2008 ORION Award winners announced!

Read the news release...

Watch the Awards presentation...

Some of the world’s best and most innovative researchers, educators and technology leaders are right here in Ontario.
Each year, we present the ORION Awards to innovators to recognize their achievements as champions of advanced technologies in scientific research, teaching and learning. They are committed to making a difference in driving innovation and next-generation research and learning in Ontario.

We wish to thank all those who submitted a nomination for the 2008 ORION Awards. Stay tuned for more information about the 2009 ORION Awards.

Winners were announced at the Powering Innovation: A National Summit at the Metro Toronto Convention Centre on November 4, 2008.

ORION Award winners and nominees come from many fields, such as physics, engineering, medical research, architecture and design, teaching and learning, and others.

If you and your work are making a difference in leveraging advanced networks, new and innovative technologies and resources to drive next-generation research and learning, we want to hear from you!
2008 ORION Awards
Celebrating Ontario’s contribution to research, teaching and learning

TORONTO – International research collaborations and innovations that are transforming medical training and film production, and taking teaching and learning to the next level in virtual environments, are being recognized with Ontario’s annual ORION Awards.

Presented at the “Powering Innovation: A National Summit” conference at the Metro Toronto Convention Centre today, the ORION Awards recognize achievements in Ontario research, education and scientific discovery.

“This year’s winners represent the cutting edge of technology and innovation, much of it pioneered right here in Ontario,” says Phil Baker, President and CEO of the Ontario Research and Innovation Optical Network (ORION), which presents the awards. “It’s vital to celebrate these home-grown success stories and raise awareness of the phenomenal work that our scientists, researchers and educators are engaged in, and the impact it is having here at home and around the world,” he said.

The winners have also received acknowledgements from Ontario Premier, Dalton McGuinty.

2008 ORION Award winners:

Ryerson University and CineGrid are the winner of the ORION Discovery Award. The Toronto school is a founding member of CineGrid, a global research consortium that uses advanced networks and collaboration production technologies that are revolutionizing motion picture production and distribution. The school’s digital cinema team at the Rogers Communications Centre - led by Director Dr. Paul Hearty - is helping to establish Ontario and Canada as leaders and hub of expertise in these new technologies.

The Northern Ontario School of Medicine (NOSM) is winner of the ORION Learning Award. The school, which shares main campuses in Sudbury and Thunder Bay, is training the next generation of physicians and nurses in a distributed and interactive teaching and learning environment. NOSM points to a long list of innovative programs, including a cross-border collaboration with California’s Stanford School of Medicine and the iAnatomy project, which uses advanced networks to allow faculty and students to view and manipulate hyper-realistic tissue objects using advanced 3D stereoscopic equipment.

Dr. Todd Sands of the University of Windsor is winner of the ORION Leadership Award. The Executive Director and CIO of Windsor’s Centre for Smart Community Innovation is a recognized pioneer in the development of community-based broadband networks, which have played a critical role in bringing the benefits of advanced technologies and “connectivity” to regional communities. The former chair of the Regional Networks of Ontario is also one of the founders of the ORION network. His efforts have driven the Windsor-Essex region’s smart community successes and shaped the growing recognition that advanced technology and connectivity are critical to economic development and attracting investment in research and innovation across Ontario.

Awards of Merit

Hundreds of Ontario students have been inspired to consider a career in sciences as a result of the Virtual Researcher on Call (VROC) program, winner of the ORION Discovery Award of Merit. An initiative of Partners in Research, VROC connects high school students with scientists and experts in
university and research institutions through videoconferencing over advanced networks. Based at the University of Western Ontario, the program’s goal is to educate students and build interest in science at a critical point in academic development and decision-making. The program has so far linked 36 school boards with more than a dozen universities and labs.

The Virtual World Design Centre at Loyalist College is winner of the ORION Learning Award of Merit. The Belleville, Ontario school, the first Canadian college to build a campus in the virtual world of Second Life, now shares its expertise in designing virtual environments for clients around the world. The college is leveraging the knowledge and best practices it identified in creating its virtual campus to launch a design centre, which now contributes to the development of online and virtual environments for several other educational institutions, government organizations and businesses around the world.

Winner of the ORION Learning Award of Merit, Alice (Experiments) in Wonderland - A Convergent Telematic Performance is a cross-border collaboration that is pioneering a new form of theatre, using a blend of live and virtual elements in real time over advanced networks. Students from the University of Waterloo, the University of Central Florida and Bradley University in Illinois collaborated to perform the play for both local and remote audiences in a live performance that bridged hundreds of kilometers over ORION, CANARIE and Internet2. Over 100 faculty, students and staff were involved in the ground-breaking experiment.

Few people can claim to have contributed to the development of the Internet. Dr. Hussein Mouftah, winner of the ORION Leadership Award of Merit, is one of those people. The Canada Research Chair in Optical Networks and professor in the School of Information Technology and Engineering at the University of Ottawa is a world-renowned researcher and instructor who has contributed greatly to the knowledge of advanced networks and telecommunications. In a career spanning more than 30 years, he has been a prolific source of information and teaching for the researchers under his tutelage and network engineers worldwide.

York University’s CIO Robert (Bob) Gagne is winner of the ORION Leadership Award of Merit. Mr. Gagne has been instrumental in building the information technology platform that has helped the university establish its status as a world-class research institution. A co-founder and chair of GTAnet, Gagne played a critical role in the creation of the ORION network and ORION Point of Presence (PoP) at York, providing the leadership that helped ensure several critical research and postsecondary institutions in the GTA were able to leverage ORION to advance their research and education capabilities.

About ORION
The Ontario Research and Innovation Optical Network (ORION) is Ontario’s ultra high-speed research and education network which connects all of Ontario’s universities, most colleges, several medical and other public research facilities and a growing number of school boards to one another and to the global grid of research and education networks. Stretching 5,800 kilometres over 21 communities throughout Ontario, ORION connects over 1.3 million Ontario researchers, scientists, students, teachers and staff to critical infrastructure for research, education and innovation. Learn more at www.orion.on.ca.

Full descriptions of the winners are available at www.orion.on.ca/2008awards.

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For further information, please contact:
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The 2008 Awards were presented to outstanding projects, initiatives and leaders in research and education at a ceremony held at the Metro Toronto Convention Centre on November 4, 2008. Read all about the initiatives and outstanding individuals recognized this year.

Our 2008 winners:

**Ryerson University and CineGrid**

**Northern Ontario School of Medicine E-Learning Initiatives**

**Dr. Todd Sands**

Winner of the 2008 ORION Discovery Award

**Ryerson University and CineGrid**
Ontario and Canada have claimed a foothold in the future of filmmaking, thanks to Ryerson University and its use of advanced networks and collaboration production technologies, which are about to revolutionize motion picture production and distribution. Ryerson is a founding member of CineGrid, a global consortium of research labs devoted to further development and demonstration of digital cinema technology. The school’s digital cinema team at the Rogers Communications Centre - led by the visionary Dr. Paul Hearty - is helping to establish Ontario and Canada as leaders and hub of expertise in these new technologies. In a successful world-first demonstration of a real-time collaboration over ultra high-speed networks, Ryerson recently utilized a dedicated high-capacity “lightpath” - provided by CANARIE and other networks - to work with partners in Prague and San Diego on the post production of digital motion pictures across the globe.

Read more...

Winner of the 2008 ORION Learning Award

Northern Ontario School of Medicine (NOSM) E-Learning Initiatives
The Northern Ontario School of Medicine (NOSM), the first new medical school in Canada in 35 years, is ushering in revolutionary changes in the teaching and training of healthcare professionals. By taking advantage of ORION and collaborative teaching and learning technologies, NOSM is training the next generation of physicians and nurses in a distributed and interactive teaching and learning environment. It has become a recognized leader in e-learning by embracing and deploying innovative multimedia resources and numerous custom-developed interactive applications. NOSM points to a long list of innovative programs, including the use of ORION and its connectivity over CANARIE and California's CENIC advanced networks, to partner with California’s Stanford School of Medicine to participate in the iAnatomy project. It allows faculty and students to view and manipulate hyper-realistic tissue objects using advanced 3D stereoscopic equipment.

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Winner of the 2008 ORION Leadership Award

Dr. Todd Sands
When one thinks of community-based networks in Ontario, it's hard not to think of Windsor and Dr. Todd Sands. The Executive Director and CIO of Windsor’s Centre for Smart Community Innovation is a recognized pioneer in the development of community-based broadband networks, which have played a critical role in bringing the benefits of advanced technologies and “connectivity” to regional communities. The former chair of the Regional Networks of Ontario is also one of the founders of the ORION network. His efforts have driven the Windsor-Essex region’s smart community successes and shaped the growing recognition that advanced technology and connectivity are critical to economic development and attracting investment in research and innovation across Ontario. Part of his legacy is helping ensure that the benefits of advanced networks and smart community developments are part of the region’s education and economic development agenda and recognized as critical to attracting investment in research and innovation locally.

Read more...
Hundreds of high school students throughout Ontario have been inspired to consider a career in science or research, as a result of the Virtual Researcher on Call (VROC) and its innovative program. An initiative of Partners in Research, VROC connects high school students with top scientists and experts in university and research institutions through video conferencing over high-speed and advanced networks, including ORION. Based at the University of Western Ontario, the program has so far linked 36 school boards with more than a dozen universities and labs to create virtual “show and tell” presentations. Its goal is to educate students and build interest in the sciences at a critical point in academic development and decision-making. In two short years, VROC has facilitated over 140 virtual sessions, on more than 100 unique and scientific important topics. Plans are now being made to expand the program both regionally and grade category.

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Loyalist College, the first Canadian college to build a campus in the virtual world of Second Life, is now sharing its expertise in designing virtual environments with the rest of the world. The Belleville, Ontario college is leveraging the knowledge it gained and best practices it identified in creating its own virtual environment in Second Life to launch a unique and innovative Virtual World Design Centre. The Centre, now at the heart of the virtual environments created for Loyalist College, today contributes to the development of online and virtual environments for several other educational institutions, government organizations and businesses around the world.

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Alice (Experiments) in Wonderland: A Convergent Telematic Performance
Pioneering a new form of theatre, using a blend of live and virtual elements in real time over advanced networks, researchers, drama faculty and students in Ontario and in the US are introducing a revolutionary way of staging live theatrical performances. Alice (Experiments) in Wonderland – a Convergent Telematic Performance is a cross-border collaboration, where students from the University of Waterloo, the University of Central Florida and Bradley University in Illinois used technology to perform the play together for both local and remote audiences. The live, simultaneous, real-time performance utilized ORION, CANARIE and Internet2 networks to bring together actors from locations hundreds of kilometres apart in the same production. Over 100 faculty, students and staff were involved in the experiment and were able to learn the nuances of staging a live performance in which the actors engaged local audiences as well as remote actors and audiences via multicast and projection screens. The project extended and advanced work done earlier by the same group of collaborators on the classic American play The Adding Machine for which they recently received the prestigious Internet2 IDEA Award.

Read more...

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Winners of the 2008 ORION Leadership Awards of Merit

Dr. Hussein Mouftah
Orion Awards

Dr. Hussein Mouftah (centre), Canada Research Chair in Optical Networks and professor in the School of Information Technology and Engineering at the University of Ottawa, with ORION President/CEO Phil Baker (left) and ORION Board Chair Maxim Jean-Louis (right).

Few people can claim to have contributed to the development of the Internet. Dr. Hussein Mouftah - Canada Research Chair in Optical Networks and professor in the School of Information Technology and Engineering at the University of Ottawa - is one of those people. A world-renowned researcher and instructor who has contributed greatly to the knowledge of advanced networks and telecommunications, Dr. Mouftah’s research has been seminal to the understanding of high-speed and optical networks, switching architectures, wireless cell communications, traffic engineering, quality of service and performance modeling. His work has contributed to the development of the Internet as we know it today. In a career spanning more than 30 years Dr. Mouftah has been instrumental in the furthering of advanced networks, and has been a prolific source of information and teaching for the researchers under his tutelage and network engineers worldwide.

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Robert (Bob) Gagne
Bob Gagne, CIO at York University has been instrumental in helping the university provide the advanced and collaborative information technology platform that has helped York University establish its status as a world-class research institution. Through his vision and leadership, Gagne has helped further the communication and research capabilities of the Greater Toronto Area and further advance Canada’s innovation agenda. He played a critical role in the creation of the ORION network and helped coordinate the establishment of a critical ORION Point of Presence (PoP) at York. As a co-founder and chair of GTAnet, Gagne provided the necessary leadership and support that helped ensure the participation of several critical research and postsecondary institutions in the GTA to take advantage of ORION to advance their research and education capabilities.
The projection of light has always been at the root of cinema technology, but now filmmakers, researchers and experts around the world - including students and researchers at Toronto’s Ryerson University - are teaming up to help lead the digital transformation of film production.

Ryerson - one of Canada’s top media schools - is a founding member of CineGrid research consortium, along with the University of California San Diego, the University of Southern California, and Keio University in Japan. The research focuses on networked collaboration tools that allow the production and exchange of extremely high-quality digital media over photonic networks like ORION and CANARIE.

Digital cinema technology can produce extremely high-quality images, which are as good as or better than film, can reduce studio distribution costs, provide greater content protection and open up opportunity for unique theatre features, but with significant bandwidth needs.
Under the leadership of Rogers Communications Centre Director Dr. Paul Hearty, Ryerson’s new digital cinema lab is helping to position the university and Toronto as a hub in this emerging digital, film-production environment.

Collaboration between the lab and others around the world explore and experiment with the benefits of digital technology is already taking place over 10-gigabit Ethernet lightpath connections.

In a world first, Ryerson and its partners recently successfully completed a transatlantic high-speed film production collaboration demonstration, using a “lightpath provided by CANARIE, Canada’s advanced network organization,” and its links to the global grid of ultra high-speed research networks, including California’s CENIC network.

The demo linked the Toronto site to its CineGrid partners in Prague and San Diego. Footage from a 4K digital camera was transmitted over fibre optic links 10,000 km away to San Diego for processing, and delivered to Ryerson via lightpath for editing and colour correction in real time.

The ability to collaborate in real time on the post production of digital cinema, while multiple parties are able to view and edit the same images from great distances away, are expected to bring a dynamic change to how films are produced.

This network-enabled research collaboration is particularly relevant for Toronto and San Francisco, both homes to significant creative resources in post-production work, leading to growth in the local media industries, in accord with the Digital City Network Agreement, of which the two cities are a part.

Dr. Hearty believes the technology has the potential to place Toronto and Canada at the forefront of the emerging digital cinema movement as a leading post-production centre.
Visit the CineGrid website at www.cinegrid.org. Read more about the Rogers Communications Centre at www.rcc.ryerson.ca.

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