Annual Report 2003-04
Institute for Research on Learning Technologies

<table>
<thead>
<tr>
<th>Director:</th>
<th>Ron Owston</th>
</tr>
</thead>
<tbody>
<tr>
<td>Admin Contact:</td>
<td>Elma Thomas</td>
</tr>
<tr>
<td>Address:</td>
<td>1029 TEL Building</td>
</tr>
<tr>
<td>Tel:</td>
<td>416-736-5019</td>
</tr>
<tr>
<td>Fax:</td>
<td>416-736-5913</td>
</tr>
<tr>
<td>E-Mail:</td>
<td><a href="mailto:rowston@edu.yorku.ca">rowston@edu.yorku.ca</a></td>
</tr>
<tr>
<td>Website:</td>
<td><a href="http://www.yorku.ca/IRLT">www.yorku.ca/IRLT</a></td>
</tr>
</tbody>
</table>

**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, 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.

Although the Institute’s mandate is to conduct research in public schools, postsecondary education, and lifelong learning, until recently most members focused their research on technology in schools. Over the past several years, however, members have increasingly directed their research attention to research and evaluation of instructional technologies in higher education and beyond.
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). Professor Renate Wickens (Fine Arts) is Acting Associate Director in place of Professor Mary Leigh Morbey (Education) who is on sabbatical in 2004-2005.

Herb Wideman is employed full time on annual contract as Senior Researcher, while Kathryn Cook works part time as Research Assistant. During the past year four students were hired as Graduate Research Assistants.

Governance

Shortly after IRLT was formed, the membership recommended not to proceed with forming a formal advisory board as set out in the original proposal for IRLT. Instead an enlarged (from the original proposal) Executive Committee was struck consisting of the Director, Associate Director, two Members-at-Large, and a Graduate Student. In 2003-04, Professor Avi Cohen (Arts), Richard Jarrell (Science & Engineering), and Reza Nasirzadeh (Education graduate student) filled the latter three positions. The Executive is responsible for setting strategic priorities and policies for IRLT.

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.

York University Faculty Affiliated with the Centre (2003-2004)

IRTL has members from all Faculties at York as well as Glendon College. The Institute has one honorary member, William Mitchell, retired education officer of the Ontario Ministry of Education. York faculty membership for 2003-04 was as follows:

<table>
<thead>
<tr>
<th>Name</th>
<th>Affiliation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alex Pomson</td>
<td>Faculty of Education</td>
</tr>
<tr>
<td>Alison Griffith</td>
<td>Faculty of Education</td>
</tr>
<tr>
<td>Allan Koretsky</td>
<td>Department of English, Faculty of Arts</td>
</tr>
<tr>
<td>Ananya Mukherjee-Reed</td>
<td>Department of Political Science, Faculty of Arts</td>
</tr>
<tr>
<td>Andre Kushniruk</td>
<td>Dept of Mathematics &amp; Statistics, 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 Environmental Studies</td>
</tr>
<tr>
<td>Dalton Kehoe</td>
<td>Division of Social Science, Faculty of Arts</td>
</tr>
<tr>
<td>Evelyne Corcos</td>
<td>Counselling &amp; Career Development, Glendon College</td>
</tr>
<tr>
<td>Name</td>
<td>Affiliation</td>
</tr>
<tr>
<td>----------------------</td>
<td>------------------------------------------------------------------------------</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>Jennifer Jenson</td>
<td>Faculty of Education</td>
</tr>
<tr>
<td>Leslie Korrick</td>
<td>Fine Arts Cultural Studies, Faculty of Fine Arts</td>
</tr>
<tr>
<td>Margaret Sinclair</td>
<td>Faculty of Education</td>
</tr>
<tr>
<td>Monique Adriaen</td>
<td>Dept of French Studies, Faculty of Arts</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>Razika Sanaoui</td>
<td>Faculty of Education</td>
</tr>
<tr>
<td>Radu Campeanu</td>
<td>School of Analytic Studies &amp; Information Technology, Atkinson</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>Ron Sheese</td>
<td>Department of Psychology, Faculty of Arts</td>
</tr>
<tr>
<td>Ross Rudolph</td>
<td>Department of Polictical Science, Faculty of Arts</td>
</tr>
<tr>
<td>Shelly Hornstein</td>
<td>Department of Fine Arts, Atkinson Faculty of Liberal and Professional Studies</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>Associate V-P (Research); Department of Psychology, Atkinson Faculty of Liberal and Professional Studies</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>

Additionally, several non-York faculty are affiliated with IRLT, as well as Janet Murphy (Director of the York ABEL Program) and six graduate students.

**Activities in 2003-2004**

Listed below are selected articles, chapters, and books of members, as well as conference papers, reports, and technology development activities.
Selected Articles, Chapters, and Books (IRLT members indicated in bold)


**Selected Conference Papers**


Cohen, A., & Parke, K. (2004, May). *More Bums, Same Seats: Using MediaSite Live in a Hybrid Course*. CADE This is IT Conference Pioneers in a New Age, York University, Toronto, ON.


Coffey, S. & Lindsay, G. (2004, May). *Emerging professional issues: Maintaining the dialogue while managing confidentiality*. CADE/This is IT Pioneers Conference. York University, Toronto, ON.


Information Technology & Teacher Education 15th International Conference, Atlanta, Georgia.


**Selected Member Reports**


**IRLT Technical Reports (all available at website)**

Technical Report 2003-1:

Cook, K., Cohen, A., & Owston. *If you build it, will they come? Students’ use of and attitudes towards distributed learning enhancements in an introductory lecture course.*

Technical Report 2003-2:

Technical Report 2004-1:
  Wideman, H., Morbey, M. L., Owston, R. D., & Granger, C. (Servage, L.,
  Greidanus, E.). The ABEL Project final research and evaluation report.

Technical Report 2004-2:
  The Learning Partnership teacher blended learning project for mathematics.

Technical Report 2004-3:
  Cook, K., & Owston, R.D. Evaluation of Health Canada's Skills Enhancement
  for Health Surveillance program.

Technical Report 2004-4:
  Wideman, H., & Owston, R. D. Evaluation of Tablet PC use at Northern
  Lights Public School.

Selected Projects/Initiatives/Course Development

- **Avi Cohen** was 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; and for
  the **Student Technology Assistant (STA) Program**, to provide technical support
  for faculty members with TEL projects, and to improve the training and
  educational experiences of participating students.

- During the summer of 2003, **Richard Jarrell** (Natural Science) and John
  Heddle (Biology) of the Faculty of Science & Engineering developed a new,
  blended Natural Science course. This course, **Science: Past, Present and Future**,
  has a large-lecture format (200 students) with face-face lectures and small-group
  in-class assignments. Lectures used PowerPoint, the internet and other software.
  Tutorials are on-line, based upon WebCt discussions; chat rooms are
  occasionally used. TAs monitor and grade on-line work.

- **Monique Adriaen**, in her role as Faculty Associate at the Centre for the Support
  of Teaching, was responsible for two groups that examined how technology can
  be used to serve pedagogy. Group A: Discussion group (monthly meetings) to
  discuss such issues as the use of course web sites, of discussion lists, of the
  Internet, etc. in teaching, as well as pedagogical issues as instructional models,
  and evaluation and assessment. Group B: Development (monthly meetings). She
  helped a small group of faculty and staff learn how develop a technology project
  for one of their courses.

- **Monique Adriaen** also initiated a TEL project in the French Department in
  which a number of faculty are involved. The idea is to create a set of small
  learning objects accessible on the French Studies web site that students can use
  to learn, review, update basic skills needed to be a successful language student.
(eg, how to use a dictionary; how to find relevant sources at the library and on the Internet; how to review for a grammar test; how to expand one’s vocabulary, etc.)

- **Gail Lindsay** co-developed and taught AK/NURS 3710 *Nurses experience of healthcare environments*, which is the only online course in the School of Nursing.

- **Dalton Kehoe** is researching blended learning in SS 3311, *Communication in Organizations*, using Mediasite Live video streaming technology.

- **Janet Murphy** directed the Advanced Broadband Enabled Learning (ABEL) program (abelearn.ca) which makes use of CANet4 to provide school teachers and their students with videoconferencing and online learning resources. She conducted many videoconference mediated learning (curricular and professional development) events bringing in education experts and mentors i.e. Mock Trails involving Justice of the Peace Moran, faculty from U of Alberta and York U, professional acting troupes, Futurists, and Environmentalists. Additionally, she has made numerous presentations on the ABEL program and related technologies at national and international gatherings.

- **Zbigniew Stachniak** curates 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 microcomputing industry.

- Project Mosaica ([www.mosaica.ca](http://www.mosaica.ca)) led by **Shelley Hornstein** 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.

- **Ananya Mukherjee Reed** developed a multilingual website for the Human Development Resource Network (HDRNet). It is a specialised information gateway and electronic library on human development and international co-operation. See [http://www.yorku.ca/hdrenet/](http://www.yorku.ca/hdrenet/).

- **Graham Orpwood** directs the York/Seneca Institute for Mathematics, Science and Technology Education (YSIMSTE) ([ysiste.com](http://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). Its mission is to create and undertake initiatives in teaching, curriculum, applied R&D, and outreach, with a view to improving the quantity and quality of education in mathematics, science, and technology at all levels of education.
• **Ron Owston and Katharine Janzen** (Seneca) co-direct the Technology Enhanced Learning Institute (TELi) (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, Andre Kushniruk, and Jennifer Jenson** participate 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 in which Kushniruk is a co-investigator. Jointly they 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 diseases such as AIDS, SARS and West Nile virus.

• **Ron Owston and Kathryn Cook** served as external evaluators on two of Health Canada’s initiatives. The first is an ongoing project to evaluate a series of online courses on epidemiology developed by Health Canada for health care professionals across Canada. The second was an evaluation from the front line users’ perspectives of a public health information system (known as iPHIS) being developed for public health offices across Canada. These evaluations took place in Alberta, British Columbia, and Saskatchewan.

• **Margaret Sinclair, Herb Wideman, Ray Bowers, and Jane Kennedy** (graduate student) collaborated with Ron Owston on the evaluation of the Teacher eLearning Project. The project provides online and face-to-face professional development for elementary school mathematics and science teachers.

• **Andre Kushniruk** is currently working with a number of groups in Canada (including the University of Victoria and York University) as well as several sites in the United States (including St. Jude’s Hospital in Memphis) on a three phase project. Entitled *Evaluation of Collaborative Tools for Supporting Group Decision Making and Distance Education in Healthcare*, the first project phase involves the comparison of a number of commercially available Web-based conferencing tools and the analysis of recordings made of meetings using such tools in a number of domains. Based on the empirical analysis of the data collected, recommendations will be made towards the development of user interfaces and functional capabilities of a new generation of such tools for supporting meetings, distance consultations and health professional education. Prototypes will then be developed and tested in the third phase.

• **Evelyne Corcos** is working on a project entitled “le Regroupement des universités de la francophonie hors Québec.” The project involves the
translation into French of two existing websites that present psychology experiments on-line: PsychLab on-line (http://www.uwm.edu/~johnchay)-- University of Wisconsin, and Psychexperiments (http://psychexps.olemiss.edu/) -- University of Mississippi. The French mirror sites are Labpsy (http://www.uwm.edu/~johnchay/indexFrench.htm) and Expérience en psychologie (http://www.yorku.ca/eep/). In addition to the translation of already available experiments, four new classical experiments were designed in both English and French: The Brown-Peterson Paradigm, The Sperling Paradigm, The Sternberg Paradigm, and the Posner Preferential Perceptive Processing -- all available at http://www.yorku.ca/eep/. These experiments allow an individual or a class to control independent variables, and to download data (excel file) for statistical analysis. Providing students with a virtual lab allows them to appreciate elements of experimental design only acquired through experiential learning.

**IRLT Speaker Series**

To fulfill its mandate of public dialogue and dissemination of research, IRLT sponsors a speaker series each year. In 2003-04, the events below were held.

<table>
<thead>
<tr>
<th>Date</th>
<th>Speaker</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>November 6, 2003</td>
<td>Jennifer Jenson</td>
<td>Retooling the Learning Game: Educational Gaming and Play</td>
</tr>
<tr>
<td>December 8, 2003</td>
<td>Curt Bonk, Indiana University</td>
<td>Active Learning with Technology: Myths, Magic, or Just a lot of Bonk</td>
</tr>
<tr>
<td>February 9, 2004</td>
<td>Graham Orpwood</td>
<td>Home Renovations: Rethinking post-secondary education in an era of technology enhanced learning</td>
</tr>
<tr>
<td>March 31, 2004</td>
<td>Reesa Greenberg, Shelley Hornstein, Mary Leigh Morbey, Zbigniew Stachniak</td>
<td>Digital Museums: Interdisciplinary Perspectives</td>
</tr>
</tbody>
</table>