



*First Canadian college joins growing number of educational institutions in virtual world*

## Loyalist College logs on to Second Life

Journalism students gather for class at Loyalist College, but not on the Belleville, Ontario campus. Instead, they meet and interact on a virtual campus in cyberspace.

Loyalist College is the first Canadian college to establish a presence in the social-networking simulation universe, Second Life. A unique 3D virtual world, Second Life is entirely built and owned by its "residents"; a digital world where participants meet and socialize with other like-minded residents. They build and design objects, retain intellectual property rights of their creations, are able to own and control the land where they live and congregate, and even start businesses that are paying off in real-world income. Second Life (SL) is currently growing explosively at more than 20 per cent each month and currently claims more than 2.6 million residents.

Recently, SL creators Linden Lab launched *Campus: Second Life*, a program allowing college and university level classes to use the realistic online environment as a venue for learning. With a fully physical simulation, 3D modeling and scripting tools, and a complete economy with social systems, SL provides students with a collaborative framework to experiment in real time with everything from urban planning, to game design, to the formation and study of social communities.

Loyalist College has established space on "Edu Island" that it shares with 18 other higher educational institutions worldwide, including New York University (NYU), George Washington University and Empire State College (of the State University of New York). So far, 60 schools and universities have set up virtual presences inside Second Life, most in the past year. Even Harvard University has a space for a law school course entitled *CyberOne: Law in the Court of Public Opinion*.

So far, college and university courses that are benefiting from the SL framework include those in the fields of architecture, game design, sociology, design and media studies. Faculty and students can integrate into the existing world community, or work together on public or private (i.e. invisible) "islands".

"We're making it possible for more students to investigate important design and social aspects of digital spaces within the context of Second Life," said Robin Harper, Vice President of Community Development and Support. "The enormous flexibility of the underlying systems, including the ability to establish communities and design and create interactive objects and structures, offers these students an unparalleled palette for learning and exploration."

For example, teachers of architecture bring their students to SL to build things that would either be too expensive or physically impossible to create in the real world. Others, such as psychologists and sociologists, study what people choose to do in SL and why they're doing it.



Loyalist professor Robert Washburn's avatar teaching class in Second Life

Another educational use for SL that schools have discovered is bringing together distance learning students. Virtual classrooms in SL can make students thousands of kilometres apart feel like they've actually gathered together for a class. Since students and faculty can "see" each other, at least virtually, they can interact in a way closer to the physical world, as "avatars" (their digital world simulation) move and express themselves true to human form.

This term, the Loyalist College virtual presence has been set up for classes to explore how this environment can be developed to best support teaching and learning. Two confirmed groups, one from the Journalism program and another from Business, are currently using SL as a platform to extend the traditional classroom space. The first

Loyalist students arrived in SL last month.

"We are extremely excited about the possibilities SL may provide to the learning community. While we are in the early stages, we see great benefit in providing simulations, collaboration and most importantly, context to the vast expanse of information available over the web," said George Burton, VP, Enrolment Management and Student Services at Loyalist College.

"Second Life offers an unparalleled opportunity for social networking and real-time simulation," said Ken Hudson, E-Learning Facilitator at Loyalist College. "Our first steps into this vast metaverse are small, but part of our work here is to evaluate how we could best use this environment to facilitate learning for our students."

"Second Life will be used as a means of facilitating group discussions outside the traditional classroom setting," said Hudson. "We anticipate the uses will be varied and exciting as this process develops further."

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**Are you eligible for an ORION Award? See page 2...**



## Expanded eligibility for Leadership Award

# Call for submissions for 2007 ORION Awards

ORION is now accepting nominations for the third annual ORION Awards. The 2007 ORION Awards web site is now open. Submissions can be made until Friday, April 20, 2007.

Each year, ORION invites innovators and leaders in research and education to submit a nomination to the awards to recognize champions of advanced technologies in scientific research, teaching and learning.



By recognizing and showcasing outstanding achievements, the ORION Awards help inspire new ways of applying the enabling capabilities of ORION and R&E networks to transform methods of teaching, learning and conducting research.

Previous winners and nominees come from the fields of physics, astronomy, medical research, advanced teaching and learning, and others.

There are three categories of ORION Awards: the Discovery Award, the Learning Award, and the Leadership Award, which has broader eligibility criteria this year.

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 Friday, April 20, 2007.

A panel of judges, with representation from the ORION stakeholder community, will review submissions and select winners.

The awards will be announced at a reception and ceremony on Monday, June 4, 2007, in the Atrium of the MaRS Discovery District in downtown Toronto during the 2007 Ontario R&E Summit.

To submit a nomination and learn more about the Awards, please visit: [www.orion.on.ca/2007orionawards/home.html](http://www.orion.on.ca/2007orionawards/home.html).

## Lakehead University switches to Google Mail

A server crash last Fall spurred on the planned conversion of Lakehead University's dated email system to Google's Gmail. In a remarkable three days, the Thunder Bay university's IT department switched over 38,000 email accounts to the new Gmail configuration with almost no interruption to service.



Lakehead's is the first campus-wide implementation of Google Apps for Education in Canada.



Google Apps for Education is a platform entirely hosted by Google that provides Lakehead students, faculty, and staff with email, chat, and web calendar-

ing – all without the need to install and maintain software and hardware on campus.

Students, staff and faculty now get 2GB each of storage space, compared to 60MB with the old system. Since it is entirely hosted by Google rather than on university hardware, the university expects to save \$2 million to \$3 million a year on maintenance and about \$6 million annually on infrastructure.

The move to Gmail also effectively and permanently resolves recurring email issues the university had continually faced under its previ-

ous email system, including server capacity, non-delivery, and slow response time.

"The traditional way of looking at technology use and its management is coming to an end. Organizations have to continue to reinvent themselves and the services they provide to enhance the value of technology in education," said Shahzad Jafri, Chief Information Officer and Director of the Technology Services Centre at Lakehead University.



The university obtained the entire product suite for no charge since Google has been offering it under a beta program since late summer (although no mention has been made as to when this beta period will end). Colleges and universities that adopt it during this beta period will not have to pay. Google expects to

launch a premium version of Google Apps for Education for which there will be a charge.

Google includes text-based advertising in Google Apps for Education.

For more information, please visit <http://communications.lakeheadu.ca/news>.

# Timmins students access VR technologies for new Extreme VR Science Fair

Secondary students in Timmins and Northeast Ontario have a unique opportunity to use virtual reality technology to develop their science projects for this year's Timmins Regional Science Fair. Their region was chosen as a test site for a new initiative called Extreme VR Science Fair, funded in part by the Ministry of Research and Innovation's Youth Science and Technology Outreach Program (YSTOP).

The goal of the Extreme VR Science Fair is to expose secondary school students to expert mentoring and fun, engaging activities in science & engineering using large-scale VR technology.

Last December, the newly-built Timmins Public Library officially opened the Timmins Virtual Reality Studio, the world's first VR facility in a public library. An innovative tool, it was partly intended to help students with their Extreme VR Science Fair projects, encouraging them to explore science and engineering careers.

Students have access to technical data, computers, software and training, and their projects use 2D or 3D models and pictures to explore topics and research questions.

They were matched up with mentors, university or industry experts in a given field, who have supported and advised them throughout the process.



Applied Research Corporation. Partners include Science Timmins, the Timmins Public Library and PDAC Mining Matters.

To learn more about the science fair initiative, visit <http://extremevr.mirarco.org>.



Topics were chosen in mining and geology, environment, ergonomics, health and safety, computer simulation, and geographic information systems (GIS).

The projects will be presented as works in progress during National Engineering Week (February 24 – March 4) where students will receive constructive feedback. Final projects will be presented at the Regional Science Fair in the Timmins VR Studio in March, 2007.

Students who submit entries get practical research and development experience, including valuable industry contacts and training on specialized computer software.

Expectations of what students may produce with the new technology are high, considering that if an Extreme VR project wins, it would give Team Timmins an advantage going into the Canada-Wide Science Fair, taking place in Nova Scotia next May.

The project lead for Extreme VR Science Fair is MIRARCO, Laurentian University's Mining, Innovation, Rehabilitation and

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Robert Washburn, a professor in the Journalism program at Loyalist, is the first instructor at a Canadian post-secondary institution to lead a class into SL. For the majority of his students, this was their first foray into this virtual world.

Much of Washburn's course, *Topics in Journalism*, is based on discussion, so is well suited to a Second Life forum. The goal is to give students a different learning experience. Having used Web chat previously, he has noticed how differently students communicate in a virtual environment as opposed to a physical one.

"Some of my more quiet students suddenly come alive online," said Washburn. "The SL forum allows students to be more engaged in a less structured, more casual environment where they feel freer to express themselves."

"There's a huge 'cool' factor associated with SL. The students become very enthusiastic about participating in class. It helps motivate them to get involved with the subject matter."

Washburn hopes his students will come away from the experience having gained a different perspective of communication and interaction. Part of the discussions will be about the experience of being in a virtual environment of this kind and how the students themselves think it affects the learning experience.

Colleges and universities aren't the only institutions hopping on the SL bandwagon. The U.S. National Oceanic and Atmospheric Administration is creating simulations inside SL to teach the public about tsunamis and other phenomena. A U.S. federally funded bioterrorism-preparedness project, Play2Train, has built its own virtual town and hospital for training purposes.

"Education is actually growing to become a significant part of how SL is used," said John Lester, Community and Education Manager at Linden Lab. "It's still a pioneering space. We're still trying to figure out how best to use it."

To learn more about *Campus: Second Life*, please visit: [http://www.simteach.com/wiki/index.php?title=Campus:Second\\_Life](http://www.simteach.com/wiki/index.php?title=Campus:Second_Life).

## Expedition Africa wraps up with closing presentation at Megaconference Jr.

# ORION and videoconferencing brings Africa to Ontario students

Big Picture, Small World: Expedition Africa wrapped up last month and a presentation of the hit expedition's impact on students will be showcased at Megaconference Jr. on February 22.

Ottawa's Algonquin College is leading the project and worked closely with district school board educators across Ontario to develop curriculum for classroom delivery and for any teachers to develop learning materials to support their curriculum. Five Ontario school boards, from Ottawa, Toronto and Windsor incorporated the "safari" in their curriculum.

Janet Murphy, Program Manager of Advanced Broadband Enabled Learning (ABEL), and Stephen Rensink of the York Region District School Board will share their learning experiences of corresponding through technology with an expedition team as it travelled through Africa from Cairo to Cape Town over the course of 20 weeks. The expedition team remained in daily contact with Ontario students through blogs, videocasts, daily journal entries posted on a website, and real-time videoconferencing sessions enabled in part by ORION's high-speed network, so that students could participate in the adventure and learn about Africa along the way.

The five-month journey began in September, 2006. Students experienced second-hand the cultures of Africa and learned about the history, geography, ecology, art, politics and health crises of Africa's nations. Specific lesson plans were developed around subjects including math, science, history, anthropology, and international relations to incorporate Expedition Africa into the curriculum.

The expedition was led by accomplished expedition leader Ben Webster, also a professor-at-large at Algonquin College, photojournalist, TV producer and documentary filmmaker. Webster has led five successful multimedia



*Elephants in Zambia*

expeditions to the summit of Mount Everest where he produced the first live broadband TV broadcast from the mountain to North American networks CTV and ABC. In 2003 and 2004, he mounted a Discovery Channel Expedition to the mountain and produced an award-winning six-part mini-series, Everest: Ultimate Survival. It's no surprise then that Webster should come up with the idea of an African expedition to bring to children and teens through similar broadband technology, and he set about planning how he could bring this great learning experience to students.

Participating students of all ages from elementary and secondary schools in the York Region District School Board, Ottawa-Carleton District School Board, Ottawa-Carleton Catholic School Board, Windsor-Essex Catholic School Board, and Renfrew County Catholic School Board were able to speak directly to and ask questions of the expedition team and African children via videoconference. Anyone from around the world, though, can access the website where photos, blogs, audio clips and daily journal en-



tries were recorded. A partnership with CHUM TV resulted in brief updates of the progress of the expedition team on the 6 o'clock news programs of CHUM's television channels across Canada, which further promoted the initiative.



*Expedition Africa Team arrives at final destination: Cape Town.*

Expedition highlights included a visit to Robben Island where Nelson Mandela was imprisoned, the Cotlands Children's Hospital in Johannesburg which cares for orphans living with HIV/AIDS, climbing Mount Kilimanjaro, spending time with the Maasai and Bedouin tribes, and, of course, a visit to the Pyramids.

Feedback from students was enthusiastic. "The students wondered why we couldn't do this sort of thing all the time," said Janet Murphy. "They were blown away by the capabilities of the videoconferencing technology – the fact that they could see and interact with people so far away but in real time."

"Most importantly, what they got out of it was a real connection to their peers in Africa. By talking to them and having their questions answered, our students learned that African children their age are not all that different from them, that they have the same general likes (parties, sports) and dislikes (homework), and that they could relate to each other despite differences of culture and economic status."

Expedition Africa was designed to actively engage Canadian school-aged students, their teachers and their families with respect to the Continent of Africa, its opportunities, its challenges and its peoples. Through the innovative use of advanced technology and high-speed networks such as ORION, these individuals were able to better understand the realities and challenges facing people and their communities in developing African countries.

"Algonquin College is the postsecondary leader in our community, if not all of Ontario, with respect to the integration of technology in the learning environment," said Kent MacDonald, Executive Director of Algonquin's Strategy and Business Development Division, at the expedition's official launch at the college last September. "This project allows the College to cooperate more closely with our educational partners and leverage satellite, telecom and computer technology to bring a new and unique way of learning into classrooms across Ontario."



*Maasai warrior, Kenya*

To learn more about Expedition Africa, go to [www.algonquincollege.com/africa](http://www.algonquincollege.com/africa). For more information about Megaconference Jr. 2007, visit [www.megaconferencejr.org](http://www.megaconferencejr.org).

*Photos taken from the Expedition Africa website.*

## Phase 1 ends; new funding to drive Phase 2

# High-speed networks, lightpaths enable Eucalyptus' collaborative design innovations

An innovative program that allows designers to collaborate over advanced networks in real time is ready to evolve into the next stage and expand across North America.

Phase 1 of the Eucalyptus project came to an end in December, and now the lead team at the Carleton Immersive Media Studio (CIMS) at Ottawa's Carleton University is looking to secure funding to launch the next phase of the project. This next stage involves bringing this innovative technology to architecture schools across North America, exploring new ways of using the technology and partnering with other organizations and businesses to exploit its full potential.

CIMS Director Prof. Michael Jemtrud's goals for the next phase of the Eucalyptus project include developing a pan-Canadian network for design by linking together architecture schools at various Canadian universities and institutes, such as at the University of Toronto and McGill University, as well as the Canadian Centre for Architecture (CCA) in Montreal. Collaboration with the School of Architecture at Pennsylvania State University is already being discussed, and talks have commenced with Los Angeles' Gehry Technologies about a possible commercial partnership. Discussions have also begun with various aerospace and automotive companies.

The first phase of the project focused on the collaboration between staff and students from Carleton's School of Architecture located both at the CIMS in Ottawa and at the Society for Arts and Technology (SAT) in Montreal. Original funding was provided by CANARIE's Canadian Infrastructure Program.

The next phase involves layer 3 connectivity and introducing wireless capabilities so that users with different levels of connectivity and different platforms are able to connect and participate in the Eucalyptus Participatory Design Studio (PDS). This will aid in making Eucalyptus more accessible for designers as well as for educational / training facilities.

The Eucalyptus project uses the high bandwidth of the ORION, CAnet 4 and RISQ advanced networks to allow users to work collaboratively on a project in real time from geographically dispersed locations, using web services work flow software.

Utilizing the User Controlled Light Path\* (UCLP) provisioning tool on CAnet 4, the Eucalyptus project builds a Service-oriented Architecture (SOA) for provisioning a set of resources, such as videoconferencing tools, 3D modelling and digital design applications, used by architectural design teams. It provides a user-friendly 'dashboard' for architects to control these tools and instruments.

"Eucalyptus is a really exciting project because it has such a broad scope for future day-to-day uses, both in the research and education field and for commercial industry," said Prof. Michael Jemtrud, Eucalyptus project lead, Associate Professor and Director of the Carleton Immersive Media Studio, run by Carleton University's School of Architecture. "It's not specific to a particular application – it can be used with

virtually anything and is truly integrative."

In other words, this is not just a technological leap for architects and urban planners. It also opens the door to applications in a broad range of industries, including aerospace, automotive, oil and gas, military, gaming, marketing and sports, to name a few.

Eucalyptus's real innovation is the capability of putting together all kinds of data sets to generate digital simulations of astonishing accuracy and detail. Through high-speed networks such as ORION, data can travel at an astonishing four gigabits per second, roughly the equivalent of sending an entire DVD or 80,000 web pages in a second.

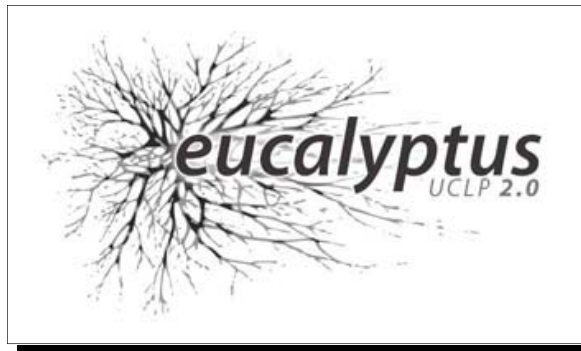
A rather unusual use of the technology involves break-dancers in Montreal and Ottawa who will be able to improvise five- to 20-minute dance sessions or 'duelling' dances with each other next June at the National Dance Festival (orchestrated through the National Arts Centre). The dancers will connect through the Eucalyptus real-time collaboration technology that harnesses the power of advanced networks such as ORION, CAnet 4 and RISQ.

The emergence of SOA and UCLP is expected to herald the beginning of an era where fully collaborative multi-site design will become the norm.

Eucalyptus/UCLP software was provided by the Communications Research Centre Canada (CRC), and the Eucalyptus Web Services and Service-Oriented Architecture was provided by the National Research Council Canada (NRC). Other partners include IBM Canada, Alias System (now Autodesk), and Pleora Technologies.

Learn more about the Eucalyptus project at [www.cims.carleton.ca/60.html](http://www.cims.carleton.ca/60.html).

*N.B. A lightpath is a dedicated connection between two switches in an optical network, and typically connects two points on the network at speeds of up to 10 gigabits per second.*



## ORION Research and Discovery News

The ORION Research and Discovery News provides news and information of interest to users of the Ontario Research and Innovation Optical Network and to the worldwide research and education community.

ORION is an advanced high-speed fibre optic network that connects research and education institutions to each other and to colleagues around the world.

ORION is owned and operated by the Optical Regional Advanced Network of Ontario (ORANO).



*The ORION Showcase is a new section of the ORION Research and Discovery News that spotlights how connected institutions and organizations are using ORION to enhance research, teaching and learning in Ontario.*

## Enhanced Access to Scholars Portal

The Scholars Portal, based at the University of Toronto, is a great example of the use of the ORION network and its capabilities. ORION is providing researchers, scientists and educators throughout Ontario with enhanced access to the award-winning Portal. This gateway, hosted at the Robarts Library at the University of Toronto, was developed by the Ontario Council of University Libraries to provide access to electronic resources for all Ontario university faculty and students.

All 20 of Ontario universities connected to the ORION network enjoy enhanced direct connectivity to the Portal, which currently provides access to almost 10 million articles from over 7,600 research journals, citation management and other software, which contribute to their academic and research work. ORION also enables ultra high-speed access to the Portal's Rapid Access to Collections by Electronic Requesting (RACER) service.

Learn more at [www.scholarsportal.info](http://www.scholarsportal.info).



## Connecting Lakehead's new Orillia campus

A new dedicated ultra high-speed ORION fibre-optic connection is helping Lakehead University in Thunder Bay to extend its fully integrated network infrastructure to its new Orillia campus, located more than 1,200 kilometres away. The University just completed its inaugural semester at its Orillia campus, with a charter class of 120 students.

The integrated infrastructure is facilitated in large part through a dedicated ORION Virtual Local Area Network (VLAN) link. The 100 Mbps connection allows a seamless network infrastructure and ultra high-speed connectivity between the two locations. The VLAN is provisioned from the ORION Point of Presence in Barrie, with linking to Orillia provided by the Simcoe Community Broadband Network (SCBN).

The new campus offers three multidisciplinary programs in arts, science, and education. The inter-campus connectivity illustrates the potential for other institutions to connect to remote campus and satellite locations by taking advantage of ORION's 21 points of presence, covering over 5,800 kilometres throughout Ontario.

Visit Lakehead's new Orillia location at <http://orillia.lakeheadu.ca>.



## Trent uses videoconferencing technology for distance thesis defences

Trent University in Peterborough is now conducting thesis defences over ORION and partner R&E networks utilizing new IP videoconferencing equipment that was installed in early Fall 2006. This technology allows for a remote external examiner to be present by video link. The system uses a standard two plasma screen arrangement installed in a conference room that permits about 16 people to participate and with an audience of about 20, all of whom are able to see and be seen by the remote external examiner. This two-screen arrangement enables all participants, including the remote external examiner, and audience to be active at once and, most importantly, to view the PowerPoint slides that are part of the presentation and defence.

The first defence was conducted in late October 2006 with a PhD student in Trent's Canadian Studies program and a remote external examiner at Pennsylvania State University. With the aid of ORION's ultra high-speed connection, Trent's videoconferencing equipment runs faster and smoother, and there is an undetectable lag in response time.

"The sound and picture quality are superb," said Professor Douglas Evans, Associate Dean of Graduate Studies. "Everyone agrees that this is an excellent way to conduct defences."

This technology, which greatly reduces time and travel costs, now allows Trent to access the best possible examiners for its graduate students since an examiner's geographic location is no longer a factor.



# ORION News Briefs

## Mark your calendars - 2007 Ontario R&E Summit

Mark your calendars for the 2007 Ontario Research and Education (R&E) Summit. The fourth annual Summit takes place June 4 and 5, 2007 at the MaRS Discovery District in Toronto. "The Promise of Technology" is this year's theme. Keynotes, plenary and break-out sessions will explore the impact and potential of innovative "cybertechnology" in advancing scientific discovery, research and learning in Ontario. Once again, the Summit brings together leaders and innovators from Ontario's research and education community, while showcasing projects and initiatives that illustrate the exciting capabilities now made possible through advanced networks and new collaborative tools and technologies. The Summit program is now in development. For more information and sponsorship opportunities, visit [www.orion.on.ca/2007orionsummit/home.html](http://www.orion.on.ca/2007orionsummit/home.html).

## ORION selects next-generation optical and routing gear for core network upgrade

ORION is expanding to 5,800 kilometres from its current 4,300-kilometre span with new, next-generation gear from JDSU and Juniper Networks. Ontario's R&E optical network recently turned up the first phase of its core network upgrade with next-generation optical gear from JDSU. The second phase of the upgrade will be completed by the end of March with Juniper Networks' new routing gear. The first phase involved 320 kilometres of new fibre from North Bay to Peterborough, with JDSU's WaveReady DWDM (Dense Wave Division Multiplexing) optical gear. Juniper Networks' new M120 routing equipment is expected to be installed in the next two months at ORION Points of Presence (PoPs) in Peterborough, North Bay, Toronto and London. The M120 gear supports next-generation Internet Protocol applications, including IPv6, MPLS (Multi Protocol Label Switching) and QoS (Quality of Service). The network upgrade, made possible with financial support from CANARIE, is important to ORION's users since the new links add critical back-up and resiliency to the network.

## ORION sponsors ACAATO conference, Feb. 18-19, 2007

ORION is once again a proud sponsor of the ACAATO (Association of Colleges of Applied Arts and Technology of Ontario) annual conference, which takes place February 18 - 19, 2007, at the Westin Harbour Castle Hotel in Toronto. This year, the conference is hosted by Centennial College and will celebrate the 40th anniversary of Ontario's college system. The goal of the conference is to ensure that college education and training is at the forefront of a provincial and national skills agenda. One of the most anticipated is a session on applied research and commercialization in colleges, presented by Ray Hoemsen (Director, Applied Research & Commercialization, Red River College), Marti Jurmain (Director, Research & Innovation, Niagara College), Dr. Rick Miner (President, Seneca College), and Greg Weiler (Dean of Applied Research, Innovation & University Partnerships, Fanshawe College). In addition, the Premier's Awards, which honour six college graduates for their outstanding career achievements, will also be announced. For more details about the conference, visit [www.acaato.on.ca/2007conference/index.html](http://www.acaato.on.ca/2007conference/index.html).

## \$88 million investment creates national HPC network

The Canada Foundation for Innovation (CFI) and the Natural Sciences and Engineering Research Council of Canada (NSERC) recently announced an investment of \$88 million for the creation of the first ever pan-Canadian network of High Performance Computing (HPC) facilities, a national resource that will benefit the entire spectrum of research in Canada. The process leading up to this announcement mobilized Canada's entire HPC community—previously operating as seven separate regional consortia competing for resources—to work together on the development of a unified HPC strategy for Canada. The \$88 million is comprised of \$60 million from the CFI National Platforms Fund, \$18 million from the CFI Infrastructure Operating Fund, plus \$10 million from NSERC. This major investment will ultimately benefit more than 6,000 investigators doing intensive computationally-based research at over 60 institutions across the country. Over the past several years, rapid developments in HPC technology have revolutionized the way research is done. Capable of performing calculations thousands of times faster than a regular desktop computer, HPC technology can produce results in a single day that would normally take a year or more. For more information, please visit [www.innovation.ca/media/](http://www.innovation.ca/media/).

## NANOG (the North American Network Operators' Group) in Toronto

The organization hosted its 39th conference in Toronto from this week at the Sheraton Centre. The Feb. 4 to 7 conference provided a forum for information exchange for over 350 engineers, network operators and researchers in attendance. The keynote speaker was Mark Kortekaas, Chief Technology Officer of CBS Interactive for the American television network, who explored the question of the hour among network operators the world over, "Video over the Internet: Can we break the Net?" One of the sessions looked at the impact of the six large earthquakes that hit Taiwan last December, severing major cables and causing major disruption to Internet routing. Additional topics included the debate over net neutrality, attacks on ISPs by hackers, and protecting user privacy when tracing network traffic. The Toronto conference was co-hosted by the Toronto Internet Exchange and Teleglobe, a VSNL International company. ORION was also a sponsor. NANOG meetings are organized by Merit Network, Inc., Michigan's research and education network. For conference abstracts, visit [www.nanog.org](http://www.nanog.org).

## Registration now open for Megaconference Jr.

Registration is now open and the schedule of presentations posted for the fourth annual Megaconference Jr. on February 22. Megaconference Jr. gives students in elementary and secondary schools around the world the opportunity to communicate, collaborate and contribute to each other's learning in real time, using advanced multi-point videoconferencing technology. Participants will be able to address questions to presenters and to collaborate with geographically diverse peers in collaborative learning activities, thus building international cultural awareness. Join over hundreds of sites from countries all around the world including Portugal, Australia, Canada, Japan, Indonesia, England, Spain, Slovenia, Pakistan, and the U.S. Participants will also have a chance to win exciting prizes from vendor sponsors Polycom, Center for Interactive Learning and Collaboration (CILC), and VuPorts. Register at: [www.megaconferencejr.org/](http://www.megaconferencejr.org/).

## Ontario schools join Student TV

Several Ontario colleges and universities have responded to the call to join the new Open Student Television Network (OSTN) and submit student television content to the new IP-based television channel. The channel is multicast over Internet2 and available to ORION-connected institutions in Ontario. A number of institutions have started the process to transmit the channel on campus and work with students and faculty to submit content. The first to join was Belleville's Loyalist College, last fall. Several schools have followed suit, including Brock University in St. Catharines, Cambrian College in Sudbury, Fanshawe College in London, Georgian College in Barrie, Humber College in Toronto, Queen's University in Kingston and York University in Toronto. Niagara College, which recently opened its newly-renovated broadcasting facility, after a \$1 million renovation, is also looking to join. A live stream of OSTN is available for viewing from the ORION Student TV portal. Learn more at [www.orion.on.ca/research/orionstudenttv.html](http://www.orion.on.ca/research/orionstudenttv.html).

## Ontario looks at broadband

Ontario has launched a process to consider the social and economic development potential of broadband. Working in collaboration with the Ministry of Government Services, the University of Toronto's Knowledge Media Design Institute (KMDI) facilitated a preliminary workshop in December, involving public policy and academic officials. As a result, several research questions have emerged to set the stage for a broader consultation. The government has issued a Call for Papers to the academic community to provide a "state-of-the-art" look at the Ontario context and consider best practices and directions in other jurisdictions. The papers will explore the implications for the role of government, the private sector, the community, and academia in supporting the utilization of broadband for social and economic development. The ministry is also working with The Ontario Rural Council to host community working sessions in February and March, to seek input on the potential for broadband in rural areas. A broader workshop, in late spring, will look at the findings from the previous workshops and research papers, bringing together community representations, academic and representatives from public and private sectors. Learn more at <http://kmdi.utoronto.ca/broadband>.

## People News

**John Levay** started as the new Director of Information Services at Niagara College in January. John, who also teaches, will continue to teach at Brock University and Niagara College. **Ken Woo**, Information Technology Director at Ryerson University is the new Chair of GTAnet. He replaces York University's Bob Gagne in the position. Other positions on the GTAnet board include Vice-Chair **Thomas Goldthorpe** of the University Health Network, Secretary **Robert Botham** of Humber College and Treasurer **Eugene Siciunas** and NOC Manager **Bob Chambers**, both of the University of Toronto. **John Davies**, currently Vice-President Administration, was recently announced Humber College's third President and Chief Executive Officer. He will succeed Dr. Robert A. Gordon, effective July 1, 2007. **Mamdouh Shoukri**, currently the Vice-President of Research and International Affairs at McMaster University, has recently been appointed the seventh President and Vice-Chancellor of York University, after current president Lorna Marsden retires this summer after 10 years.