

Andy and Alex are among thousands of students who have taken part in CanAssist activities



# inspired

## Students gain experience and make a difference

Andy Huerlimann and Alex Vargas seem to be travelling on parallel paths lately.

The two friends met early in the mechanical engineering undergraduate program at UVic. Both worked long hours in Alberta's oil patch during their second year. And, most recently, both applied for the same co-op position at CanAssist.

"There was only one opening and we both really wanted the job," Andy recalls. "So we made a bet: whoever got the job had to buy the other guy a meal."

In the end, neither was out of pocket. A second co-op position came open and both young men were hired to work at CanAssist during the summer session.

Each worked on a range of projects that they delivered to people with disabilities in B.C. And both say they loved the practical, hands-on approach at CanAssist.

*(Continued on page 7.)*

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## What we do

CanAssist is dedicated to empowering those with disabilities to improve their quality of life. Our talented team develops customized technologies and innovative services for people with special needs where there is a gap in existing services. We accomplish our work in partnership with the exceptional people and resources at UVic as well as those in the wider community.

At CanAssist, we are passionate about increasing opportunities for people with disabilities so they can participate in all aspects of life. Join us in working together toward a fully inclusive society.



University of Victoria



## Nigel's notes...

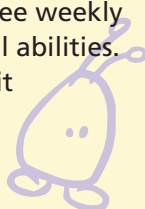
Many people think of CanAssist as having a single core mandate – to produce innovative technologies and services that improve the quality of life and increase the independence of persons with disabilities. The fact is that we have another very critical goal and that is to engage students as widely as possible in our program. Apart from providing students with deeply meaningful and rewarding experiential learning opportunities, we hope that they come away from our program with an increased knowledge of disability issues and a reinforced commitment to good citizenship. It is our belief that these students have the potential to be outstanding champions for social change that will lead to increased inclusion of those with special needs.

It is always a pleasure to work with students, to benefit from their energy, their enthusiasm and their passion. In this issue of *Inspired* we highlight some of the wonderful contributions that students have made to our organization and to the lives of the people with whom we work. They are definitely a key part of our success story.

*Nigel Livingston is the Director of CanAssist.*

## Youth programs at CanAssist

CanAssist provides many services for young people. These include: **TeenWork**, a program that guides teens with special needs in finding paid, part-time employment; **VOCYL**, a youth leadership program in which young people with and without disabilities take the message of inclusion to area schools and beyond; and **Just for Kicks**, a free weekly soccer program for children of all abilities. For more information, please visit [www.canassist.ca](http://www.canassist.ca).



## CanAssist ingenuity helps cyclist bring home gold

Karen March is a highly accomplished athlete who has competed in wheelchair sports all over the world, including the 2004 Paralympics in Athens.

Her latest passion is paracycling, in which competitors use their arms to power a recumbent three-wheeled racing bike in often long and gruelling road races.

But Karen, who became quadriplegic following a car accident in 1988, discovered that she was at a huge disadvantage in her racing category. Unlike her peers, she doesn't have the fine motor dexterity in her hands to be able to control the brakes and gears located on the bike's handlebars.

So she and her husband, Peter Lawless – who is also her coach – came to CanAssist for help. Our team's first step was to find a way for Karen to shift gears while keeping her hands on the handlebars.



Working with a commercial electronic gear system,

CanAssist's Paul Green, Peter McGuire, Ken Von Schilling and Brandon Fry (L-R) are among those who worked on Karen's hand cycle. Peter

McGuire and co-op student Paul Green altered the existing wiring and installed a "sip-n-puff" device that would allow Karen to change gears using her breath.

The next step was to find a way for Karen to brake without disengaging her arms from the handles. CanAssist's Brandon Fry and co-op student Ken Von Schilling created a complex new housing and brake system that is engaged by pedalling backwards.

In the end, CanAssist's work was an enormous success and has helped Karen compete on a level playing field. She became the World Cup champion for 2011 in her division and is expected to be named to the Paralympic Team in 2012.

"I will say it over and over – if not for the system CanAssist made for me, this would have never happened," said Karen.

## A great friend to CanAssist passes away

It was with great sadness that CanAssist staff learned of the sudden passing of Ross McLeod, the founder, chairman and CEO of the Great Canadian Gaming Corporation (GCGC). Mr. McLeod, who died Sept. 5, has been a very generous supporter of CanAssist for almost a decade and his contribution has been critical to our growth and success. Specifically, his funding has helped CanAssist respond to more requests for devices, strengthen our research program, and expand our

operations to provide student placements and training opportunities for people with disabilities. "Ross was an extraordinarily generous, kind and thoughtful man," said CanAssist Director Nigel Livingston. "His contribution to CanAssist was huge and will always be remembered."

Mr. McLeod founded Great Canadian Gaming in 1982 and dedicated his life to philanthropy and the betterment of our community.

## Ethan learns new ways to take part in Grade 1



Ethan Copeman is as inquisitive, exuberant and precocious as a six-year-old boy can be. But his physical limitations were making it very difficult for him to participate in some elements of his Grade 1 classroom.

Having a condition called Arthrogryposis means Ethan has severely restricted movement in his joints. He manages to move his right arm by biting down on an attached armband and hoisting his limb into position with his mouth. But he can't raise his hand to ask a question in class; and at playtime, it's impossible for him to participate in most activities.

Hoping to find a way for Ethan to gain independence in communication and to experience more inclusion during playtime, his learning support teacher contacted CanAssist.

After meeting with Ethan, Paul Leslie, an electrical engineering specialist, adapted a light fixture typically used on boats, which casts a bright, narrow beam. The battery-powered LED light was attached to the back

of Ethan's wheelchair with a height-adjustable mount and wired so it could be activated by any accessibility switch.

"By pushing the switch on his wheelchair tray, Ethan can turn on the light when he wants to get the teacher's attention," says Paul (shown with Ethan in the photo).

Next, Paul turned his attention to modifying a remote control car. He purchased a toy monster truck with two joysticks – one controls forward-backward movement, the other steers the car left and right. He dismantled the toy's remote control and interfaced it with a circuit he designed. These changes would allow Ethan to control the car from a specially constructed joystick on which he could rest his arm. The joystick was embedded into a vinyl platform that could easily be removed and cleaned.

On delivery day, Ethan was bubbling with excitement. Not surprisingly, the toy car was a huge hit among all the Grade 1 students, who eagerly lined both sides of a school hallway and cheered as Ethan test drove it. As well, after just a bit of instruction, he could successfully activate his new *Classroom Alert System* by resting his hand on the switch and pressing down. Ethan's learning support teacher, Anne Harbottle, says Ethan will be able to use his alert system for years to come and that his toy car is getting a lot of use and attracting much positive attention.

"It is wonderful for Ethan to have the car to play with when his peers are in gym," she says. "He is able to drive it as well as his peers, which gives him a great sense of pride. It also makes him feel more included in gym activities that he normally would feel he is missing."



# STUDENT ENGAGEMENT

Student participation is truly a crucial part of CanAssist. Since our early days more than a decade ago, young people from UVic, from schools in the community, and from campuses across Canada and in other countries have been instrumental in making our program a success.

Students engage in CanAssist activities in many ways: as co-op employees, graduate students, volunteers, work-study participants, and as overseas visiting students. Others get involved by enrolling in UVic courses that involve CanAssist or through one of our community-inclusion programs.

To date, several thousand students from virtually every discipline, and from middle school through to the university graduate level, have been involved with CanAssist. Those who have worked in our labs have been provided with deeply rewarding learning opportunities. These students are given the chance to practice their skills, take on challenging academic or technical projects, and at the same time gain the tremendous satisfaction of having had a direct impact on the quality of life of a person with a disability.

The articles on **pages 4 and 5** profile just a few of the students who are making such a difference at CanAssist.



For **Nathanael Kuipers**, one of the most intriguing things about CanAssist is the way it brings together so many overlapping disciplines. It's a great workplace for someone who has himself taken a somewhat "interdisciplinary approach" to life.

After completing his undergraduate degree in biology, Nathanael worked as a DNA sequencing technologist. Later he explored frontline veterinary work. Today, he's pursuing a graduate degree in computer science, focusing on "wayfinding" software, which helps adult survivors of brain injury plan and follow a route.

Nathanael, who spends part of his week working at CanAssist, says he appreciates

that staff here find a good balance between scientific inquiry and its real-world application.

"At CanAssist, you can't be a computer genius who doesn't have great people skills," he says. While CanAssist engineers design technologies, they must also interact well with each other, their clients, and out in the community. "You have to be a balanced individual, which means you're surrounded by other balanced individuals."

Nathanael doesn't expect his research to yield a product in the immediate future. But by contributing his work in a place "that's about action," Nathanael has positioned himself right at the crossroads where research and practical application meet.



Shane provides on-site job coaching to Drew, a teen participant working at the Red Barn.

**Shane Morrissey** knows first hand the benefits of being a teenager with a job.

“I’ve worked as a lifeguard, in construction, in landscaping and in both the hospitality and retail industries,” says Shane, whose youthful appearance belies so much experience. “I know the value work can bring.”

Shane, a fourth-year sociology student at UVic, first joined CanAssist in a co-op position, working as a job coach in our *TeenWork* program. The program is aimed at high school students, ages 15 to 19, with special needs. *TeenWork* helps them find and retain meaningful, part-time employment, and later supports them as they transition to adulthood.

Shane says he loves the atmosphere at CanAssist and is inspired by the team’s creative energy. Today, as a regular, part-time staff member, Shane continues to coach teens through the entire employment process: from building a résumé and preparing for an interview, to learning relevant job skills and eventually working independently.

“Watching the teens become more confident in their jobs and seeing the effects that meaningful work has beyond the workplace has been a powerful experience,” says Shane.

“The experience at *TeenWork* has provided me with a direction for the future – it will be guiding my career choices after graduation.”

Not long ago, a family connection suggested that **Lindsay Brookes** take a tour of CanAssist. The experience made such a good impression, she applied to become a volunteer.

Lindsay, a second-year science student at UVic, comes in once a week to work with research evaluator Nairne McInnis at CanAssist’s offices on campus. While Nairne works on the *Dynamic Keyboard* – a software program that helps those unable to use a keyboard to operate a computer – Lindsay sits nearby to help in any way she can.

“I’m there for support – though Nairne does most of the work – and as company as well,” Lindsay says. “We’ve developed a really good friendship.”

Even though Nairne communicates non-verbally, this has not hindered their mutual understanding; if

anything, it has strengthened it. “We can now almost read each other’s minds!” Lindsay says.

For Lindsay, this new way of communicating has opened her eyes. Until now, Lindsay’s peer group was made up primarily of students like herself, and she’d had very little interaction with anyone living with a disability. She believes volunteering at CanAssist is a positive way for students to expand their social awareness and experience.

Of course, it’s not just Lindsay who gets a sense of achievement and fulfillment from working at CanAssist.

“For Nairne, typing three pages using the *Dynamic Keyboard* is quite an accomplishment,” Lindsay says. “So I think it’s a rewarding experience for her too.”



Student volunteer Lindsay (left) works with research evaluator Nairne.

## Making news at CanAssist



### Funding to promote independence in B.C.

B.C. Premier Christy Clark recently announced funding to help seniors and people with disabilities remain as independent as possible while still living at home. Most of the funding will support an innovative partnership between CanAssist, Tyze Personal Networks and the PLAN Institute for Caring Citizenship. These partners will combine their expertise to create Connect for Care, new online tools that will help connect clients with their families, their caregivers and health care providers. In addition, a portion of the funding will support CanFITT, a partnership between CanAssist and the Vancouver Island Health Authority. This will demonstrate the use of customized technologies to improve the quality of life of clients receiving services through the Choice in Supports for Independent Living program.

### Little Thai Place assists CanAssist

Half the proceeds from Little Thai pre-packaged meal sales will be donated to CanAssist. All four Little Thai restaurants - Shelbourne Plaza, Langford, Cook Street and West Saanich - are selling the meals, which can be reheated to enjoy at home or in the office. Funds raised during the year-long initiative will help CanAssist develop new technologies and innovative programs for people with disabilities. CanAssist is very grateful to the Little Thai Place for its wonderful support.

### Heron Rock event a great success

About 100 people came out to support CanAssist for a wonderful evening at the Heron Rock Bistro. The evening included a silent wine auction, a live auction, and entertainment by Chris Trigg, of Light Sweet Crude. *TeenWork* participant Leo Yong, with his younger sister, Nicole, also performed, while Michael Forbes and Lisa Marshall of The Ocean 98.5 were the event's emcees. A very special thank you goes to Andrew Moffatt and Ben Peterson of the Heron Rock for their generosity, and to the many volunteers, attendees and businesses that made the event such a success.

## Coast Capital Savings gives *TeenWork* a boost

CanAssist is thrilled to have received a \$25,000 grant from Coast Capital Savings for its *TeenWork* program. *TeenWork* is designed to help youth with special needs find and retain meaningful, part-time paid employment while they attend high school. Coast Capital Savings, which has provided funding for the program in the past, believes *TeenWork* is a perfect recipient for one of its annual community grants.

"We were won over by the program's significant achievements with youth and its positive impact on the community," says Maureen Young, Coast Capital Savings' manager of community partnership and investment.

"Our goal is to build a richer future for youth in our communities and CanAssist's *TeenWork* program is beautifully aligned with this goal."

In 2010, Coast Capital Savings provided *TeenWork* with \$10,000. This year's increased funding will go a long way to finding placements for more teens and supporting them on the job once they have secured a position.

"This very generous grant from Coast Capital Savings will give more teens the opportunity to find employment and to develop all the valuable life skills that come with working," says Xela Rysstad, *TeenWork*'s program coordinator.

"We greatly appreciate Coast Capital Savings' continuing and increased support for *TeenWork*."

To date, teen participants have worked in a variety of settings, including: Red Barn Market, Peninsula Co-op, Costa Verde Contracting and Lush Cosmetics at Hillside Mall – to name just a few.

## Co-op students Alex and Andy, continued from page 1 . . .

“The best part of the job was interacting with the clients, designing a technology that works for them, manufacturing it and then delivering it,” says Alex, whose projects included a paper-shredder adapter; a voice amplification system; and a remote control modification for a toy car, among others.

Andy was first introduced to CanAssist when he took the Mech 350 class offered at UVic. During that class, he helped develop a golf club swinger for wheelchair users. When he was hired as a co-op student, he got to take the project a step further.



“It’s really practical engineering – you get to do the design and the fabrication,” says Andy, who also worked on a horseback riding support, a mounting system for a dog ball launcher, and other projects. “In other jobs for young engineers, you’re not always given a lot of responsibility. But CanAssist is a great learning environment. You’re given guidance, but also a lot of freedom and independence.”

## Teen embraces artistic independence



Katie Philip has a passion for creating greeting cards. And even though she’s only 14 years old and in her first year at Stelly’s Secondary School, she has her very own company: [karingcardsbykatie.com](http://karingcardsbykatie.com).

Katie has cerebral palsy, but with a vibrant personality

to match her vibrant red hair, her condition does not keep her from actively selling her cards in the community – and donating the proceeds to the various charities that have supported her.

Katie is involved in the card-making process from start to finish, but the limited mobility of her hands has made it difficult for her to participate as fully as she would like. For example, one of Katie’s favorite activities is stamping images on the cards; but to accomplish this, her mom, Sue, has had to provide hand-over-hand assistance. Recently, Sue followed the school’s suggestion that she contact CanAssist to find out if we could create a device that would give Katie some artistic independence.

Mike Jackman, a member of the CanAssist engineering team, came up with an elegant mechanical design that enables Katie to accomplish the stamping all on her own.

“A helper simply attaches a stamp chosen by Katie to the underside of the device and positions it on the paper in an appropriate location,” Mike says. “Katie then has complete control over when the

stamp comes down onto the paper by pressing a large button next to her cheek.”

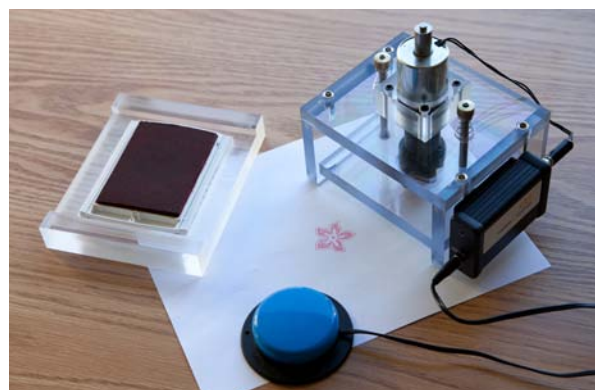
The *Automated Stamper* is made of a clear durable plastic that supports a movable plate to which the stamp adheres. When Katie activates the switch with her cheek, it causes the horizontal plate to lower quickly, forcing the stamp onto the paper. Once she releases the button, compression springs cause the plate to return to its starting position.

“We designed and fabricated a device that was completely compatible with all of the ink pads and stamping accessories she currently owned,” Mike says.

Her mom remarks on how Katie’s enthusiasm for the device has inspired her progress.

“Tonight I was amazed at how she can control her switch in time with how fast I move the machine from the ink pad to the paper,” Sue says.

“This stamper is going to do big things for Katie and the fundraising she does. Katie can’t wait to get out to the community markets with her cards and share the news. She lights up when she uses her new stamper.”





Ethan's new Classroom Alert System will help him participate in his Grade 1 class (story on **page 3**).

## Barbara's Ways to Give

As 2011 draws to a close, I'm sure we're all looking back on the year and reflecting on the positive ways we've made a difference in our lives and in the lives of others. CanAssist warmly thanks our donors, who have helped us bring customized technologies and inclusive programs to many people with disabilities in our communities.



There is still so much work we can do. You can make a real difference in the life of a person with a disability by supporting CanAssist. There's still time to make a tax-deductible, year-end gift by December 31, 2011, and there are several ways to do it:

- Online: at [www.canassist.ca/donate](http://www.canassist.ca/donate);
- By phone: call me at 250-853-3948 to make a donation with your credit card;
- By mail or fax: print out the donation form below and mail it to the address provided or fax it to 250-721-7299; or
- In person: visit me at CanAssist's offices, located in E-Hut on UVic's campus.

On behalf of everyone at CanAssist, I wish you peace, health and happiness throughout 2012.

*Barbara Toller is CanAssist's Development Officer.*

## YES! I want to support CanAssist.



University of Victoria

\$50    \$100    \$200    \$500    \$1000    Other amount: \$ \_\_\_\_\_

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Please return this form and your payment to: CanAssist, University of Victoria, PO Box 1700, STN CSC, Victoria BC, V8W 2Y2.

For assistance, please contact Barbara Toller, CFRE, Development Officer for CanAssist, at 250-853-3948 or [btoller@uvic.ca](mailto:btoller@uvic.ca).

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