, staff arranged **900** alternate exams requiring a total of **2,811** hours.

High School Visits:

Staff of the Centre visit as many high schools as possible annually. Staff ensure that students, teachers and guidance counsellors understand that university is an option for persons with a disability and that support services are available.

Counselling:

Counsellors of the Centre have specialized in areas of hearing impairments, visual impairments, mobility impairments and learning disabilities. Each year, there are many hundreds of counselling sessions with clients of the Centre, focussing on issues ranging from a personal crisis to adaptive equipment.

Scholarships:

Each year, the Atlantic Centre encourages and assists students with disabilities to apply for nine undergraduate scholarships, ranging from \$200 to \$1,800.

Technical Aids:

Since its inception, the Centre has been dedicated to finding technological solutions to problems faced by students with disabilities in education settings. The Atlantic Centre continues to add new hardware and software to the Computer Lab. Recent upgrades include the Kurzweil reader and IBM's ViaVoice.

Note Taking:

Staff of the Centre arrange for dozens of volunteer note takers to assist students who are physically not able to take their own notes in the classroom.

Resource Activities for 2002 - 2003

- Clare Le Blanc, ASL/English Staff Interpreter/Coordinator of the Atlantic Centre, was Co-Chair of the Association of Visual Language Interpreters of Canada National Conference, held in Halifax in July of 2002.
- Several students from the Atlantic Centre presented at the Halifax Regional School Board's Severe Learning Disabilities (SLD) Team conference for students with learning disabilities in May, 2002. Their presentation was entitled "Transition to Post Secondary Education".
- In May, 2002, counselors of the Centre presented a workshop/presentation entitled, "Bridging the Communication Gap: Towards a Better Understanding of Students with Learning Disabilities", at the Destination Success conference.
- Madeleine Lelievre, the Centre's Learning Disabilities Counselor, made a presentation at the Dalhousie University Conference on University Teaching and Learning, entitled "Assistive Technology for Reading and Writing: Its Significance in the University Environment" in May of 2002.
- In June, 2002, a team from the Centre held a presentation/workshop on students with learning disabilities at the CACUSS Conference.
- The Atlantic Centre hosted a team of Administrators, Faculty and Students from the Bosnia-Herzegovina region, with the intention to act as a resource/model for the development of similar Centres at Bosnian universities.
- In September of 2002, Madeleine Lelievre and Barry Abbot, counselors for the Atlantic Centre, made a presentation to the Lockview High School Teachers In-Service Day, entitled "Access to Reading Materials via Non-Traditional Methods".
- Members of the LLI team visited the following institutions; California State University Northridge, USA, London School of Business, England, Nagano University, Japan, University of the Sunshine Coast, Australia, Purdue University, USA, Messiah College, USA as well as Trent University, Canada.
- Members of the LLI team presented at several conferences worldwide, including the CSUN Technology and Persons with Disabilities International Conference in California, the 2003 Accessibility Forum in Japan, and the Pathways National Conference in Australia.
- Dr. David Leitch and Barry Abbott made a presentation at the Assistive

Technology Application and Integration in Nova Scotia (ATAINS) conference. Their presentation was entitled, “Liberated Learning Initiative – Tomorrow’s Technology in Today’s Classroom”.

- Barry Abbott and Madeleine Lelievre presented at the Canadian Counselling Association’s National Conference. The title of their presentation was, “Issues and Practices when Counselling Students with Disabilities at University”.

Benchmarks

Significant Highlights of the Saint Mary’s / Atlantic Centre Commitment to Students with Disabilities

- 1968** Edmund Rice student residence opens. Four floors are specially designed for students with physical disabilities.
- 1975** Community Tape Resource Library established by Saint Mary's students. Volunteers read books onto master tapes, which are duplicated and used by students who are unable to read print.
- 1981** The Post-Secondary Education Association for the Deaf is formed. Saint Mary's plays a pivotal role in the work of the Association, which is comprised of a group of university representatives.
- 1985** The Department of the Secretary of State grants Saint Mary's \$600,000 to found the Atlantic Centre of Research, Access and Support for Disabled Students.
- The Atlantic Centre begins operation.
- A federal/provincial agreement provides funding for a Visual Language Interpreter Training Program at the Atlantic Centre, the first such program in the Maritimes.
- 1986** New facilities for the Centre are completed, located in the O'Donnell - Hennessey Student Centre.
- Maritime Telephone and Telegraph Company Limited contribute \$180,000 to support an endowment fund for programs to serve students with visual and hearing disabilities.

Local philanthropist Raymond Ferguson makes a gift of \$60,000 to the renamed Ferguson Tape Library for Print Handicapped Students.

1987 Services are broadened from the initial focus on students with hearing impairments to students with other disabilities.

Ms. Deborah Robar becomes the first deaf student to enroll in the Saint Mary's University Bachelor of Education program.

1988 A \$822,000.00 federal government grant from Canada Employment and Immigration enables the Atlantic Centre to establish a three year program which aims to improve meaningful, career-track employment rates for persons with disabilities. The program also raises the awareness of the business community about the possibility of hiring persons with disabilities.

Ms. Deborah Robar becomes Canada's first deaf student to act as a Canadian University valedictorian.

1990 The Learning Disabled Students program commences services through support from the Nova Scotia Department of Community Services. Special remedial and tutorial services, as well as other services are available from a counsellor trained in the special needs of students with learning disabilities.

Bryan Levangie enters the Computer Science Co-operative Education Program, the first student with a disability to enroll in the co-op stream at Saint Mary's.

1991 The Ferguson Tape Library for Print Handicapped Students receives funding to hire a full-time co-ordinator.

1992 Dow Chemical Canada Inc. donates financial assistance for the expansion of the learning laboratory.

The Centre completes its first major research project, which focused on literacy levels of Nova Scotians with cerebral palsy.

1993 By May, the Atlantic Centre has provided training in American Sign Language to over 800 persons.

1994 Major commitment of Xerox Canada Ltd. to assist the Atlantic Centre with the development of technology for use by students

with disabilities. This support is on going.

1995 In January, thanks to the financial support of Nestles' Canada Inc. to the Atlantic Centre, the Employment Connection is re-established and integrated into the Saint Mary's Student Employment Centre.

Expansion of the Centre, primarily of the learning laboratory and work/study areas for students. This is made possible by Xerox Canada Ltd. and Saint Mary's University.

1996 Thanks to an active committee comprised of university and community people, the University House Project is a success. This fundraising effort has made it possible for the Centre to purchase state of the art computer technology for visually impaired and mobility impaired students.

Over 140 students with moderate to severe disabilities have now been assisted by the Atlantic Centre and have graduated from university and are now working and living productive lives.

There are two distinguished visitors to the Atlantic Centre this year, *Rick Hansen* and *Dr. I King Jordan*, President of Gallaudet University. Both individuals receive honorary degrees from Saint Mary's University.

1997 The Atlantic Centre hosts the inaugural meeting of the Canadian Association of Disability Service Providers in Postsecondary Education (*CADSPPE*). For over a decade, professionals doing work similar to the work of the staff of the Centre had been endeavouring to form a national association. The Centre played a key role in making this association a reality for Canada.

1998 The Nova Scotia Council on Higher Education confirms in writing on March 21 long-term funding for the core operation of the Centre

With funds raised by the University House Lottery and IBM Canada Ltd., the Centre becomes the first university in the world to test speech recognition as an alternative to classroom note taking in a regular classroom.

1999 The Atlantic Centre receives a \$1.2 million grant from the J. W. McConnell Family Foundation, allowing the Liberated

Learning Project to begin using speech recognition to enhance accessibility.

In the fall, the Atlantic Centre hosts the inaugural meeting of the Liberated Learning Project. Comprised of some of the top scientists and academics in their respective fields, the meeting brings together the Project's partners from around the world.

Approximately 30 universities from around the world have contacted the Centre to learn more about or to participate in the LLP.

- 2000** The Atlantic Centre received worldwide recognition for developing technological innovations to assist the integration of persons with disabilities into higher education, including but not limited to the publication, University Business. This publication was disseminated to 31,000 senior university administrators. And the LLP of the Atlantic Centre was included on the web page of IBM, which receives many hundreds of thousands of contacts.
- 2001** Aliant - one of Canada's top high-tech companies providing integrated communications and IT solutions through subsidiaries operating world-wide, publicly recognized Dr. David Leitch, Director of the Atlantic Centre and the Centre for its long term commitment to using technological innovations for fostering greater independence amongst students with disabilities in higher education.
- 2002** Ruth and Hermann Schwind make a \$100,000 donation to Saint Mary's University to endow the "Nicola Schwind Memorial Scholarship". This scholarship will award up to \$5,000 to a first-year student with a disability entering an undergraduate program at SMU.

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