

TD Insurance

You've paid your dues. Start paying less with TD Insurance.



You could WIN

\$60,000 cash to build your dream kitchen!*

University graduates can save more.

At TD Insurance, we recognize all the time and effort you put into getting where you are. That's why, as an alumnus of the University of Toronto, you have access to our TD Insurance Meloche Monnex program which offers preferred group rates and various additional discounts. You'll also benefit from our highly personalized service and great protection that suits your needs. Get a quote today and see how much you could save.

Request a quote today 1-888-589-5656 melochemonnex.com/utoronto







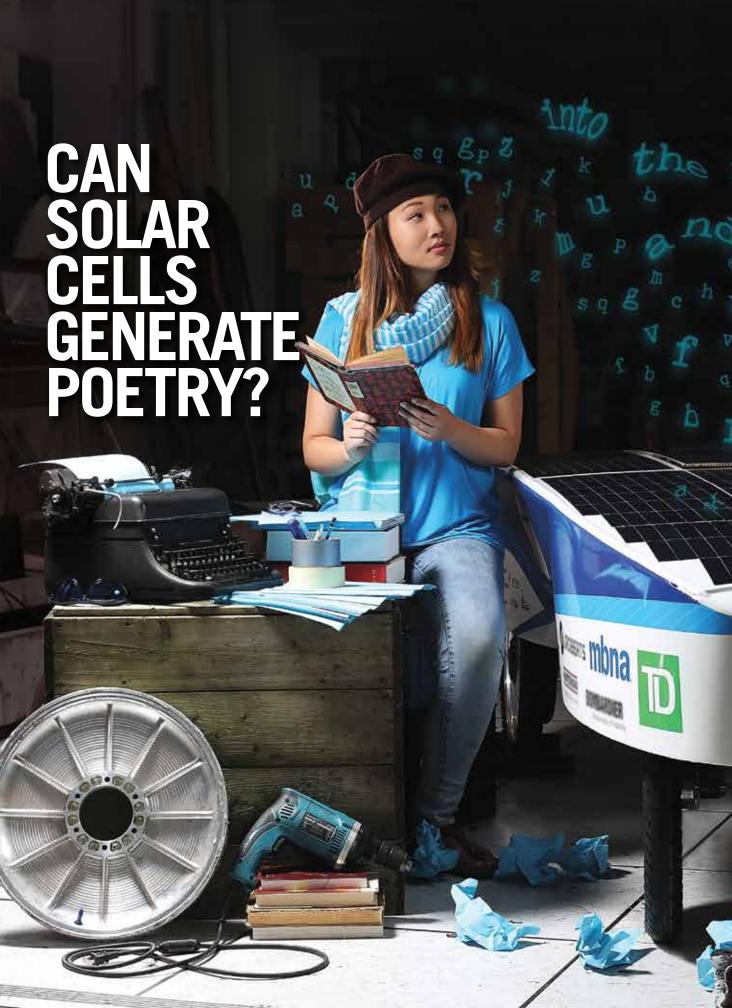
HOME | AUTO | TRAVEL

The TD Insurance Meloche Monnex home and auto insurance program is underwritten by SECURITY NATIONAL INSURANCE COMPANY. The program is distributed by Meloche Monnex Insurance and Financial Services Inc. in Quebec and by Meloche Monnex Financial Services Inc. in the rest of Canada. For Quebec residents: We are located at 50 Place Crémazie, Montreal (Quebec) H2P 1B6.

Due to provincial legislation, our auto insurance program is not offered in British Columbia, Manitoba or Saskatchewan.

*No purchase is required. There is one (1) prize to be won. The winner may choose between an amount of \$60,000 CAD to build a dream kitchen of his/her choosing or \$60,000 CAD cash. The winner will be responsible for choosing a supplier and for coordinating all of the required work. The contest is organized by Security National Insurance Company and Primmum Insurance Company and is open to members, employees and other eligible persons who reside in Canada and belong to an employer, professional or alumni group which has entered into an agreement with the organizers and is entitled to receive group rates from the organizers. The contest ends on October 31, 2014. The draw will be held on November 21, 2014. A skill-testing question is required. Odds of winning depend on the number of eligible entries received. The complete contest rules are available at melachemonnex.com/contest.

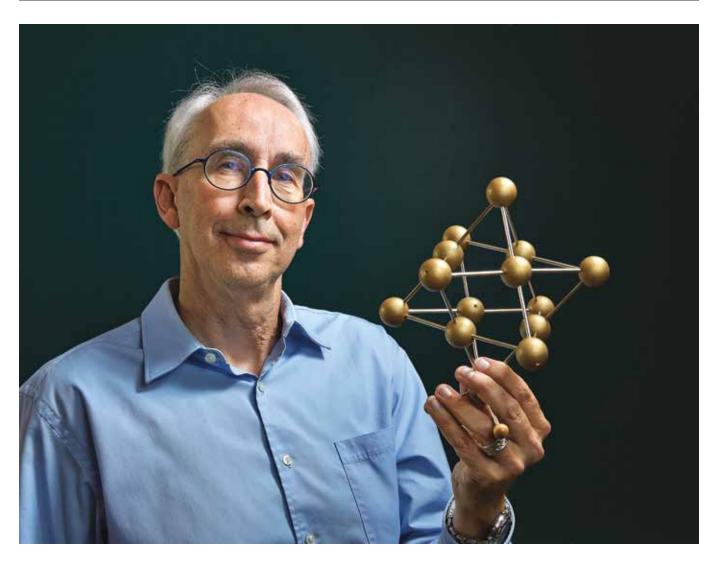
**The TD lago and other trade-marks are the property of The Toronto-Dominion Bank or a wholly-owned subsidiary, in Canada and/or other countries.





Autumn 2014

Volume 42, No. 1



27 Incredible Impact

Four generous gifts to U of T are the building blocks that will transform lives in Canada and around the world

BY SHARON ASCHAIEK, ANJALI BAICHWAL, CLAIRE MORRIS AND JANET ROWE

32 The Bully Who is Everywhere The Internet makes it easy to be mean. No wonder cyberbullying among teens has

everyone worried.

BY CYNTHIA MACDONALD

38 Changed by WarA century ago, the First World War changed Canadian society profoundly, and transformed the University of Toronto no less. BY ALICE TAYLOR

UofTMagazine

AUTUMN 2014 VOLUME 42 NO.1

Editor and Manager

Scott Anderson

Acting Deputy Editor

Janet Rowe

Acting Associate Editor

Dale Sproule

Art Direction and Design

The Office of Gilbert Li

Editorial and Advertising Assistant

Jessica Lay

Co-Publishers

Ania Lindenbergs, Senior Executive Director, Advancement Communications and Marketing

Barbara Dick, Assistant Vice-President, Alumni Relations

Editorial Office

T (416) 978-0838, F (416) 978-3958 uoft.magazine@utoronto.ca

Advertising Inquiries

T (416) 978-0838, F (416) 978-3958 jessica.lay@utoronto.ca

All correspondence and undeliverable copies: *U of T Magazine*, 21 King's College Circle, Toronto, ON M58 3J3

U of T Magazine, with a circulation of 320,000, is published quarterly by University Advancement. All material is copyright © 2014 Governing Council, University of Toronto, and may be reprinted with permission. Alumni receive the magazine free of charge. Donations accepted at magazine.utoronto.ca under "Support Us," or send a cheque payable to the University of Toronto at the above address.

Publications Mail sales agreement

No. 40065699

Non-profit postage paid Buffalo, NY

Permit No. 3415. U.S. Postmaster send address corrections to P.O. Box 29, Lewiston, NY 14092

Printed in Canada by TC Transcontinental Printing Inc. ISSN 1499-0040

Stay in touch

Do we have your correct name and address? If not, please call (416) 978-2139 or toll-free 1-800-463-6048 or email us at address.update@utoronto.ca

Visit us online: magazine.utoronto.ca **Twitter:** @uoftmagazine

The University of Toronto respects your privacy. We do not rent, trade or sell our mailing lists. If you do not wish to receive the magazine, please contact us at (416) 978-2139 or 1-800-463-6048 or address.update@utoronto.ca





Departments

Everyone – from presidents to pollsters – is predicting that women are the way forward

– Journalist and activist Sally Armstrong (MSc 2001). Her book gathers evidence suggesting the world is finally reaching the tipping point for women's rights, p. 49



11 UTM's new management institute puts the focus on innovation



52 Alumna Shahreen Reza plans to save lives with a filter for arsenic-polluted wells



19 Health studies professor Laura Bisaillon is concerned about the way potential immigrants are screened for HIV. She's calling for a fairer, more transparent system

- 3 Letters Preventing Labour Abuses
- 5 President's Message Leveraging our Location
- 6 Calendar UTSC's 50th Birthday
- 9 Life on Campus Indigenous Health
- 19 Leading Edge Barrier to Entry
- **45 Photo Contest Winners**
- 49 All About Alumni Woman's Time
- **56 Time Capsule** Blue and White!

Letters





Until there is sufficient legislative support for both administrators and enforcement officers, the hidden labour pool will experience continued abuse.

H.G. GOODWIN

CLaw 1986 WOODSWORTH, BA 1996 WOODSWORTH, PETERBOROUGH, ONTARIO

A Legacy Worth Preserving

Thank you for the wonderful tribute to Dr. Norman Bethune ("New Sculpture Honours Norman Bethune's Legacy," Summer 2014). I wanted to let you know that, for the last 13 years, the School of Health Sciences at Humber College in Toronto has provided a modest annual award in Dr. Bethune's name to recognize a health sciences student who has contributed to humanitarian work and demonstrated a commitment to publicly funded Canadian health care – while maintaining academic excellence.

We all need to do our part to ensure that Dr. Bethune's record of humanitarian work and innovative efforts for universal health care is never forgotten. Equally important: we need to emulate his efforts when possible.

JOE GROGAN

CBus 1967 WOODSWORTH, OCE 1969, MEd 1981, BOLTON, ONTARIO

The Best Teachers

I'd be more hopeful about our schools and the welfare of our children and students if, rather than forcing them to jump through the hoop of the master's degree, OISE ("OISE's New Direction," Summer 2014) screened candidates for their suitability as teachers and accepted only those who like children, can create a constructive classroom atmosphere, and can appreciate the psychodynamics of developmental stages and the impact

of the home and cultural environment on student learning and well-being.

We don't need more educational theoreticians or policy wonks. We need vibrant human beings who will engage enthusiastically and sensitively with our children in the classroom and introduce them to the complex challenges of the world with generosity, empathy and encouragement.

DAVID SCHATZKY

BEd 1973 OISE, TORONTO

Resources for Enforcement

I enjoyed the interview with Prof. Jeffrey Reitz about Canada's temporary foreign workers program ("Labour Troubles," Summer 2014), and was particularly drawn to the following statement: "Then there's the challenge of enforcement – of the rules of the program, but also the rules of labour relations in Canada. Workers without permanent resident status tend to be more compliant. It's easier for employers to ask them do extra work for low or no pay."

As a retired employment standards officer with 23 years' service with the Ontario Ministry of Labour, I found this statement to encapsulate a true dilemma for enforcement.

Enforcement officers know what the problems are but are helpless when it comes to enforcing basic employment standards. I suspect other jurisdictions experience similar problems.

Ontario dedicates few resources to proactive investigation of any kind – only reacting to complaints from those willing to complain. Until there is sufficient legislative support for both administrators and enforcement officers provincially in employment standards, the hidden labour pool will experience continued abuse.

H.G. GOODWIN

CLaw 1986 WOODSWORTH, BA 1996 WOODSWORTH PETERBOROUGH, ONTARIO

High Hopes for UC

As a UC undergrad some 20 years ago, I thought then that the main University College building could be so much more than it was (and it was already a great building). I'm very pleased to hear there are concrete plans to have it be even more of a home to UC students and staff ("Restoring UC's Glory," Summer 2014). I hope it doesn't take a full 10 years to realize those plans, but I look forward to visiting again soon.

STEPHEN PORTER

BSc 1993 UC, EDINBURGH, SCOTLAND

Even Cooler

I enjoyed reading "The Biggest, Boldest, Best Story Ever Told About U of T" (Summer 2014, but your factoid that 4.2° Kelvin (or -269° Celsius) is the coldest spot on campus was off by about seven orders of magnitude. I believe that this honour goes to Prof. Joseph Thywissen's ultra-cold atoms lab, where they routinely cool atoms to below 100 nanokelvin, or 0.0000001° K.

STEPHEN JULIAN

CHAIR, DEPARTMENT OF PHYSICS, UNIVERSITY OF TORONTO

How to Prevent Stress

We have now benefited from the Buddha's wisdom and pragmatism in finding a

cure for our stresses ("The Science of Mindfulness," Spring 2014). So how about if we were to prevent them? Isn't an ounce of prevention worth a pound of cure? In his teachings on mindfulness meditation, the Buddha insists that meditation be grounded in selfdiscipline. These "training principles" are: "I say no to taking life; no to taking what is not given; no to lying, backbiting, gossiping and foul language; no to sexual misconduct; no to binge drinking and addiction." These are not God-given injunctions, nor are they externally imposed. These are the principles that guide the life of every Buddhist.

Is there anything in them that a practitioner of any religion or no religion would find objectionable? To be self-watchful and socially responsible, as we practice mindfulness meditation, will make us happier and healthier,

and will lead to a more productive and creative workforce.

SUWANDA H J SUGUNASIRI

MEd 1971, PhD 1978, MA 1993, TORONTO

Celebrating Canadian Writers

I applaud PhD student Sara Angel as she tries to increase awareness for Canada's visual artists ("Beyond the Group of Seven," Spring 2014). Sadly, there is also a lack of knowledge about Canadian writers, as reported by Wendy Donawa and Leah C. Fowler in their book *Reading Canada: Teaching Canadian Fiction in Secondary Schools*.

Canada is blessed with many talented artists of all types, but our school curricula and commercial art outlets are dominated by foreign content. Canada needs to develop, inform and celebrate its own at every opportunity.

MARTIN GAGNÉ

BASc 1984, TORONTO

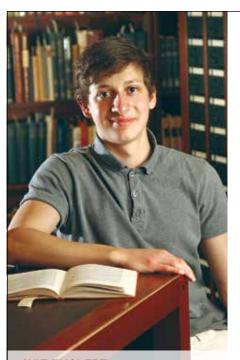
Corrections

"The Boldest, Biggest, Best Story Ever Told about U of T" (Summer 2014) named Hazel McCallion and Craig Kielburger as the oldest and youngest people, respectively, ever to have received honorary degrees from U of T. In fact, they are the oldest and youngest *living* people to have received honorary degrees awarded by U of T's Governing Council (which does not award honorary degrees on behalf of Victoria, Trinity or St. Michael's colleges, or the colleges of the Toronto School of Theology).

"Farewell to the Master" (Summer 2014) incorrectly referred to "Old Souls of Canada." It should have said "All Souls," in reference to the Oxford college. *U of T Magazine* regrets the errors.

Write to Us!

U of T Magazine welcomes letters to the editor at uoft.magazine@utoronto.ca.



AVIE ENGLERT
International Relations Student
Fantasy Football Guru
Varsity contributor

"Research essays are a big part of International Relations studies. Thanks to the resources at the Fisher Rare Book Library, I was able to get an A on an important recent assignment."

Your gift to U of T Libraries helps us nurture tomorrow's leaders today.

To become a Friend of the Fisher Library or to support the Library, please contact Megan Campbell at 416-978-7644 or visit www.library.utoronto.ca/support



BOUNDLESSKNOWLEDGE

Leveraging our Location

A strong university helps build a strong city, and a strong city helps build a strong university



A century ago, Toronto was home to 200,000 people. The city's biggest employer – Massey Manufacturing – produced farm tools. At the time, the University of Toronto enrolled just 4,000 students, but was growing quickly. It had recently opened a faculty of education and new engineering and physics buildings, with the goal of preparing leaders for Canada's burgeoning industrial economy.

Since then, both city and university have experienced phenomenal growth and change – fuelled and enriched by each other. As in so many global urban regions, we see here that a strong university helps build a strong city, and a strong city helps build a strong university. In today's knowledge economy, more than ever, we need to leverage this relationship to mutual advantage.

There is already a great deal to build on. In 2011–12, U of T and its affiliated hospitals carried out \$1.2 billion in funded research. About 20 per cent of this arose from collaborations with industrial, institutional and not-for-profit partners, including many local businesses and community-based organizations. As participants in these collaborations, our faculty and students are both the providers of new ideas and the beneficiaries.

U of T faculty and students have created companies, jobs and entirely new industries. This has helped the city to reinvent itself continually over time. Indeed, producing well-educated graduates represents U of T's single biggest contribution to the Toronto region, to Ontario and to Canada.

As well, many faculty and students conduct research into specifically urban challenges. For example, the Daniels Faculty's "gritlab" is testing the effectiveness of solar panels combined with green roofs. A PhD candidate in chemical engineering is developing an inexpensive monitor that could be deployed across the city to gather ultra-local air quality data. And then there's Professor Ron Buliung's great research on urban mobility, the built environment and human health.

Many of our students learn by working with neighbourhood partners. Both parties benefit from this. Our dentistry students served 78,000 patient-visits in their clinics last year. Half of these patients were children or seniors, and most were without insurance. At U of T Scarborough, our students

work with community partners at the East Scarborough Storefront, serving the social needs of nearby residents. And at U of T Mississauga, the Centre for South Asian Civilizations is enhancing our interactions with local South Asian communities, and providing new global learning opportunities for our students.

As often as our students and faculty go into surrounding neighbourhoods, residents of these neighbourhoods come onto our campuses. Members of the community comprise 40 per cent of the enrolment for fitness, clubs and classes at Hart House. Every summer and March break, thousands of kids descend upon U of T for the Junior Blues and Camp U of T programs. And our Munk School of Global Affairs welcomes 33,000 visitors annually to its conferences and other public events.

I mention these examples because they are absolutely typical and, like most root systems, nearly invisible. They are also important sources of community stability. Town-andgown challenges inevitably arise, and we've had our share. But too often these are allowed to overshadow decades of wonderful partnerships that go largely unnoticed.

The continued success of city and university will depend on how well both are able to continue to attract world-class talent. Toronto's cultural buzz and social harmony, its stable property markets, its public schools and libraries and other aspects of urban life make the city a magnet for brilliant people from around the world. And in turn, the talent attracted and retained by U of T creates opportunity for the entire region, the province and the country.

Our shared challenge, then, is to keep working together – and to find new ways of working together – to ensure our continued flourishing in the decades to come. The partnership between the Toronto region and its namesake university is crucial to the wellbeing of each. In fact, that partnership is so profound that it is often overlooked. But this is all the more reason that it requires our constant attention.

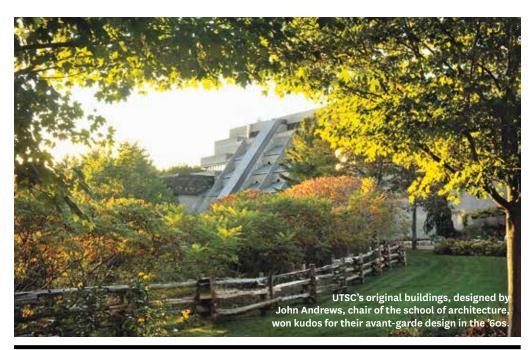
Sincerely, Meric Gertler

Adapted from a speech to the Toronto Region Board of Trade in May 2014.

Calendar

MORE EVENTS!

Check out the latest campus happenings at **utoronto.ca.**



OCTOBER 6

UTSC's 50th Birthday

U of T's Scarborough Campus celebrates 50 years with a free party on Monday, October 6, at noon. Alumni, students, staff, faculty, retirees and members of the community are invited to a street party that will feature gourmet food trucks, displays, live entertainment and speeches by university leaders. The event will be held on the plazas of the UTSC campus near Military Trail and Ellesmere Road.

 $For information, contact \, Mary \, Ferguson, \, \textbf{mferguson} \\ \textcircled{\textbf{outsc.utoronto.ca}}, \, or \, visit \, \textbf{utsc.utoronto.ca} \\$

Alumni

September 27 Washington, D.C.

All Canadian Universities Group Lunch. 12:30–3 p.m. Marrakesh Restaurant, 2147 P St. N.W., Washington, D.C. For info: Deirdre Gomes, 416-978-1669, deirdre.gomes@utoronto.ca.

September 30 Ottawa

President's Reception. 6–8 p.m. Fairmont Château Laurier, 1 Rideau St., Ottawa. RSVP with guest's name at alumni.utoronto.ca/ottawa2014 or 1-888-738-8876. For info: Teo Salgado, 416-978-2368, teo.salgado@utoronto.ca.

October 8 London, England

Alumni Reception. 6-9 p.m. Marriott Grosvenor Square, Grosvenor Square, London. For info: Teo Salgado, 416-978-2368, teo.salgado@utoronto.ca.

October to December Toronto Plaza Hotel

Skule Lunch & Learn Speaker Series. A monthly luncheon and talk for engineering alumni. curator and deputy director of collections and research at the Royal Ontario Museum.

Nov. 12: Prof. David Lie on secure system software for smartphones.

Dec. 10: Prof. Michael Carter on health-care engineering. \$30.

Noon-2:45 p.m. 1677 Wilson Ave.
For info: Tom Vosper, 416-946-

Oct. 8: Mark Engstrom, a senior

October 22 Toronto

5066.

UTSC PWR Play. UTSC's popular young alumni networking event is back. Free. 6:30–8:30 p.m. Venue

TBA. For info, contact Regan Tigno, rtigno@utsc.utoronto.ca.

October 29

BizSkule: Mobility 3.0: Rethinking the Future of Transportation.

How will emerging industries, technologies and concepts enable us to travel efficiently and sustainably? \$30. 6–8:30 p.m. 1 First Canadian Place, Suite 3400. For info: Katharine Blanchard, 416-978-4274, kblanch@ecf.utoronto.ca.

November 8 Knox College

Knox Former Residents Association Dinner. Keynote speaker Richard Marsella of the Regent Park School of Music. Guests welcome. \$90. 6 p.m. reception, 7 p.m. dinner. 59 St. George St. For tickets: Seta Ghougassian, 416-978-6228, knox.college@utoronto.ca or visit knox.utoronto.ca/knoxfradinner.

November 14 Chestnut Conference Centre, Toronto

Department of Immunology 30th Anniversary Event. Talks, reception and dinner. Free. 1 p.m.-midnight, 89 Chestnut St. RSVP to medicine.rsvp@utoronto.ca.

November 17 Calgary

Calgary Fall Reception. With guest speaker Prof. Elizabeth Edwards, director of the BioZone. Price TBA. 6–8:30 p.m. Bow Valley Club, 250 6 Ave S.W. #370. For info: Katharine Blanchard, 416–978-4274, kblanch@ecf.utoronto.ca.

Exhibitions

October to December Justina M. Barnicke Gallery

to Oct. 19: Why Can't Minimalism? Oct. 30 to Dec. 19: Wendy Coburn: Anatomy of a Protest.

Free. 12–5 p.m. Mon.–Fri.; 1–5 p.m. Sat. 7 Hart House Circle. For info: jmbgallery.ca.

MAGAZINE.UTORONTO.CA PHOTO: KEN JONES

U of T remembers the centenary of the beginning of the First World War at Soldiers' Tower on November 11, with a 10 a.m. Service of Remembrance.



to November 15 University of Toronto Art Centre AA Bronson: Life and Work.

Featuring work by the artist, healer, educator and surviving member of General Idea, this exhibition centres on a series of life-size, diamond-dusted self-portraits of Bronson as artist-shaman.

Robert Giard: Towards the Particular. Disarming in their unadorned style, the portraits featured in this exhibition are drawn from a gift of 53 works by the American photographer. Free. 12–5 p.m. Tues. – Fri. (to 8 p.m. Wed.); 12–4 p.m. Sat. 15 King's College Circle.

to December 19 Thomas Fisher Rare Book Library

Fierce Imaginings: Text and Image in First World War Literature.
Catalogue and exhibition by Graham Bradshaw. Free.
9 a.m.-5 p.m. Mon.-Fri. (to 8 p.m. Thurs.) 120 St. George St.

Music

October and November Walter Hall

Oct. 15: U of T Jazz Orchestra.
Gordon Foote, conductor. Free.
7:30 p.m. 80 Queen's Pk.
Nov. 7: Concert: "Paradoxical by
Nature." This program blends musical and theatrical performances
with humour and pathos. Mozart,
Kagel, Satie. Free. 7:30 p.m.
80 Queen's Pk.
Nov. 10: Monday Evening

Concerts. Cecilia String Quartet. Lydia Wong, piano. Beethoven, Shostakovich. \$40 (\$25 seniors, \$10 students). 7 p.m. 80 Queen's Pk. Tickets: 416-408-0208.

October 25 MacMillan Theatre

University of Toronto Symphony Orchestra. Uri Mayer, conductor. Elizabeth Polese, soprano. Weber, Brahms, Mozart, Beethoven. \$30 (\$20 seniors, \$10 students). 7:30 p.m. 80 Queen's Pk. Tickets: 416-408-0208.

Special Events

October 7 Goldring Centre, Back Campus

Campus Community Sneak Peek
Event. A chance to get an in-depth
look at these two beautiful new
facilities, test state-of-the-art
equipment or participate in a wide
range of activities. Open to all
U of T faculty, staff, students
and community members. Free.
11 a.m.-2 p.m. For info:
physical.utoronto.ca.

October 9 UTSC Campus

ARTSIDEOUT is a large-scale, one-day, multi-disciplinary arts festival that celebrates arts and culture at UTSC. Free.
11 a.m.-11 p.m. 1265 Military Trail. For info: hello@artsideout.ca, artsideout.ca.

October 18 Rotman School

Annual Open House. Experience the Rotman School and its programs for a day. Free. 10 a.m.-3 p.m. 105 St. George St. rotman.utoronto.ca.

October 18 Bahen Centre

Go ENG Girl. Girls in Ontario in Grades 7 to 10 and their parents visit U of T and learn from women professionals, academics and students about engineering. Free. All day. 40 St. George St. Registration is required at onwie.ca/programs/ go-eng-girl. For info: Elizabeth Christy, 416-946-0816, outreach@ecf.utoronto.ca.

October 23 U of T Mississauga

An Evening of Dastangoi: The Lost Art of Storytelling. Ankit Chadha will introduce the audience to Dastangoi and the work done to revive it. This will be followed by a performance. Free. 7–9 p.m. MiST Theatre, UTM. For info: 416-978-4785, ajay.rao@utoronto.ca, utm.utoronto.ca/csac/centresouth-asian-civilizations.

October 25, November 1, 8 St. George Campus

Fall session of Girls' Jr. DEEP.
For students in Grades 3 through 8.
Participants will conduct experiments, work on engineering design projects and collaborate in an allgirls environment, taught by women engineering students.
\$100 per session. 1-4 p.m. For info: Elizabeth Christy, 416-946-0816, outreach@ecf.utoronto.ca.

November 2 Various locations

Art Bus Tour. Visit the Justina M. Barnicke Gallery, University of Toronto Art Centre, Blackwood Gallery and the Art Gallery of York University. Refreshments and brief tours will be provided. Free. Reserve by Oct. 30 at 416-978-8398, jmb.gallery@utoronto.ca.

November 9 and 11 Soldiers' Tower

Nov. 9: Carillon Recital. The Memorial Room is open to visitors after the recital. Free. Noon-1 p.m. Nov. 11: Service of Remembrance. Our service this year commemorates the centenary of the beginning of the Great War and includes a carillon prelude and postlude. Followed by a public reception in the Great Hall of Hart House. Free. 10:20–11 a.m. For more information: 416-978-3485, soldiers.tower@utoronto.ca.

November 15, 22, 29 St. George Campus

Fall Session of Jr. DEEP. Courses on cutting-edge topics in science, technology and engineering for students in Grades 3 through 8. \$175 per session. 1–4 p.m. For info: Elizabeth Christy, 416-946-0816, outreach@ecf.utoronto.ca, outreach.engineering.utoronto.ca.

November 20 U of T Mississauga

Countdown to Success. Featuring Bruce Croxon (formerly of *Dragon*'s *Den*). Come network with students, alumni and professionals. Free. 7–9 p.m. Innovation Complex, 3359 Mississauga Rd. To register: IMIUofT.ca.

Sports

October 30 to November 2 St. George Back Campus

2014 CIS Field Hockey Championship. The best field hockey players in Canada compete for a national title on new turf, which will be used for the 2015 Pan American Games. Tickets: varsityblues.ca/tickets.

November 21 Goldring Centre

Varsity Blues Basketball Grand
Opening. Come see our men's and
women's basketball teams take on
the Nipissing Lakers in this brand
new state-of-the-art facility.
Women's game, 6 p.m. Men's game,
8 p.m. 100 Devonshire Pl. Tickets:
varsityblues.ca/tickets.

Theatre

September to November Hart House Theatre

to Oct. 4: The Importance of Being Earnest. Oscar Wilde's farcical satire of two Victorian aristocrats trying to escape their social burdens. Nov. 5 to 22: The Tempest. One of Shakespeare's most acclaimed plays, this is the tale of a vengeful, exiled lord who is willing to sacrifice the happiness of his beloved daughter to destroy his rivals. \$28 (seniors \$17, students \$15). 8 p.m. 7 Hart House Circle. Tickets: 416-978-8849 or uofttix.ca. For info: harthousetheatre.ca.

November 27 to 30 MacMillan Theatre

Opera: HMS Pinafore. The classic comedy from Gilbert and Sullivan, in a production made possible through a gift from David G. Broadhurst. \$40 (\$25 seniors, \$10 students). 7:30 p.m. (except 2:30 p.m. on Nov. 30). 80 Queen's Pk. Tickets: 416-408-0208.

PHOTO: MICHAEL CHAHLEY

AUTUMN 2014



Meet you there.

Join adventurers like you for the trip of a lifetime. The University of Toronto Alumni Travel Program offers boundless opportunities to connect with alumni and other travellers who share your interests. These journeys crisscross the globe. They're always fascinating, enriching and meticulously planned—down to every refined detail and delectable flavour. What will make your experience truly memorable are the people you meet along the way.

Details about all 35 alumni travel adventures for 2015 are at: alumnitravel.utoronto.ca 1-800-463-6048 or 416-978-2367.

Explore the World



Life on Campus

"Everything we did was on a slide rule, which is one step better than an abacus."

Prof. Rod Tennyson on helping save Apollo 13 **p. 16**



Birth of a Collaboration

Institute for Indigenous Health opens at the Dalla Lana School of Public Health

AT THE TORONTO BIRTH CENTRE, THERE'S A TREE FESTOONED with ribbons, each celebrating the birth of a new child. Governed by indigenous midwives, the centre shares traditional aboriginal practice and knowledge with the mothers it serves. It also focuses on forging positive relationships between midwives and mothers – relationships that often lay the groundwork for future generations, says Dr. Janet Smylie, a professor at U of T's Dalla Lana School of Public Health.

That's the type of meaningful connection people are looking for in health care – one that allows individuals and communities to take an active role in their own health.

This idea is becoming more prevalent in today's world, and perhaps nowhere is it more needed than in indigenous communities. Despite substantial progress in recent years, indigenous peoples in Canada continue to experience a level of health care and health outcomes substantially lower than that of non-indigenous Canadians. This is why donors Michael and Amira Dan gave \$10 million to the University of Toronto to establish the Institute for Indigenous Health at the Dalla Lana School, which is led by Dean Howard Hu.

Smylie and Carol Strike, also a professor at the school, have been appointed co-chairs of the academic committee setting the priorities for the institute. Smylie is excited by the prospect of providing students with the opportunity to >

PHOTO: COURTESY OF AMIRA AND MICHAEL DAN

AUTUMN 2014



Shape Shifter

Fashion for wheelchair users featured at ROM



says Royal Ontario Museum senior curator Alexandra Palmer, a professor of fine art history, of Fashion Follows Form: Designs for Sitting. look at things that appear "completely conven-

"IT'S THE MOST DIFFICULT EXHIBITION I'VE EVER DONE."

Her challenge was how to get people to stop and tional – which is the point" – but understand that the way the clothes are cut out and put together is unconventional. The exhibit includes both modern and historic clothing.

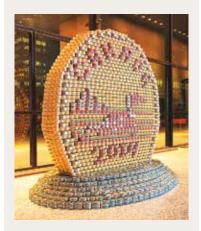
Palmer (BA 1979 Victoria) was inspired by the IZ Adaptive fashion line for adults in wheelchairs, created by award-winning designer Izzy Camilleri. "I was very struck by what she was doing," Palmer says. Designing for a seated person presents complicated requirements – ease of dressing and safety, of course, but each garment must be adapted to avoid tightness under and around the body, bunching over the lap and sloppy hems, just for starters. Because Camilleri is so good at her work, Palmer says, "All of that vanishes." But the designer's magic becomes

evident in a tailored trench coat displayed on both a standing and on a sitting form. The diagonal, almost avant-garde drape of the hem on the former straightens neatly across the lap on the latter.

Palmer points out that the exhibit's roster of high profile contributors – ranging from artists to engineers to athletes – all use wheelchairs, a difficult reminder that any of us may someday shift from standing and walking to sitting. Even so, people "are embracing the subject matter," she says, and finding it "emotionally moving." And it helps everyone understand, she adds, that "fashion is social." - JO CALVERT

View Fashion Follows Form at the ROM until January 25, 2015.

EPHEMERA



U of T engineers and architects came together to build a whimsical structure from tuna cans at Toronto's annual Canstruction competition in May. Addie Denison (BASc 2013) and Sarah Mackel (BASc 2012) led the team from Aercoustics Engineering and Rebanks Pepper Littlewood Architects. "It was an opportunity to use our other engineering skills," Mackel says. Their team won the award for structural ingenuity for its 5,471-can sculpture of a loonie. All the food was given to the Daily Bread Food Bank. "The amount was impressive," Denison adds. "It was an awesome opportunity to give back to the community." - STAFF

learn about the strengths that exist in indigenous communities, so that they might combine this knowledge with what they're learning in the classroom. The institute will facilitate this by building new partnerships with indigenous communities and recruiting respected indigenous knowledge leaders to steer the organization's direction.

"The actual creation of an institute that merges traditional and contemporary experience in health is a truly exciting development for indigenous peoples the world over," says Elder Fred Kelly, a member of the Ojibways of Onigaming and a citizen of the Anishinaabeg Nation. "It is noble in vision and bold in mission. Its spirit of innovativeness is a dream coming true."

Special skills and dedication are needed to combine the knowledge and practices of indigenous peoples with the science that evolves in university labs and libraries, and to come up with solutions that are lasting and will be appropriate to

the community. Smylie believes that the new institute will champion this cross-cutting approach, encouraging scientists to think in a translational way, in keeping with U of T's history of scientific innovation. While the health issues that confront Canada's First Nations are the same as those that exist in the wider population, health outcomes tend to be poorer and services less accessible. Therefore, the institute's research will extend beyond the usual view of what constitutes health to include food, security, housing, employment, general quality of life and happiness.

"The institute will help us to move beyond a vision of just trying to reverse negative health outcomes, to one where we're supporting innovation, capacity, and relationships to enable a healthy future," Smylie says. "Working with the community, we will be able to encourage new ways of thinking about health, ultimately allowing people to feel empowered."

- CLAIRE MORRIS WITH FILES FROM MICHAEL KENNEDY

Life on Campus



Cultivating Leaders

Progressive school of management launched at U of T Mississauga

A NEW INSTITUTE FOR MANAGEMENT & INNOVATION (IMI), which just opened its doors at the university's Mississauga campus, is ready for the future. The IMI offers cross-disciplinary programs that prepare graduates to excel in science-based businesses; professions such as accounting and human resources; and organizations focused on sustainability. A primary focus on innovation will help students develop the knowledge, creativity, collaboration skills and leadership abilities to take bright ideas – theirs and others – and put them into action.

The institute will offer professional master's programs in biotechnology, accounting, innovation and sustainability – and undergraduate programs in accounting, finance, marketing and human resource management – all existing programs that have been enhanced with a greater focus on

bringing ideas to fruition. Along with a new PhD certificate program in professional development, these programs will be housed in the new Innovation Complex, a four-storey facility that will let students in different programs learn with and from each other through shared courses, joint projects, and mutual study and social spaces.

"The typical structure within a university is to divide into manageable units as departments, but this siloing often means that expertise across departments is not widely shared," says Ulrich Krull, vice-principal of research at UTM and the person who proposed the institute. "The IMI and the Innovation Complex encourage the elimination of silos so that communication across key sectors, such as management, can be facilitated."

The objectives and structure of the institute took shape over the last four years through an extensive consultation process among U of T's three campuses, local businesses and the City of Mississauga. Initially accommodating about 2,000 students, the institute will perform research in areas such as health care, the energy sector, and entrepreneurship.

Students will be exposed to examples of forward-thinking practices in their fields, work with industry partners in co-op placements and participate in experiential learning activities. An example of the latter, Krull says, might involve students operating as a corporation or startup and tackling a specific challenge: developing a plan, identifying and procuring needed equipment, completing progress reports and staying within a budget. In addition, students will gain real-world experience in how innovative ideas become practical realities through interactions with corporate partners.

IMI director Hugh Gunz, a professor of organizational behaviour and human resource management at UTM, says the initiative will ultimately bolster Mississauga's economic development. "We're seeking to help Mississauga advance new partnerships in the business community, attract international talent and compete on a global scale," he says.

- SHARON ASCHAIEK

N'sheemaehn Child Care Centre



The meaning behind the name of the *N'shee-maehn* Child Care Centre at U of T Scarborough (UTSC) is as interesting as the person who helped name it.

N'sheemaehn means younger brother or sister in Ojibwa. According to the legend retold on the daycare's website, some parents ask their children to watch their youngest sibling for the day. But the kids get distracted, and the baby goes missing. They search for the infant, calling out "n'sheemaehn!" But he has turned into a chickadee, and echoes back "n'sheemaehn"

to remind his family of their neglect.

Another version of this story appears in the book *Honour Earth Mother* by Basil H. Johnston, a leading Anishinaabe storyteller, former Royal Ontario Museum ethnologist and Order of Canada recipient. Johnston helped name the 24-year-old daycare: UTSC approached him for ideas and the chickadee story, with its emphasis on caring for our young, resonated.

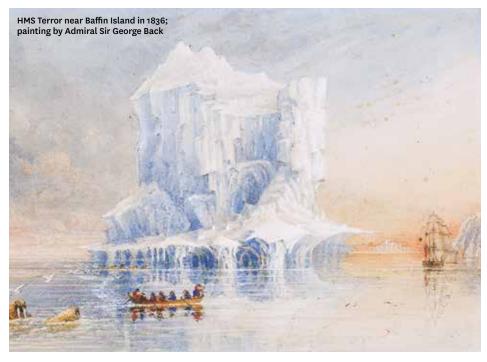
Open year round, *N'sheemaehn* serves 54 "chickadees" – children of students, staff and faculty, and the public. – **SHARON ASCHAIEK**

PHOTO: TOP, LIAM SHARP; BOTTOM, ISTOCK

AUTUMN 2014



During the War of 1812, HMS Terror was one of the ships that inspired Francis Scott Key to write about "rockets' red glare" and "bombs bursting in air" in the American national anthem



A Polar Mystery Solved

In 1848, the British Admiralty offered a huge reward to any party finding and rendering assistance to the crews of the HMS Erebus and HMS Terror, ships lost during the 1845 expedition led by Sir John Franklin to search for the Northwest Passage. Search parties never stopped looking. From Inuit whispers to society gossip in England, the unsolved mystery quickly entered the realms of myth and legend.

Joseph Frey (BEd 1979), Chair of the Royal Canadian Geographical Society's College of Fellows, says he is "excited and honoured" to be a member of the 2014 Victoria Strait Expedition in Nunavut, that found one of the two lost ships.

The expedition comprised a coast guard icebreaker, a Navy patrol ship and two research vessels, supported by a helicopter, zodiacs and an unmanned Canadian-made submersible designed to gather information from beneath the icy waves. With stateof-the-art multi-beam and side-scan sonar, the crews started to search where they left off last year, with the goal of mapping the water depth and topography of the ocean bottom over a previously uncharted 1,600 square kilometre area.

Frey says that the search "... will not only add to our historical knowledge but will also increase our scientific knowledge of this region of Canada's Arctic." - DALE SPROULE

SOUND BITES

Remembering your first year at U of T, what advice would you give to new first-vear students?

Take at least one course that excites you or for fun. You never know, you may find your calling this way (I did)!

Shawna Scale, @s_scale

U of T has a huge clubs community. There's a club for everyone, and if you can't find one you like, you can make one yourself!

Llyvell Gomes, @Llyvell

Go into your lectures without expectations. There's no single formula to success. Treat every course and instructor differently.

Tooba Shakeel, @tooba-shakeel

Having a group of friends to study with is always easier than going at it alone! Remember, we're all in this together!

Uliana Shafranska, @Uliana555

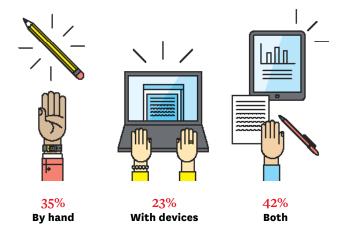
Join the conversation at twitter.com/uoftmagazine.

Do you take handwritten notes, or use your laptop/tablet/iPad?

When it comes to successful learning, high-tech innovations may not always help. A study in Psychological Science found that students who took notes on laptops didn't learn material as well as those who took notes longhand perhaps because students who handwrite their notes more often reframe material in their own words, absorbing the information better. More than a third of U of T students always take long-hand notes. "Working as a teaching assistant, [I noticed that] laptops tend to reduce social interaction," adds Emily Zoe Hertzman, a fifth-year anthropology student.

"I do find that after I type out my notes I'll write it out by hand to help me learn it," says Alexandra Zimmer, one of the minority of U of T students who take notes exclusively on a laptop or other device. Speed and convenience were the top reasons students report for using devices in class. Of course, the choice isn't either/or; many say they use both methods. - JESSICA LAY

This highly unscientific poll of 50 students was conducted on the St. George campus in July.





The "ombuds" in "ombudsperson" is part of a Swedish word meaning "representative." Other Swedish words adopted into English include smorgasbord, moped and tungsten

P.O.V.

Fair and Impartial

After more than 50 years at the university, many as an administrator, Joan E. Folev is positioned to see the big picture – which is exactly what you want in an Ombudsperson

What do you want people to know about the Office of the **Ombudsperson?** We're here to assist people who have some problem with the university or with their treatment at the university. They can come here and expect we'll be fair. We listen – that's really important.

We respond quickly. We'll go to whichever campus - if there's a meeting needed – or talk to them over the phone or by e-mail. We can't always get people what they think they want when they first approach us, but we will try to

make sure that they fully understand their options. A great deal of what we do is providing people with information.

But there's a bigger goal too, beyond each individual situation you resolve? I like to think of the office as one of the university's instruments for improving itself. We report to the governing council directly, not to the president or any member of the administration, so it makes us independent. Although we don't have power to change policy or to make decisions for the university, we can write reports and make formal recommendations.

What is the process for ensuring confidentiality? We don't contact anybody about a matter that is brought to us, unless the person who brought it gives us written consent to talk to the relevant administrators. Our role is not to advocate for the person who came, but to try to figure out what the issues are for both parties and see if we can help to find solutions that might be acceptable to both. The administrators we deal with are generally receptive and often want to talk about this issue and why it's difficult for them too.

You've held many key roles at U of T, including associate dean of Arts and Science, principal of UTSC and provost. Do you think of yourself as a trailblazer? There's certainly a different presence of women in university administration now than there was when I started. People don't usually set out to be academic administrators! As a student -I didn't even know they existed. I like problem-solving I guess and that's the common thing that runs through all the roles I have had. That's the way I think of administration: it's solving problems so that the people who do the work at the university can do it under the best possible conditions.

How does your long experience at U of T help you in the role of ombudsperson? The policies involved in some of the issues that we deal with now - I recall the context of those policies being brought into place and how it's changed. The initiatives that are most successful are not things that grow full-blown out of the head of a person in whatever office who says, "This is what the university is going to do" - they're the ones that are informed by the ideas and experience coming from the grass roots."

Read a more in-depth interview with Joan Foley at magazine.utoronto.ca

Why I Give



Richard Rooney (BA 1977 New), a long-time supporter of New College, recently teamed up with the New College Student Council to build a plaza on Willcox Street outside the college. After students pledged \$150,000 towards the plaza, Rooney, who is President and CIO of Burgundy Asset Management, was inspired. He generously gifted the remaining \$650,000 needed to fund the project for the College that provided him with years of happy memories.

Richard: "I come from a very small town and so for me, U of T was an extraordinarily exciting adventure. Some of my first-year classes at New had more people in them than my hometown! Being in residence provided me with a great experience where I met people from all over the country, and where I felt very comfortable.

"The plaza project appealed to me because the quad off Willcox Street was lacking in some character. Mind you, for years, I defended New College's rather unusual design! The new plaza will provide a beautiful and functional space that will welcome students and visitors and provide a meeting place for them, while complementing that iconic architecture.

"But the clincher for me was when I heard New College students had voted to raise \$150,000 of their own money. The best people to assess the importance of any project are the people who will live with it every day. I am proud to support their efforts, especially at New College which played such a pivotal, positive role in my life."

Learning to deal with disabilities in Cameroon

U of T prof collaborates to improve care delivery in country she loves



WHEN 11-YEAR-OLD LYNN COCKBURN'S FATHER got a teaching job in a small village near Bamenda, the capital of Cameroon's Northwest Region, her family moved there for two years. She recalls, "At first, it was really difficult for a small town Ontario girl to adjust to living in an African village." But she came to love it.

After coming back to Canada, she knew she would return to Cameroon one day – and that day came a decade ago. As

a founding member of the International Centre for Disability and Rehabilitation (ICDR) at U of T in 2004, Cockburn took charge of ICDR's Cameroonian group, along with fellow occupational therapist Kate Suffling. "Knowing the background and having personal relationships in Cameroon, I knew that I wanted to commit. I decided to see what I could accomplish there in 10 years."

"I was excited to go back and felt welcomed despite difficult circumstances," says Cockburn. "Access to health care is expensive and limited by a low ratio of health-care providers to patients. People with disabilities are marginalized and have very limited opportunities in their lives."

The occupational science and occupational therapy professor's approach to rehabilitation in Cameroon is three-pronged: help deliver direct care to people with disabilities, train therapists and care providers, and carry out research. More than 20 U of T occupational therapy students have learned about care delivery in Cameroon over the years, thanks to ICDR's partnerships. "Our visiting students provide direct service to patients at a rehabilitation centre, as well as take on at least one or two research or clinical projects, so that they see a bigger picture of international disability and rehabilitation work."

When it comes to working with the local health-care providers, it is all about humility and openness for Cockburn and her Canadian colleagues and students.

"One of the things that we've done really well in Cameroon is to provide spaces and opportunities to talk about issues related to rehab and disability," says Cockburn. She hopes that there will one day be a rehabilitation program at the new University of Bamenda. The school's visiting scholar program – which Cockburn helped set up – may be one step, providing new opportunities for scholars around the world to teach and work in Cameroon. – VITALY KAZAKOV

Idea Bank: Open Late



Deep Prasad doesn't see the point of sleep.
"For me it's just a huge waste of time." So when the rest of us are out cold, Prasad is just warming up. Two a.m. is when the 18-year-old electrical and computer engineering student starts day-dreaming: it's what he calls his "innovation hour," a time to document his thoughts in his "ideas journal."

Prasad stresses the importance of old-fashioned writing on paper – not typing on an electronic device. He also makes plenty of diagrams. "When you're in the process of converting your thoughts into mechanical writing or drawing, you start thinking harder about what you're doing," he says.

Prasad has compiled over 200 ideas in the last six months. His ritual has so far paid off handsomely: in July, he was awarded second

place in the Next Einstein initiative, an ideas contest established in 2013 by the Canadian Friends of Hebrew University in conjunction with the Hebrew University of Jerusalem. In his entry, Prasad outlined a way to generate energy for storage and later use, simply by typing on special computer keyboards.

Prasad first started his journal in Grade 7, but soon lost it and the childhood ideas that it contained. No matter. Prasad has many other ideas, and encourages others not only to write theirs down, but to try and realize them too. "Every person has a big idea at one point in their life, right? But so many of us are intimidated by not having the resources to make them happen. If we could overcome that, the world would be 100 times better."

- CYNTHIA MACDONALD





Dive Right In

Volunteer opportunities at the Pan Am and Parapan Am Games

YOU KNOW THE GAMES ARE COMING, but do you know the central role to be played by the University of Toronto in the 2015 Pan/Parapan American Games?

"These games bring great sport and culture to our doorstep,"

says Bruce Kidd, interim vice-president and principal of U of T Scarborough, where the new Toronto Pan Am Sports Centre will be the site of swimming, diving, fencing and sitting volleyball events, as well as the swimming and fencing portions of the modern pentathlon. The St. George Campus will host archery at Varsity Centre and field hockey on the Back Campus as well as the five-a-side and seven-a-side football events of the Parapan Am Games.

We have the places, now we need the people. Volunteers are needed to prepare fields, take tickets, usher spectators, shuttle athletes and dignitaries to venues and participate in the opening and closing ceremonies. If welcome houses, an initiative being considered for both the St. George and Scarborough campuses, go ahead, they will be staffed by alumni and friends of U of T to greet guests - from around the corner or around the globe - to the campus and the games.

Scheduled to run July 10 to 26 (2015 Pan Am Games) and Aug. 7 to 15 (2015 Parapan Am Games), these important competitions promise to bring together alumni, staff, faculty and students and give participants and spectators from home and abroad a strong sense of the university's commitment to athletics. - ARTHUR KAPTAINIS

For more information on volunteer opportunities, visit www.toronto2015.org/volunteer.



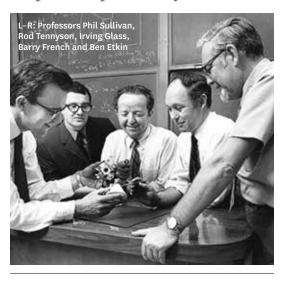
EVERY GIFT ADDS UP...

AUTUMN 2014 PHOTO: KEN JONES

IN MEMORIAM

Bernard Etkin

Legendary aerospace engineer helped shape history



BERNARD (BEN) ETKIN'S WORK as an aerodynamics expert took his curiosity far into the sky: a fitting place, according to colleagues who believe this "giant" of aerospace engineering always did tower above the rest of us.

Etkin (BASc 1941, MASc 1947), who passed away June 26 at the age of 96, is remembered as a treasured professor, inventor, researcher and administrator who played a large part in the events of his time – most famously in April of 1970, when his leadership qualities were called on to help save astronauts floating helplessly in space on NASA's crippled Apollo 13 mission.

On that day, an oxygen tank explosion forced the astronauts to abort a planned lunar landing. But to re-enter safely, they needed to blow the craft's lunar module away from its command/service module,

without damaging the hatch that connected the modules. This required the calculation of a very specific oxygen pressure level.

Etkin and his colleagues at the University of Toronto Institute for Aerospace Studies (UTIAS) were given six hours. "Everything we did was on a slide rule, which is one step better than an abacus," laughs retired UTIAS director Rod Tennyson (BASc 1960, MASc 1961, PhD 1965), a member of the team. Each scientist had his specialty, says Tennyson: "and Ben was the logical guy, the one who could see flaws the rest of us might not notice. When he felt the number we'd come up with would work, that gave us confidence." The number did work, and the astronauts splashed down safely.

In other respects, too, Etkin's life is a model of how engineers can shape history. He lent his considerable knowledge to the development of numerous aircraft, including 1958's famous Avro Arrow. He was also consulted on the aerodynamic integrity of Toronto's City Hall building in the 1960s. And his last scientific paper, published at the age of 92, was a meticulous examination of climate change.

Though his specialty was aerodynamics – textbooks he wrote are classics in their field – he was also a true polymath. "Ben Etkin was a supremely inquisitive individual," says Gabriele D'Eleuterio (BASc 1980, MASc 1982, PhD 1985), professor in the Space Robotics Group and former graduate student at UTIAS (which Etkin co-founded in 1950). "He had a passion for his particular subject, but also for science in general." Adds Tennyson: "He had a remarkable talent for being able to listen to any problem that wasn't in his own discipline, and was very logical in his approach."

This passion fuelled his work as an inventor and businessman – he held 11 patents. But Tennyson and D'Eleuterio remember Etkin best as a mentor to other engineers. He served as dean of engineering from 1973 to 1979.

"He didn't treat me as a student, but as an equal," says D'Eleuterio. "... he was a true scholar who was remarkable in opening up vistas for his students." – сумтны массонаьс

Ali Saeed



Ali Saeed, 21, had just completed his third-year exams when he had a fatal heart attack on May 10. The ambitious student's sudden death rocked his wide circle of friends and inspired many at U of T's St. George campus to emulate his generosity.

A native of Islamabad, Pakistan, Saeed lived in Toronto with his brother for three years while pursuing a double major in political science and economics. Perpetually tethered to a camera, Saeed frequently photographed the events at Hart House. This community hub displayed some of his best shots over the summer, and is still accepting donations for a student photographer endowment at www.uoft.me/24E.

"Ali was very concerned and very conscious of Pakistan's political, economic and humanitarian situation," says Sameer Zaheer, a software engineer who met Saeed through the Muslim Students' Association (UofTMSA) shortly after his arrival. "But what really struck me about him was how generous he was." When Zaheer was in Toronto alone during Eid, for example, Saeed insisted he spend the holiday with his family and visiting parents.

A condolence book at the Arts and Science Students' Union, where Saeed served as an executive, quickly filled up. Scores of students left memories on the MSA Facebook page and Pakistan's consul general for Canada in Toronto issued a statement of remorse. An online fundraiser to build a solar-powered well in Pakistan for Ali Saeed quickly exceeded its \$8,000 goal, with an extra \$5,000 going to local orphanages. His friends are not surprised. "He had a lot of close friendships," says Zaheer, "not just passing ones." - DYLAN C. ROBERTSON

People

Congratulations to the five professors who were appointed to the Order of Canada in June: Marion Bogo (social work), Anthony Doob (criminology), David Goldbloom (psychiatry), Roy Shephard (kinesiology) and Donna Eileen Stewart (psychiatry).

Four U of T students were selected for this year's Top 20 Under 20 Award, which recognizes young Canadian leaders for their innovations and their efforts to enact positive change.

Kourosh Houshmand, who is studying international relations at Trinity College, is the founder of the Toronto Star Student Hub, a community of aspiring student journalists, and Education Rediscovered, a student organization devoted to global education reform.

Life sciences student Jessie MacAlpine used an ingredient found in mustard oil to create an effective bioherbicide and fertilizer that is currently under review for an international patent. Her research on mustard oil as an inexpensive and effective alternative malaria treatment won her several international awards. She has

also helped raise more than \$20,000 to support schools in developing countries.

Wali Shah, a student of political science and history of religions at UTM, is a spoken-word poet and hip-hop artist who speaks publicly on mental health and bullying. A popular speaker of the United Way Speakers Bureau, he has raised more than \$1 million for community building.

And Jia Yun (Jeanny) Yao, who is working on a double major in environmental sciences and biochemistry, is researching biodegradation of toxic plasticizers. While still in grade 12, Yao and classmate Miranda Wang sampled landfills to discover a new bacteria that breaks down plastics.

Prof. Trevor Young will serve concurrent fiveyear terms as dean of the Faculty of Medicine and as Vice-Provost, Relations with Health Care Institutions, beginning January 1. Prof. Young is chair of the department of psychiatry, a professor in the department of pharmacology and toxicology, and senior scientist at the Centre for Addiction and Mental Health. He replaces Catharine Whiteside as dean of medicine.

U of T has selected two faculty members to receive the designation University Professor, in recognition of their outstanding scholarship:



Andres Lozano, in the department of surgery at the Faculty of Medicine; and Molly Shoichet, in the department of chemical engineering and applied chemistry in the Faculty of Applied Science & Engineering.

Three U of T professors have received fellowships from the John Simon Guggenheim Memorial Foundation, given to a leader in mid-career on the basis of exceptional scholarship or creativity in the arts: Anver Emon (law), Ray Jayawardhana (astronomy) and Eric Jennings (history).



PHOTO: JACKLYN ATLAS AUTUMN 2014 17



3 WAY	S TO DON	ATE: &	https://do	nate.utoront	o.ca 苍 1	-800-463-6048 or 416-9	78-0811 🔀 (Complete and	mail this forn	
Here is my	gift of:									
□ \$35	□ \$100	□ \$250	□ \$500	□ \$1,000	☐ Other: \$	My cheque is	☐ My cheque is enclosed (payable to the University of Toronto)			
					☐ Please charg	$\hfill\Box$ Please charge my donation to my credit card				
Please designate my gift to:						VISA	□ VISA □ MasterCard □ American Express			
Name						Name on Card				
Address						Card Number			Expiry	
City			Province	Postal Code	Country	Signature		Date	057005187	
Telephone			Email					.69%		
Diagon ro	turn this form s	and your novm	ant to the Univ	orgity of Toronto	Annual Fund 21	King's College Circle Toronto	Ontario MES 212	u u	UNIVERSITY OF	

A tax receipt will be issued for all donations.

Please return this form and your payment to the University of Toronto Annual Fund, 21 King's College Circle, Toronto, Ontario M5S 3J3

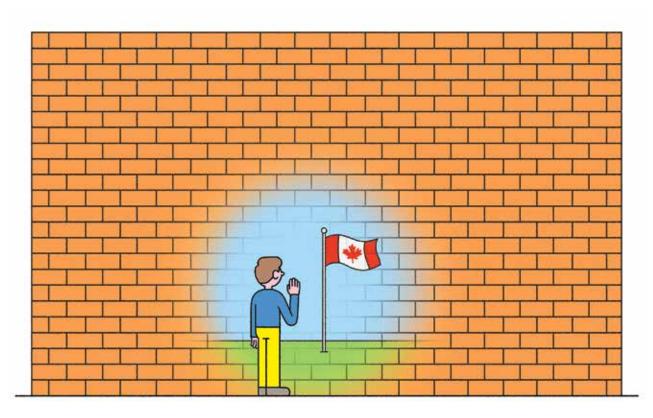
TORONTO

Leading Edge

"There is no reason medicines cannot be invented in the open."

Prof. Aled Edwards wants to change how the pharmaceutical industry works

p. 21



Barrier to Entry

Canada's process for screening potential immigrants for HIV is opaque and unfair, says Laura Bisaillon

A HEALTH STUDIES PROF AT U OF T SCARBOROUGH, who studies HIV and immigration, says the way potential immigrants to Canada are screened for the virus is unfair. She is calling on Ottawa to review its testing policy, and to make the whole process more transparent, with better information on HIV and immigration available via the government's website.

Since 2002, nearly all potential immigrants to Canada have been required to undergo an HIV test. Canada doesn't bar applicants with HIV, but it does make immigration more difficult. And with the exception of a few refugees and certain sponsored applicants, who cannot be barred for reasons

of health, some applicants who test positive are, in the end, unlikely to be granted permanent residence in Canada.

For her doctoral research, Laura Bisaillon interviewed 61 people from all sides of the immigration process, including doctors, nurses, bureaucrats and 33 applicants, of whom 29 had tested positive. Most of the applicants were not told they were being tested for HIV along with other conditions and most were dissatisfied with their treatment following diagnosis. The sort of intensive pre- and post-test counselling that is common for Canadians was often cursory.

Because the test is mandatory for any applicants for permanent residence in Canada, (as well as for two specific types of temporary residents), there is no way applicants can be said to have given "consent," says Bisaillon. Even the usual expectation of medical beneficence – putting the patient's care first – doesn't apply, because the person is not taking the test for medical reasons. "This encounter is not about patient care or therapeutic treatment," says Bisaillon. In this context, "The doctor is an administrative data

ILLUSTRATION: LAURIE ROLLITT

AUTUMN 2014 19

Leading Edge

collector; an agent of the state."

Bisaillon, who holds a PhD in population health, was a caseworker in a sexual health organization in Montreal. There, working with HIV-positive women who were refugees to Canada, "I discovered that HIV was a mandatory test within the Canadian immigration program," she says. "You wouldn't be able to test a Canadian citizen or a permanent resident for HIV without their full consent," she says, except in rare circumstances and usually by court order.

While Canada has a long history of testing potential immigrants for medical conditions, HIV is treated exceptionally. It is the *only* disease to which a separate policy is attached. And it is one of only three diseases for which doctors *must* test, along with syphilis and tuberculosis.

The government's rationale is economic. The cost of treating HIV/AIDS is said to place an "excessive demand" on the public health system. Applicants must also disclose any other serious medical condition, triggering an investigation into its potential health-care costs. Yet as Bisaillon points out, Canada doesn't pre-test for these conditions, such as cancer or diabetes. Unlike those diseases, HIV is communicable, but, she says, HIV is "100 per cent preventable, transmitted within specific conditions and relations."

The number of new cases of HIV in Canada has been declining steadily, and in 2012 reached the lowest level since reporting began in 1985.

"The de facto position and language, where persons with HIV are considered burdensome to the public health system, is a problem," says Bisaillon. "People with disease and disability make all sorts of contributions to the societies they inhabit." – BRENT LEDGER

Do You Want Your Kids to Tell the Truth?

Some children's stories are much better than others at instilling honesty, research finds



A MORAL STORY THAT PRAISES HONESTY is more effective at getting young children to tell the truth than a story that emphasizes the negative repercussions of lying, according to new research by Kang Lee, a professor at U of T's Dr. Eric Jackman Institute of Child Study.

His findings suggest that stories such as "The Boy Who Cried Wolf" may not inspire honest behaviour in children, despite the hopes of generations of parents.

To test whether cautionary tales work as intended, Lee and colleagues conducted an experiment with children aged three to seven. Each child played a game that required guessing the identity of a toy based on the sound it made. During the game, the experimenter left the room briefly, instructing the child not to peek at a toy that was left on the table. For most children, this temptation was too hard to resist.

When the experimenter returned, she read the child one of four stories – "The Tortoise and the Hare," "The Boy Who Cried Wolf," "Pinocchio" or "George Washington and the Cherry Tree." Afterward, the experimenter asked the child to tell the truth about whether he or she had peeked at the toy.

Children who heard "Pinocchio" and "The Boy Who Cried Wolf" – stories that associate lying with strongly negative consequences – were no more likely to tell the truth than those who listened to "The Tortoise and the Hare," a fable unrelated to honesty.

However, the children who heard the tale in which the future American president is praised for confessing his lie were three times more likely to tell the truth than those who heard the other stories. "To promote moral behaviour such as honesty, emphasizing the positive outcomes of honesty rather than the negative consequences of dishonesty is the key," says Lee. "This may apply to other moral behaviours as well." – ANNA MIKULAK

ungo Unicorn



In European folklore, the unicorn is a beast of legend. But now, investors use the word to describe companies that attain a "legendary" \$1-billion market valuation before they are 10 years old.

These business unicorns – so named because they are exceedingly rare – comprise 39 software companies established since 2003. Facebook, Twitter and YouTube

are among the best known.

Nico Lacetera, a professor at the Institute for Management and Innovation at U of T Mississauga, says it's hard to predict which companies will become the next unicorns because they make up such a tiny fraction of all startups – less than one tenth of one per cent. But their success derives from a common source, he says: most have harnessed the Internet to quickly build massive audiences for their products or services.

It remains to be seen what longterm impact unicorns have on the business ecosystem. Most are not yet as profitable as long-time corporate workhorses such as Microsoft, which in 2013 out-earned Facebook by more than 10 to 1.

- SCOTT ANDERSON

MAGAZINE.UTORONTO.CA PHOTO: ISTOCK





THE RIG IDEA

A Better Path to Drug Discovery

Making pharmaceutical research more open could shave years off the time it takes to bring a new drug to market

FOR THE LAST DECADE, scientists with the Structural Genomics Consortium (SGC), a public-private partnership with biomedical research operations at the University of Toronto and the University of Oxford, have investigated proteins that function by interacting with other proteins. Over the past four years, the group has helped discover that one kind of protein-protein interaction can be a target for medicines.

With advice from researchers at GlaxoSmithKline, the SGC team, together with a university scientist in Boston, produced an "inhibitor" that killed cancer cells.

What's unusual is what happened next.

"We gave away this compound to anyone with no strings attached," says Aled Edwards, the consortium's chief executive officer and a professor of medical biophysics at U of T. "Other scientists used the 'open-access compound' to make equally important discoveries."

The result: more than 25 companies are now doing more research into the compound and several already have drugs in Phase II clinical trials. "We probably shaved three years off the normal time cycle of drug discovery."

This happened because the participants didn't lock up key discoveries with patents. Indeed, SGC was established to reduce the duplication of effort in academe and industry – and to demonstrate that there's a faster and far less expensive way to discover drug treatments – all hinging on open access to research.

Like a growing number of biomedical researchers, Edwards – who held the Banbury Chair of Medical Research at U of T's Donnelly Centre – believes the global drug development process is broken. The pharmaceutical industry spends huge amounts researching and creating drugs that, when tested, prove to be ineffective, says Edwards (such as the more than \$30 billion that has been spent chasing a cure for Alzheimer's disease). The net effect is that drug costs are often staggeringly high, which squeezes governments' health budgets. "What is utterly apparent to all the participants is that the ecosystem in which we make medicines is non-functioning."

The consortium's goal is to derive the structures of hundreds of human proteins and make those findings widely available. Although SGC – with an annual budget of about \$10 million in each location – is still a tiny player in the \$200-billion global biomedical research industry, Edwards is confident the group's core idea – that important biomedical discoveries mustn't be locked up by for-profit corporations or universities – could cure what ails the drug industry.

So far, the consortium's 200 scientists have derived the structures for more than 1,500 human and parasite proteins, with the results deposited in a publicly accessible database. The Toronto group has done the same with the molecular blueprints for 14 "chemical probes" (the Oxford group for 10 more). Designed to insert themselves into cells carrying disease-related proteins, these molecules are mixed with the cells to determine if the probes disrupt the disease process.

During the first five years of its existence, SGC sought to show a highly skeptical pharmaceutical industry that its open model would accelerate research and development. GlaxoSmithKline invested in 2004, and launched the chemical-probes initiative with the consortium in 2009; since then eight other companies have joined. SGC has also developed relationships with foundations and hospitals that conduct research into disease. "Slowly, you can see the patent-free space expanding."

While SGC's private-sector backers collaborate on projects, they don't enjoy better access to the science. Edwards' goal isn't just bringing in new financial supporters to underwrite the consortium's patent-free research. He argues that the biomedical research community could actually develop a radically different business model for drug development by making much more of the building-block research widely available to researchers both inside and outside industry. Edwards believes that many scientists want to extricate themselves from a system that privatizes scientific knowledge instead of fostering innovation. "We're all looking at the problem from the confines of what the world currently looks like," he observes. "There is no reason that medicines cannot be invented in the open." - JOHN LORINC

PHOTO: ISTOCK AUTUMN 2014 21



If it were possible to circumnavigate the globe by car, U of T's super fuel-efficient vehicle could do it on 35 litres of fuel, or about half the average tank

PROTOTYPE

From Toronto to St. Louis on a Litre of Fuel

U of T engineering students place second in international competition to create most fuel-efficient car



BY 2025, THE UNITED STATES will require new cars to travel 23 kilometres on a litre of gas, on average – nearly double today's standards. The drive for fuel efficiency is part of efforts to make cars more environmentally friendly, and the U.S. more energy independent.

Sound ambitious?

Maybe not, when you consider the 1,152 kilometres on a single litre of fuel attained by a car created by a group of U of T engineering students that competed in Shell's 2014 Eco-marathon contest.

"We changed the competition completely," says Jonathan Hamway, co-president and lead designer for U of T's Supermileage team. "We definitely inspired people, and that was the best part of the competition."

The Eco-marathon is all about inspiration – many of the advances proven on the competition's closed track are not directly translatable to ordinary vehicles. But they show what's possible for fuel efficiency.

The Supermileage team snagged awards for both technical innovation and tribology (the study of friction, lubrication and wear on surfaces in motion). They placed second overall behind a team from Université de Laval who managed to travel 1,200 kilometres.

Hamway is confident they can do better in 2015.

While most competitors used an off-the-shelf engine – the Laval team used one from a lawn mower – Hamway's team custom-built an engine that allowed them to control every variable – from fuel delivery to engine coatings. They even captured the engine's heat, turning that normally wasted energy into additional power. The team also focused on many areas beyond engine efficiency.

The Supermileage Car's light, strong carbon-fibre body looks like a missile with wheels – highly aerodynamic (if impractical for a family outing).

Their driving strategy involved getting the car up over the competition's minimum required speed, and then cutting the engine for as long as possible. "Our engine was actually off for most of the race," Hamway explains.

"One in every five tanks of gas in a regular car is used up overcoming resistance from tires," he says. "We have the best tires in the whole world for reducing that resistance." Unfortunately, these specialized tires have neither the durability nor the wet weather traction to make them widely usable.

In fact, the first real-world applications for their technologies might not be in cars at all, but in vehicles with smaller engines.

"Some of our modifications could be used to make a scooter that is much more efficient than anything available today," he says.

The team's current focus, though, is less on knowledge translation and more on next year's competition, and the continued push to raise the absolute limits of fuel efficiency. ${ t -}$ PATCHEN BARSS

Findings

Opioids Claim More Young Lives



One of every eight deaths among young adults in Ontario is related to opioids, making the drugs a leading cause of premature death, a U of T team has found.

Opioids include strong painkillers such as morphine, codeine and oxycodone. Their misuse and abuse has increased across North America mainly due to their broad accessibility and the perception that they are safe because they are prescription drugs.

Researchers reviewed 5,935 opioidrelated deaths between 1991 and 2010. That translates to 21,927 years of potential life lost annually – which exceeds losses due to alcohol abuse, pneumonia, HIV/AIDS and influenza.

"The extraordinary toll of early death related to opioids highlights the public health and social burden of opioid overdose, especially among young adults," says the study's lead author Tara Gomes, a U of T professor and a scientist at St. Michael's Hospital and the Institute for Clinical Evaluative Sciences. - DEBORAH CREATURA

Don't Push That Button!



In hospitals, elevator buttons are more likely to be colonized by bacteria than washroom surfaces, says a new study.

At each of three large Toronto hospitals, 120 randomly selected interior and exterior elevator buttons were swabbed over a 20-day period. These were compared against swabs of surfaces in men's washrooms.

Sixty-one per cent of the elevator samples showed microbiological growth, compared to only 43 per cent of the washroom samples.

"Use alcohol-based hand sanitizer before and after touching the buttons, or avoid touching them altogether by using the tip of a pen or your elbow," suggests lead author Dr. Christopher Kandel, a fellow in the department of infectious diseases at U of T.

- SYBIL EDMONDS



In 2004, Canadians consumed, on average, 110 grams of sugar a day, the equivalent of 26 teaspoons. This amounted to 21 per cent of their total daily calorie intake

Q&A

Sugar Rush

Foods that seem healthy often aren't, and sugar is the latest culprit

For decades, we've been warned about foods high in cholesterol and saturated fats. But lately, attention has shifted to sugar: soft drinks, fruit juices and, surprisingly, yogurt have become the new "danger" foods. To get a better sense of what we should – and shouldn't – eat when it comes to the sweet stuff, *U of T Magazine* editor **Scott Anderson** spoke with Prof. **Mary L'Abbé**, chair of the department of nutritional sciences.

Sugar seems to have replaced fat as the new dietary no-no. What's wrong with sugar? There's nothing "wrong" with sugar in the sense of how our bodies metabolize it. We need a certain amount of sugar for energy; our brain needs sugar to function. The problem with sugar is the amount we consume. Excess sugar gets stored as fat.

The World Health Organization has recommended that no more than 10 per cent of our calories come from sugar. Is this guideline enough to address the issue? I was on the panel that made this recommendation. It's a start. One of the things we wanted to make clear is that the sugar you consume is not just the sugar you tip from a spoon into your coffee. Many beverages have sugars added in processing. Foods that you wouldn't necessarily think of as sweet – with labels that say "no added sugar" – in fact have added fruit juices or fruit puree and are high in sugar. Yogurt is a good example of this.

How can individuals find out how much sugar they eat? No one expects an individual to add up exactly how much sugar they're getting in a day. But they should make themselves aware of the main sources of added sugar in their diet, such as juices, sport drinks and sodas. And they should acquaint themselves with recommendations for healthy eating, such as minimizing processed foods and eating more whole fruits and vegetables and whole grain products.

What's the problem with processed foods? Think of an apple. You can eat a whole apple or consume the same amount of "apple calories" in the form of apple juice. The sugar in the



whole apple results in a slow increase in our sugar levels. But apple juice causes a sudden spike in our sugar levels, putting a strain on our insulin system. From a metabolic point of view, it's much easier for our body to process the sugar when it's in the form of an apple rather than apple juice. Over time, frequent and sudden spikes in our sugar level can lead to insulin resistance, Type 2 diabetes or metabolic syndrome.

How is this related to body fat? When you experience a big spike in sugar levels, the sugar is pushed into your liver, which processes it and eventually stores it as fat. When sugar is released slowly, your body is able to metabolize it and doesn't store it as fat.

For a while, "low-fat" was the diet buzzword. Then it was "low-sodium," and now "low-sugar." Has this led to confusion among consumers about what to eat? We made recommendations to lower fat in the hope that this would lower people's calorie intake. But in many foods, fat was replaced with sugar. In the end, these foods weren't always lower in calories.

Your lab has created tools to give people a better sense of what they're consuming... Last year we released a salt calculator at projectbiglife.ca. And we tell people what their main sources of sodium are – such as eating in restaurants or consuming processed meats. We hope they use the information to adapt their eating habits.

Could you make one for sugar? Absolutely.

And the ultimate goal of all of this? Improved public health – in three ways: enabling governments to make good policy decisions; helping health professionals educate and treat their patients; and helping consumers make healthy choices.

Read a more in-depth conversation with Prof. L'Abbé at magazine.utoronto.ca

PHOTO: ISTOCK AUTUMN 2014 23



The Merida cable car in Venezuela operates at 4,765 meters – the highest elevation for a cable car in the world. It connects the city of Merida with the surrounding Sierra Nevada de Merida mountains

Sky Line



As debate heats up over the future of transit in Toronto, two U of T students have come up with a high-flying suggestion for how to move people along the city's rapidly developing waterfront: gondolas.

Kyle Miller and Matthew Kelling, master's students in geography, have proposed an 11-stop cable-car system that would criss-cross the Gardiner Expressway, carrying up to 30,000 people daily from Ontario Place to the new Canary District development in the east. The aerial lift - dubbed Shoreline - would make stops at Fort York, St. Lawrence Market and the Distillery District, among other destinations, and connect with Union Station. Future expansion would extend the line through the port lands to Cherry Beach. In May, the students' design took first place in a youth competition at the Global Cities Summit. Miller says cable cars have gained renewed interest in urban planning circles, especially in developing countries, because they are environmentally friendly, low-cost and quick to install. Medellin, in Colombia, has a three-line gondola system with multiple stations, and Rio de Janeiro is using them to provide transit to the city's favelas.

Miller hopes that the idea will kick-start a conversation about public transit along Toronto's waterfront. "We need to do something for all the people who are moving there," he says. - SCOTT ANDERSON

Healthier Cooking

U of T students are collaborating with an Indian social enterprise to reduce the health hazards of indoor smoke

FOR THE WORLD'S LOWEST-INCOME PEOPLE, cooking a day's meals can be a tedious – even dangerous – job. According to the Global Alliance for Clean Cookstoves, exposure to smoke from traditional cooking practices causes four million premature deaths a year, primarily among women and children. As well, women and girls in low-income households often spend many hours collecting fuel and preparing meals.

Prakti Design, a South Indian social enterprise, has come up with a way to address this problem. The organization has produced a line of household and institutional cooking stoves that reduce fuel consumption by 80 per cent, virtually eliminate indoor air pollution and cut down cooking time

by 70 per cent – compared with traditional three-stone fires – by using biomass fuels made from wood, charcoal and briquettes.

However, the stoves have not caught on as quickly as the organization had hoped. So earlier this year, Prakti invited a group of students and professors from U of T's Global Innovation Group to help it address challenges related to the distribution and adoption of its stoves.

In India, the U of T students conducted interviews with a variety of stakeholders, including, memorably, women who complained about having to collect wood – a task that keeps them occupied for many hours a week. "They all erupted and started shouting," says Hayden Rodenkirchen, a third-year student in international relations. "All that our translator could say was, 'They really, really hate it!"

In its final report, the group noted that the price of the stoves is still too high for most low-income families in India. The team also found that potential users don't value the stove's health benefits; maintenance and repair are concerns; and greater attention needs to be paid to the overall cooking experience. The group is planning further research to address these challenges. – **JESSICA LEWIS**

MAGAZINE.UTORONTO.CA

PHOTO: COURTESY OF KYLE MILLER



OISE I Continuing and Professional Learning

Additional Qualifications for Teachers

Professional Development Certificate Programs

International Certificate Programs for Educators and School Leaders

Teach English as a Foreign Language

Institutes and Events

Find out more:

www.oise.utoronto.ca/conted

WITH OISE I CAN NEVER STOP LEARNING



CALL FOR APPLICATIONS FOR ALUMNI MEMBERS OF THE GOVERNING COUNCIL

Are you actively involved with the University of Toronto? Would you or an alumna/alumnus you know like to help shape its future? If so, consider applying to serve on the Governing Council, the senior body that oversees the academic, business, and student affairs of the University.

Collectively and individually, Governors are stewards of the University.

We are seeking candidates who can:

- · Advance and uphold the mission of the University;
- · Provide relevant input into the University's vision;
- Assume the responsibility to advise on, oversee and/or approve specific matters within the framework of delegated authority;
- Actively participate in the University and/or in community groups.
 Previous experience on governance bodies an asset.

See http://uoft.me/alumgovnominfo for additional information.

Application forms will be available from this website from 12:00 noon on Thursday, November 20, 2014 until the deadline at 5:00 p.m. on Thursday, December 18, 2014.



EMBA. ASAP.

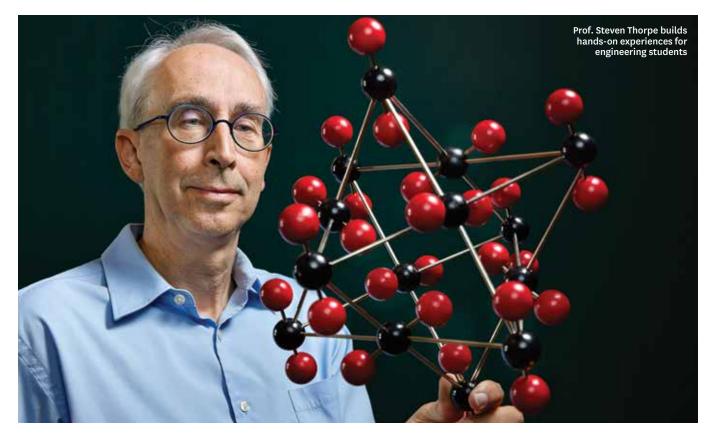
Learn more about the fastest way to further your career with Canada's top business school. Go to www.getaheadfaster.ca to join an information session on Rotman's Executive MBA Programs.



JINCREDIBLE JUMPAGTO

Boundless: The Campaign for the University of Toronto is the most ambitious fundraising effort in Canadian university history. Recently, the campaign surpassed \$1.5 billion raised towards its goal of \$2 billion – a new benchmark for philanthropy in Canada. This impressive milestone is a testament to the extraordinary generosity of more than 86,000 alumni and friends who have rallied around U of T's ambitions to address a broad spectrum of societal needs and issues.

Here we tell the stories of four gifts to the Boundless campaign and the powerful impact they are having: training specialist journalists in Canada, saving children's lives in Ethiopia, ensuring educational choice for undergraduate students and helping engineers turn high-flying ideas into practical solutions.



Classroom of the Future

Things move quickly in Prof. Steven Thorpe's fourth-year engineering design course. At one desk, students are building a model fuel cell. At another, they are conducting research online while jotting down formulae and diagrams. These hands-on assignments don't work as well as they could in the traditional classrooms now in use. "I liken my role to the conductor of an orchestra with many moving parts," says Thorpe. "The pace is dynamic, but the physical environment is not."

Creating new spaces conducive to active learning (in contrast to traditional lecture-centric classrooms) is part of a recent pedagogical shift in engineering education. The aim, says Thorpe, is to encourage intentional thinking about the activities in the tutorials, rather than relying on passive note-taking which often results in poor information retention. "Ultimately it means a whole new way to teach and learn," he says.

The new Centre for Engineering Innovation & Entrepreneurship at the Faculty of Applied Science and Engineering is U of T's response to the sweeping changes taking place in engineering teaching and learning. The building will include dynamic and flexible environments that break down artificial barriers between teacher and student, fostering collaboration and encouraging active learning and accelerated innovation.

The centre will feature six Technology Enhanced Active Learning (TEAL) rooms, including one funded by a donation from members of the Faculty's Singapore Malaysia alumni group. "TEAL rooms will be critical to supporting the design work that has become integral to engineering courses," says Thorpe. The rooms feature movable chairs and counter-height group tables serviced by multiple screens that allow for a variety of configurations and easy movement. State-of-the-art screens will surround the room so that they are accessible to every student.

- ANJALI BAICHWAL

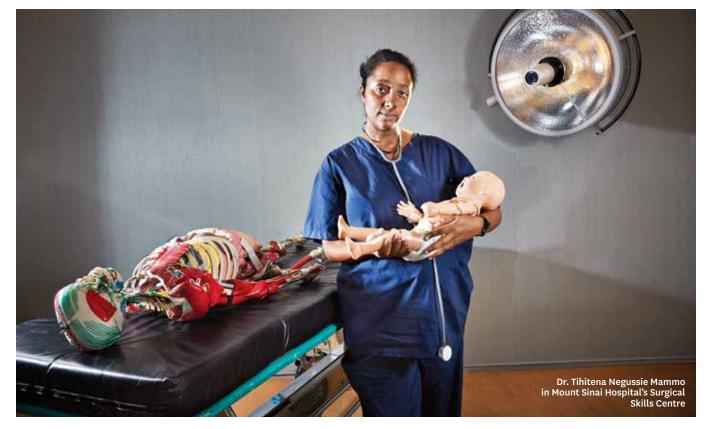
MEET THE DONORS

Singapore Malaysia Alumni Group

As a graduate student at U of T's Faculty of Applied Science and Engineering in the 1960s, C.K. Chang (MEng 1968) studied fluid dynamics and other subjects in a typical classroom, with the lecturer at the front of the room, talking to students sitting in rows. When Dean Cristina Amon shared plans for the Centre for Engineering Innovation & Entrepreneurship during a visit to Singapore, Chang was impressed – especially by the innovative Technology Enhanced Active Learning (TEAL) rooms.

"I am sure I speak for others of my generation when I say I wish we could have studied in such classrooms," says Chang. "The design is perfectly suited for engineering design work and for the important collaboration that takes place in the classroom." Chang, an active leader with the Faculty's Singapore Malaysia alumni group, mobilized a diverse group of alumni from academe, government and corporate sectors in the region to raise funds for a TEAL room in the new building. They beat their goal by 20 per cent and the room will be named the Singapore Malaysia Alumni Room in their honour.

"We see the TEAL rooms as almost a lab unto themselves where teaching happens and new ideas are generated, debated, prioritized and executed by students," says Chang. "This is how it happens in the modern working world, so why not train students to develop these skills from the outset."



Training Surgeons Around the World

When Dr. Tihitena Negussie Mammo returns to Addis Ababa this fall, the number of pediatric surgeons in Ethiopia will go up by 20 per cent. The young doctor, who just completed a six-month A.K. Prakash Fellowship in International Medicine at U of T, hopes to pass on what she's learned. "My goal is to increase the number of pediatric surgeons in Ethiopia," she says simply. "Having only six for the whole country is not enough."

At Addis Ababa University, where Tihitena is a professor, there are only nine operating theatres. One is for pediatrics. "It is not enough to treat all patients," she explains, "as much as we want to. So usually what we will do is one team will be in the OR, another team will do rounds, another will staff the referral clinic, another will teach. Each day we have a different division of labour, so we can both teach and do surgery."

At U of T, Tihitena trained in laparoscopy, a technique that uses thin tubes and video cameras to help surgeons do their work – for example, repairing a hole in a baby's intestine – through a tiny incision. It's less traumatic for patients, who heal faster with less scarring. Back home, however, Tihitena will have to turn lobbyist before she can practise the technique. "Lack of facilities is the most important problem that we face," she says. "I'm trying to ask the government to buy some equipment, so that we can be doing this surgery like any other modern hospital."

The A.K. Prakash Foundation has donated \$300,000 to date, to fund one or two fellowships annually for a surgeon from a low- or middle-income country. Since the program started in 2013, it has shared Canadian expertise with doctors from Zimbabwe, Nigeria and Ethiopia.

"I learned a lot," says Tihitena. "I saw different surgical methods, postoperative management techniques that can change outcomes, and how experts in different specialities can affect patient outcomes. All this will help me teach - I got a lot of experience." - JANET ROWE

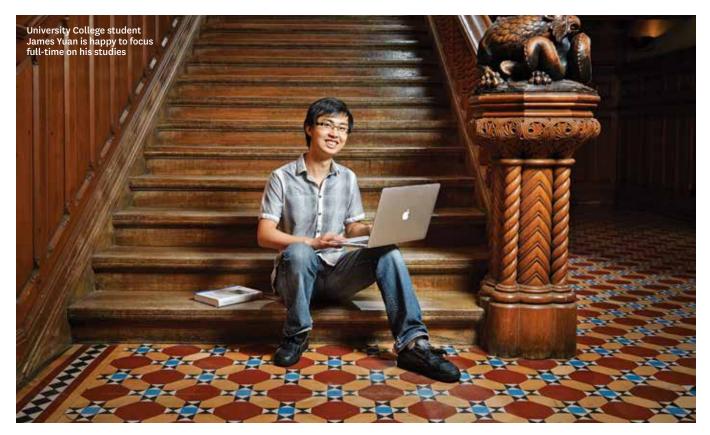
MEET THE DONOR

A.K. Prakash Foundation

Ash Prakash wears many hats - he's an art collector and arts patron who enjoyed a stellar career in the Canadian civil service. So it's not surprising that he conceived of a dual mission for his giving. As well as funding an international surgery fellowship at U of T, the A.K. Prakash Foundation supports arts and culture causes through activities such as sponsoring exhibitions of Canadian art.

It's important to nurture complementary sides to human development, Prakash explains. "It is my belief that essentially, there are two governing forces that identify us as human beings. One is our physical well-being, the state of our health. And the other is the mind, the spirit, that governs our body - our understanding of who we are, why we are here, where we are going. I believe these two forces really provide some meaning to our existence on this earth."

The A.K. Prakash Fellowship in International Medicine embraces the health side of this mission. "I wished to support the world-class expertise that Canada has in its medical institutions, such as U of T's medical faculty," says Prakash. "My idea is that doctors, already trained in their own countries, can come to train with our doctors. The faculty chooses the countries based on maximum need. And after their training, the doctors go back. Instead of robbing countries of their best-trained doctors, the work continues, and one and one becomes 11."



The Gift of an Education

James Yuan had long been certain he wanted to go away for university, and in the fall of 2012, the Calgary native fulfilled that goal when he began attending University College at U of T. What he was less clear about at that time, however, was how he would pay for it.

A \$5,000 entrance scholarship, an academic merit scholarship from the government of Alberta, and the Registered Education Savings Plan his family had saved would cover his first year's tuition. But using all his RESP funds in first year would mean the less-than-ideal prospect of working part time in subsequent years, or taking out hefty student loans.

In October of that first year, Yuan received some unexpected relief from his money woes: \$2,300, courtesy of UC's Katherine Ballantine Coutts Admission Scholarship, which is awarded annually to a student with financial need. The scholarship was established by the grandchildren of Coutts, a teacher and feminist, and is granted to a student from Essex or Kent County in southern Ontario, where Coutts lived and taught, or Alberta, where one of her sons settled. "Getting the scholarship was definitely a big help. It took away some of the financial burden," says Yuan.

The Coutts scholarship is one part of a bigger strategy by U of T to provide more financial support to its students. Part of that approach involves the Boundless Promise program, through which the university matches, in perpetuity, the annual income generated by new endowed donations of \$25,000 and up which establish scholarships for full-time undergraduates with financial need.

Yuan is now in the third year of his bioinformatics and computer science degree. Financial need-based scholarships "encourage more students to attend university," he says, "and make it possible for them to focus on their studies without being distracted by a part-time job."

- SHARON ASCHAIEK

MEET THE DONORS

The Coutts Family

While five generations of her family went to U of T's University College, Katherine Ballantine Coutts never had the opportunity to attend herself. But others now will: the professional and civic achievements of this early feminist have been recognized with a scholarship in her name established by her grandchildren.

Born in 1855, Coutts came of age at a time when women were restricted from attending university, but as granddaughter Christine Clement (BA 1963 UC) explains, that didn't stop Coutts from working as a schoolteacher and being active in organizations that assisted women with self-education, motherhood and household management. The Thamesville, Ontario resident also founded a memorial for Tecumseh, the famed Native American leader who fought and died in the War of 1812.

For Clement, a professor emeritus in the department of astronomy and astrophysics, creating the scholarship was a way to honour her grandmother and reflect her connections to University College. Coutts' modest financial background contributed to the decision to create a need-based scholarship, so future generations could attend university, regardless of their backgrounds. A growing endowment, currently at \$63,700, funds one first-year scholarship of approximately \$2,500 every year.

"Katherine was community-minded and educated people all her life, so this scholarship memorializes what she achieved," Clement says.



Award-Winning Journalism

Before entering the Munk School of Global Affairs Fellowship in Global Journalism program in 2013, Anna Nicolaou, who has a degree in economics, had worked for several years in what she calls "classic business-school jobs:" finance and consulting. Today, she's a full-time journalist at the *Financial Times* in New York, and recently reported on the European elections and the Russia-Ukraine crisis for Reuters in Brussels.

But the first news article Nicolaou ever wrote was for *The Globe and Mail* in Toronto. "I was so lucky to have editors and co-workers there that were enormously supportive and patient," she says. "I got to write sophisticated stuff about esoteric topics that I'm interested in. I don't know that I would have liked journalism this much if I hadn't started there."

She believes that her current situation would not have been possible without the Munk program. "The best part of the program was getting to learn something totally new with a group of people from such different backgrounds," Nicolaou says. "We would discuss news stories and hear perspectives from doctors, scientists, architects, human rights advocates. I think that's rare and wouldn't have happened if I had been in a traditional master's program or at another journalism school."

After just a month of formal instruction, she began her term at *The Globe*, where she made connections with editors and wrote articles that allowed her to establish herself as a reporter. In fact, it was one of these articles that won her an Overseas Press Club Foundation award, and that award took her to Brussels to report for Reuters.

"The program showed me that I can do many different things with my life," Nicolaou says. "I can be an economist, and a journalist, and other things as well. I think so often people define themselves by a specific profession, but the whole experience showed me that you don't have to confine yourself to one job or one interest." - CLAIRE MORRIS

MEET THE DONORS

U of T's Fellowship in Global Journalism is the first program in the world that specifically trains professionals and academics to be reporters. Fellows tap into debates in their own areas of expertise and generate story ideas that conventional journalists might miss.

Applications are being accepted for the fellowship's next year, which will begin in May 2015. The university is hoping to expand the program to 30 fellows per year, and is fundraising for an endowment to support it over the long term.

The Globe and Mail, The Toronto Star, Postmedia Network, CBC News, Woodbridge Corp (owner of Thomson Reuters), and The Dallas Morning News supported the program with an initial \$50,000 donation each in 2012, helping it get off the ground and keeping tuition affordable. Under a separate arrangement, fellows were matched with media partners for the eight-month program. The value of each fellowship is approximately \$30,000.

"The Globe and Mail committed to being a founding partner in the fellowship program because we believe that our readers above all want expert insight that they cannot find elsewhere," says Phillip Crawley, publisher and CEO. "Helping experts in a field to achieve better communication with a wider audience is the end product we want to see. This is a long-term investment in the quality of content. It will take time for it to pay off, but the early signs are encouraging."





The Internet makes it easy to be mean. No wonder cyberbullying among teens has everyone worried.

LIKE MANY YOUNG ADULTS STARTING OUT IN THE WORLD, 21-year-old Eva* sometimes gets nostalgic for her childhood. The easy parts, anyway – many of which didn't involve the Internet.

"We used to have this thing on Facebook called the Honesty Box, which was just always full of brutal comments, like really, really mean," she recounts. Then there was the "school hotties" website, set up by a friend, which ranked girls' looks and outfits on a weekly basis. And if a girl was rumoured to be sexually active in any way? "Kids just threw out the words 'slut' and 'whore' like they were nothing. It was ridiculous."

Now that she's older and working in a Toronto restaurant, Eva breathes easier: she no longer lives with the daily possibility of seeing her peers targeted by mean girls at school. But she feels bad for her younger cousins, whom she believes have it much worse than people her age ever did.

The Internet's promise of global connection has been largely fulfilled, but we now know that not all of those connections are supportive and helpful. Only slightly ironically, Eva says, "I feel that I lived in the dying days of innocence."

Studies suggest that nasty behaviour between kids on the Internet, commonly known as "cyberbullying," is a concern.

* "EVA" AND "DANIEL" ARE PSEUDONYMS.



Girls will call it drama and boys call it trash talk. We call that cyberbullying, but they don't



A 2008 survey of 2,186 youths in Grades 6, 7, 10 and 11, conducted at U of T's Factor-Inwentash Faculty of Social Work, revealed that 50 per cent of them had experienced online bullying. By 2011, a similar survey in Nova Scotia put the number at 60 per cent, with that figure rising to 69 per cent in a 2013 British study.

f course, those numbers might be higher or lower, depending on your definition of what cyberbullying is. Agreed-upon examples include a systematic campaign of Facebook hatred; a fake, defamatory website set up in the target's name; or a campaign wherein intimate pictures of a victim are obtained consensually, then passed around linked to her address and phone number. These are the types of awful activities that have been linked to depression, anxiety and suicide among teenagers.

Eva saw her friends face a daily stream of vitriol that, in an earlier day, might have been kept well out of the public eye. That is the norm for more than half of teens today. (In the 2008 survey, cyberbullying was defined as conduct that caused "willful and repeated harm." Comments that stay on the Internet perpetually are perhaps by definition repeated.")

"Girls will call it drama and boys call it trash talk," says Faye Mishna, dean of the Factor-Inwentash Faculty of Social Work and an international authority on the phenomenon. "We call that cyberbullying, but they don't."

In fact, the first thing 16-year-old Daniel* wants me to know is that "I've been trash-talked a lot online, but I've never been cyberbullied." Yes, he's been called a "faggot," been threatened with violence and told to go kill himself – "but kids just kind of take that in stride, they're always joking."

How teens deal with online meanness depends on a variety of factors. Mishna says that "some kids are more vulnerable than others, depending on their supports, their resources and other issues they may be struggling with."

A child therapist, Mishna started studying bullying quite by accident. Some 20 years ago she worked as the clinical director of Integra, a centre dedicated to helping children with learning disorders and psychosocial problems.

"It came out that one of the things kids loved about coming

to [Integra] was that they didn't have to worry about being bullied there" because they were in a friendly environment, she says. "So a penny dropped.... I realized that the bullying was affecting them just as much as the disability." When Mishna left in 1999 to become a professor at U of T, the idea of taking on traditional bullying as the subject for her program of research seemed a "no-brainer." Some seven years later, she trained her focus on cyberbullying, and has been monitoring its grim evolution ever since.

eing bullied was once thought to "build character," but this idea has been debunked in the last 40 years. "That's an old-school way of thinking: boys will be boys," says Mishna. "The research shows that it builds low self-esteem and other problems. It also hurts the kids who bully, potentially turning later into adult sexual aggression, harassment, domestic violence and workplace bullying."

Mishna began her research "fairly early" after cyberbullying was identified as a growing social problem. She says it's a burgeoning area of interest for students in different fields, including education and information technology as well as social work. Factor-Inwentash is a natural place to investigate the phenomenon, she adds: social workers have always dealt with issues of discrimination and marginalization. When studying mental health concerns, their profession places special emphasis on examining the social environments from which such problems arise.

Under the aegis of the faculty, Mishna has acted as principal investigator on a number of cyberbullying projects over the past few years. One of these examined just who gets cyberbullied. As with traditional bullying, someone who suffers badly from cyberbullying is usually someone grappling with a difference. "Appearance is a big thing, how you look. Bad grades, any kind of disability. Racism and homophobia as well," she says. In contrast with traditional bullying, it's worth noting that the roles can be very fluid: the bullied these days more often become bullies themselves.

Gay youth (or those perceived to be gay) are frequently victimized by school bullies online, but Daniel isn't a bit perturbed by all the homophobic language he sees daily.

"The word fag has a completely different meaning now,"

he says. "Fag means somebody who's weird or like a nerd. Somebody you don't like, you use it as an insult. I guess it's evolved from being a homosexual slur."

At the same time, he doesn't counter my objection that outside his limited cyber circle, this usage is considered offensive. "And I guess sometimes you don't know if a kid is actually gay or not," he says, reflecting. "It could be very hurtful."

ords are certainly a problem. But some of the most tragic instances of cyberbullying have involved pictures as well: compromising imagery that spreads from one device to the next with the destructive speed of a medieval plague.

The suicides of Amanda Todd and Rehtaeh Parsons alerted most Canadians to the problem of cyberbullying. In the former case, the 15-year-old B.C. girl was both blackmailed by an adult predator and cyberbullied by other teenagers. Parsons, a 17-year-old Nova Scotian, was the victim of an alleged gang rape, which was photographed and distributed by the perpetrators.

The uproar resulting from the cyberbullying aspect of these tragedies has given way to newly proposed legislation. Bill C-13, which awaits third reading in the House of Commons, would make it illegal to distribute "intimate images" without the consent of the person depicted.

But Mishna says using the blunt instrument of the law on teenagers isn't necessarily the answer. "It should be a last resort. Philosophically, it misses the point. This isn't just about kids breaking the law; it's about kids living in this new world." A new frontier, in other words, where it will take some time to develop the rules and socialize children as to what those are.

Schools these days are rife with anti-bullying workshops, which Mishna thinks are of limited effectiveness. "Workshops alone don't work; most people who work in the area say the best solution is not a one-off. It has to be a combination of things," including an ongoing discussion and teaching, she says.

In his eight-year experience as a crown attorney, U of T adjunct law professor Brock Jones (MA 2001, JD 2004) has witnessed how humiliation via the Internet can worsen the sting of other youth crimes such as beatings, which get filmed, then circulated online.

This naturally provides evidence for prosecutors to work with: "In terms of criminal prosecution, it may shore up the strength of the crown's case," he says. "However, my personal view is that it causes great harm to the victim. You could walk away from getting shoved or even robbed. But once a crime gets on social media, it never ends."

Jones believes that the current emphasis on "informal proceedings" works well with teenagers who are engaging in online harassment. "The police will go to the parents, tell the teens that this is an offence, give them a warning, and try to set them up with diversionary programs and education.

This reflects the fact that [teen cyberbullying] is usually done out of childishness and ignorance, rather than true malice."

He agrees, though, that there is a point when bullying becomes a matter for the criminal courts to decide. And Mishna points out that the cases of Todd and Parsons, which have drawn national attention to cyberbullying, are actually cases of far worse crimes – child pornography and sexual assault, respectively. "Cyberbullying is serious, but we tend to talk about that" – meaning the online culture of taunts and insults – "and ignore the other [aspects of those cases]," she says. "Suicide is always multideterminate."

Mishna is currently in the final phase of a three-year study on cyberbullying, involving children in Grades 4, 7 and 10, as well as parents and teachers. Her research is revealing that the sexualized nature of cyberbullying against girls is an issue. In journalist Paula Todd's new book, *Extreme Mean: Trolls, Bullies and Predators Online*, Todd points out how it's now practically a societal norm for a teenage girl to take a topless "selfie" and send it via text to a boy she likes: "Law enforcement staff, prosecutors and a few principals in the U.S. confirmed that asking for 'pre-date visuals' is widespread in some school districts."

Everyone's heard about jilted boys getting back at girls by hitting "send" on a nude photo taken while the two were dating. But Daniel tells me that, "a lot of times," boys will proudly brandish pictures of current girlfriends without their knowledge. His mother is incredulous that he's seen such pictures online. "Oh, I'd never send pictures of my own girlfriend," he says, consoling her. "But I've seen pictures of other girls, because they get passed around."

ullying has always been with us; anyone who's ever been to school knows that. "The research shows that cyberbullying is less prevalent than traditional bullying," says Mishna. She also says that bullying offline can get continued online, and vice versa, making it hard to separate the phenomena.

But cyberbullying is unique for several reasons. Bullies used to have a perceptible advantage over their victims: they were taller, stronger, better-looking, wealthier, etc. But in cyberspace, huddled before a device, anyone can bully – which is why targets so often switch places and go on the offensive themselves. And that also means anyone can be a victim, too (there's a myth that girls get cyberbullied more than boys, says Mishna; they are equally vulnerable).

Cyberbullying is easier to do not only physically but emotionally. In *Extreme Mean*, Paula Todd explains that, removed from any social cues (such as a victim's distressed face), it's easier for a bully to behave psychopathically, devoid of whatever natural empathy he or she might otherwise possess.

If Bill C-13 meets with continued opposition, it won't be the solution. And if it isn't, what is? Fortunately, the problem is now being approached on multiple fronts. In the computer world, so-called "white knights" such as the hacktivist group

The number one thing that stops kids from telling their parents about cyberbullying is fear of getting their devices confiscated



Anonymous are currently doing their best to ferret out adult cyberstalkers and abusers. Their activities are serving as an example to bullied kids who are overexposed to social media's dark side.

Some health-care providers, too, think they have a role to play. In a *Canadian Medical Association Journal* editorial published last April, deputy editor and U of T professor Matthew Stanbrook (BSc 1991 Victoria, MD 1995, PhD 2004) wrote: "Onset of new behavioural or mental health problems, psychosomatic symptoms or a decline in school performance should prompt questioning about bullying, including cyberbullying."

Then there are the schools. Mishna says that in the early days of cyberbullying, they weren't inclined to think it their problem, in that it usually occurs after hours. That attitude has now changed, with school-based social workers often called on to deal with problems as they come up.

"Cyberbullying does not operate in a vacuum," writes OISE professor Kathy Bickmore in an email message. Bickmore studies peace-building in education, and says "peace-building is shaped by (and contributes to shaping) the pattern of human interactions in and around schools."

While Bickmore says there is no one quick fix to the problem, she suggests punishing students is not the answer – but "building their capacities and inclinations to act non-violently toward one another is something schools *can* do." She cites the effectiveness of restorative justice programs as an example (a conflict resolution model with Aboriginal roots, whereby inclusive dialogue about conflicts is used as an opportunity to learn and grow).

In a major research project conducted by Bickmore on safe and peaceful school practices in big-city school boards in Canada, she found that cyberbullying was being discussed in most schools she visited. "Such awareness-based education, however, is not sufficient by itself to resolve this complex problem," she says, "because it doesn't actually build less competitive or more respectful relationships, nor conflict communication skills."

nd then there are the bewildered parents: some of whom, even after their child's suicide, have continued to receive hateful messages online about the child. But it's extremely hard for people over 40 to police this environment: it's not like monitoring homework and piano practice, things they grew up with and know about.

Kids believe, not without reason, that adults know less about social media than they do. So although cyberbullying is a common accompaniment to criminal cases involving youth, Brock Jones has rarely seen a case where victims complain directly to parents. "Usually it's after the fact, when something gets distributed so widely that its discovery is inevitable."

Kids also think parents don't understand how wired their world truly is, and they are right. Further, Mishna says parents and other adults in general often overlook the Internet's positive effects. "Some sites offer ways for kids who are different to connect online, where they feel safe and validated. They might not have a community or a family they can talk to otherwise," she says. Isolation can lead to suicidal behaviour in teens: the Internet can offer a way out of that.

That's why the number one thing that stops kids from telling their parents about cyberbullying is fear of getting their devices confiscated by adults who think going offline is the best way to solve the problem. After all, adults sometimes brag about not having Facebook and Twitter accounts: they tout the superiority of face-to-face engagement, and think teens should feel the same way. But Mishna says teens need those devices. "This generation doesn't know a world without technology! It's like saying, don't eat food anymore."

She suggests that parents instead employ a sort of harm-reduction strategy, along the lines of how we now treat, say, teen drinking. "We used to say don't drink and drive. Now we say if you do drink, phone your parents. We have to do the same thing here, otherwise it's just too dangerous."

Technology really is the kids' world, and that's why some of the best solutions may ultimately come from them. Some examples of courageous activists in the area include 20-year-old Molly Burke, who endured brutal traditional bullying and cyberbullying growing up as a blind teenager in Oakville, Ontario and is now a motivational speaker; or Viraj Puri, a Virginia teenager who's developed a heat map that tracks mentions of bullying on Twitter, Facebook and Google+.

Everyone hopes that if the question of netiquette is taken seriously by schools, parents, health-care workers, technology experts, the courts and kids themselves, a new ethic might well arise that will help make the dark and abusive aspects of today's social media climate a thing of the past. Tragic suicides make the headlines, "and then the subject seems to go away," says Mishna. "But it's still going on every day. We can't forget that."

Cynthia Macdonald (BA 1986 St. Michael's) is a writer in Toronto.

Show your pride



The more you use it the better it gets.

Earn MBNA Rewards points you can redeem[‡] for unlimited cash back, brand-name merchandise, worldwide travel, gift cards from top retailers and restaurants, even charitable donations.

- Earn 1 MBNA Rewards point[‡] for every \$1 in eligible purchases
- Get 1,000 bonus points^{††} after your first eligible purchase
- Receive 1,000 bonus points[#] each year on your account anniversary
- Every eligible purchase benefits student and alumni programs at The University of Toronto





See how fast your points can add up.			
Type of Purchases	Monthly Expenses	Monthly Points	First-Year Points
Gas	\$200	200	2,400
Groceries	\$525	525	6,300
Insurance and Utilities	\$425	425	5,100
Dining Out	\$175	175	2,100
Other	\$350	350	4,200
Subtotal	\$1,675	1,675	20,100
Bonus points ^{††}			+1,000
Potential first-year total (Redeemable for \$210 cash back and more.)			21,100

For illustrative purposes only. Actual rewards earned will depend on individual purchases.

Learn more today.

Visit **creditrsvp.com** or call **1.877.428.6060**^a. Mention priority code **CRPU**.

Call us Monday – Friday 9 a.m. – 9 p.m. Saturday 10 a.m. – 6 p.m. Eastern Time.

[‡] These are highlights of the credit card rewards program (the "**Program**") associated with this credit card account. Points will be awarded on eligible transactions charged to your account as set out in the Program terms and conditions. Complete terms and conditions describing Program eligibility, accrual and redemption of points, and other important conditions, limitations and restrictions will be sent after your account is opened. Please read the terms and conditions carefully upon receipt.

the terms and continuous activity upon receipt.

If To qualify for this offer, an applicant must be approved for the specific credit card account described in the offer. The account must be used for at least one eligible transaction that is not subsequently rescinded, the subject of a charge back request or otherwise disputed. Please allow 8 -10 weeks from the transaction date for bonus points to be posted to your points account. Limit one-time bonus point offer (no cash value) per new account. This promotion is offered by MBNA and may be amended or cancelled at any time without notice.

^{##} To qualify for bonus anniversary points, your account must be in good standing and you must have made at least one purchase transaction on your account within the prior calendar year. This bonus will be applied annually following the anniversary date of your account opening. This promotion is offered by MBNA and may be amended or cancelled at any time without further notice.

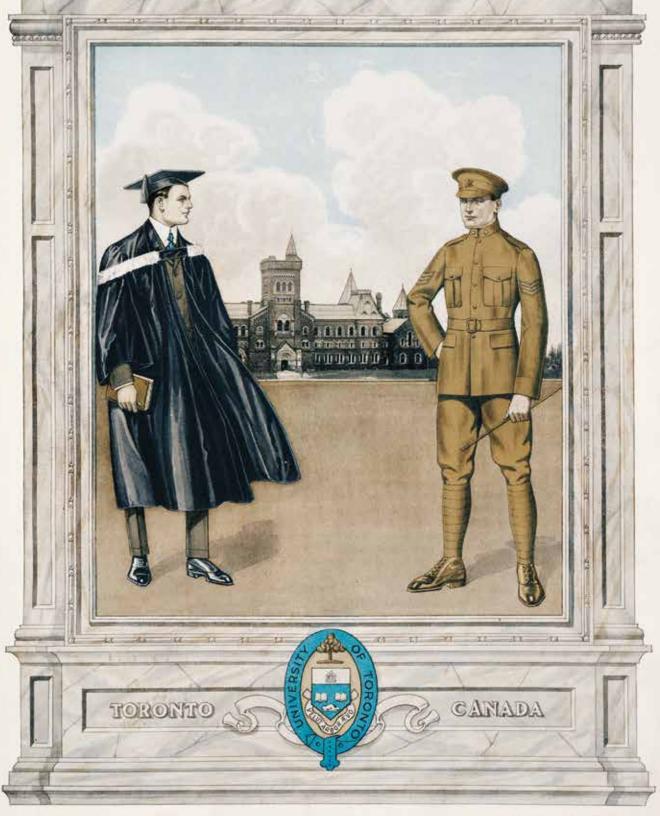
a By telephoning to apply for this credit card, you consent to the collection, use and processing of information about yourself by MBNA, its affiliates and any of their respective agents and service providers, and to the sharing or exchange of reports and information with credit reporting agencies, affiliates and service providers in relation to processing your application and, if approved, administering and servicing your account. You also acknowledge that the account, if approved, will not be used by any third party other than a third party specifically designated by you, and then only in accordance with MBNA policies and procedures then in effect. Information is current as of September 2014 and is subject to change.

The Toronto-Dominion Bank is the issuer of this credit card. MBNA is a division of The Toronto-Dominion Bank

All trade-marks are the property of their respective owners.

MBNA and other trade-marks are the property of The Toronto-Dominion Bank.

VARSITY MAGAZINE SUPPLEMENT



CHANGED BY WAR



1914 то 1918

THE FIRST WORLD WAR CHANGED CANADIAN SOCIETY PROFOUNDLY, and transformed the University of Toronto no less. A quiet teaching university became first a military training camp for thousands of young volunteers, then a research powerhouse as buildings, resources and brilliant minds were turned over to the greater war effort. The vignettes that

follow commemorate the diverse contributions made a century ago by the U of T community during the war. They offer a window into private moments, acts of kindness, bravery and personal sacrifice. Above all, they illustrate a common commitment to find reasons for hope even in a time of loss.



"NOTHING LACKING BUT THE ROAR OF BATTLE"

Between 1914 and 1918, millions of soldiers inhabited the trenches that lined the battlefields of the Western Front. First-hand

accounts of trench life offer stark descriptions of filth, disease, injury and death. Apart from being cold, wet and hungry for days, even months on end, soldiers faced near constant bombardment. "Thirteen months and more had some of us sat in trenches," recalled UC alumnus Corporal R. A. Utley, "taking what the Germans chose to give us in the shape of shells and sniper's bullets."

While nothing could prepare recruits for the grim

realities of trench warfare, the University of Toronto did what it could to equip its student soldiers for what was coming. Beginning in 1914, the military used Hart House (which was under construction throughout the war) as a training ground. Recruits marched in the Great Hall, the Royal Flying Corps set up workshops in the gymnasium, and the Military Hospitals Commission Command trained medical personnel, including women nurses and rehabilitation specialists, in what are now the Debates and Music Rooms. When wounded soldiers began returning home, large portions of the building were devoted to rehabilitation.

Under the command of Lieutenant-Colonel Vincent Massey (who would become Canada's first native-born Governor General), students also trained under combat-like conditions in the unfinished basement that would later become the Hart House theatre. Lieutenant Lawren Harris, a member of the musketry staff (who would go on to fame as a Group of Seven artist), used his paintbrushes to create an imitation Belgian village that spanned one side of the room.

The shell-shattered replica depicts the main thoroughfare of a village after a German attack. The foreground is dominated by broken trees, rubble and sandbags that seem ineffectual against the destruction. Almost defiantly, a cathedral towers above the scene while smaller houses lie in ruins.

A trench accommodating up to 20 men faced the village. Trainees passed messages along the trench and life-like German marionettes appeared in the windows of bombedout buildings. Student snipers popped up from behind sandbags and fired at the moving targets. "It is very real," one observer reported. "Nothing seemed lacking but the noise and roar of battle to transfer me to a sector of the Western Front."

In what must have seemed a quaint memory to those facing the genuine roar of battle, similar scenes were staged across Toronto in the early years of the war. High Park and the CNE were likewise transformed into training sites, complete with trenches and faux German targets. The *Globe* reported that throngs of Torontonians turned out at the Exhibition grounds to inspect mock trenches

that were "modelled on the latest kinds in use in Flanders and France." Soldiers, many of whom were Varsity men, performed battles, bayonetting sacks painted to resemble Kaiser Wilhelm II, Crown Prince Wilhelm and others as a large crowd of onlookers cheered.

Hart House officially opened on Remembrance Day, 1919, exactly a year after the end of the war. On this occasion Vincent Massey remarked, "The bricks and mortar are but the bones, the community must provide the spirit." Throughout the war, the soldiers, students, faculty, staff and volunteers who passed through Hart House personified Massey's call to action by demonstrating a spirit of sacrifice, devotion and deep commitment to service.

STUDENT SNIPERS POPPED UP FROM BEHIND SANDBAGS AND FIRED AT THE MOVING TARGETS



FARMERETTES HELP AT HOME

Dressed in loosefitting bloomers and straw sun hats, U of T's women undergraduates spent their

summer breaks planting and hoeing in service of Canada's war effort. In 1917 and 1918 hundreds of U of T "farmerettes" signed up for national service on Ontario farms, replacing the labour of men lost to military service.

The young women performed all but the heaviest agricultural tasks. In the fields, they planted, weeded and pruned the crops. At harvest time, they picked and packed fruits and vegetables for shipping, and then travelled into town to help sell the produce at market. Living conditions ranged from YWCA-sponsored residences to musty military tents.

Food production was critical to Canada's swartime economy. Farmers were expected to do their patriotic duty by maximizing output to feed troops at home and abroad. The government also entreated young men and women to do their part.

Ontarians took great interest in the farmerettes. Most hailed from urban areas and had little-to-no experience with farm work. Newspapers focused on the novelty and offered regular (and frequently patronizing) updates on how the women were coping with the demands of farm life.

The Toronto Daily Star tempted readers with headlines such as: "Plucky Farmerettes Put in Hard Work: But it is not a Bed of Roses, as One City Girl Found Out"; "Mary Feeds her Little Lamb, also Pigs and Other Farm Pets"; and even "One Farmerette Sat on Snapping Turtle, She Thought it was a Nice Smooth Stone."

Reports from the farmerettes themselves characterize the experience as both gruelling and gratifying. Many com-

plained of intense heat, long hours, low pay and poor working conditions. The women protested their rates of pay and the length of the season and through collective action managed to negotiate better wages and conditions.

Yet despite these challenges, farmerettes were intensely proud of their contributions to Canada's war effort: "The main motive of the college girl, in spending her holiday in war work, was to serve her country," related related Mossie Waddington (BA 1911 Trinity, MA 1913, PhD 1919), who would become Dean of Women at University College and

later at Trinity College. Many women also felt a sense of liberation as they stepped into non-traditional roles. Their work on farms and in factories and offices challenged gender norms and practices. "In agriculture," declared Margaret Wrong in the *Varsity Magazine Supplement*, "it has been proved that women can take the place of men without injury to health or to the work in hand."

IN 1917 AND 1918
HUNDREDS OF U OF T
"FARMERETTES"
SIGNED UP FOR
NATIONAL SERVICE
ON ONTARIO FARMS,
REPLACING THE
LABOUR OF MEN
LOST TO MILITARY
SERVICE

FORGOTTEN WARRIORS

Thanks to a best-selling book, hit play and Hollywood movie, millions know the tale War Horse, a fictionalized account of the important and dangerous role horses played in the First World War. Millions of animals, including horses, mules, dogs, pigeons and even glow-worms served on both sides of the conflict. These animal soldiers transported troops and supplies, carried the wounded, detected poisonous gas, hunted rats, delivered messages and offered comfort and compan-

ionship to homesick soldiers. And the glow-worms? They were piled into glass jars and provided dim light in the trenches for men to read letters, maps and reports.

In the heat of battle and through the long periods of inactivity, soldiers formed intense bonds with their animals. Lieutenant-Colonel John McCrae, known to millions as the author of the war poem "In Flanders Fields," brought his horse Bonfire with him when he shipped overseas to serve as a field surgeon.

McCrae (BA 1894 UC, MD 1910) wrote: "I have a very deep affection for Bonfire, for we have been through so much together, and some of it bad enough. All the hard spots to which one's memory turns the old fellow has shared, though he says so little about it."

This tenderness spilled over into correspondence. Charming letters from Bonfire to McCrae's nieces and nephews back in Canada were signed with his hoof:



"I HAVE A VERY DEEP AFFECTION FOR BONFIRE, FOR WE SO MUCH TOGETHER, AND SOME OF IT BAD ENOUGH"

From Bonfire to Jack Kilgour August 6th, 1916

Did you ever have a sore hock? I have one now... I am glad you got my picture. My master is well, HAVE BEEN THROUGH and the girls tell me I am looking well, too. The ones I like best give me biscuits and sugar, and sometimes flowers... Another one sends me bags of carrots. If you don't know how to eat carrots, tops and all, you had better learn, but I suppose you are just a boy, and do not know how good oats are.

—Bonfire (signed with a horseshoe)

McCrae also befriended at least two dogs while overseas. Mike, a one-eyed terrier, and Bonneau, who accompanied him on patient rounds.

The fate of Mike and Bonneau isn't known. Sadly, McCrae died of pneumonia and meningitis in January of 1918. Bonfire, who survived the war, led McCrae's funeral procession, McCrae's boots reversed in his stirrups.





WAGING WAR ON INFECTION

A century before the First World War, the main weapon of the War of 1812 was a muzzle-loading musket that fired up to four shots a minute to a distance of roughly

90 metres. The machine guns used on the battlefields of the First World War could fire hundreds of rounds per minute with a range of several thousand metres. The weapons of modern warfare mangled tissue and fractured bone, creating the perfect conditions for infection and disease. Many soldiers fighting on the "tetanusladen" battlefields of Belgium and Northern France became infected with tetanus (also called lockjaw), which had a mortality rate of between 40 and 80 per cent.

In 1914, 32 per cent of the British wounded contracted tetanus. Taken by surprise by the high rates of infection, the British and Allied command looked to Canada and the University of Toronto for help. Dr. John FitzGerald – U of T Medicine graduate, faculty member and public health pioneer – played a critical role in preventing tetanus and other infectious diseases in the Canadian and allied armies.

In May 1914, at FitzGerald's urging, the university took over the fledgling antitoxin laboratory that he had established a year earlier in a backyard stable at 145 Barton Avenue, near

the intersection of Bloor and Bathurst streets. FitzGerald opened his lab using \$3,000 of his wife's inheritance. With new equipment, a hired technician and five horses he began producing safe and inexpensive diphtheria antitoxin that would eventually be made available to all Canadians, regardless of class or income.

After war broke out, military demand for antitoxins and vaccines prompted FitzGerald to move his lab to a farm donated by brewer and philanthropist Albert E. Gooderham.

The lab would eventually become the worldfamous Connaught Antitoxin Laboratories. U of T President Robert Falconer and U of T's board of governors approved a plan for the laboratory to produce enough tetanus antitoxin for every Canadian soldier at a much-reduced rate. In a message to Prime Minister Robert Borden, Falconer characterized it as the university's "patriotic duty that we in Canada should manufacture tetanus antitoxin for our own expeditionary forces."

The expanded labs produced a host of life-saving medication for the war effort, including tetanus antitoxin, anti-typhoid vaccine, diphtheria antitoxin, anti-meningitis serum and smallpox vaccine.

By the war's end, vaccines and the practice of giving wounded soldiers tetanus shots had reduced the rate of infection to 0.1 per cent, making the anti-tetanus program one of the most successful health campaigns in wartime medicine.

TAKEN BY SURPRISE BY THE HIGH RATES OF INFECTION, THE BRITISH AND ALLIED COMMAND LOOKED THE UNIVERSITY OF TORONTO FOR HELP

OBJECTS OF SALVATION





The noisy rat-a-tat produced by this First World War rattle (on display in the Memorial Room at Soldiers' Tower) warned all those within earshot of an impending poison gas attack. In the trenches the only criteria for alarm devices were that they be loud and distinctive – but as a bonus, rattles didn't require use of the lungs. Soldiers used wooden rattles, klaxon

horns and steel triangles, but also made alarms from whatever materials they had available, such as empty shell cases and church bells.

IN THE TRENCHES Poison gas caused more than a million casualties THE ONLY CRITERIA in the First World War. Widespread use of lethal FOR ALARM DEVICES gas began in April of 1915 during the Second Battle WERE THAT THEY BE LOUD AND of Ypres in western Belgium. This battle, known DISTINCTIVE - BUT as the Canadian Army's "Baptism of Fire," gave AS A BONUS, RATTLES DIDN'T REQUIRE USE Canada's soldiers a reputation as a force to OF THE LUNGS be reckoned with. Yet, in 48 hours of fighting, 6,035 Canadians – one in every three soldiers in the First Division – were injured or killed. More than 2,000 died. The University of Toronto suffered many casualties at Ypres, including medical student Norman Bethune (BSc Med 1916) who was wounded in the fighting and spent three months recovering in a British military hospital.

Prof. Harold Innis was another member of the U of T community who was gassed during his service overseas. Pictured on our cover in 1917 wearing a gas mask around his neck, a "very tired" Innis had just come off duty as a signaller with the Fourth Battery of the Canadian Expeditionary Force in Western Europe.

On April 9, 1917 at Vimy Ridge, gas shells hit between his feet but "did no damage other than to release a rather stifling chlorene (sic) gas." A few months later Innis was not so lucky when shrapnel from a German shell ripped through his right thigh. The wound was severe but not lethal, thanks in large measure to his avowed "habit of carrying around great quantities of stuff in my rucksack." Books and other equipment stopped additional shell fragments from entering his body. The pictured Field Message Book, which now belongs to the Harold Innis collection at U of T

Archives, was among the objects that may have saved his life.

For two more stories of U of T at war, visit magazine.utoronto.ca.

The Great U of T Magazine Photo Contest Winners

Once again, there were hundreds of superb entries from around the world and very few easy decisions. The judges say their lists of favourite photos changed every time they looked at the entries – but somehow, they whittled them down to 15 finalists, and settled on these three winners, who each receive \$500. Runners-up received U of T prize packs. Thanks to all who entered!

SEE MORE ONLINE!

View all the winners, runners-up and honourable mentions at: magazine.utoronto.ca/ 2014-photo-contest-winners



Places/Things

Winner: "Local Resident" by Lance McMillan (MMus 1979)

In June 2011, McMillan and his travelling companion went to Machu Picchu, Peru. During the trip, they had taken a shine to the llamas in the Peruvian countryside and were actively looking for llamas to photograph as they ascended the mountain toward the famous ruin. But they didn't see any until they got there – when this local resident boldly stepped up to volunteer as McMillan's model.

Runner-up: "Barbershop" by Sarah Gould (PhD 2014)

Honourable Mention: "Toronto Downtown at Dusk" by Yuanyang Wei (MASc candidate in the department of chemical engineering)

The Great U of T Magazine Photo Contest



People

Winner: "Hunan Hawker" by Theodore C. Lo (PhD 1973)

Having taken up photography after his retirement, Ted Lo and his wife travelled to pursue "his new vocation." One day in 2013, they were walking up a hill in Hunan Province, China. It was a scenic area with terrace farming, and their attention was drawn away from the landscape by a woman coming up the hill behind them with a basket on her back. The shot was taken in colour and converted to black and white to bring up the contrast between light and shadow.

Runner-up: "The Courage of Youth" by Godofredo Baylon (DCE 2000) Honourable Mention: "On the Street" by David B. Williams (PhD 1981), a professor in the department of biochemistry



Fun fact: a significant proportion of our finalists have probably spent at least as much of their lives looking through microscopes as they have looking through camera lenses



Boundless

Winner: "Boundless" by Anca Liliana Cismaru (BSc 2013 UC)

Cismaru took this photo of sculptor Nicolas Lavarenne's "Guetteur pensif" ("thoughtful watcher") in November 2013 while on a student day trip in Montreux, Switzerland. Here's how the sculptor described his work in an interview with WIPO Magazine, "The poles lift the sculpture from the ground, making it lighter, almost virtual, unable to be touched. Bronze is very heavy and yet it flies." The combination of ancient art form, nature and jet trails criss-crossing a vast sky makes this image truly boundless.

Runner-up: "Milky Way over Pigeon Lake" by Godofredo Baylon (DCE 2000)

Honourable Mention: "Flying High" by Theodore C. Lo (PhD 1973)

The Judges

Jacklyn Atlas is a freelance photographer who has worked with diverse clientele from corporate, public and artistic sectors. A strong collaborator, she enjoys involving herself in all levels of a project. Both in studio and on location, Jacklyn embraces the creative possibilities in every project.

Gilbert Li is principal of The Office of Gilbert Li, a graphic design studio he founded in 2004. The studio's much-lauded work covers all forms of print and editorial projects for a clientele of leading public institutions, cultural groups and non-profit organizations. He is *U of T Magazine*'s art director.

Amanda Keenan is a graphic designer in the department of University Advancement at University of Toronto. She also runs a letterpress studio specializing in bespoke paper goods such as wedding invitations and posters.

UNIVERSITY OF TORONTO SCHOOL OF CONTINUING STUDIES

Learn more.

Sara Rangooni

U of T alumna Sara earned two certificates at the School, enhancing her career and inspiring her soon-to-be-launched e-business.

"It's an amazing feeling to be part of a program that allows you to create a bigger vision for yourself and to dream bigger. It truly gives you confidence that you have what it takes to go further."

We offer boundless opportunity to enhance your skills and enrich your life.

For easy registration or to order a free copy of our course catalogue, call 416.978.2400 or visit our website. Follow us on Twitter @UofTLearnMore.

learn.utoronto.ca





All About Alumni

"I'd bring some unexpected characters to the table."

Jason Logan proposes a creative shake-up for Toronto

p. 53



Woman's Time

Around the world, there's a shift happening for women and girls, says activist Sally Armstrong

AS A JOURNALIST AND HUMAN RIGHTS ACTIVIST, Sally Armstrong (MSc 2001) has brought horrifying stories about the abuse of women to light from conflict zones around the world. And there has been no good news, she says, until now. Her message of hope for girls: There's a shift happening – women are moving toward a tipping point. "Everyone – from presidents to pollsters and economists to policy wonks – is predicting that women are the way forward," she says.

"About three years ago, I felt the earth was shifting under the status of women; stories were popping up all over the place." Armstrong travelled to Meru, Kenya, a city north of Nairobi, to write a story for *Chatelaine* magazine about 160 girls, kids between the ages of three and 17, suing their government for failing to protect them from being raped. "I watched the drama unfold – the agony of these young victims and the empowerment they felt for taking action, something their grandmothers, mothers and aunties had never dared to do," she says. And the ground did shift, as the judge delivered a guilty verdict in 2013. When Armstrong started doing more research, she found many more stories and a lot of evidence – enough to support her theory and write a book, *Ascent of Women: A New Age Is Dawning for Every Mother's Daughter*.

But why now? Armstrong credits the global commitment to the education of girls as a major factor. For instance, women ightharpoonup

PHOTO: PETER BREGG AUTUMN 2014 49



Before insulin was discovered at U of T in the 1920s, starvation diets were the main treatment for diabetes. "I am a fat boy now and I feel fine," wrote one grateful early patient to Sir Frederick Banting

Sweet Legacy

Diabetes education a proud U of T tradition



in 1921, insulin was discovered at the University of Toronto by four researchers, promising a life-saving treatment for diabetes patients. Today, the U of T Chapter of the Canadian Diabetes Association (CDAUT) is honouring that work in a new way. Founded in March 2012 by a group of friends – graduate students and diabetes researchers – the chapter aims to promote awareness, campaign for better lifestyle choices, advocate for students and staff living with diabetes and encourage interested students to participate in diabetes research.

"It's really cool that this is the birthplace of insulin," says Wilfred Ip (BSc 2008 St Mike's, PhD 2014), one of CDAUT's founders. Still, "We felt that there was a gap at the university for diabetes advocacy," he says. Ip, 28, has been at U of T for nine years, studying first biochemistry and human biology, then medical science focused on diabetes research.

CDAUT is particularly active during Diabetes

Awareness Month in November, and on World Diabetes Day on November 14. Last year, they set up booths on campus to provide educational information, raised money for diabetes-awareness events and research, and even held a sugarfree bake sale. Throughout the year, the chapter also serves as a peer support group for students living with diabetes. The CDAUT site, cdaut.sa.utoronto.ca, highlights U of T's insulin connection – for example, a recent interview with Dr. Mladen Vranic, Dr. Charles Best's final post-doctoral fellow and a professor in the department of physiology. For his work with CDAUT, Ip received a 2014 Gordon Cressy Student Leadership Award.

"Diabetes is a serious illness, and obesity – which is associated – is becoming an epidemic," says Ip. Diabetes affects more than nine million Canadians. Ip moved on to medical school at Queen's University this September, but he hopes CDAUT can continue ringing a bell of awareness about the importance of a healthy diet and regular exercise, which can prevent and also help manage diabetes. "We're hoping that, through our work, we can convince people that these are important choices to make," says Ip. "And the best time to start is when you're young." – SARAH TRELEAVEN

OVERHEARD



Ontarians do not hold prejudices in their hearts. I want our kids to feel that, as they grow up, and understand what a gift it is to live in a place where anyone can be the premier.



in Afghanistan refer to their illiteracy as blindness. "I couldn't read, so I couldn't see what was going on," one woman told her, describing how a lack of education has kept women in the dark for centuries. Armstrong says, "As more girls started going to school, they started to understand that they had been hoodwinked, and started to realize things like the fact that the holy book did not say they could not go to school – it was just what the elders were telling them."

Another factor that Armstrong credits is the power of the Internet and social media. Facebook, Twitter, email and blogging mean nothing can be hidden any more, she says. The #BringBackOurGirls Twitter hashtag was launched after almost 300 girls were kidnapped in Nigeria this spring.

"Did the Twitter campaign work?" asks Armstrong. "We don't have all the girls back, but it forced the Nigerian president to take help from other countries," and, when U.S. President Barack Obama sent an interagency team to assist the Nigerian government with the search for the missing girls, he checked off a box in history that had always been empty. "It may not have the ending we hope for, but we should never forget it," she says. "He showed the world that girls count – that's the message and the lesson."

As for the impact that she hopes her book will have, it's simple, says Armstrong. "I hope the book will fuel the conversation that has started around the world – I wanted to tell women that they are winning." - DONNA PARIS



FIRST PERSON

A Conversation with India

Nisha Pahuja's documentary film about women becomes a force for change

TRAVELLING BY CAR recently in Mumbai, I witnessed the worst pollution I've seen in India. Construction work had shrouded the area in a dense, chemical fog. Shadowy people emerged ghost-like, cars were swallowed whole and the moment was as beautiful as it was disturbing.

I asked my driver to let me out. I wasn't sure what I was looking for, and all I had was my iPhone and not much in the way of camera skills – but there was something about the scene that I wanted to capture, so I sat on a ledge near the curb and waited.

Every documentary filmmaker, no matter how cynical, is actually an optimist – convinced that if they just wait and watch, life will reward them with a moment filled with magic. The key difference between us and feature filmmak-

Most documentary filmmakers have one goal – sharing their films to effect some kind of change. ers is that, by and large, we don't create moments. We wait for them, and, in that waiting, we admit and acquiesce to the supremacy and power of fate.

It was with this same combination of optimism and acceptance that I set out to release my film, *The World Before Her.* in India.

The film, a Canadian production that took four years to make, follows two parallel real-life stories: on the one hand, the behind-the-scenes struggles of the 20 young women vying for the Miss India 2011 title and, on the other, the experiences of young women in a training camp for fundamentalists. Most people in India aren't aware that such camps exist and the Hindu conservatives would like to keep it that way. The access we had to each world was unprecedented, and ultimately we ended up with a powerful, controversial and intimate story about what it means to be a woman in contemporary India.

Violence against women and girls in India is not just widespread, it's woven into the very fabric of society. But after the Delhi rape in December 2012, the country awakened to how vulnerable many Indian women are, and how much it needs to do in the area of women's rights.

Most documentary filmmakers have one goal – sharing their films to effect some kind of change. Every now and then, we get lucky. We find a story that captures the *Zeitgeist* and has potential to become a lightning rod for discussion, introspection and real change. That's what we have with *The World Before Her.* In the 18 months following its completion, the film screened at countless festivals and won 20 awards and distinctions.

We didn't initially intend to release the film theatrically in India. And then two things happened: the Delhi rape, and public screenings in India. Everybody was talking about the film: activists, homemakers, students, women.

So starting on June 6, we launched a six-month campaign to screen the film across India. We released it in theatres and on the Net, and we've travelled with it to schools, universities and places where people would never have access to this kind of story. This October, we'll begin screenings at colleges and universities and in areas where rates of female feticide are high and female infanticide is still practised.

The World Before Her has become India's most successful documentary release and was nominated for an Emmy in the U.S. But for me, some of the most gratifying reaction to the film has come from young men. Many have posted on Facebook or written to me about what the film makes them feel, how it makes them think about their own privilege and prompts them to question why things are so difficult for women in India. They wonder what their own role is, and how they can bring about change.

We hope people who see the film, particularly young people, think about the way women in India are viewed, and that they rethink the value of their daughters.

Nisha Pahuja (BA 1994 UTM) is a Canadian documentary film producer. The World Before Her won Best Canadian Feature at the 2012 Hot Docs Canadian International Documentary Festival.

PHOTO: NISHA PAHUJA AUTUMN 2014 5T



According to the United Nations, 89 per cent of the world has access to clean drinking water, but 783 million people still rely on unsafe water sources

THE TWO OF US

A Sense of Humour Doesn't Hurt

For Donald and Hana Nute, home straddles two different worlds





HANA (BA 1977 VICTORIA, DIPLOMA IN CHILD STUDY 1982 OISE): When I first met Donald at U of T in the '70s, I thought he was very smart and handsome. It became clear to me that he was a long-term investment. He's not the kind of guy you have doubts about. He made me laugh every day – and still does. We became teachers but there were no jobs in Canada, so we moved to southern California and stayed for 27 years. We worked together with special-needs and high-risk students, and it was nice to have someone who understood the stress.

After the Iron Curtain fell, we were able to visit Prague, where I was born. The first time we crossed the border in 1990, through what used to be a mined no man's land, it was very emotional for me. It was very special to share that with Donald. We've been back many, many times. Now that we're retired, there are many more adventures we want to have together. Relationships change over time, and you have to adjust. A sense of humour doesn't hurt. I would recommend marriage to anybody.

DONALD (BA 1978 VICTORIA): When I first saw Hana, she was really pretty – and she still is. We met in the E.J. Pratt reading room, and then again in the Vic Pub and I realized that she was fun, smart and just really nice to be around. We lived together for a year before getting married in August, 1979 which may have been Hana's idea. She has a way of motivating me. We've been married 35 years and we do almost everything together. We ski together, we bicycle together, we travel together and we read the same books. We have very few disagreements, and it's easy for us to compromise. More than anything else, she's my best friend. We don't have children and that's been very hard. But that's one of the reasons we've been able to live a bit of a crazy life. There are silver linings to everything. We retired two years ago, and we're building a house near Gananoque, Ontario close to where I grew up. We also have a place in the Czech Republic. So we've both been able to come home.



An Arduous Path to a Home-Grown Solution

In the 1970s, tube wells were dug in rural Bangladesh to fight disease through cleaner water, but surrounding soil contaminated the well water with arsenic, a powerful carcinogen. Today, the largest mass poisoning in history is responsible for more than 40,000 deaths every year in the country.

Shahreen Reza (BA 2007 Trinity), who was born in Bangladesh and grew up in Norway and Canada, has been working on a solution for years. Reza, a screen-writer, learned of a whisky-manufacturing waste product – compressed barley husks – that can remove pollutants from water. Studies showed that a similar filter, made from coconut husks, abundant in Bangladesh, would be inexpensive and easy to use. "It needs to be changed only once every three or four months," she says.

In 2013, Reza founded PurifAid, a non-profit dedicated to introducing the filter system to existing wells in rural villages. With a grant from Grand Challenges Canada and two NGOs, BRAC and the International Centre for Diarrhoeal Disease Research, she and her fellow volunteers are looking forward to large-scale implementation. "Everything will be manufactured in Bangladesh," Reza says. "We want to help the local economy and make sure the filter can be made entirely in the country – by and for Bangladeshis." – STAFF



Vocal cord vibrations travelling through our skulls make us hear ourselves with extra bass. That's why everyone thinks they sound squeaky in recordings



A Creative Director for Toronto?

Jason Logan argues that what the city needs most are innovative, visual, urban design ideas

NOT LONG AGO, JASON LOGAN found himself discussing the problem of bike lanes with editor-writer David Berlin. During the conversation, Berlin offered up an out-of-the-box idea that intrigued Logan, a creative director who has worked for numerous magazines and now runs his own studio. Why not repurpose Toronto's downtown lanes and alleyways to serve as a bike path network?

Logan (BA 1997 Victoria) had more than just a cyclist's interest in what would surely be a controversial proposal. He's launched a campaign to persuade the city to establish an "office of creative direction," an interdisciplinary "lab" that would work with the chief planner and council to facilitate innovative approaches to tenacious problems.

This city creative director (he'd take the job) would serve as a kind of urban translator between "dreamers" among the public on the one hand, and bureaucrats and elected officials on the other, many of whom prefer to say "no" instead of embracing visually inspired urban design and a creative approach to city planning. "That's the true gap in Toronto," says Logan. "I don't think there's any leader at City Hall thinking about the creative aspects of shaping a city."

Earlier this year, he began talking up his plan in the media and set up a digital campaign, including an e-petition calling for the position to be created following the October election. Despite positive feedback from a few city councillors, he doesn't want to tie the idea to a single mayoral candidate.

Logan was inspired by other cities. After Mexico City appointed Gabriella Gomez-Mont to set up an urban "laboratory" last year, for instance, she invited a wide array of creative professionals to tackle what Logan calls "really hard-core problems" – among them, the derelict and dangerous spaces lurking beneath the megacity's highways and bridges.

The outcome: a new economic development program that allows upstart businesses to access those spaces inexpensively, on the understanding that part of the land will be set aside for civic or public uses such as parkettes, playgrounds and food stalls. Today, Logan says, the areas are becoming urban places that attract people and commercial activity.

For Toronto, Logan believes a civic creative director should focus on the subject that bedevils the city right now, which is congestion. The way forward, he argues, may well be to inject some right-brain thinking into an arena long dominated by left-brain types.

Logan wants graphic artists, poets, historians, doctors, computer programmers and even chefs to enliven a stalled debate with their own brand of creativity. As he puts it, "I'd bring some unexpected characters to the table."

- JOHN LORINC

Visit magazine.utoronto.ca to see Jason Logan's sketch vision of an innovative Toronto

Yes, You Can Sing!



"Good Lord, is that what I sound like?"

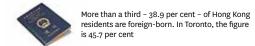
"That's what most people say when they hear their voice recorded," says vocal coach Mark Joelson Daboll (MusM 2007). "They despise what they hear. Something about the voice taps right into our vulnerability. But there's magic in everyone's sound."

To encourage people to celebrate their voice, Daboll recently founded the online platform PleaseJudgeMe. com. "I started it because so many are intimidated by the prospect of facing a voice coach face to face," says Daboll, who helps individuals who want to sing their best on a grand opera hall stage, or who simply want to impress their date at a karaoke bar.

For a \$25 fee, the site allows you to upload a video file of yourself singing. When Daboll receives the file, he'll first close his eyes and just listen. Then, within a week, he'll write to tell you what's good about your voice; how you can improve it by, for example, changing your posture or breathing style; and even which songs suit your sound.

"People have become afraid to sing," says Daboll, who also teaches voice at U of T's Faculty of Music. "We've become bystanders to the music, when for centuries singing was a natural impulse to express joy and simply pass the time. Everyone should sing."

- SUSAN PEDWELL



60 SECONDS WITH

Aelita Brivins

What you don't know about how you're communicating



As one of the world's top financial centres, Hong Kong is home to a large expatriate community. But newcomers to the "Pearl of the Orient" often find that adjusting to life in their new home can be a challenge. For 20 years, U of T sociology graduate Aelita Brivins (BA 1985 Victoria) has worked in the city as a cross-cultural consultant. She gives executives an understanding of how their home country's traditions can strongly influence how they communicate and do business – and she helps them with homesickness too. Brivins goes through customs with Cynthia Macdonald.

Canadians end up in Hong Kong for many reasons. What are yours?

I was offered a short-term job in banking and met my husband here, who's also Canadian. Then I started teaching at the university, where they were doing research in expatriate adjustment. I was always interested in that subject: I come

from a Latvian family in Toronto, and was frequently exposed to cultural differences. Hong Kong has often been called "the world's most globalized economy." Are cultural differences disappearing in this increasingly borderless world? In some ways, yes: because of companies such as H&M and Zara, for example, you notice people dress more alike now. But in other ways, no. In Hong Kong, for example, hierarchy is very important, while in North America, employees take greater initiative and are more likely to challenge their bosses. Here people are less likely to do that, so their North American bosses sometimes complain about not getting the input they'd like.

What about differences in etiquette? In Hong Kong, the question "Have you had lunch?" (or breakfast) shows polite concern. It is the same as North Americans saying, "How are you?" These greetings have led to a few uneasy situations where visitors were asked if they had had lunch, only to have the Hong Kong person walk away after they said "No." They were confused: was this a lunch invitation?

Do other cultures have trouble adjusting too? There are many differences. With German clients, I sometimes run into problems because they are quite direct in their communication compared to others. Or the Chinese pride themselves on efficiency, part of which comes from not discussing a lot; whereas the Indians pride themselves on discussion, and like to look at the complexity of a problem from different angles. **What's the secret to thriving when you move abroad?** I think a successful expat is somebody who has a sense of adventure. Somebody who's flexible, who entertains different ideas. And who has a certain amount of patience, because things don't always happen in the way you'd anticipate.

Milestones



Lawyer **Constance Sugiyama** (BA 1974 UC, JD 1977) was appointed to the Order of Canada in July. The citation praised her civic engagement.

Others named to the Order: cancer researcher Philip Branton (BSc 1966 Victoria, MSc 1968), the late Ryerson University chancellor G. Raymond Chang (BASc 1970), financier David F. **Denison** (BA 1973 St. Mike's, BEd 1974), mining engineer Norman B. Keevil (BASc 1959), disability advocate Allan B. Etmanski (BA 1970 St. Mike's), occupational therapist Karen Goldenberg (DPTOT 1966, BSc 1980 Woodsworth), author Guy Gavriel Kay (LLB 1978), music store pioneer Jack Long (BMus 1952), Museum of Health Care founder James Low (MD 1949), composer **Alexander Peter Pauk** (BMus 1970, BEd 1971), economist Kari Polanyi Levitt (MA 1959), HIV/AIDS advocate Ronald Rosenes (MA 1972), and veterinary researcher Norman Willis (DVS 1963, PhD 1973). Filmmaker David Cronenberg (BA 1967 UC) was promoted to Companion.

Poet **Anne Carson** (BA 1974 St. Mike's, MA 1975, PhD 1981) again won the \$65,000 Griffin Poetry Prize, for her collection *Red Doc>*.

Visual studies alumni Francisco-Fernando Granados (MVS 2012), John G. Hampton (MVS 2014) and Elena Soboleva (BA 2008 Trinity, MA 2011) were selected as part of Canada's top "30 under 30" in ARTINFO Canada's annual list of rising stars.

Kudos to **Suneet Singh Tuli** (BASc 1990), co-founder and CEO of DataWind Ltd., named the 2014 Visionary of the Year by the Intelligent Community Forum of New York City and **Faizul Mohee** (MEng 2011), who won the Ontario Society of Professional Engineer's Young Professional Award.

"Winning the Riddell Fellowship is not about me. I believe my research will enhance the care nurses provide."

GILLIAN STRUDWICK

Pursuing a PhD in Nursing Science

Gillian is doing her PhD thanks to help from Dorothy Grace Riddell's bequest to U of T. As a researcher, Gillian will advance the use of technology in her profession. As an aspiring professor, she hopes to mentor future generations of nurses. Include a gift to the University in your will and support the boundless potential of dedicated grad students like Gillian.

To find out more, contact michelle.osborne@utoronto.ca 416-978-3846 or give.utoronto.ca





Time Capsule



October 1949

"Shout! Fight! Blue and White!" At a noon-hour pep rally, the Blue and White Society's cheerleading squad sparked school spirit for a Varsity football game. "Rippity, rappity, rippity rappity ree," they chanted before performing cartwheels across King's College Circle. "Yay Toronto!"

To keep students zealous during a game, the Blue and White Band clashed cymbals when Varsity made a touchdown. When the opposing team scored, the trombonist moaned a sorrowful lament.

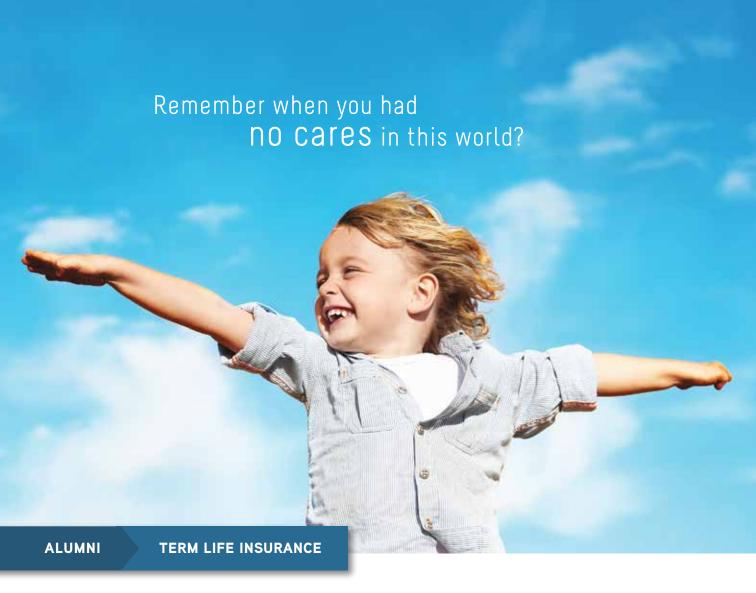
The role of this Students' Administrative Council (SAC) group was to foster social and cultural events on campus, and it regularly held "football dances" at Hart House.

A 1970 edition of the society newspaper, the *Blue and*

White Starecase, reveals the cost for admission: \$1 for "hustlers" and 50¢ for "chicks."

As the women's movement progressed, the cheerleading team came under scrutiny. That same issue of the newspaper published a letter from a cheerleader who complained that the SAC had referred to the squad as "a decadent, bourgeois group that exploit[s] women."

Today's Students' Union groups bend over backwards to not exploit anyone, while continuing to encourage school spirit. Last fall, students in the Blue Crew paraded cheering alumni and students along Philosopher's Walk to the Homecoming football game, proving the pep rally is definitely still part of campus life. - SUSAN PEDWELL



It's the same feeling you get, young or not so young, when you know you're protected — especially when you have people who count on you. Consider **Alumni Term Life Insurance**, whether you're looking for new coverage or adding to an existing one, and enjoy **exclusive low rates** for you and your family. **No worries.** We've got you covered.

Visit www.manulife.com/uoftmag to learn more or call toll-free 1-888-913-6333.





Underwritten by

The Manufacturers Life Insurance Company (Manulife).

Manulife and the Block Design are trademarks of The Manufacturers Life Insurance Company and are used by it, and by its affiliates under license.



No purchase necessary. Contest open to Canadian residents who are the age of majority in their province or territory of residence as of the contest start date. Approximate value of each prize is \$1,000 Canadian. Chances of winning depend on the number of valid entries received by the contest deadline. Contest closes Thursday, November 27, 2014, at 11:59 p.m. ET. Only one entry per person accepted. Skill testing question required.



VOLUME 42 NO. 1 MAGAZINE.UTORONTO.CA

The 25th Annual Arbor Awards

2014 marks the 25th anniversary of the Arbor Awards and another opportunity to celebrate our volunteers for their outstanding service to the University. Congratulations to this year's winners.

Since 1989, more than 2,100 alumni and friends have received Arbor Awards for their tremendous generosity and contribution to the experience of U of T students, faculty, staff and alumni. Our volunteers personify the very best attributes of the University's motto, *Velut Arbor Aevo* – "May it grow as a tree through the ages." Their work represents both our roots and our branches, which have served to anchor our traditions and spread the mission of this University – to meet global challenges and prepare global citizens.

To learn more about the Arbor Awards and this year's winners, please visit: alumni.utoronto.ca/arbor