# CanAssist Impact Report 2017–18





- Helping people with disabilities improve their independence and quality of life
- Creating extraordinary learning opportunities
- Making a vital impact in the community
- Building an inclusive society



VISION

CanAssist at the University of Victoria envisions a society where all people have the opportunity to participate, contribute and reach their full potential.

# MISSION

CanAssist strives to be a highly respected national resource that collaborates with UVic researchers and students, as well as diverse external partners. We provide people who experience physical or cognitive barriers with innovative technologies, programs and services that address unmet needs and increase independence, inclusion and well-being.

# VALUES

Focus on clients Excellence Inclusion

### Accountability Passion



On the FRONT COVER: TeenWork is a youth employment program from CanAssist. Before landing her position at Sidney Bakery, job coaches helped Bailey develop important skills in areas such as customer service and interacting with co-workers.

*"Bailey has been reliable, respectful and so willing to give it her all."* 

Colleen Hay, Manager, Sidney Bakery



CanAssist's Guitar Strummer allows a person to play the guitar using one hand and one foot instead of the usual two hands. Gerard, who lost his left arm many years ago, presses a pedal with his foot to strum the guitar.

*"I never imagined I would one day teach myself all over again. There are no words to describe the feeling of playing a song after 30 years."* 



Mellisa lives in a small BC community that has limited access to programs and assistive devices. She received CanAssist's Wii Board for Wheelchair Users as a way to strengthen her body, remain as independent as possible, and engage with family and friends.

*"The Wii Board for Wheelchair Users is great and will help me to exercise. It is a great work-out and I love it!"* 

Gerard

# CanAssist



### Who we are

CanAssist is an organization of the University of Victoria with a core team of about 20 professionals, many of whom are engineers or software developers.



### What we do

We develop customized technologies and programs for people with disabilities where there are gaps in existing services, while providing meaningful opportunities for student and faculty engagement.

> CanAssist provided Colton with a new handbrake for his tricycle so his attendant can help him stop safely and easily. This has allowed the 18 year old to explore more places.

"Having the handbrake installed on Colton's trike has made it much easier to get out and enjoy our neighbourhood instead of staying to flat areas. The ergonomic placement of the handbrake also makes it easier and safer for the support person." Jo-el, Colton's mother

### What sets us apart

CanAssist is unique in North America in being a university organization that develops customized technologies for clients with disabilities in the community. Clients and their families are not charged for technologies; instead CanAssist seeks funding through charitable donations, grants and service agreements with other organizations.

### Who we help

We assist people of all ages and from across the disability spectrum in improving their independence and quality of life, whether their challenge involves a physical, cognitive or mental health barrier.

### How we do it

Being part of UVic is fundamental to our sustainability and success. UVic provides CanAssist with direct and indirect support, including the physical space where we work. We also have ready access to UVic's outstanding faculty, students, research facilities and administrative expertise.

### Why we do it

CanAssist's work is a reflection of UVic's commitment to: community service; addressing the unmet needs of people with disabilities; and raising awareness of inclusion and disability issues.

## **CanStayHome**



Designed for seniors with dementia who have difficulty using the phone, the Caregiver Intercom attaches to a landline. Select family members and caregivers can call directly into the intercom in the senior's home and immediately begin speaking to the older person.

### **Ensuring a broader impact**

The declining ability to use the phone is a key tipping point for seniors with dementia in having to leave their homes and move into formal care settings. Confusion around answering and placing calls makes it difficult for family and others to connect with vulnerable seniors, leading to their increased isolation and compromised safety, as well as concern and stress for caregivers.

This was the type of information CanAssist learned in 2017 through a series of focus groups, as well as phone interviews with about two dozen health experts. Part of CanStayHome – a multi-year initiative funded by the Government of BC – this exploration aimed to discover areas of need and types of innovative technological solutions that could help seniors continue living in their own homes for as long as safely possible.

The Caregiver Intercom is one of the solutions to result from this work. Designed for seniors who have trouble answering the phone, the device allows select family and caregivers to connect directly to an intercom in the senior's home, so they can immediately begin speaking to the older person. CanAssist began testing the device with families and care teams in 2018. The intercom is the fourth CanStayHome "broad-impact technology," which aims to address the needs of a large number of people who share common challenges. These solutions are a departure from CanAssist's past approach, which was to develop a technology to address an individual's needs. While some of these highly personalized technologies proved useful for others, wider-scale use wasn't the initial intention.

Importantly, the Caregiver Intercom is the first technology CanAssist has developed for larger-scale manufacturing right from the outset. It will also be the first technology to benefit from testing 35 prototype units with families in the community. This is a significant increase over the previous number tested and ensures sufficient data is available for evaluation purposes. CanAssist's engineering team has implemented a rigorous new approach to technology design and development to ensure that our broad-impact solutions meet the needs of many people and can be reproduced cost effectively in large numbers.

This new broad-impact focus is an important step in CanAssist's growth and maturity as an innovative developer of technologies that can be accessed by many individuals and families across the province.



# Chair

Message from CanAssist's Advisory Board Chair

CanAssist supports UVic's academic and research missions by engaging students through co-op, international and work study opportunities, and by partnering with faculty in support of their teaching responsibilities and research. CanAssist also takes part in a wide range of campus activities that promote participation and inclusion for all.

This year, CanAssist has taken its research engagement to a new level by implementing its own Faculty Fellowship Program. The program was created to provide UVic scholars with an opportunity to contribute in a very direct way to CanAssist's work.

During 2018, two fellows are supporting CanStayHome, a major initiative funded by the Government of British Columbia. Through CanStayHome, CanAssist is developing innovative broad-impact technologies that support vulnerable seniors to stay in their homes for as long as safely possible.

The first two fellows are affiliates of UVic's Institute on Aging and Lifelong Health:

- Dr. Jodie Gawryluk is a clinical neuro-psychology specialist and a faculty member of UVic's Psychology Department, and
- Dr. Elizabeth Borycki is Director of the Social Dimensions of Health and the Health and Society programs, and Professor in the School of Health Information Science.

It's wonderful for CanAssist to benefit from faculty expertise that supports research and community service to address areas of unmet need. In turn, faculty members find ready access to meaningful new research opportunities associated with CanAssist's innovative programs.

#### **Dr. Nancy Wright**

Chair of CanAssist's Advisory Board and UVic's Associate Vice-President Academic Planning



Message from CanAssist's Executive Director

**Executive Director** 

One of CanAssist's key goals last year was to engage formally at the federal level as a way to further diversify our revenue. We're very pleased to have made a significant start in this direction by raising our profile and, more significantly, by securing our first federal funding agreement.

In January 2018, Skills Link – a component of the Government of Canada's Youth Employment Strategy – awarded \$1.2 million to expand our TeenWork program. For nine years, TeenWork has had terrific success in helping youth with cognitive and physical barriers, including those with mental health challenges, in Greater Victoria find and retain meaningful, part-time paid employment while they are still in high school. Now this crucial federal funding is allowing us to expand the program both in Victoria and Vancouver, as well as to offer a new group-based approach for those teens who would benefit from it.

In the year ahead, CanAssist's goal is to secure federal funding for technology development, while at the same time continuing to nurture and expand our existing partnerships with the provincial government here in BC. In particular, CanAssist hopes to leverage the expertise gained through the provincial CanStayHome initiative, which involves developing innovative "broad-impact" technologies and helping many people living with cognitive and physical challenges to access technologies that increase their independence and their ability to work and contribute to their families and communities.

### **Robin Syme**

Executive Director CanAssist at the University of Victoria

### **Programs**



# Automated raincover increases independence

Vancouver gets more than 160 rainy days a year, a challenge for Jordan, who uses a power wheelchair and isn't able to operate a standard umbrella independently. "I'm starting my law career and, for me, coming into the court or into my office soaking wet just isn't really an option," he explains. Jordan received CanAssist's Motorized Wheelchair Raincover, an automated device that allows him to easily protect himself from rain and sun. The raincover, which can be attached to a variety of wheelchairs, is compact and light-weight. When Jordan presses a button, a motorized mechanism unfolds and positions the raincover over his body and chair. Pressing another button folds the canopy away.

"As people with disabilities continue or start entering the community more often, I think weather is one of the biggest reasons why they would rather stay home. This could be a solution for them if they are concerned about getting wet."

Jordan

### **CanAssist's Technology Development Program**

CanAssist's primary activity is the development of innovative yet practical customized technologies for people with disabilities.

Our team of engineers and software developers takes on projects in response to requests from individuals and organizations where no viable commercial solution exists. Sometimes a device that has been developed for an individual has the potential to help many more people with similar needs. Such technologies provide excellent opportunities for CanAssist to ensure ongoing sustainability, while meeting our goal to reach ever-larger numbers of people.

# 2,698

downloads of CanAssist software apps 329

technologies delivered during fiscal 2017–18



The Switch-Activated Stamper lets Landon stamp his own name on a variety of documents, thus enabling him to show ownership of his work and achievements and to be more fully included in the classroom.

"Landon has never been interested or able to hold a pen or pencil, let alone sign his name or initials. This technology provides him with the means to give consent, as well as identify his work and possessions with ease. Thank you for providing him a gateway toward increased independence."

> Sherri, mother



Because of a muscle disorder, four-year-old Ethan has very limited arm strength and range of motion. CanAssist provided him with Zero-Gravity Arm Supports, which allow him to carry out many basic everyday activities that he wasn't able to accomplish before.

"(The supports) have opened up so many more activities for Ethan as he works towards more independence. The ability to move his arms more freely and play on his own is a true gift to our fiercely independent little boy."

Scott and May, parents



Walter and his wife are finding it much easier to get to appointments, shops and parks after receiving the HitchLift.

"The lift has proven easy to operate. My wife can use it to quickly remove my mobility scooter from our car and, when I have done with it, quickly store it again."



Phil received an automated device that lets him throw balls independently to his two dogs – Rutgar and Nixon.

"I'm so thankful and grateful to you for going to bat for us and for helping us have this wonderful ball launcher. Nixon is 11.5 years old and it's making him act like a puppy!" Phil



CanAssist provided the Canoe Paddle Support to Camp Goodtimes for individuals who are unable to use traditional paddles. The device allows people who only have the use of one hand or who have a cognitive disability to participate in canoe trips.

"This year, with the help of CanAssist, we will be able to get more people canoeing and actively participating in the waterfront, a center for fun and connection at camp."

> Scout Gray, Camp Goodtimes



The Motorized Tablet Mount helps a person who uses a wheelchair to easily use and adjust a computer tablet independently. When Paul presses a button, a mechanical arm positions the tablet in front of him. Pressing another button automatically stows the device away.

"Anytime I need my iPad out to communicate, there it is and I can set it up on my own."

# **Programs**

### **CanAssist's Academic Engagement Program**

UVic and CanAssist recognize the importance of giving students, faculty and staff opportunities to support and interact with people who face a wide range of barriers and to learn about disability issues. As students, in particular, assume leadership positions in society, those who have had such experiences are likely to support increased inclusion and accessibility. To date, several thousand students from virtually every discipline have been provided with rewarding learning opportunities through their participation in CanAssist activities. Likewise, many UVic faculty members, representing numerous departments, have connected with CanAssist through research partnerships, classroom activities, and an ongoing sharing of ideas and expertise.



hours worked by co-op, work study, volunteer and international students 650

students engaged in CanAssist activities during fiscal 2017–18

### Legacy award supports students

Since its early days, CanAssist has been a consistently large employer of UVic students, providing meaningful, hands-on work experience to young adults from virtually every faculty, whether through co-op, work study, volunteer, graduate or international placements.

Thanks to a generous endowment provided in 2014, CanAssist has had the opportunity to select one student annually to receive the Ross McLeod Legacy Award. This ongoing award, established by Mrs. Sheila McLeod in honour of her late husband, recognizes students who have shown particular promise and enthusiasm in working in the area of disability.

This year, Ajay Raman, a third-year electrical engineering student, received the award, following a co-op term during winter 2018.

"The opportunity to learn from everyone associated with CanAssist helped me develop a greater skill set in my field and learn far more about the design process of assistive technology products," Ajay wrote to us recently. "Additionally, it makes a huge difference knowing that the tools and technologies that I worked on will actually make a difference in people's lives."

Like the previous winners, Ajay will receive a cash award that is applied toward his tuition.



"The Ross McLeod Legacy Award will have a great impact on helping me focus during my last semesters at UVic," Ajay said. "Not having to worry about finances will assist me in achieving more in my academics."

### **CanAssist's TeenWork Youth Employment Program**

TeenWork, CanAssist's innovative youth employment program, helps youth with physical or cognitive barriers find and retain meaningful, part-time paid employment while they attend high school.

In January 2018, the Government of Canada's Skills Link program provided a grant that is enabling TeenWork to offer a new group-based version of the program in Victoria and Vancouver over two years. The Vancouver cohort is being managed by partner CBI Consultants, while the Victoria cohort is being managed alongside the original TeenWork program at UVic. The federally funded version of the program provides pre-employment support in group settings to teens suited to this format. But all TeenWork participants benefit from the same personalized, on-site job coaching once they secure work.

During 2017–18, TeenWork's traditional program in Greater Victoria served 40 youth; the concurrent federally funded program served an additional 20 (10 each in Victoria and Vancouver) during the first three months of 2018. As of Mar. 31, 2018, TeenWork's traditional program reported a 92-per-cent success rate for participants finding paid employment during their time in the program.



**60** youth assisted through TeenWork this fiscal year



Joseph works at a supermarket where he demonstrates a good work ethic and organizational skills in the store's produce department.

"Thank you all for teaching me valuable working skills."



The TeenWork program has helped Shay develop communication skills that have greatly improved her confidence in serving customers at White Spot. Shay was part of the first group funded by the Government of Canada's Skills Link program.

"TeenWork has helped in any way they can to assist Shay in getting work and improving her life."

Shay's grandmother



Josh's keen attention to detail serves him well in his job as a grocery packer at an organic food store.

*"Josh is brilliant, attentive, and kind. I couldn't have asked for better. I'll work with him anytime. He's one of the crew."* 

> Lawrence, Josh's co-worker

Joseph

# **Financial**

### CanAssist's Financial Information and Outlook 2017–18

CanAssist is deeply grateful for the contributions of its numerous partners and donors. CanAssist's work is entirely dependent on these generous investments.

UVic's ongoing in-kind contribution is critical to CanAssist's success. This tremendous support makes it possible for CanAssist to maximize the impact of investments from donors and other contributors to benefit clients with disabilities.

CanAssist began 2017–18 with \$5.74 million in secured project funding, which enabled the organization to cover annual project expenses and operating costs totalling \$2.6 million, achieving a modest positive balance for the fiscal year.

During the year, CanAssist raised \$600,000 from philanthropic sources, which included grants and donations for technologies and the TeenWork program. Fee-for-service contracts and royalties also brought in a modest amount of revenue. CanAssist has a reinvigorated relationship with WorkSafeBC and expects this fee-for-service revenue to increase.

CanAssist was delighted to receive its first federal funding during 2017–18. Funding from the Government of Canada's Skills Link program made it possible for the TeenWork youth employment program to expand in Greater Victoria and to be made available in Vancouver through CBI Consulting. In total, TeenWork served 60 youth this fiscal year, compared with 36 youth the previous year.

Given the significant investments from the province in 2016–17, CanAssist has made it a priority to deliver on the commitments associated with those investments. As a result, CanAssist continues building expertise in the design, testing and production of technologies in large numbers. Putting this experience into practice will enable CanAssist to provide broad-impact technologies to increase the independence and improve the quality of life of many British Columbians.

In this context, CanAssist had a productive year, with 329 technologies delivered, about 2,700 software apps downloaded, and many projects in progress and scheduled for completion during 2018–19.



Linda was delighted to receive the HitchLift, a technology that has been delivered to multiple recipients. The device helps her transport both her husband and sister's walkers easily and safely.

### Looking ahead to fiscal 2018–19

CanAssist began 2018–19 with \$5.8 million in secured project funding, based on an approved budget of \$4.2 million. (Of this, \$1.2 million will be used to develop and deliver technology kits to BC's Child Development Centres by Mar. 31, 2019; this initiative was generously funded by the BC Ministry of Children and Family Development.) CanAssist's goal again is to break even or incur a small positive balance.

Based on the experience gained in 2017–18, CanAssist is on the verge of taking several technologies to scale, most of which have been developed as part of the CanStayHome initiative and beginning with the HitchLift. This is an important undertaking intended to ensure that the benefits of these solutions are made available to many more people across BC.

# Giving

### **Donor Spotlight**



From left: CanAssist's Robin Syme, Paul Green and Jaxson Creasey demonstrate technologies for Hamid Eshghi and Margaret Thomson.

CanAssist was thrilled to host representatives from the Djavad Mowafaghian Foundation this summer. Foundation President Hamid Eshghi and Margaret Thomson visited CanAssist to view technologies, chat with some of our clients and staff, and meet with UVic President Jamie Cassels. CanAssist has been most fortunate to receive financial support from the Foundation since 2015. This multi-year support has made it possible for CanAssist to increase its reach and impact.

The Foundation is well known internationally for greatly improving the lives of children around the world through health and education. Its mandate was inspired by the teachings of Djavad Mowafaghian's mother, who taught the founder about kindness and generosity from a very young age.

During their tour, the visitors were moved by clients who shared stories about how their lives have been positively affected by receiving CanAssist technologies. These included a university student whose technology enables him to participate in video gaming independently and a little boy who received zero-gravity supports that help him raise his arms by himself and undertake many daily activities more independently, such as picking up toys.

"Because of stories like this, our Foundation is very pleased to support CanAssist in its vital work of creating innovations that improve the lives of those with disabilities," said Hamid Eshghi.

CanAssist is honoured to receive continued funding from the Foundation for a variety of technologies, which support our clients and communities in powerful ways.

# Support

### **Partner Spotlight**

In March 2017, CanAssist was delighted to receive \$1.5 million from the BC Ministry of Children and Family Development (MCFD) to provide technologies that will support hundreds of children with special needs across the province.

The funding is enabling CanAssist to deliver innovative, practical technologies to children who access early intervention and school-aged therapy services from agencies that have contracts with the Ministry – typically called Child Development Centres (CDCs). Thirty-two CDCs will receive a suite of existing CanAssist technologies that have already proven beneficial to our previous clients.

During the summer and fall of 2017, CanAssist worked with key MCFD staff, the BC Association for Childhood

Development and Intervention, and many CDC staff members to determine which CanAssist technologies would be most useful. Two solutions already delivered to the 32 CDCs include: the Indoor Ball Launcher, which lets kids with challenging disabilities participate in games while learning how to use important accessibility tools; and Choices2Go for the iPad, a software app that provides in-the-moment choice-making opportunities for children who may not otherwise be easily understood.

All technologies are to be delivered to the CDCs by Mar. 31, 2019. CanAssist is grateful to the MCFD for the opportunity to work with the CDCs and for supporting this exciting and worthwhile project.

The following is a list of key partners and donors that provided support to CanAssist during fiscal 2017–18, whether through grants, charitable donations, fee-for-service work, an in-kind contribution or other means. CanAssist is grateful to these organizations, as well as to our individual and anonymous supporters, for their generosity and vision.





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