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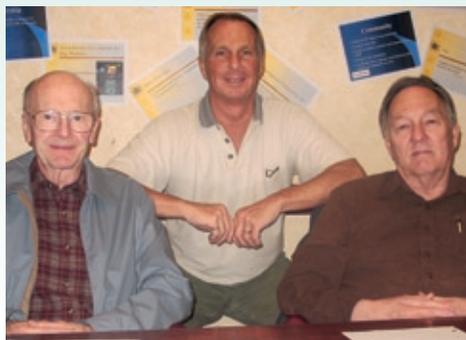
THE TETRA SOCIETY OF NORTH AMERICA: CUSTOM ASSISTIVE DEVICES

Tetra engineers devise a global solution to a pressing problem

CALGARY: Tetra volunteers thought globally to devise a powered Braille printing press.

The request came from a Calgary man, Mike Hambly, who lost his vision and ability to walk in a 1994 automobile accident.

Hambly started a spare-time business, Braille It, eight years ago, to add Braille to business cards. But he found operating a manual press, which he had to pull down with 75–100 lbs pressure each time he printed a card, was a laborious, physically draining process that caused concerns about repetitive strain injury.



DESIGN TEAM: TETRA CALGARY VOLUNTEERS (FROM LEFT) STU ROGERS, BILL CASWELL AND RON MARSHALL.

their own electric press. “When we tried the press we stripped all the gears in the electric motor,” said Hambly. “It was heartbreaking. After months and months of work we thought we were ready to go.”



BRaille IT: MIKE HAMBLY.

So Caswell and Marshall decided to change the concept, and created a compressed air powered scissor lift press. Along the way, Caswell sought advice from a peer in Australia, and Marshall collaborated with a group from China he contacted through Tetra’s Guelph chapter.

“A gentleman from the University of Guelph had some engineers from China that were learning about Canadian methods,” explained Marshall. “They wanted to get involved with Tetra for some work experience. I asked them to do some number crunching.”

“I think people need to know about Tetra,” said Hambly. “It’s such a wonderful organization. I would never have been able to work the presses without their help. Helping people to build things so they can have their independence—now that’s fantastic.”

For more about Braille It, phone Mike Hambly at 403-266-6840 or visit his website at www.brailleit.ca.



TREASURE TROVE OF ASSISTIVE DEVICES

A new-look website will give potential Tetra clients, volunteers and funders a better idea of the vast array of possibilities available to people seeking custom assistive devices.

The heart of the re-launched site is a database containing 500-plus assistive device projects, giving a snapshot of the 4,000 custom assistive devices invented by Tetra Society of North America volunteers for people with disabilities over the years.

In addition, each Tetra chapter across North America has its own page, to enable future clients to contact their local volunteers. Tetra devices can be requested online, and there are sections written for specific users such as health professionals and attendants.

“The key aspect of the site is the provision of the database, which is already a remarkable resource, and will grow over time to provide ideas and inspiration for everyone connected with Tetra,” said the society’s executive director, Duane Geddes.

“I think that providing a cache of information regarding the projects that Tetra has created will prove extremely valuable in the years ahead, and will demonstrate the value of increasing independence and freedom for people with disabilities.”

Brent Foote, of Footeprint Communications, Vancouver, created the vibrant, modern design. The address is www.tetrasociety.org.

“Having Braille on your business card is a conversation piece,” explained Hambly. “Ninety per cent of customers look at it from a marketing standpoint. It shows you believe in accessibility.”

Hambly worked with University of Calgary mechanical engineering students in 2006 to turn an old arbor press into a Braille printer, but he wanted something more enabling. He asked Tetra’s Calgary group to come up with a powered press. Volunteer engineers Bill Caswell and Ron Marshall initially considered installing a 12-volt electric motor into the existing arbor press. When this didn’t work out they fabricated

SHOW AND TELL:

Putting Tetra's amazing GTA volunteers in the spotlight

Workshop modifications enable home craftsmanship

HALIFAX: A Halifax man is developing his passion for woodwork in his fully accessible workshop, thanks to the town's Tetra chapter.

Kevin Lamarque, of Halifax, is gradually gaining skills in the meticulous craft of marquetry, an age-old design technique in which pictures are created by the placement of thin layers of contrasting materials.

He creates this delicate artwork in a specially adapted workshop, put together with the help of Halifax Tetra volunteer Bob Hurdle.

Lamarque, who is paraplegic, originally requested an adaptation to enable him to operate a variable speed scroll saw. The original unit had a foot pedal, like a sewing machine, which Hurdle adapted into a neck-mounted, chin-operated switch.

While working on this, Hurdle observed that Lamarque's workshop, in a spare room in the house, should really be optimized to make it wheelchair accessible.

"He built a workbench I can get under," explained Lamarque. "He found an old desk, which he used to create a beautiful L-shaped table that goes into the corner and works really well for me.

"He made it in sections so it could be assembled in the room. It is really appreciated. It's proving its worth."

Lamarque remains modest about his achievements, observing that he is self-taught, and so proceeding largely through trial and error. With no classes in marquetry locally, he reads whatever he can, and then tries to turn it into reality.

The end result, he adds, will be a far greater understanding of the hobby, even if it can sometimes be frustrating when things don't initially work out. The hardest part is maintaining focus, to avoid mistakes.

Chapter coordinator Audrey Peake praised Hurdle's dedication in "helping establish a whole workshop".

TORONTO CHAPTERS: Ontario Lieutenant-Governor David Onley will take centre stage at a special event to spotlight Tetra's role in the region.

The past year's most inspirational and ingenious Tetra Society projects from across the Greater Toronto Area—Toronto, Hamilton and Peel chapters—will be featured at the 2009 GTA Gizmo Awards. It is held at Rose Theatre, Brampton, from 6 p.m. to 10 p.m. on Friday, July 17.

The clients, volunteers and funders at the event should expect a little more drama than previous years, according to Glenn Barnes, Tetra's Ontario development coordinator.

That's because the ticket price includes admission to the Norm Foster hit play, *Foursome*, a comedy set on the golf links.

The evening starts out similar to previous GTA Gizmo Awards nights, with a cocktail reception, with wine and hors d'oeuvres and the chance for a look at examples of Tetra devices and chat to technical volunteers, and the awards for the most ingenious volunteers.

The idea to include tickets to the theatre production came from consideration of the venue and a desire to keep the format of the event fresh. There will still be a silent auction.

The focus will remain on Tetra volunteers.

"Volunteers are the main part of the Tetra Society," said Barnes. "Without them there would be no Tetra Society. We would not be able to offer the projects if people did not donate their time and expertise.

"We hope to showcase the organization and the great work of the volunteers, and some of our appreciation of them."

And with this in mind, keynote speaker David Onley is expected to talk about the importance of creating opportunities for people with disabilities – through overcoming barriers.

The former broadcaster and science writer, who uses leg braces, a cane and a power wheelchair as a result of childhood polio, is greatly interested in Tetra assistive devices, said Barnes.

"The fact that a person with a disability has earned the opportunity to become Lieutenant-Governor of Ontario really speaks to people with disabilities that there are positions of power open, with a little public support and, possibly, devices from an organization like Tetra."

Tickets for the fully accessible evening are \$60, available from Glenn Barnes at 905-274-8584 or tetrapeel@hotmail.com.

The A-Z of assistive device demand

Toronto Tetra chapters arranged an interactive assistive device forum to discuss the access requirements of people with disabilities in the Ontario capital, writes event co-organizer William Li.

The Tetra Society Assistive Technology Forum, staged by the Metro Toronto and York Region chapters on June 18 at Toronto's CNIB Centre, aimed at considering needs and gaps in assistive technology of all types, from mobility and communication equipment to toys and personal care aids. The group aims, over coming months, to engage and empower as-

istive technology users and their parents and caregivers to voice their concerns, challenges, and successes with using assistive technology of all kinds.

"To me, the most exciting part of planning the event is the fireless dedication of our two dozen volunteers, the vast majority of them university students in engineering, science, sociology, and other disciplines, who are dedicating hundreds of hours a week to the event. They are taking time from summer courses, jobs, or just relaxing to organize an event at which we will collectively

deepen our understanding of assistive technology needs and issues and the realities and challenges that people with disabilities face.

"The team is already thinking about how we will take the discussions of the forum and follow up with attendees, other community stakeholders, and government policymakers. The calibre of our volunteers makes me very excited about what more than 20 dedicated students can do to build Tetra's presence and capacity in Toronto beyond this event in the coming year," Li said.



GROUP EFFORT: TETRA TORONTO'S ASSISTIVE TECHNOLOGY FORUM ORGANIZERS, FROM LEFT (BACK) SAMEER ZAHER, MADELEINE SHEN, LUKE GANE; (MIDDLE) SABRINA TANG, WEN SONG, CLARA SELLERS, SARAH TAKAKI, ZAVEN MANGASSARIAN, ANDY CHAN, ANDREE MONETTE, WILLIAM LI, ANGELA YOO, SHAHED AL-HAQUE; (FRONT) JORGE SILVA, MARIA CRUZ.

Tetra engineers enable sport for all

Tetra devices are giving people opportunities to play a rapidly growing sport for people with significant disabilities.

Boccia, a sport for athletes with cerebral palsy or related neurological conditions, is a test of coordination and concentration closely related to lawn bowling or curling. It is more tactical than it first appears.

Around 10 players with the 14-strong Vancouver Wildcats team have Tetra-made boccia ball magazines, devices constructed from PVC drainpipe that clip onto a player's powerchair—in place of the armrest—to hold boccia balls.

Caroline Vietnieks, of Delta, BC, has been playing boccia for almost four years, and says the Tetra-made boccia ball magazine she uses has made the sport more comfortable. Previously, the boccia balls had to be handed to her as she played.

A Wildcats member, Vietnieks represented Canada in last year's Defi Sportif '08, in Montréal—an international event, currently in its 25th year, held to highlight athletes with disabilities. It was her first major tournament.

And, thanks to an excellent performance at the 2009 Canadian Boccia Championships, held in Guildford, Surrey, in March 2009, Vietnieks received her placing on the national team again this year—selection is annual. This will take Vietnieks to the Boccia Americas Championship, where she will represent Canada in a championship for North and South American players, held in Montréal, October 24-29.

"I just enjoy playing boccia," said Vietnieks. "It's an outlet for me. I get away from life and enjoy myself and have fun."

"It's probably the only sport I can compete in at a provincial and national level. It's competitive, but I try to have fun at the same time."

"There's still a lot for me to learn."

Her advice for players looking to improve their game is focus: "Just concentrate on your game. There is you, the ball and no-one else."

Vietnieks is quick to praise her coach, long-time BC boccia mentor Herb Torrance—a



widely respected figure in Canadian wheelchair sport. He is able to mix his enthusiasm for the sport with a relaxed approach which seems to bring the best out of everyone.

"Herb is cool, because you can have fun with it, too," said Vietnieks. "He does not say *you can't do this*. He is very supportive and is fun to be around, and that makes it better. I play better without all the pressure."

Torrance started coaching boccia in Vancouver in 1994. He led the Canadian national boccia team to considerable success, being appointed national coach in 1999 and retiring from this level after the Athens 2004 Paralympics, where his athletes won gold and bronze medals.

NATIONAL BOCCIA TEAM ANNOUNCED

The Canadian Cerebral Palsy Sports Association (CCPSA) recently announced the Canadian national boccia team for 2009/10.

Included are:

Francois Bourbonniere (Montreal, QC), Martin Dubois (Vals-des-Monts, QC), Adam Dukovich (London, ON), Sylvain Dupuis (Montreal, QC), Paul Gauthier (Vancouver, BC), Chris Halpen (Victoria, BC), Alison Kabush (Surrey, BC), Jonathan Poulin (Montreal, QC), Brock Richardson (Brampton, ON), Josh Vander Vies (Sarnia, ON), Caroline Vietnieks (Surrey, BC)

CCPSA also named its national espoir team—the equivalent of a 'B' team—which includes three BC athletes: Hanif Mawji, Richard Magnusson and Monica Martino, all from Vancouver.



ON TARGET: CAROLINE VIETNIEKS (ABOVE) DEMONSTRATING HER BOCCIA TECHNIQUE; AND (LEFT) ENJOYING A GAME WITH FELLOW VANCOUVER WILDCATS MEMBER CAROLINE BUBAS.

And he continues to inspire and motivate players in and around Vancouver, BC, running informal boccia sessions each week, and acting as assistant national coach for the Cerebral Palsy Sports Association of BC.

"If it wasn't so much fun I wouldn't be doing it," he said. "I enjoy being around the people."

He takes pride from observing the improvement of players such as Vietnieks, but feels the most important part of the sport is that the participants are "a bit of everything," ranging from competitive players to those that take it as leisure time.

Fellow boccia player Caroline Bubas also has four years' experience playing for Vancouver Wildcats.

"I'm not a competitive player," she said. "I just play for fun. I'm a reasonably competitive person, but I see the sport as a way to get out and meet new people."

"The enjoyment of playing is most important to me... sometimes it's good to win, though!"

The Vancouver Wildcats play Thursdays and Saturdays at two city venues (Douglas Park Community Centre and Champlain Heights Community Centre, respectively).

For information on the sport in Vancouver, BC, contact Herb Torrance at 604-731-3248. Otherwise, contact Canadian Cerebral Palsy Sports Association at 613-748-1430 and request information on their provincial affiliate group nearest you. You can also visit their website at www.ccpssa.ca.

MOVIN' ON UP: a simple wooden step stool makes all the difference to seniors attending physiotherapy.



LONDON: Meals on Wheels sought out Tetra to build a step to enable seniors to travel to and from medical appointments easier.

The seniors organization, which has been running in London, Ontario, since June 1969, is widely known for taking nutritious food to clients in their homes, but also provides transportation to and from medical appointments for a nominal fee.

However, the group was finding that clients had difficulty accessing their van, and requested a step that was the same width as the van door. While generic steps are available, organizers of this program realized that an extra-wide step would allow easier access for those that use a cane and be more stable for clients that need to hold onto the door.

“They had heard about Tetra through one of their volunteers, and called to see if we could help,” explained London Tetra coordinator Wilma McIntyre. “They use the van to take people that have had knee and hip surgery to physiotherapy sessions, but stepping into the van was uncomfortable, and quite painful for some people.”

The chapter produced a 73.5 cm (29 ins.) wide, 40 cm (16 ins.) deep step stool, with a webbing carry handle to make it more portable. McIntyre herself attached non-slip grip strips to the top of the step.

“I’m a handy person and take on some tasks.”

Looking ahead, the one-year-old chapter is currently screening an additional two volunteers, bringing the total up to three, and embarking on a number of interesting projects. This involves a request, currently being researched with the assistance of the University of Western Ontario, to create an accessible glucose monitoring system for a man with quadriplegia.

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