1. Background and Mandate

The Institute for Research on Learning Technologies (IRLT) has a broad mandate to engage in systematic inquiry, discussion, and information sharing related to the uses of technology in teaching and learning. Originally established in 1987 within the Faculty of Education as the Centre for the Study of Computers in Education (CSCE), the Institute became a university-based research unit in June 2001 and was re-named. IRLT encourages the formation of links with faculty members across the university and with schools, government, and industry to provide collaborative, multidisciplinary approaches to research problems and issues. More specifically, the goals of the Institute are as follows:

- To engage in research, study, and public discussion of issues related to the pedagogical uses of technology and to the moral, ethical, and educational implications of its use;

- To develop projects that make innovative uses of new technologies in teaching and learning;

- To maintain an active program to disseminate findings of its projects, its activities, and developments in the field to educators and other interested parties;

- To foster collaboration between academics, educators, and industry and government personnel on research and development problems and issues of mutual concern and interest.

During the 2005-06 academic year, IRLT members developed and approved a six year plan. We began with an ambitious vision: *to strive to become, within six years, one of the premier university-based research institutes in North America focusing on the study of teaching and learning with technology.* Eight strategic goals were adopted to achieve this vision:
1. Form Special Interest Groups in Focus Areas
2. Increase Our External Profile
3. Initiate a Visiting Scholars Program
4. Influence the Hiring Process
5. Establish an External Advisory Committee
6. Restructure Executive Committee
7. Raise Funding for Infrastructure
8. Obtain Secure Support Services

We began working on implementing these strategies during the second half of the academic year and achieved a measure of success. These goals will continue to be our priority over the next several years.

2. Organizational Structure and Staffing

Personnel

IRLT is managed by a director who is appointed to the position by the Vice-President (Research and Innovation) as it is a university-based research unit. The current and founding director is Professor Ron Owston (Education). He is provided with release time and an administrative stipend according to the YUFA collective agreement. Professor Mary Leigh Morbey (Education) has been Associate Director since 2001 (except during her sabbatical in 2004-2005 when Professor Renate Wickens, Fine Arts, assumed her responsibilities).

Herb Wideman is employed full time on annual contract as Senior Researcher, while Kathryn Cook (a faculty member at Georgian College) occasionally works part time as Research Assistant and is voluntary Web master. Typically, four to five students are hired annually as Graduate Research Assistants on various research projects.

Governance

The Executive Committee is responsible for setting strategic priorities and policies for IRLT. Its membership consists of the following: the Director, Associate Director, two Members-at-Large, and a Graduate Student. In 2005-06, Professor Avi Cohen (Arts), Richard Jarrell (Science & Engineering), and Christine Brown (Education graduate student) filled the latter three positions.

During 2005-06, an Advisory Board was formed as called for in our six year plan. The terms of reference for the Board are:

- To provide an external view of IRLT activities and outputs
- Advise on strategic directions and opportunities
- Raise the profile of IRLT with external communities.

The Board consists of three external members as well as the Executive Committee. The external members were Marty Keast (Pearson Canada), Wendy Powell (Telus), and Robert Martellacci (Mindshare Learning).
Publications

IRLT publishes a series of technical reports based on members’ research. These reports are made available to the research community at the Institute’s Web site. A listing of this past year’s reports is below in the Activities section.

3. York University Faculty Affiliated with the IRLT

IRTL has members from all Faculties at York as well as Glendon College. Some IRLT members focus on learning technologies as their primary research interest with all of their publications and grant writing centering on this topic; others have it as a secondary or joint research interest and publish less regularly in this area; while still others are mainly interested in improving their teaching through the use of technology, receive teaching/project development grants, and/or write conference papers about their teaching with technology and more generally support IRLT’s goals. Membership is voluntary and members are not formally reviewed. York faculty membership for 2005-06 was as follows:

<table>
<thead>
<tr>
<th>Name</th>
<th>Affiliation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alison Griffith</td>
<td>Faculty of Education</td>
</tr>
<tr>
<td>Ananya Mukherjee-Reed</td>
<td>Department of Political Science, Faculty of Arts</td>
</tr>
<tr>
<td>Avi Cohen</td>
<td>Department of Economics, Faculty of Arts</td>
</tr>
<tr>
<td>Bill Found</td>
<td>Faculty of Arts/Environmental Studies</td>
</tr>
<tr>
<td>Caitlin Fisher</td>
<td>Department of Film, Faculty of Fine Arts</td>
</tr>
<tr>
<td>Carolyn Steele</td>
<td>Career Centre</td>
</tr>
<tr>
<td>Dalton Kehoe</td>
<td>Division of Social Science, Faculty of Arts</td>
</tr>
<tr>
<td>Evelyne Corcos</td>
<td>Department of Psychology, Glendon College</td>
</tr>
<tr>
<td>Francoise Mougeon</td>
<td>Department of French Studies, Glendon College</td>
</tr>
<tr>
<td>Gail Lindsay</td>
<td>School of Nursing, Atkinson Faculty of Liberal and Professional Studies</td>
</tr>
<tr>
<td>Gareth Morgan</td>
<td>Schulich School of Business</td>
</tr>
<tr>
<td>Graham Orpwood</td>
<td>Faculty of Education; York/Seneca Institute for Science, Mathematics, Technology, and Education</td>
</tr>
<tr>
<td>Heather Lotherington</td>
<td>Faculty of Education</td>
</tr>
<tr>
<td>Ilo Katryn Maimets</td>
<td>Steacie Science Library</td>
</tr>
<tr>
<td>Jean Adams</td>
<td>Schulich School of Business</td>
</tr>
<tr>
<td>Janet Murphy</td>
<td>ABEL Program</td>
</tr>
<tr>
<td>Jennifer Jenson</td>
<td>Faculty of Education</td>
</tr>
<tr>
<td>Karen Anderson</td>
<td>Dept of Sociology, Faculty of Arts</td>
</tr>
<tr>
<td>Laurie Wilcox</td>
<td>Dept of Psychology, Faculty of Health</td>
</tr>
<tr>
<td>Margaret Sinclair</td>
<td>Faculty of Education</td>
</tr>
<tr>
<td>Mary Leigh Morbeay</td>
<td>Faculty of Education; Associate Director, IRLT</td>
</tr>
<tr>
<td>Mary Louise Craven</td>
<td>Communication Studies, Faculty of Arts</td>
</tr>
<tr>
<td>Monique Adriaen</td>
<td>Dept of French Studies, Faculty of Arts</td>
</tr>
<tr>
<td>Niamh Hennessey</td>
<td>School of Social Sciences, Atkinson</td>
</tr>
<tr>
<td>Name</td>
<td>Affiliation</td>
</tr>
<tr>
<td>---------------------</td>
<td>----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Peggy Warren</td>
<td>Reference, Scott Library</td>
</tr>
<tr>
<td>Peter Roosen-Runge</td>
<td>Department of Computer Science, Faculty of Science &amp; Engineering</td>
</tr>
<tr>
<td>Poonam Puri</td>
<td>Osgood Hall Law School</td>
</tr>
<tr>
<td>Radu Campeanu</td>
<td>School of Analytic Studies &amp; Information Technology, Atkinson</td>
</tr>
<tr>
<td>Razika Sanaoui</td>
<td>Faculty of Education</td>
</tr>
<tr>
<td>Renate Wickens</td>
<td>Fine Arts Cultural Studies, Faculty of Fine Arts</td>
</tr>
<tr>
<td>Richard Jarrell</td>
<td>Division of Natural Science, Faculty of Science &amp; Engineering</td>
</tr>
<tr>
<td>Richard Saunders</td>
<td>Department of Political Science, Faculty of Arts</td>
</tr>
<tr>
<td>Roberta Sinyor</td>
<td>Department of Languages, Literatures &amp; Linguistics, Faculty of Arts</td>
</tr>
<tr>
<td>Ron Owston</td>
<td>Faculty of Education and Director, IRLT</td>
</tr>
<tr>
<td>Ron Sheese</td>
<td>Department of Psychology, Faculty of Arts</td>
</tr>
<tr>
<td>Ros Woodhouse</td>
<td>Centre for the Support of Teaching (CST)</td>
</tr>
<tr>
<td>Sam Lanfranco</td>
<td>School of Analytic Studies &amp; Information Technology, Atkinson</td>
</tr>
<tr>
<td>Seonaid Lee-Dadswell</td>
<td>Centre for the Support of Teaching (CST)</td>
</tr>
<tr>
<td>Shelley Hornstein</td>
<td>Art/Architectural History, Department of Visual Arts, Faculty of Fine Arts</td>
</tr>
<tr>
<td>Simon Fodden</td>
<td>Osgoode Hall Law School</td>
</tr>
<tr>
<td>Stan Shapson</td>
<td>Vice-President (Research &amp; Innovation); Faculty of Education</td>
</tr>
<tr>
<td>Stephen Chen</td>
<td>School of Analytic Studies &amp; Information Technology, Atkinson</td>
</tr>
<tr>
<td>Suzanne McDonald</td>
<td>Dept of Psychology, Faculty of Health</td>
</tr>
<tr>
<td>Tom Johnson</td>
<td>Osgoode Hall Law School</td>
</tr>
<tr>
<td>Zbigniew Stachniak</td>
<td>Dept of Computer Science &amp; Engineering, Faculty of Science &amp; Engineering</td>
</tr>
</tbody>
</table>

There are 45 York members in total; in addition, several Seneca College faculty are also affiliated with IRLT.

**4. Member Activities**

Listed below are selected (a full list would be too extensive) articles, chapters, and books of members, as well as conference papers, reports, awards, and technology development activities of members during 2005-2006.

**Selected Articles, Chapters, Conference Proceedings, Books, and Documentary Films (IRLT members indicated in bold)**


Found, B. (2005), St. Kitts Scenic Train: Journey into an Island’s Heritage (documentary film), published by the St. Christopher Heritage Society.

Found, B. (2006), Return of the Andrew Doria (documentary film), published by the St. Eustatius Center for Archaeological Research.


**Selected Conference Papers/Talks/Invited Addresses**


Cook, K. was invited in June 2006 to speak about qualitative data analysis software to Central Michigan University graduate students enrolled in their capstone research seminar. Resources from her talk, including a PPT, are available at http://webdesign2.georgianc.on.ca/~kcook/atlasti.html


Found, B. (2005, May). *Bringing the ‘real world’ to the ‘ivory tower’: Enlivening the classroom through appropriate technology*. TEL@York Annual Conference (Keynote Address).


*IRLT Annual Report 2005-2006*
Paper presented at Narrative Matters, Acadia University, Wolfville, Nova Scotia.


Murphy, J. made presentations at/to the following events/groups:
(2005, Dec). *E-Learning in Canada*  
Presentation at Online Educa Conference, Berlin, Germany
(2006, Feb) *Blended Learning: The ICT Advantage*  
Leading Learning Conference, York University, Toronto, Ontario.
(2006, April) *Making the Connections: Outreach to the Community*  
Presentation at TEL@York Day
(2006, April) Participant in the Canadian Heritage CHIN Roundtable – e-Learning in Museums


IRLT Technical Reports (available at website)

- 2006-1 Interim evaluation report on Learning Connections Project
- 2006-2 First year evaluation of Learning Connections Project

Other Selected Activities: Projects /Course Development/Grants/ Awards/ Activities

- **Jean Adams** was awarded Governor-General’s Gold Medal (2005) by York University’s Senate Committee on Admissions, Recruitment and Student Assistance (SCARSA) in recognition of “the highest distinction in scholarship during graduate studies at York” for dissertation titled: *Second Generation* e-Learning: An Action-base Exploration of Design and Implementation.

- **Karen Anderson** began a research project into environment, technology, and pedagogy with Kelvin Sealey, Teachers College, Columbia University. She received $5,000 Dean’s grant to undertake the project at York comparing learning outcomes of an introductory sociology course taught in a raked classroom, with those in an introductory sociology class taught in a small, technology-enriched classroom, using round tables and promoting peer-to-peer learning. She worked with **Ros Woodhouse**, Directory of the Centre for Support of Teaching to adapt existing research instruments, and to develop new research instruments appropriate to the study.

- **Avi Cohen** continued as Dean’s Advisor on TEL Initiatives, Faculty of Arts. He was responsible for the development and delivery of recommendations of Faculty of Arts TEL Roundtable: *do TEL*, a 10 week Faculty Development Course for instructors interested in transforming an existing face-to-face course to take advantage of learning and accessibility possibilities afforded by the web.

- **Kathryn Cook** developed and received approval for a new online course at Georgian College called Understanding the Web.

- **Evelyne Corcos** is evaluating the use of the Personal Response System in various academic contexts. She (in conjunction with Vivienne Monty of the
Frost Library) is presently examining student interactivity promoted by PRS in the context of 50-minute Library tutorials. She has submitted an ITST funding proposal entitled “A web-based Social Skill Intervention program” and a SSHRC proposal “Social communication in at-risk adolescents: a web-based intervention of language, cognition, and social skills.

- **Shelley Hornstein** led Project Mosaica (www.mosaica.ca) which presents contemporary Jewish culture in its current form on the web. The project examines Jewish culture in the arts, and uses the web in particular as an interactive cultural environment.

- **Richard Jarrell** of the Faculty of Science & Engineering continues to develop his blended learning Natural Science course (*Science: Past, Present and Future*) which is now in its fourth year and he is offering for the first time a new blended course on *Food, Science and Technology* to a very enthusiastic and computer-literate student body.

- Singh, M., Lindsay, G., Jeffrey, J., Woodhouse, R., & Owston, R. continue to work on the evaluation of the blended learning Masters of Science in Nursing Program which was funded by Atkinson Faculty of Liberal and Professional Studies for $50,000.00 in June 2005.

- **Heather Lotherington** made numerous media appearances/interviews this past year including: TV Ontario: *Big Ideas* (2006, March 18) and delivered a featured lecture on TVOntario *The evolution of digital literacies*, hosted by Andrew Moodie (one hour of two hour program) and produced by Matt Faulkner.

- **Mary Leigh Morbey** serves as a website development consultant for the State Tretyakov Gallery, Moscow, Russia. Recently she developed two courses EDUC 5470/ARTH 5180 Technological Mediations in Visual Culture; and EDUC 3600A New Media Literacies and Culture.

- **Janet Murphy** led the *Learning Connections Summer Institute* in July 2005 (see http://www.learningconnections.on.ca/); the *Advanced Broadband Enabled Learning (ABEL) Summer Institute* in August 2005 (see http://abelearn.ca); the STRETCH project, funded by Heritage Canada and in partnership with the Resource Centre for Adaptive Technology, U of T; and hosted the *Leading Learning Conference* in February 2006 (see http://leadinglearning.org).

- **Graham Orpwood** completed his final year as director of the York/Seneca Institute for Mathematics, Science and Technology Education (YSIMSTE) (ysiste.com), which is a partnership of York University (Faculty of Education and Faculty of Science and Engineering) and Seneca College of Applied Arts and Technology (Faculty of Technology).

- **Ron Owston** and **Katharine Janzen** (Seneca) co-direct the Technology Enhanced Learning Institute (TELi) (http://teli.ca), which is a partnership of Seneca College of Applied Arts & Technology and York University. Its mission is to encourage and showcase innovative collaborative projects that build on multidisciplinary and complementary strengths of Seneca and York.
- **Ron Owston** and **Jennifer Jenson** participated in the SSHRC New Economy project SAGE (Simulations and Game Environments) for Learning based at Simon Fraser University that is exploring the potential of games, simulations, and simulation games to support learning. Owston is leader of the Tools and Methodology domain where he and colleagues are developing a web-based evaluation tool called the Virtual Usability Lab. Jenson, a principal investigator in the Learning with Simulations domain, is co-developing *Contagion*, a game meant to teach children about the transmission and prevention of contagious diseases.

- **Ron Owston, Herb Wideman, Razika Sanaoui, Margaret Sinclair,** and **Heather Lotherington** continued with the evaluation of *Learning Connections*, an online professional development pilot project for Junior level teachers of literacy and numeracy, which is being funded by the Ontario Secretariat for Literacy and Numeracy.

- **Ron Owston** and **Herb Wideman** received a $100,000 grant from the Canadian Council on learning to study the impact of student computer game development on the literacy skills.

- **Richard Saunders** Course development: in Winter 2005/06, POLS 4576 3.0 “Civil Society and the State in Africa” was launched. The web course included equal numbers of students from York and Africa (Zimbabwe and South Africa) in a research-focused curriculum, and was developed with the assistance of a York Internationalization Grant and in cooperation with the Training and Research Support Centre (Harare, Zimbabwe) and the Centre for Civil Society of the University of Kwazulu-Natal (Durban, South Africa). The course, which included weekly intercontinental audio-visual seminars and the participation of several Africa-based lecturers, will next be offered in 2007/08.

- **Margaret Sinclair** (with J. Turcot) created a Geometer’s Sketchpad module called *Circles and Pi*. It was developed for the PRISM-NEO collection of technological math activities for at-risk students and will be distributed on CD to teachers in North-Eastern Ontario schools.

- **Margaret Sinclair** received a contract for $188 650 from Texas Instruments for *The TI Navigator Project*, an evaluation of hand-held technology in secondary mathematics. **Graham Orpwood, Ron Owston, and Herb Wideman** are co-investigators on the project.

- **Margaret Sinclair** developed a new graduate course EDUC 5848 3.0 Technology and Mathematics Education.

- **Zbigniew Stachniak** continues to curate the York University Computer Museum (YUCoM) which is a historical collection and a research center for the history of computing located in the Department of Computer Science. Its mission is to preserve, document, and interpret the history of the information age in Canada, with special emphasis on the creation and the development of the Canadian micro computing industry.

- **Renate Wickens** is researching a course “Podcasting India.” Materials were posted out of Mumbai on a regular basis from 26 June 2006 to 14 July 2006.
See <http://tinyurl.com/g5emw> for details on student podcasting and educational blogging amidst illness, riots, and floods.

**IRLT Speaker Series**

To fulfill its mandate of public dialogue and dissemination of research, IRLT sponsors a speaker series each year. In 2005-06, the events below were held.

<table>
<thead>
<tr>
<th>Date</th>
<th>Speaker</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>October 2005</td>
<td>David Kaufman, Simon Fraser University</td>
<td>Simulations for Teaching and Learning in Higher Education</td>
</tr>
<tr>
<td>January 2006</td>
<td>Sara Diamond, Ontario College of Art &amp; Design</td>
<td>Collaborative Practice in New Media Arts</td>
</tr>
<tr>
<td>March 2006</td>
<td>Mark Jones, Seneca College</td>
<td>Animation and Video Game Development at Seneca College</td>
</tr>
<tr>
<td>May 2006</td>
<td>Jean Adams, Schulich School of Business</td>
<td>Second Generation e-Learning</td>
</tr>
</tbody>
</table>

5. **Measures taken to Promote Equity**

IRLT has a very diverse membership both in its faculty and students employed (28 of its 45 members are female; all but two students employed are female; no statistics are kept on cultural/racial minorities). There are no barriers to membership because the only requirement for membership is an interest in teaching and learning with technology. IRLT’s speaker series are advertised to the York community and, when non-members attend, they are invited to join.

6. **Student Activities**

Below is a list representative of IRLT members’ projects that employed students during 2005-2006:

- *Simulation and Advanced Gaming Environments (SAGE) for Learning* project. This SSHRC-INE project focuses on developing and studying the use of serious games and simulations in education. Ron Owston employed Christine Brown (PhD programme in Education), Sarah Chu (MEd Education) and Francis Ho, a non-York student studying in an online graduate programme at the University of Bath. Jennifer Jenson hired Nick Taylor (PhD programme in Education).

- For the ABEL program, Janet Murphy employed a total of eight students drawn from various York graduate and undergraduate and Seneca College co-op programs.

- Karen Anderson worked with Sam Ladner (PhD, Department of Sociology) to develop teaching modules for the experimental course in introductory sociology, and to gather and analyse data on teaching and learning outcomes in that course, compared to outcomes in the same course taught in a raked classroom.
- **Shelley Hornstein.** Employed three Masters students for Mosaica, an international website project for Jewish contemporary culture (www.mosaica.ca)

- **Heather Lotherington.** Graduate students in both Linguistics and Education worked on various aspects of current research project: *Emergent multiliteracies in theory and practice: Multicultural literacy development at elementary school*, funded as SSHRC Standard Grant for 2005-2008.

- **Ron Owston** employed Natalia Sinitskaya (PhD Education) and Cindy Sukram (MA French Studies) to work on the evaluation of the Learning Connections project.