

2008 ORION Awards call for submissions

Recognizing Ontario's innovation leaders in research and education

The 2008 edition of the annual ORION Awards program launches this month to recognize Ontario champions of advanced technologies in scientific research, teaching and learning. Innovators and leaders in Ontario research and education are invited to submit a nomination.

By recognizing and showcasing outstanding achievements, the ORION Awards help inspire new ways of using ORION and other advanced research and education networks to transform methods of teaching, learning and conducting research. Previous winners and nominees come from the fields of physics, astronomy, medical research, architecture, advanced teaching and learning, and others.

Individuals and groups may submit a nomination in one of three categories: Discovery, Learning, and Leadership.

The ORION Discovery Award recognizes research and science initiatives that successfully apply and leverage the unique capabilities of advanced networks and collaborative technologies to achieve significant outcomes in research and discovery.

The ORION Learning Award recognizes the achievements of faculty, students and/or staff in organizations in the implementation of initiatives that make use of ORION and advanced networks and their enabling capabilities to promote / facilitate collaborative teaching, learning and training.

The ORION Leadership Award, with a new emphasis on individual achievement, is now open to public and private sector leaders and innovators for their significant contribution to advancing research, education, science, or discovery through the development and/or application of innovative information and communications technologies.

The submission deadline is **Monday, June 16, 2008**. A panel of judges, with representation from ORION stakeholder communities, will review submissions and select winners. The winners will be officially announced and presented with their awards at a reception during the joint ORION-CANARIE Summit, November 3-4, 2008, at the Metro Toronto Convention Centre. To submit a nomination and learn more about the Awards, visit www.orion.on.ca/2008awards.



*Submission deadline is
Monday, June 16.*

ORION and CANARIE team up to host national summit

Mark your calendars: ORION and CANARIE, Ontario's and Canada's advanced networks, are teaming up this year to host a national research and education Summit in Toronto on **November 3 and 4, 2008**.

The Summit, taking place at the Metro Toronto Convention Centre, will bring together national and global leaders in research, education, innovation, discovery and advanced networks to focus discussions on emerging technologies and new infrastructure needs and capabilities to advance our country's research and innovation agenda. *"Powering Research and Innovation"* is the focus of this Summit, which represents ORION's sixth annual conference, normally held in June. ORION and CANARIE are happy to be partnering on this conference, as it provides a great opportunity to collaborate to present a truly exciting program for attendees, exhibitors and sponsors.

National and international keynotes will be presented, as well as sessions on topics ranging from grids and cyberinfrastructure; the evolution of advanced collaboration technologies; emerging trends in research and learning; the impact of virtual research and learning communities; to global partnerships and collaboration requirements.

The Summit is expected to bring together some 350 researchers and innovators, scientists, faculty, government and institutional policy leaders, as well as private sector partners. The event will include a trade show area, where public and private sector organizations will be invited to participate. A national program committee will issue a call for presentations shortly. More details will be announced as Summit details are finalized.



Loyalist launches virtual design centre

Loyalist College, one of Canada's first higher education institutions to launch a campus within Second Life, has now leveraged its expertise to launch a new virtual design centre. With a growing reputation in cyberspace for virtual design, the college is about to launch the Virtual World Design Centre @ Loyalist College to promote its expertise and support to assist other institutions in developing their virtual presence.

The design centre has been planned in response to many requests to offer their design services and assistance in setting up space, projects and other activities 'in-world'. Ken Hudson, Loyalist's Manager of Academic and New Media Services and go-to person for all of the college's Second Life (SL) activities, has hired several students from a variety of Loyalist's creative media programs to work on his team.

Under Hudson's creative direction, the new department has so far been involved with a considerable number of collaborations with other institutions. One such collaboration was with students from Brown University in the U.S. by lending space and assisting in the building of a gallery for an art project. Loyalist also shared training materials to assist the U.S. State Department in a public diplomacy event to prepare Polish students for Second Life.

Loyalist campus also hosted officers from the Canadian Defence Academy to present information on using virtual worlds for training; Hudson's design team created a mock-up of a forces base and uniforms which the Academy continues to use in presenting SL internally. Finally, the department is also creating uniforms for members of the U.S. Parks Service at Alcatraz, California.

Beginning this term is the creation of a Youth Detention Facility Simulation, a 12-person detention centre to be used by some of Loyalist's courses for role-playing situations. Also in development with faculty is the Podcast Cinema, a venue where students will be able to select and watch Loyalist tutorials and course content in podcast format.

"Clearly, education and the way we deliver content is about to change in significant ways," says Hudson. "Becoming involved in Second Life gave Loyalist a glimpse into the near future and the revolution that is about to happen with the ready application of virtual worlds to education."

"Virtual worlds are innate learning worlds," he says. "They should be approached as an extension of the classroom to enhance the learning experience and augment course material."

Hudson should know. Loyalist was recently announced the winner of the Colleges Ontario 2008 Award for Innovation for its activities in SL

and for being the first Canadian postsecondary institution to have a campus in a virtual world.

Since we last reported on the college's activities in Second Life almost a year ago, Loyalist has stepped up its experiments in the virtual world.



The village and Podcast Cinema, part of Loyalist College Island in Second Life

The Belleville, Ontario college has moved its virtual campus from the shared Edu Island to an island of their own. It was created to handle the growing interest for projects from within the college. The island houses not only the college campus, the hub of Loyalist's educational activities, but also a village complete with shops, café, cinema and art gallery.

As for 'in-world' learning, Loyalist's first foray into SL was with a journalism course taught by faculty member, Rob Washburn, who had guest journalists, researchers and editors join the virtual class. One of his students even garnered an internship with the Second Life News Network.

Since then, more faculty members have led their students into SL. This term, Phil Howlett, Academic Coordinator of the Community and Justice Services program, will lead a group of students for the first time into SL as part of his "Safe and Secure Environments" course to explore workplace simulations in a more unpredictable, yet safe, environment.

"No matter how 'realistic' a role-play in the classroom seems," says Howlett, "the students rarely get to experience the visceral reaction that we hope to create with the SL environment."



Mock-up of forces base for the Canadian Defence Academy, designed by Ken Hudson's team at Loyalist College

It is ironic that simulations in virtual worlds can offer a realism that students do not encounter in the physical classroom among their peers and professors. Entering a virtual world presents the opportunity to put students in real-life situations that would otherwise be too costly or too dangerous. "Anything that happens in a real-life facility can be recreated in SL, including drugs, weapons, and violence," says Howlett.

Lorne Thompson, Coordinator of the Child and Youth Worker program, also decided SL would be an interactive and different way to approach the delivery of his course content. He had students in his "Interpersonal and Group Dynamics" course work in groups to complete leadership tasks. "SL allowed me to observe 40 students completing their tasks, which would have been impossible for the same number of students to complete in a real-life environment," he says.

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U Waterloo residence to be new media incubator

A former residence building at the University of Waterloo (UW) is being transformed into a live-in incubator for collaborative new media projects developed by entrepreneurial students.

The new residence project, coined VeloCity, will unite creative, technologically savvy students under one roof to work on the future of mobile communications, web and new media. VeloCity will be housed in an old residence that will be renovated over the summer to become a collaborative space with meeting rooms, a device lab, network infrastructure (including connection to the ORION network), multimedia and gaming equipment, and WiFi for 70 lucky residents.



VeloCity is part of the Media and Mobility Network Project (MMNP) that has been under way on campus for the past year, with the goal of transforming the communications technology environment on the UW campus.

It is largely the brainchild of Sean Van Koughnett, director of UW Graphics and project manager for MMNP. "I thought about the many great success stories in the web, mobile communications and new media arena that originated in the minds of students," he says. "I think this is the perfect time and place for something like VeloCity." Not just residence officials but other administrative departments and three faculties, as well as student groups, have signed on to be involved, he says.

VeloCity will be a place where students, faculty and corporate partners will all be active collaborators and beneficiaries of the talent, ideas and innovations that evolve from the unique environment.

Not only will VeloCity residents benefit from living among other talented, like-minded UW students, they will also have an experienced mentor for guidance and will have access to the courses offered by the Accelerator Centre on the university's north campus.

Perhaps most attractive of all, at the end of each term residents will be able to pitch their work to individuals and companies that can help them take their ideas to the next level: industry leaders, venture capitalists, and entrepreneurs. Van Koughnett is in discussions with potential partners, including companies in telecommunications, media and mobile communications.

To learn more, visit www.velocity.uwaterloo.ca.

orionXchange Picks

Explore the most recent additions to the orionXchange, a mini portal recently launched on the ORION website where researchers, educators, students and technology experts can find links to resources, tools, applications, and other valuable sources of information. The orionXchange is regularly updated, but we invite our readers to suggest other resources we may have missed. Visit it today at www.orion.on.ca/orionxchange.



Cyberinfrastructure Tutor (<http://ci-tutor.ncsa.uiuc.edu>), hosted by the National Center for Supercomputing Applications, is a web-based training site for High Performance Computing and Cyberinfrastructure topics.

ATutor (www.atutor.ca) is an open source web-based learning content management system, developed by the University of Toronto's Adaptive Technology Resource Centre, that allows educators to quickly assemble, package, and redistribute web-based instructional content, easily import pre-packaged content, and conduct their courses online.

myExperiment (www.myexperiment.org) makes it really easy for the next generation of scientists to contribute to a pool of scientific workflows, build communities and form relationships. myExperiment enables scientists to share, re-use and repurpose workflows and reduce time-to-experiment, share expertise and avoid reinvention.

Cyberinfrastructure Technology Watch (www.ctwatch.org) is an online venue designed to engage the science and engineering research community in the news, ideas, and information surrounding the emergence of cyberinfrastructure as the essential foundation for advanced scientific inquiry.

Galileo Educational Network (www.galileo.org) creates, promotes and disseminates innovative teaching and learning practices through research, professional learning and fostering external collaborations. Galileo works with students, teachers and policy makers across Canada both onsite and online.

Muse (<http://k20.internet2.edu>) is a new social networking tool that makes it easier for the variety of K20 community groups around the world to discover and connect with each other surrounding the use of advanced network-enabled teaching and learning resources and applications.

OCAD and ABEL partner to videoconference portfolio reviews

Getting the chance to have a portfolio critiqued by an art and design expert before application deadlines is a rare opportunity for most high school art students. However, thanks to an initiative between ABEL and OCAD, that opportunity is now becoming more accessible for high school students.

The Ontario College of Art & Design (OCAD) teamed up with the Advanced Broadband Enabled Learning (ABEL) program to perform remote portfolio reviews with high school students in York Region. Grade 12 art students at Newmarket High School and Richmond Green High School discussed their portfolios with OCAD faculty members during two videoconference sessions earlier this fall, facilitated by the ABEL team and beamed out over ORION.



Students who would otherwise be unable to visit OCAD in person for feedback on their portfolio benefited from an opportunity to remotely show their work to an expert for critique. This feedback enables the students to improve their portfolio in advance of their official application deadline to postsecondary fine arts and media programs. Participating students reported that they had valuable discussion time and individual feedback from the faculty.

ABEL Program Manager, Janet Murphy, attended both sessions and expressed her enthusiasm for the pilot project. "It was amazing. The OCAD-ABEL partnership is a great demonstration of inter-institutional collaboration and enrichment," she said. Due to the success of the November pilot, there are plans to continue and expand the remote portfolio reviews in the future.

To learn more, visit <http://www.abelearn.ca>.



Loyalist launches virtual design centre

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Learning in virtual worlds is not just for web-savvy and gaming types, either. Thompson says most of his students have enjoyed their SL experience. "This is significant considering that most of my students tend not to be interested so much in computers and gaming as they are in working with people," he explains.

Thompson's class also took part in an educational exercise with Information Management students at the University of Sheffield in England. Thompson responded to a call for student volunteers with whom to practice their interview skills and gain information about their activities 'in-world'. "I believe the experience helped them to begin to grasp just how international SL can be," he said.

"We found that once students were confident in SL... the whole experience generated a massive amount of enthusiasm," said Hudson about general student feedback so far. "Classroom experiences have revealed very positive outcomes in terms of peer-to-peer learning, speed and efficiency in completing exercises, and a rapid grasping of concepts taught in virtual worlds."



The Loyalist College virtual campus in Second Life.

To other teachers and faculty considering the educational value of SL, Ken Hudson assures that it is a very accessible platform to facilitate experiential and collaborative learning.

"My advice is to use it to augment a part of your curriculum that would be best served as an activity. Start small with a highly organized project with modest objectives and expectations."

Find a host of resources for educators, by the makers of Second Life, here: http://www.simteach.com/wiki/index.php?title=Second_Life_Education_Wiki.



Art gallery for Brown University art project, developed by Loyalist's design team.

Last chance to submit: ORION FutureFlick Contest

The January 31 submission deadline of the ORION FutureFlick Contest has students all over the province busily wrapping up their digital short films. The contest, which offers \$5,000 in prizes, asks students to show, in digital video format, their visions of student life in the year 2020. Entries will be adjudicated by a judging panel drawn from both academic and industry circles. For more information, visit www.orion.on.ca/futureflick.

OCAD offers distance learning to Dawson City art school

The Ontario College of Art & Design (OCAD) in Toronto began delivering its art history classes via videoconference to the recently established Klondike Institute of Art and Culture's (KIAC) School of Visual Art in Dawson City, Yukon. KIAC offers a foundation year program in studio based visual art which is transferable to a first year of a Bachelor of Arts program. However, with its limited resources, the school was not able to devote staff to teach an art history class. OCAD was in the position to offer distance instruction by videoconference link. According to Andrew McAllister, manager of OCAD's digital studios, the Toronto university has been looking for other institutions to partner with for similar types of projects. For more information, visit www.ocad.ca.

U Windsor gets \$5M boost for new research institute

It was recently announced that a \$5-million investment from the Ontario Ministry of Research and Innovation will help establish the new Institute for Diagnostic Imaging Research at the University of Windsor. The institute will focus on developing commercially viable products, working collaboratively with leading private-sector partners to develop new acoustical imaging technologies for use in the automotive, health care and public safety sectors. University of Windsor president Dr. Ross Paul said the institute has the potential to diversify the regional economy and meet industrial applications. Read more at <http://www.mri.gov.on.ca>.

Lakehead hosts Research and Innovation Week

Lakehead University's 2008 Research and Innovation Week will take place at its Thunder Bay campus from February 25 – 29. The event will celebrate and showcase research excellence at Lakehead by raising community awareness about the university's research and how it benefits society; providing information about research funding opportunities; and providing networking opportunities for faculty, students, and funding bodies. The event's week-long activity line-up includes guest speakers, panel discussions and debates, a Graduate Student Conference, poster presentations, funding opportunity displays and information sessions, a showcase of Lakehead's published book authors, and a celebration of the University's 2007 Distinguished Researchers. For more information, visit www.lakeheadu.ca.

U of T e-learning project wins Mellon award

The University of Toronto's Adaptive Technology Resource Centre (ATRC) was recently awarded a prestigious Mellon Award for Technology Collaboration and a \$50,000 prize for its ATutor project. ATutor is an open source web-based learning content management system that allows educators to quickly assemble, package, and redistribute web-based instructional content, easily import pre-packaged content, and conduct their courses online. To learn more about ATutor and the ATRC, visit <http://atrc.utoronto.ca/> and <http://www.atutor.ca>.

CANARIE announces Cover to Cover contest

CANARIE announces its 2008 Cover to Cover contest for students. Open to all students across Canada whose school is connected to CANARIE, the contest invites original submissions for the cover design of CANARIE's annual report. This year's theme is "Unleashing the potential of science and technology." The winner will receive a \$2,500 prize and

credit in the 2007-2008 CANARIE Annual Report. To learn more, visit www.canarie.ca/contest.

U of T scientists make quantum computing leap

Physicists at the University of Toronto are part of an international team that has made the first execution of a quantum calculation, a major step towards building the first quantum computers. "Quantum calculations are important," said Professor Daniel James, the Canadian lead on the project. "It is the computational difficulty of factoring very large numbers that forms the basis of security in such things as widely used Internet encryption systems." By manipulating quantum-mechanically entangled photons – the fundamental particles of light – the team was able to calculate the prime factors of the number 15: 3 and 5. Simple as it may be, calculating the prime factors of 15 is a major step to calculating much larger numbers, which could be used to crack cryptographic codes that are unbreakable using conventional computers. These codes form the basis of all banking and computer security and have implications for how successfully we can keep all data secure in the future, says James. To learn more, visit <http://www.news.utoronto.ca>.

Seneca videoconferences New World Symphony concert

Once again, Seneca College collaborated with the New World Symphony in Miami for another live transmission of a performance on January 11. The College received a multi-camera perspective of the orchestra performing on stage along multi-microphone audio. Seneca sent a videoconference link of world-renowned Toronto composer, Michael Colgrass, who participated in a live conversation with percussionist Michael Israeliavitch and his father, for whom the piece was written. The event was broadcast (unicast) using DVTS at the data rate of 30Mbps in each direction.

MaRS Landing videoconferences FFNHP workshop

MaRS Landing, Nutri-Net Canada and PEI BioAlliance present a regional workshop on Functional Foods and Natural Health Products (FFNHP) on January 23 that will be connected by videoconference between Guelph and Charlottetown. The purpose of the workshop is to enable an inter-regional exchange of expertise, and will include updates on emerging markets, investment vehicles and regulatory outlooks. To learn more, visit <http://www.marslanding.ca>.

Registration now open: ELEVATE 2008

ELEVATE 2008 is an international conference that will explore the use of videoconferencing and related technologies in teaching and learning over broadband networks. The conference dates are August 24 to 27, 2008. The deadline for the Early Bird registration rate is January 31. For more information and to register, visit <http://www.vcalberta.ca/elevate2008>.

Museums and the Web conference

Registration is now open for Museums and the Web, an international conference for culture and heritage online, taking place April 9-12, 2008, in Montréal. It addresses the social, cultural, design, technological, economic, and organizational issues of culture, science and heritage online. For more information, visit <http://www.archimuse.com>.

People News

George Ross was recently appointed Deputy Minister of the Ontario Ministry of Research and Innovation, succeeding **Dr. Alastair Glass**. **Dr. Roseann O'Reilly Runte** will become the next President and Vice-Chancellor, Carleton University, effective July 1, succeeding **Dr. Samy Mahmoud**, who had served as Acting President.