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VROC E-News

THE LATEST

Changes to the On The Fly program for the 2012-2013 academic year

At VROC we are always looking to improve our programs in an effort to make them as effective as possible for teachers, students and experts. *On the Fly* was an exciting new VROC pilot program offered in the 2011 -2012 school year. Based on the review and thoughtful comments we received from teachers and experts, we are making changes to the structure of the program for 2012-2013.

Phase one matched a teacher with an expert for a semester. The goal was to provide students with the opportunity to connect with an expert weekly at a prescheduled time. We found scheduling conflicts, timetable changes and other commitments interfered with the prearranged meeting times. This limited the students' ability to connect with the expert and have their questions answered. We also found that teachers and students wanted more frequent access to the expert to get answers to their questions as they came to mind.

With this feedback VROC will be rolling out phase two of the *On the Fly* program. Teachers participating in the program in 2012 will be placed in videoconferencing groups based on specialty (ie. biology, chemistry, math, etc.) Starting in September 2012, when a teacher logs into the video conferencing program (ClearSea) they will see a list of experts relevant to their speciality. With one click teachers will have access to experts online, available and ready to take the call. The call will be brief (5-10 minutes), unscheduled and spontaneous. In short, a true expert on call!

Information packages will be distributed to schools in Ontario in the last week of August. You can also contact us at any time for program information.



NOTABLE GUESTS



VROC hosted 200 virtual learning sessions this year!

This virtual learning session with Lisa Neville, a PhD candidate at Carleton University is not to be missed. She tells grade 10 science students at Westview Centennial Secondary School about her research using microorganisms to test for contamination in the Alberta Oil Sands and surrounding areas. Lisa also suggests several potential job opportunities. Although, her job which includes flying in and jumping from helicopters seems the most exciting! **Watch HERE!**

CORPORATE SPONSOR



VROC is actively seeking a major corporate sponsor for its Reaching Every Student program and podcasting initiatives for the 2012-2013 academic year.

Is your organization interested in encouraging students to learn about health and natural sciences, technology, engineering and mathematics?

Contact Us for a sponsorship package

The challenge of connecting Canada's north



by Jeff Seifert posted in the Cisco Canada Blog on June 11, 2012

There are many challenges that face people living in Canada's far north. The problems around availability of housing, low rates of student graduation, health care challenges, substance abuse and high rates of suicide are all tragic in a country that is one of the most successful in the world. These are some of the difficult topics that the Conference Board of Canada, Canada's largest think tank, is trying to tackle with the creation of "The Centre for the North". Last week, members from federal, provincial, territorial governments, non-profit organizations, foundations and private industry met in Iqaluit, Nunavut to discuss the challenges and possible solutions. My colleague, Willa Black and I had the opportunity to participate at the conference on a panel around connectivity and education in the north. We also had an opportunity to meet a number of organizations in Iqaluit focused on change.

As a background, Nunavut is the newest territory in Canada whose size encompasses 1/5 of all land in Canada. It is also distinct in that all 25 communities in the territory are only accessible by air or sea. There are no roads. This creates numerous challenges. For instance, the territory has one hospital (in Iqaluit) with only nurse stations in the other 24 communities. These communities can be over 2,000 km away from the nearest hospital, meaning airlifting patients to Iqaluit or hospitals in southern Canada are a regular occurrence. Despite this challenge and the lack of fibre optics-based high speed network connectivity that we enjoy in southern Canada, there is a tremendous entrepreneurial spirit in the North.

We met with individuals from the Government of Nunavut who have been running a telehealth program for a number of years that connects community nursing stations with the hospital in Iqaluit, and hospitals in Ottawa. In an area where teenage suicides are higher than most places in the world, tele-psychiatry is an area where HealthPresence can be extremely useful. In addition to enabling patients to access to doctors without having to travel, Telepresence is being used to connect separated family members in hospitals with their family at home. This form of video conferencing runs over low bandwidth via satellite, which makes it easier for hospitals to deploy, and the Government of Nunavut is working aggressively to incorporate some of the newer Cisco technologies, like the Cisco EX90, to improve the service further.

We also witnessed that growth in the community has expanded faster than housing can keep up. As industry increases in the north, with vast natural resources, the need for skilled workers is constantly rising. There are large numbers of unfilled job positions, while unfortunately unemployment among the local population runs extremely high. Both leaders of northern-based businesses and the Government talked about the difficulties in filling positions with the local Inuit population, or in attracting workers from the south. They face fundamental challenges attracting youth to complete school, enter trades or take up higher education. Part of the solution may be to leverage the Internet and video technologies to educate students, find mentors and inspire them to stay in school. Our fellow panelists included two teachers from Iqaluit and a leader from the Arctic College. We discussed the limitations of the current technology infrastructure in these schools and how, if network bandwidth could be increased, video could change a student's education experience. We discussed how VROC (virtual researcher on call), a program that runs in southern Canada, can really inspire students by bringing scientists, astronauts and engineers – at the teachers request – into the classroom via two-way video. We look forward to piloting solutions that can bring these technologies, leveraging what bandwidth exists in the communities, to the north over the months and years ahead. The Arctic College is an example of an institution that is already making significant progress in bringing innovative programs to its three main campuses, but with limited accommodations for students from other communities its key to growth will be distance education using video. We are excited to be working with the Arctic College to launch one of the most northern Cisco Network Academy in the world this fall.

Cisco will continue to help provide technology like advanced video endpoints, wide area application services and content delivery networks that will make the most of what bandwidth exists in northern Canada.

What is really clear is the need to address the much larger issue of the unavailability of high bandwidth connectivity in southern Nunavut communities. There are a number of potential long term solutions, including a northern arctic fibre route to dramatically increasing capacity on existing, and possibly new, satellites. It will truly take a holistic approach, involving the public and private sector, to truly find solutions to these challenges.

The Centre for the North is, and will continue to be, key in helping pull together these resources to drive change, and Cisco will be there to help play a key role in connecting the north.

Positively Altering the Trajectory of Students' Lives



By Nicole Tate-Hill, National Program Manager

I had a fantastic week traveling around southern Ontario meeting the teachers who participated in the On the Fly pilot project. I am so happy as VROC's new National Program Manager to continue this program for the 2012-2013 school year.

As a student I remember that important teacher who changed the way I perceived my world and opened my eyes to new opportunities. I wanted to thank all of the teachers that participated in this year's program. You helped make learning fun while exposing your students to the exciting opportunities that will be available to them as young adults and professionals.

There were many examples of teachers using the program creatively to enhance the learning experience of their students. I wanted to share a few.

Carolyn Williams, a teacher in the Avon Maitland District School Board gave her students the freedom to ask questions directly related to their class and about the practical applications for their subject, "Chemistry in the Media".

Ryland Henderson, a teacher with the York Region District School Board ensured that his class' expert, Thomas Merritt of Laurentian University was able to listen to his students' questions and relate that information back to them at an appropriate level.

David Martin's, Durham District School Board Grade 11 and 12 computer classes were matched with Dr. Mike Katchabaw from Western University and Tania Dunn, from Cisco Systems Canada. David found their interactions so valuable he even included an exam question that centered around information provided by one of their experts.

I also must acknowledge the Experts for their time and enthusiasm!

This story blew me away...Tania Dunn enjoyed the experience with David Martin's class so much that she agreed to visit the classroom, in person to talk to the students. Then, Tania invited the students to tour Cisco's head office in Toronto! When the students arrived she had an exciting day planned for them, which included a meeting with the Director of Sales.

Could you use On the Fly to enhance the learning of your students?

For more information or to sign up for next year please contact me, Nicole Tate-Hill.

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A message from the Executive Director



It has been an incredible year for the Virtual Researcher On Call program. Students have been reached in record numbers and we've established partnerships with more organizations and more teachers than ever. The VROC program grew exponentially during the 2011-2012 academic year and exciting things are to come.

A partnership with the colleges of Ontario will grant students access to new programs and will translate into new mentorship and career opportunities. We are actively pursuing an expansion into Alberta and Quebec and will engage more francophone students this year as well.

I couldn't be more excited about the possibilities for students and teachers that VROC participation will be bringing this fall - stay tuned to our new website which will have all of the information released in August! Thanks to everyone who helped make 2011-2012 a tremendous success!

Mr. Kevin Cougler,
Partners In Research
Executive Director

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