CLAUDE CORMIER'S PLAYFUL PARKS

WHY THE PAY
GAP PERSISTS

TOWARD A CITY WITHOUT BARRIERS WHERE GRIDIRON FOOTBALL BEGAN

STOP FEELING LIKE A FRAUD

University of Toronto Magazine

Autumn 2018

THE GILES NEED

How can we make our neighbourhoods more affordable, more sustainable — and more fun?

PHOTOGRAPH SHOT EXCLUSIVELY FOR UOT MAG BY JENNIFER ROBERTS

We like to complain about cities: there's too much traffic, housing is expensive and transit is stretched. The challenges are real.

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PHOTOGRAPH BY MARK SOMMERFELD

CONTENTS

VOLUME 46, NO. 01



THE CITIES WE NEED ARE ...

18

AFFORDABLE

The cost of housing in many cities is soaring. Better urban planning can help By John Lorinc

24

ACCESSIBLE

My seven-year-old daughter uses a wheelchair. Her life has changed how I see and study - cities By Ron Buliung, as told to Marcia Kaye

30

SUSTAINABLE

To meet carbon reduction goals, cities will have to change - and fast By Joe Castaldo

38

MORE FUN

Why cities can't get enough of Claude Cormier's playful designs By Jason McBride

PLUS Four cities that are getting smarter, and what we can learn from them

11 EDITOR'S LETTER

12 PRESIDENT'S MESSAGE

44 THANK YOU TO DONORS

51 A PHENOMENON

Students share advice with their peers about how to avoid a common U of T problem: self-doubt

By Graham F. Scott

53 A RECOMMENDATION

How to stay fulfilled in retirement when work has defined your life By Stacey Gibson

54 AN INVESTIGATION

Two million Canadians don't take their full dose of medications due to the cost. How can they be helped? By Marcia Kaye

56 A CLOSER LOOK

A hyperloop could zip from Toronto to Montreal in 45 minutes, with zero carbon emissions. Will it get built? By Micah Toub



"I found my voice again through teaching self-defence," says Arij Elmi, p. 58



A company co-founded by U of T grad Ryan Janzen wants to build a new transportation system that could carry passengers and cargo at a speed of 1,000 km/h or more, p. 56

58 AN ENCOUNTER

Arij Elmi learned how to defend herself from hate. Now she teaches other Muslim women to do the same By Megan Easton

63 A CONTRIBUTION

Shifting to a low-carbon economy won't be easy. Students in a new Trinity program are here to help By Staff

65 A PERSPECTIVE

How do we close the gender pay gap? Let's make cultural changes – not just legislative ones By Sarah Kaplan

67 AN ORIGIN

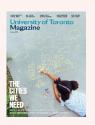
Did America's game kick off at U of T?

By Megan Easton

68 A CONVERSATION

We asked Kofi Hope, an Innis College grad, what makes a city strong By Romi Levine





Shot on location in Toronto's Canoe Landing Park by Jennifer Roberts on August 22. Our 10-year-old model, Janae Boswell, described it as the "best day ever"



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A PhD can be like any skill we pick up — a means to many ends. But, with luck, it can be a space to see the world at different angles and in its full spectrum of colour. Seeing it as only a ticket to academia is a recipe for heartache.

WEN @LIMWWEN "WHAT YOU CAN DO WITH AN ADVANCED DEGREE," SPRING 2018



The Long Haul

As part of our "Bringing Sci-Fi to Life" feature in Spring 2018, we wrote about research by U of T professor Michael Sefton that aims to regenerate proper insulin function in people with diabetes.

As a graduate student in chemical engineering in 1985,

I recall receiving a copy of an academic paper on this very topic, with Michael Sefton as a co-author. I have Type 1 diabetes, so I was hopeful the work would find commercial development.

I was surprised to see the research being heralded as "new" 33 years later. It would be a good idea to let the public know how long this effort has been going on. I have worked on my own research project for well over 20 years and know how difficult it can be to commercialize.

I wish Dr. Sefton the best of luck.

HARRY J. GATLE, BASc 1977,

HOLLADAY, UTAH

A QUESTION

What issue is most important to you in Toronto's upcoming election?



24%
Improving public transit

19%

Rent and living expenses

19%
Gun violence and other crime

dun violence and other crime

10%
Cycling safety/infrastructure

28%

What will swing the vote of students in Toronto's October election? The daily commute is the greatest source of frustration for those polled. "Transit relief is needed because of overcrowding," says William Ohm, a PhD student in Germanic languages and literature. "More people are moving downtown, and there's more construction, but there's not an equivalent investment in infrastructure and transit." And in the wake of the Danforth shooting, many echoed the concerns of Sergey Yegorov, a recent PhD grad. "What's on the agenda to increase policing and deal with gun control?" Some popular answers in the "other" category include more community services for newcomers and for those struggling with mentalhealth issues, and an increase in the number of green spaces.

This highly unscientific poll of 100 U of T students was conducted in July at U of T Scarborough and on St. George Campus.

In the Wings

In "Stratford's Secret Weapon" (Spring 2018), Nora Polley, who was stage manager at the Stratford Festival for 37 seasons, recalled memorable events from her career in theatre.

I was a lawyer, law professor and judge, but would love to have worked in the theatre. Last summer, during a trip to Stratford, Ontario, I decided to kill time between shows by doing some backstage tours. When I posed a question to our young tour guide, she thought she had better "call Nora." Ms. Polley then proceeded to regale us with anecdotes and enthrall us with her backstage knowledge. In particular, I was fascinated to see an example of a stage manager's annotated script, which she produced to answer one of my many questions. I wish I had known her during my days at Trinity College.

J. DAVID MURPHY, BA 1971 TRINITY, JD 1975, BARRIE, ONTARIO

Robot Music

"Alexa, Compose Me a Song," by Cynthia Macdonald (Spring 2018), was a thoughtful piece on the use of AI to create art. **GEORGE BARNETT** @GABTHINKING

Getting Ahead

Great story on University of Toronto student Avisha Lineo Gariba ("Off Script," Spring 2018), who proves it's never too early to be an entrepreneur by starting at the age of 12!

ROHIT MEHTA @ROHITDOGOOD

Parting View

A fine editor's work, indeed, should be invisible. Like Francess Halpenny ("Editor Extraordinaire," Spring 2018), I was a bit of a blockhead when it came to mathematics. I briefly worked in meteorology as an undergraduate, but after my time at U of T, I took on the in-house editorship of literary

encyclopedias for an academic publisher. In a vicarious sense, it was good to see the late Ms. Halpenny made visible. **EVANDER LOMKE, MA 1976,**

NEW YORK CITY

Instant Feedback

Reading about Prof. Don Forgie and the introduction of TV as an "educational technology" ("Your Education Will be Televised," Spring 2018) took me back to my time at the Faculty of Education in 1974-75. The wonderful Prof. Gary Smith offered me and other students a chance to teach a short lesson that would be recorded for television. I was one of a few from his history class who volunteered.

Our lucky pupils were three or four UTS high school students. We had 15 minutes to record a mini-lesson on a history topic of our choosing. At the end of the lesson we received feedback directly from our students, and then Gary sat down with us to watch our television performances. It was a great experience, and just one of the many fond memories I have of a professor who was always enthusiastic and inspired so many young teachers. DAVID MACLELLAN, BA 1974,

BEd 1975, WOODVIEW, ONTARIO

Write to us

University of Toronto Magazine welcomes letters at uoft.magazine@utoronto.ca. All letters may be edited for clarity, civility and length.



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Editor and Manager Scott Anderson

Deputy Editor Stacey Gibson

Editorial and Advertising Assistant Sally Choi

Art Direction and Design Studio Wyse

Vice-President, U of T Communications **David Estok**

Co-Publishers

Barbara Dick

Assistant Vice-President, Alumni Relations

Paul Fraumeni

Executive Director, Digital Creative Services

Editorial and Advertising Inquiries 416-978-0838

uoft.magazine@utoronto.ca

All correspondence and undeliverable copies: University of Toronto Magazine. 21 King's College Circle, Toronto, ON M5S 3J3

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A DOGGONE GOOD IDEA

It didn't take much to convince Claude Cormier (BLA 1986) to doff his shoes and climb into the dog fountain he designed for his redo of Toronto's Berczy Park, says photographer Jaime Hogge. Cormier, a sort of enfant terrible of Canadian landscape architecture, creates playful and boundary-pushing public spaces. "He knows the rules but doesn't really care," says Hogge, the proud owner of a puggle named Moose, who counts himself among the fountain's many fans. "I can relate to that."

- See more about Claude Cormier, page 38



narrow trough

below the

ledge

fountain's



MARCIA KAYE Kaye was born and raised in Toronto, but meeting Ron Buliung (p. 24), a geography prof who focuses on urban mobility, made her see the city through new eyes. "After I left the interview, I suddenly began noticing cluttered sidewalks, outward-swinging doors, too-high elevator buttons all barriers for someone in a wheelchair, I hope Ron can give city planners a similar eye-opening experience." Over her 25-year writing career, Kaye (BA 1973 Victoria) has won more than a dozen journalism awards.



BRIANNA ROYE To shoot alumnus Kofi Hope for our back page Q&A, Roye engaged him in a subject they both love: Toronto especially the Jane-Finch neighbourhood, where Roye used to play basketball and Hope has spent time working. Roye says they're both struck by how

the media and certain politicians perpetuate a stigma around the community, despite its ongoing evolution. The image of the area as being crime-ridden is no longer true, she says. A Jamaican-Canadian, Roye has created series of photos about Toronto's innercity kids and about Chinatown.

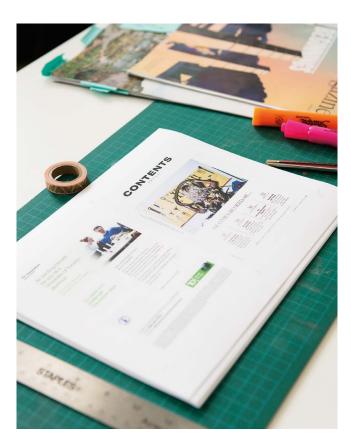


GRAHAM F. SCOTT

"I definitely identified with some of the things I heard from U of T students about Imposter Syndrome (p. 51). Being at a place with so many smart and accomplished people is an incredible privilege - but you never quite lose that fear of putting up vour hand and asking the world's dumbest question. Experience since then has taught me that those are usually the questions that most need asking." Scott (BA 2006 Trinity) is a writer, editor and designer. He has previously worked at Maclean's and Canadian Rusiness.

Want to contribute? Send your ideas to scott.anderson@utoronto.ca.

THE NEW UNIVERSITY OF **TORONTO MAGAZINE**



ast year, deputy editor Stacey Gibson and I began asking how we would reimagine *U of T Magazine*. It seemed like a pertinent question: the last time the magazine got a makeover was a decade ago - before the spectacular rise of social media and before news was delivered to people minute by minute on their phones.

What did our readers want from a magazine in 2018? Did they still want a hard copy? (A large majority told us they do.) And what should it say?

We thought a lot about this last question, and, as you can see, much about the print edition of University of Toronto Magazine has changed. The stories draw inspiration from current headlines, but we've dispensed with any attempt to report the latest university news or events, which are updated daily at the U of T website. Each issue will centre on a theme, explored from many angles, and on ideas from our faculty, students and alumni that delve into the messy, complicated questions of the day.

To help us re-envision the magazine, we turned to Studio Wyse, a hot shop in the graphic design world that created the playful look of The Grid (a former Toronto newsweekly) and, more recently, refreshed Chatelaine. The Wyse team drew on field guides and journals for inspiration, but applied a dynamic, contemporary lens. We talked about the magazine as offering a kind of backstage pass to the university's brightest minds. With everything else speeding up, we liked the concept of giving readers something to savour. Visually, says lead designer Vanessa Wyse, the result is "sophisticated in its restraint but grand in its execution" - with sprawling feature stories, large photographs, supporting infographics and generous amounts of white space.

To bring greater attention to each issue's theme, we've flipped the magazine's structure on its head. Apart from a few bits and pieces, most of the shorter articles have moved to the back. An expanded feature section appears close to the front, so you get to the meatier stuff faster.

We heard from readers that the magazine devotes a lot of space to science and technology and could do a better job of covering the entire university. As a result, expect to see more stories in this issue-and upcoming ones - that explore topics from a cultural and social perspective as well.

The magazine publishes twice a year, but we'll be posting additional articles at our website, which has been completely revamped and modernized. The site's new design makes it easy to browse topics you're interested in, from arts and politics to U of T's rich history. Why not sign up for our email newsletter while you're there?

You have many reasons to be excited about, and proud of, your connection to the University of Toronto. We hope the new University of Toronto Magazine gives you one more. We'd love to hear what you think of it.

SCOTT ANDERSON

BUILDING BETTER CITIES



y the turn of the next century, more people will live in cities than currently populate the entire Earthmany of them in the burgeoning metropolises of the global South.

This buildup of new urban development-and the repairs and modernization needed in existing settlements - will require a global investment of trillions of dollars. We can't afford to do this in an ad hoc way. We need to make smart decisions grounded in solid evidence.

Canada is already one of the world's most urbanized societies, with more than 80 per cent of our population residing in urban areas. Addressing the challenge of urban growth-both at home and abroad-requires a whole new kind of inquiry. We need research that extends across disciplines, drawing on many different kinds of expertise, if we are to move to a richer understanding of cities. We need a collaborative platform from which to study, evaluate and solve urban problems.

The University of Toronto is uniquely positioned among Canadian universities to take up this challenge. Earlier this year, we announced a new School of Cities, which will draw from a diverse pool of more than 200 faculty across our three campuses from architecture and engineering to geography, management, public health and the humanities.

Many universities are located within urban areas, but can often seem removed from the daily life of the city. With the School of Cities, we hope to surmount this barrier by welcoming people from civic organizations both in Toronto and around the world to tap into our expertise and collaborate with our students and faculty. By working together with partners outside the university, we'll be better equipped to tackle the most serious urban challenges and develop effective solutions.

This global hub of urban thinkers will seek solutions to a number of vexing questions, such as how we make sure that people with lower incomes can afford to live in our most successful cities. How do we connect all neighbourhoods with public transit, particularly those that are underserved? How do we ensure that immigrants, the overwhelming majority of whom choose to settle in and around our largest cities, are able to prosper-with good access to housing, jobs and education? How can cities do their part to reduce greenhouse gas emissions? There are many good things associated with higher-density built form, but we're not always comfortable with it. How do we learn to love more dense urban development, and how do we do it well?

Our success as a society will depend on how we answer these questions. This is true for Canada, and for every country around the world. While our aspirations for the School of Cities were conceived in Toronto, the knowledge and understanding we gain will be applicable everywhere, potentially bringing tangible improvements to the lives of millions of people.

> Mic Suttle **MERIC GERTLER**



THINGS I'M LOOKING **FORWARD** TO

Meeting the class of 2T2

Working with new VP and UTSC principal Wisdom Tettey

Following the work of the School of Cities in its first year



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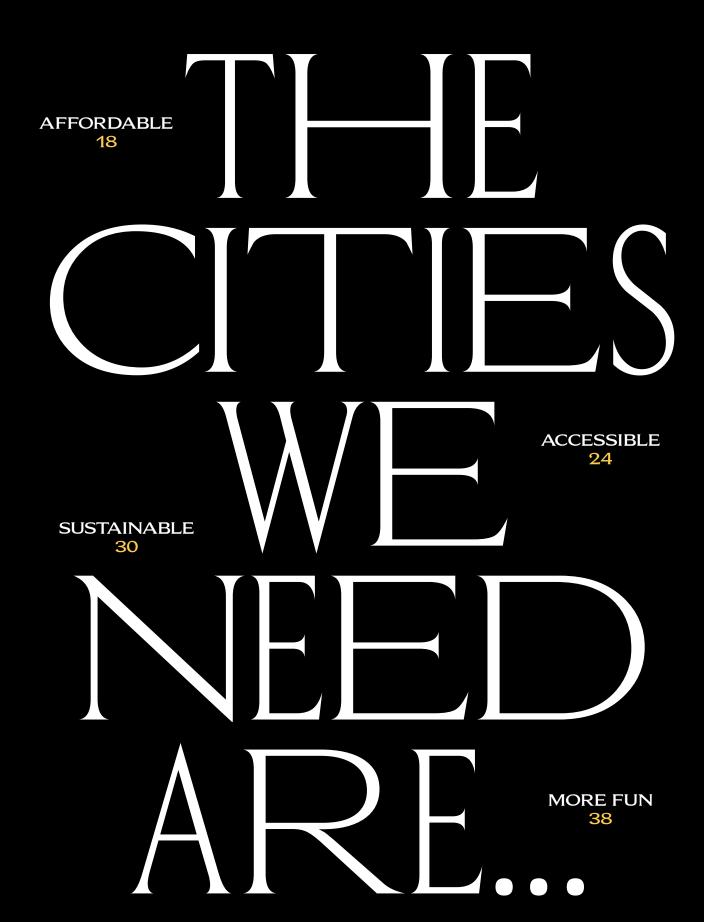
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THE ARE...

In cities such as Toronto and Vancouver, owning a house is becoming a fantasy for all but the wealthiest families. Better urban planning is part of the solution. Adjusting our expectations may be another





hen Elena Yunusov, a digital marketer, and her husband, Pulat, a commercial litigator, bought a two-bedroom condo in Toronto's High Park neighbourhood several years ago, they were among very few owners in the building with a small child. The other occupants were mostly seniors, and they doted on the Yunusovs' infant daughter. Today, the couple also has a two-year-old son, and there are, Elena estimates, about a dozen other families with kids living there. ¶ Elena grew up in an apartment in a small city in Crimea, and doesn't yearn to own a house with a yard the way that many North Americans do. Yet she is keenly aware of the cons of her own family's condo: a tiny kitchen, a chronically congested hallway and the complex dance she performs each day to leave an eighth-floor apartment with kids and a stroller in tow.

Looking ahead, she knows her children will eventually need separate bedrooms, but soaring real estate costs make it difficult to envision a move. It's hardly an unusual story for apartment-dwelling families such as the Yunusovs. As she observes, "A lot of people are stuck where they are, for better or for worse."

cross Toronto and other successful North American cities, homebuyers increasingly find themselves caught up in what feels like a historic point of inflection. In the postwar period, many working- and middle-class families bought homes in sprawling new suburbs consisting mainly of single-family houses with front and back yards. In recent years, however, a growing number of people with young kids have found themselves priced out of this market. The average selling price of a detached home in Toronto earlier this year was almost \$1.3 million - just shy of the record reached in 2017. According to MoneySense magazine, only households earning more than \$200,000 a year can reasonably cover the monthly mortgage payments on such a home.

The reality is that for a widening swath of society, including professionals ranging from nurses and accountants to teachers, the dream of owning a house with a yard has become unattainable. For some, such as Giulio and Antonia Cescato, who have a two-year-old, the choice to buy a condo in Toronto's Regent Park flowed easily from their desire to live downtown. Access to cultural institutions, restaurants and transit "was important to us," says Giulio, an urban planner.

Others have found the experience of raising kids in condos to be constraining. For a recent City of Toronto study on vertical communities, Jane Farrow (BA 1989 Innis), a public consultation expert, interviewed numerous young couples in condos who were juggling kids and careers. Some fretted about eventually sharing their small apartments with teens. "There were people who felt they were without options," she says.

The big question hovering over this generational transition is all about city-building, and whether increasingly dense metropolitan regions such as Toronto and Vancouver can figure out how to turn all those newly sprouted forests of highrises into true

communities that are both affordable and appealing to the wide range of people who call these cities home.

he wrinkle in this evolving story is that many developers still balk at designing buildings geared to people with kids. Marketing materials for most condos feature seductive images of young people lounging around a rooftop terrace; luxurious lobbies; and chic interiors looking out onto a glittering skyline. Children rarely appear in this fantasy world.

Farrow, who has worked closely with the City of Toronto on urban planning issues, says some developers still promote their projects as "adult communities," with amenities such as gyms and party rooms. "The marketing companies have a lot of power in creating and maintaining stereotypes about who lives in these buildings," she says.

Richard Florida, an urban theorist and director of cities at U of T's Martin Prosperity Institute, is critical of how Toronto has allowed the construction of a kind of vertical monoculture. "We're building a lot, but we're building all wrong," he says. "We need to build more affordable housing." Fast-growing cities such as Toronto are experiencing what Florida describes as a "phase shift," transitioning from groundlevel residential communities to high-density ones that are closer to transit, aren't as car dependent and use infrastructure, such as roads and sewers, more efficiently. But he says the form and planning in Toronto leaves much to be desired when it comes to creating vertical communities "that work for everyone," especially seniors, kids and families with modest incomes.

At the macro level, Florida argues, Toronto simply needs to be investing more in its social and community infrastructure - schools, transit, cycling tracks and public spaces. "The big thing is that we have to grow up. The property tax rates are ludicrously low." What's more, affordable housing policies - such as those requiring developers to set aside a certain number of less expensive units in their building - aren't sufficient, he adds. Toronto lags behind what's happening in other large, expensive cities such as New York, where Mayor Bill de Blasio's administration has embarked on an aggressive strategy to build 300,000 new affordable homes - virtually all of them



apartments - by 2026. Even accounting for scale, Toronto's goals are modest. Mayoral challenger Jennifer Keesmaat has pledged to add 100,000 "truly" affordable housing units within a decade. Mayor John Tory promises 40,000 over 12 years.

The challenge of creating highrise neighbourhoods with schools, parks and community centres also entails the formulation of a more comprehensive planning approach. Last fall, the city produced a groundbreaking study entitled "Growing Up: Planning for Children in New Vertical Communities" that offered detailed design guidelines. Highrise communities shouldn't be planned any differently than traditional neighbourhoods of single-family homes, observes Emily Reisman (MSc in Planning, 2004), a consultant who worked on the report. They should include different home sizes, a mix of rental and for-sale units, public spaces, community amenities and retail stores, she adds. "These principles don't get thrown out the window when we look at the vertical context."

Toronto in recent years has also embarked on far-ranging planning exercises in high-density areas where a lot of development is happening, such as in the downtown core and around Yonge and Eglinton. The goal, in part, is to create better pedestrian experiences and to direct investment into community amenities - especially additional public spaces, such as the proposed "decked" park over the railway next to CityPlace. With the proliferation of small apartments, the public realm becomes increasingly critical, comments Matti Siemiatycki, a professor of geography and planning and the interim director of U of T's School of Cities. "[Residents] are using the city as their



A BETTER BLEND

Allowing for more mixed-use buildings would bring vital community resources closer to the people who use them

In cities around the world, many apartment buildings follow a standard template: residential above, retail at street level. Toronto was no exception.

But in the past decade, says Matti Siemiatycki, a professor of geography and planning and the interim director of U of T's School of Cities, Toronto has seen a growing number of innovative mixed-use projects that include nonprofit organizations, daycare centres and cultural facilities. His research team has identified 60 such buildings, including a midtown condo built atop North Toronto Collegiate Institute and a Leslieville condo that incorporates a shelter for families and women. "Toronto is leading the way

with the radical mixing of uses," he says. "It's not done abroad nearly to the extent that it's done here."

While these oneoff projects tend to be difficult to execute, a growing number of builders and institutions, including nonprofits such as the YMCA and the Toronto District School Board, have developed the expertise to see them through to completion. "Every tall building should have some kind of public use in it," Siemiatycki says, adding that such combinations allow the community to benefit from the wealth generated by highrise development projects. - John Lorinc

Canoe Landing Centre in Toronto's CityPlace will include two elementary schools and a child-care facility

living room and the apartment for storage and as an address."

Market forces, however, remain a formidable challenge to young families who want to buy into vertical communities. Small apartments have become sought-after investment vehicles, frequently rented either to longer-term tenants or as Airbnb units. And developers have commonly resisted building more family-friendly two- and three-bedroom apartments, insisting they are difficult to sell.

But there's some evidence that a growing number of builders are taking this step, perhaps sensing the sort of demand expressed by couples such as the Yunusovs and the Cescatos. "The market is out there," says Reisman. She notes the Growing Up study found that families prefer to have apartments near street level, and some developers are clustering larger units on these lower floors. Also, compared to units in the sky, lower-floor condos typically sell for less, and thus are more attractive to families with kids and lots of expenses.

Planners understand that larger apartments can't somehow be reserved just for buyers with kids or teens. But Annely Zonena (MSc in Planning, 2006), a senior planner with the City of Toronto, points out that the city's long-term goal is to ensure that a full range of housing types, at different sizes and prices, are built. According to the planning department's research, 23 per cent of the city's households have four or more people, but since 2011, less than 10 per cent of units in new buildings of five storeys or more can properly accommodate families of that size. "We want to ensure that buildings have a variety of units," she says.

It's not just the apartments themselves that can be a problem. "Amenity spaces are practically non-existent for families," observes Farrow, who notes that many condos offer use-specific common areas, such as exercise rooms, where kids aren't welcome. "Parents can be subject to a great deal of judgment and negative attitude from fellow tenants." Most buildings also lack spaces where children can rehearse musical instruments or just make noise, as kids do. Giulio Cescato points to a fourth-floor outdoor terrace in his building, which has a rapidly growing cohort of kids. The space includes a quiet "conversation area" that is rarely used. "If there was a play structure instead of stone benches, the terrace could get a lot more traffic."

There are plenty of examples underscoring the mismatch between what's designed and how families actually live in these buildings. Reisman recalls noticing in her condo almost a metre of space between the tops of the closets and the ceiling that could have been pressed into service as additional storage.

In some cases, residents are pushing for changes in how common areas are used. Reisman describes how parents in one building identified an abandoned storage area and pitched the condo board with a plan to convert it into a kid zone where they could leave bulky shared toys. "They [said] to the condo board that there are a lot of families with kids living here," she says. "That group of families came together and were able to make the condo lifestyle work for them."

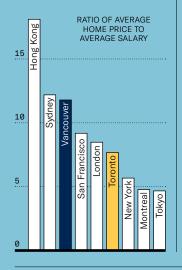
With other locales, architects are attempting to address these design failings proactively. Drew Sinclair (MArch 2007), a partner with SvN Architects and Planners, points to a three-building complex his firm is designing in Etobicoke. It will provide affordable rentals, assisted living apartments for seniors and

AN ELUSIVE DREAM

Houses in Toronto and Vancouver now cost more than the average family can afford. Renters don't have it much better



costs eight times an average salary. In Vancouver, it's 12 times







200,660

Annual salary you need to afford a detached house in Toronto

"Toronto faces a crisis of housing affordability that threatens the well-being of its people and their ability to achieve the Canadian Dream"

- Prof. Richard Florida, of U of T's Martin Prosperity Institute

IT'S TOUGH FOR RENTERS, TOO

The average monthly cost of a one-bedroom apartment in Toronto and Vancouver is high, even compared to other global cities

Hong Kong

BUT YOUR MONEY GOES FURTHER IN CANADA THAN ELSEWHERE Here's what \$2,000 a month gets you in...

| Berlin | Vancouver | | Tokyo | |
|--------------------------|------------------------|-------------------------------|--------------|-----------------------------|
| 1,500 sq ft | 610 sq ft | | 538 sq ft | |
| Toronto 674 sq ft | Hong Kong 321 sq ft | San Francisco 316 sq ft | | Man- hattan 277 sq ft |

family-style condos. The design includes a large, open common space linking the three buildings, which contains amenities meant to encourage social interaction, such as a tool-sharing area and a play zone with rubberized flooring. On the grounds will be small vegetable plots and a teaching garden for children. "The landscape design," says Sinclair, "is for everyone."

In the Yunusovs' condo, the evolution to a multi-generational community is proceeding apace. A common room once used mainly for seniors' yoga classes and bridge sessions has been fitted with modern, moveable furniture so the space can be used for birthday parties. And the building's library, which Elena describes as "much loved," is also changing. "Now," she says, "there's a kids' books section, which didn't exist before."

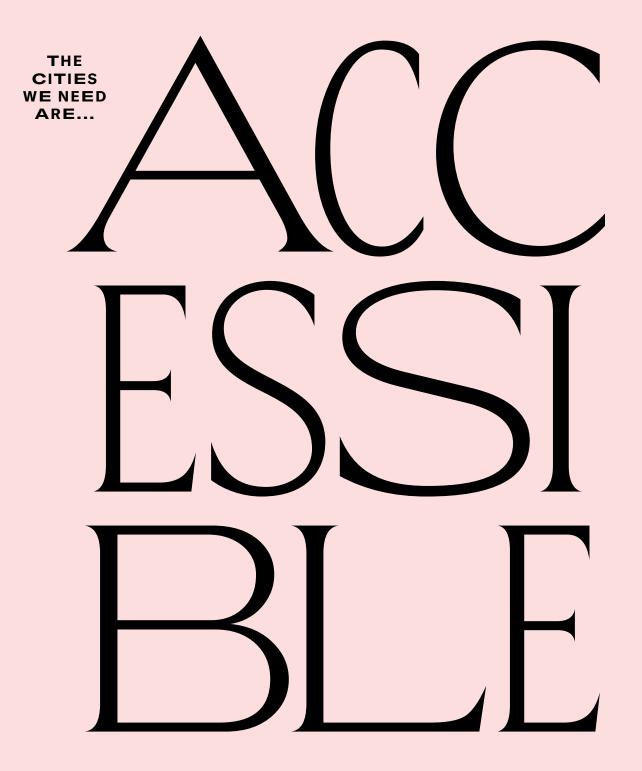
So while the couple focuses on the practical business of raising two children instead of fretting about their longer-term space needs, one point seems certain: that their building, over time, will become home to more and more Toronto kids. "Where else would families go?" Elena muses. "Everyone's going to go vertical." ■



ONE SIZE DOES **NOT FIT ALL**

A new kind of condo that can grow or shrink with its owner's needs

Architect Drew Sinclair (MArch 2007) is working on a project in Hamilton, Ontario, that pushes the notion of flexibility in apartment design. In most condos, units are separated by load-bearing concrete walls. The Hamilton venture consists of "lots," or room-sized blocks that buyers can assemble into apartments ranging from 250 to 1,000 square feet in size. The building uses columns as supports rather than walls. Pipes, drains and vents are situated along corridors: this allows each apartment's interior walls to be easily removed. Owners can expand a unit by purchasing an adjacent lot from a neighbour who simultaneously wants to downsize, explains Sinclair, noting that New York City co-ops have evolved like this for decades. "It's a plug and play idea. Adaptability is baked into the design." -John Lorinc



Prof. Ron Buliung was already studying urban mobility when he learned his young daughter would need a wheelchair. His family's experiences highlight the unnecessary obstacles that people with disabilities encounter every day

BY RON BULIUNG, AS TOLD TO MARCIA KAYE / PHOTOGRAPHS BY ANGELA LEWIS



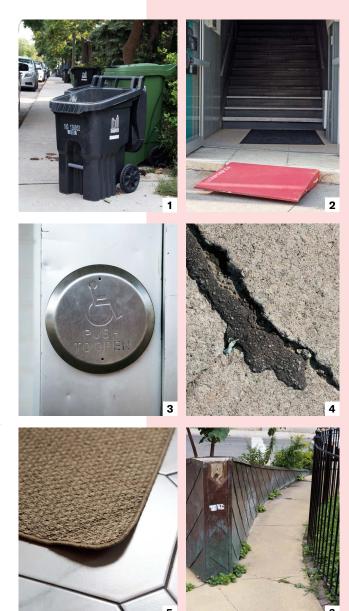
THE BIRTH OF HIS THIRD DAUGHTER, ASHA,

profoundly changed Ron Buliung's life and work. Asha, now seven, was born with spinal muscular atrophy type 2, a genetic neuromuscular disease that causes progressive muscle weakness and requires her to use a wheelchair. As a geography professor at U of T Mississauga, Buliung was already studying transportation issues in the Toronto area and beyond. But as Asha's dad, he suddenly became more aware of how our urban environments create unnecessary barriers for people with mobility challenges. Here he talks about how Asha has been the motivating force in reshaping his perspective and his research.

efore Asha was born, I was naive about the broader set of experiences that can happen in families around mobility. That changed following Asha's diagnosis, when we were told she'd probably never walk. My wife and I left the clinic, with Asha in her stroller, and for me it was like taking off one pair of glasses and putting on another. All I could see were barriers everywhere: curbs, step-ups into stores, traffic, streetcar tracks. And I realized that disability is not just produced in the body. There are also the disabling aspects of the environment around us.

Asha uses a 300-pound power wheelchair and we have a rear-loading disability van. To make it safer and more accessible to transfer Asha from our house to the van or to a school bus, we had to negotiate with the City of Toronto to have our front yard redeveloped, at our expense. It took two years – two years! – to get a license for front pad parking on our own property. Even on the city's application form to change your front yard parking, there's nothing that talks about disability. That's a problem.

Asha sings in the Young Voices Toronto children's choir and they do performances at Trinity-St. Paul's



United Church on Bloor Street West. When we took her recently to the dress rehearsal, there was a guy without a permit sitting in his car in the disability parking space. There's barrier number one. We had to ask him very nicely to leave, and you know that conversation could have gone one of two ways. Fortunately he moved on and we parked there. But then I had to unload Asha. So she backs out of the van, then she has to drive a short distance against the flow of traffic, then she has to cross the bike lane against the oncoming bikes. It's hair-raising!

I'm an avid cyclist myself and I like that the city is having a conversation about drivers and cyclists sharing road space. But I also look at that process from the perspective of a transportation researcher who has a

DISABLING THINGS

Sure, stairs are impossible for someone in a wheelchair. But what about all the less obvious obstacles?

1-After garbage collection.

navigating a wheelchair along the sidewalk can be impossible. The city owns part of everybody's frontage, so they could cut a piece into the property and have a pad put there for the cans, says Ron Buliung. "If we made that change, anyone with a walker, a cane or pushing a stroller wouldn't be further disabled "

2-The flaw here,

says Buliung, is not with Stopgap, the organization that makes the portable ramps. The real problem is in identifying who's responsible for ensuring that there's no step from the sidewalk to the storefront in the first place. Whose responsibility is it to correct environments that straddle the private and public spheres? And how do we make change happen?

3—The button that can help may become the button that doesn't, particularly when placed at an inappropriate height, or when it requires excessive force or fails to work at all. We live in a touchscreen world, says Buliung. "We can do better."

4-Broken sidewalks. cracked pavement and uneven surfaces pose a risk to people of all ages using mobility aids. In this case, the temporary fix may have made things worse, says Buliung, by further altering the elevation of the fractured surface.

5-Any loose mat

or piece of carpeting can pose a hazard for a motorized wheelchair, says Buliung. The material can get bound up in the wheels and is impossible for a child to remove. (It's difficult for an adult.) Obstacles can be almost invisible, he says, yet easily fixed in some cases.

6—Narrow walkways place a burden on wheelchair users, who must question if the space is passable, and navigate in the presence of other pedestrians. Tight, crowded spaces can also pose a danger to children with certain bone diseases. who could suffer a fracture if they're inadvertently pushed or knocked over by other pedestrians.

child with a mobility challenge. In my graduate seminar last year, we considered what a bicycle network looks like when it's planned inclusively; we concluded that the city could do a better job. There are ways to use design - road geometry, surface texture and paint, signage, curb cuts and the placement of parking close to destinations – to reduce the risk of collision or conflict between cyclists and others trying to cross bike lanes.

In her power wheelchair, Asha is legally considered a pedestrian. She even uses words like "walking" and "running" when she's driving her power chair. That's fascinating to me because we have ideas about what walking is, and she challenges those ideas entirely. When she "runs," she's going full speed in her chair. I can't keep up with her.

In one research project, we asked children with mobility challenges to take photos of what they saw as barriers in their environment that make it hard for them to get around (see "Disabling Things," left). Asha took a photo of a carpet, which sometimes gets caught up in her wheels. So it doesn't have to be a massive change to make a meaningful difference.

Other challenges are more difficult to address. My daughter Meera, who's 10, goes to a school that's 450 metres from our home, but it's totally inaccessible. Asha's school is more than three kilometres away. Meera is doing band and choir and a range of things that our family goes to. The gym in that school is upstairs and there's no elevator, so we carry Asha in her stroller up two flights of stairs. We can do that maybe another year. It's crazy. It's also not totally safe.

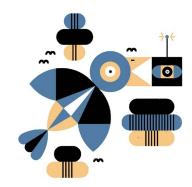
I haven't come across any city that's an accessibility utopia, but I see interesting examples in different cities. At the National Children's Forest in California, thousands of feet up, there's a paved hiking trail. If you were talking to a 1980s version of me, with long hair and super-fixated on the environment, I would have been opposed to a paved hiking path at the top of a mountain. But now, wow! This was amazing. It gave us an opportunity as a family to go for a hike.

In the summer, Asha went to a day camp at the Royal Ontario Museum. I would have brought her there on the subway but High Park station, where we live, and Museum station don't have lifts. If a TTC station is accessible - and that's a big if - could Asha even press the elevator button? Probably not, especially if it's high up, because she's profoundly weak and it takes a lot of force to press a tiny button. We live in a world of touch technology, so why don't we have buttons like that?

Barriers can be things we see, but they can be unseen as well. At ROM camp, Asha's group would eat lunch down in the depression near Philosopher's Walk. But it was too dangerous for Asha to drive her chair down there, so she had to eat at the top with the younger children. We wanted her to eat with her peers, so we were thinking: we can either figure out how to get Asha safely down there, or maybe we could suggest to the counsellors that the children come up and eat with her. It was a simple way of turning that on its head. It's an uphill battle-literally!

My wife is a physician, and we realize we have massive amounts of privilege in terms of income, flexibility in our schedules and access to resources. But that also brings responsibility, so how do we use that privilege and access? For me, it's partially about bringing these experiences into my research and teaching. What concerns me is, what's happening to another Asha

What makes a city "smart"? For a tech firm such as Microsoft or IBM, it's about how to collect and use urban data to make smarter decisions, says Mark Fox, a U of T professor of urban systems engineering. "But from a social sciences perspective, it's more about a city's ability to use the knowledge of its employees, citizens and companies to do things better." Mixing data with human expertise isn't simple, but if it's done well, it goes a long way toward turning the ideals of smart city planning into reality.



Improved Air Quality in Beirut

You don't have to spend much time in Beirut to know that air pollution is a problem. But just how bad is it-and what's the solution?

Marianne Hatzopoulou, a professor in U of T's department of civil and mineral engineering who holds the Canada Research Chair in Transportation and Air Quality, has been working with a professor from the American University of Beirut to study air quality across the Lebanese capital. She and Prof. Ibrahim Alameddine are using low-cost sensors to measure carbon monoxide, nitrogen dioxide, coarse particulate matter and other pollutants at nearly 70 sites across the city.

They match their data with traffic maps, housing density, location of factories and power stations, and other local information to identify air pollution hot spots and where people are most at risk. The goal is to use the information to develop policies that will lead to better health for the city's residents.

For example, policymakers might change building codes in high-pollution areas to require greater attention to indoor air quality or enact stricter regulations on vehicle emissions.

"Transportation planning is not just about congestion or traffic, but also about air-pollution exposure and quality of health," she says. -Patchen Barss

who doesn't have this web of privilege and resources around her? So now every time I go out and work with an institution on transportation, I need to be the person in the room who raises questions around accessibility. I can get kind of annoying, which is good.

Broadly speaking, my research asks the question: What does a city with-

out barriers look like and how do we get there? I have some upcoming research that will look at inclusive play in childhood; my family has experienced the disappointment of inaccessible playgrounds. And I'm also very interested in working with teenage youth with disabilities – that is, people who are gradually aging out of pediatric systems of care and headed toward the greater complexity and resource challenges in adult health care. Families with older children have told me the transitional experiences are hell.

An elevator

Asha to move

between her home's first

floor and

basement

independently

enables

Asha herself gives me hope. I can fight and advocate for change, but I don't want to lose sight of the amazing, intelligent, powerful person right in front of me. One morning when I dropped her off at the ROM camp, the other kids were a little farther ahead and the door closed and she couldn't press the button to get in. So she just used her voice and yelled and someone came and opened the door. She figured it out.

I'm hopeful that my teaching and research will encourage the next generation of scholars and planners to put accessibility higher up on the laundry list of things we consider when we design and build cities. Also, for those of us who don't have a disability now, that can change at any time. I think that's something people forget. ■

Ron Buliung is a professor in the department of geography and programs in environment at U of T Mississauga; he is also the associate chair of the graduate department of geography and planning at the University of Toronto.

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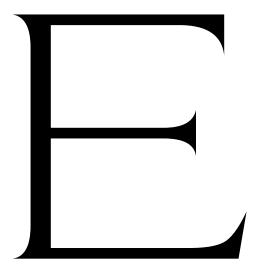
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WE NEED ARE...

To avoid catastrophic climate warming, almost everything about our cities will have to change—and quite soon. But how?



Students in physical and environmental sciences at U of T Scarborough tend to a garden atop the Instructional Centre. Each year, the plot yields as many as 30 different crops – from corn and tomatoes to basil and cardamom. The Sustainability Office uses some of the produce in its Food Discussion Cafés, where participants learn more about the origins of the food they're preparing



very day, we perform countless actions without thinking. We don't decide to brush our teeth in the morning; it's just something we do. Likewise, we don't debate each day whether to take the car, bike or bus to work, but stick with what's most convenient. John Robinson, a professor at U of T's Munk School of Global Affairs and Public Policy, has been examining how to make sustainable actions just as automatic and unconscious. Embedding sustainability in our everyday behaviour will be key to lowering carbon emissions and addressing the threats posed by global warming. "If we don't even think about what we're doing, then we've succeeded," Robinson says. ¶The problem is that one of the tactics we've been using to shift people's behaviour is all wrong.

Reducing emissions to a globally sustainable level will require an enormous change in nearly everything we do. Many cities have responded to the challenge by setting aggressive targets. Toronto's climate action plan, TransformTO, calls for cuts in greenhouse gas emissions of 80 per cent from 1990 levels by 2050. To get there, the city will need to embrace a green revolution. It will have to massively retrofit existing structures. It will have to boost the construction of buildings that use solar, geothermal or wind sources to produce as much energy as they consume (or generate even more energy than they consume). It will have to find ways to dramatically reduce vehicle emissions and to produce less waste.

To meet these sustainability goals, government officials and policy-makers can choose from a variety of strategies. These include new regulations (such as raising fuel economy standards for vehicles), taxes (on carbon or gas) and infrastructure (such as bike lanes and public transit). Policy-makers also often try to convince citizens to change their behaviour – typically by providing people with facts and figures on, say, the benefits of recycling or the harm done by gas-guzzling SUVs. The expectation is that after being equipped with the "correct" information, people will alter their ways. But research shows this hasn't worked, Robinson says. Neither have nudges or various incentives.

Instead, Robinson, who is also appointed to U of T's School of Environment, says we need to focus less on the individual and create entirely new social norms. For example, for city-dwellers, cycling or taking public transit to work needs to become "just something we do." This approach is derived from social practice theory, which suggests that individual actions are determined largely by group norms and behaviour. (The theory has been around since the 1970s, but has been applied to the environmental realm only in the past decade or so.)

Shifting group behaviour involves taking a hard look at many factors that influence what we do. Even our immediate surroundings can have a big impact. The Centre for Interactive Research on Sustainability at the University of British Columbia was designed to be a very environmentally friendly building. In 2016, Sylvia Coleman - one of Robinson's PhD students - examined how the building affected the behaviour of those who work there. Through interviews and surveys, some denizens spoke of reducing

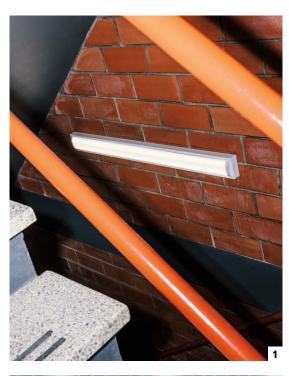
Efforts continue at each of U of T's three campuses to reduce their greenhouse gas footprint, save on energy bills and put money back into student programs.

1—This LED light in the Dalla Lana School of Public Health dims to 20 per cent when the area is not in use. It is one of 100,000 installed at U of T over the past two years

2—Ensuring that each of the 1,100 fume hoods used in laboratories on the downtown campus are closed after use could save \$100,000 a year

3—U of T generates solar energy at all three campuses. This array, atop the Toronto Pan Am Sports Centre at U of T Scarborough, reduces the building's energy use by 10 to 15 per cent

4—The new Myhal Centre for Engineering Innovation and Entrepreneurship uses specially constructed windows to reduce the cost of heating in winter and cooling in summer











More than a fifth of Canada's greenhouse gas emissions come from buildings, so making changes to how we design, heat and cool these structures will be important as we aim to reduce our carbon footprint.

The Twin Suites Modular Lab, perched atop U of T's Sandford Fleming Building, holds two identical, reconfigurable rooms where U of T researchers are investigating new building materials.

Having two identical pods is key, explains Prof. Marianne Touchie of civil and mineral engineering: One room provides the baseline measurements, while the other is the guinea pig. To test a new kind of insulation, the team would install it in just one of the units, then measure both to detect how that material affects indoor temperature, energy use, air quality and other factors.

Until now, this type of research has had to take place in people's homes, which is both costly and time-consuming. The new labs will allow the research team, which includes professors Jeffrey Siegel and Kim Pressnail (above) of civil and mineral engineering, to perform tests quicker and more accurately, and enable them to do longer-term studies.—Graham F. Scott paper use and forgoing disposable plates and cutlery in the cafeteria. A different study found that people recycled more in the centre than in another campus building. (The hitch is that participants made more mistakes when sorting waste.) Simply working in a sustainable building, according to the research, was enough to shift behaviour and create new social norms. "If people know this building is supposed to be highly sustainable, that creates an awareness and it does have an impact on what people are doing," Coleman says.

Norms don't solely exist within four walls, of course, but are entrenched in entire industries, including the building sector. Robinson estimates that only a small percentage of new structures each year qualify as sustainable, even though the benefits are well understood. In construction, the barriers to creating green buildings aren't primarily technical or economic. Instead, the industry has fallen into a set of norms and habits that were developed before sustainability was an issue. This makes change difficult. "We have to get into the guts and examine the rules that govern what we actually do," Robinson says.

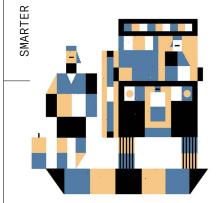
The good news is that change is possible. These days, Copenhagen is thought of as a bicycling utopia, where roughly half the population cycles to work or school. But the city actually removed bike lanes in the 1960s and '70s before planners reversed course and doubled the length of the cycling network. With TransformTO, Toronto is hoping for a similar outcome. The plan calls for 75 per cent of trips less than five kilometres to be taken by foot or bike by 2050. Today, more than half of these short trips take place in the inner suburbs, such as Scarborough and North York, where cycling is barely a consideration. "Even if everybody in downtown Toronto bikes and walks, and the outer council areas don't change their transportation behaviour, Toronto can't meet its 2050 goals," says Trudy Ledsham, a cycling researcher and PhD candidate in planning at U of T.

Building protected bike lanes would go a long way to normalize cycling and increase rider safety. Still, Ledsham says many smaller steps can also be taken. She helped develop a project called Scarborough Cycles to encourage biking in the area. Since 2016, Scarborough Cycles has established three bike hubs that offer repair services and training, as well as a mentorship program for newcomers. The hubs have received more than 2,800 visits. "It's not a sea change, but change has begun," Ledsham says.

Robinson acknowledges that creating new social norms is a vital ingredient in achieving the emissions cuts we need but alone won't be enough. A carbon tax, or a cap-and-trade regime, such as the one that Ontario's government is scrapping, are essential components. In fact, the effects of carbon pricing and new social norms can reinforce one another: people may respond more positively to a carbon tax if sustainable

Better **Transit for** Montevideo

CITIES



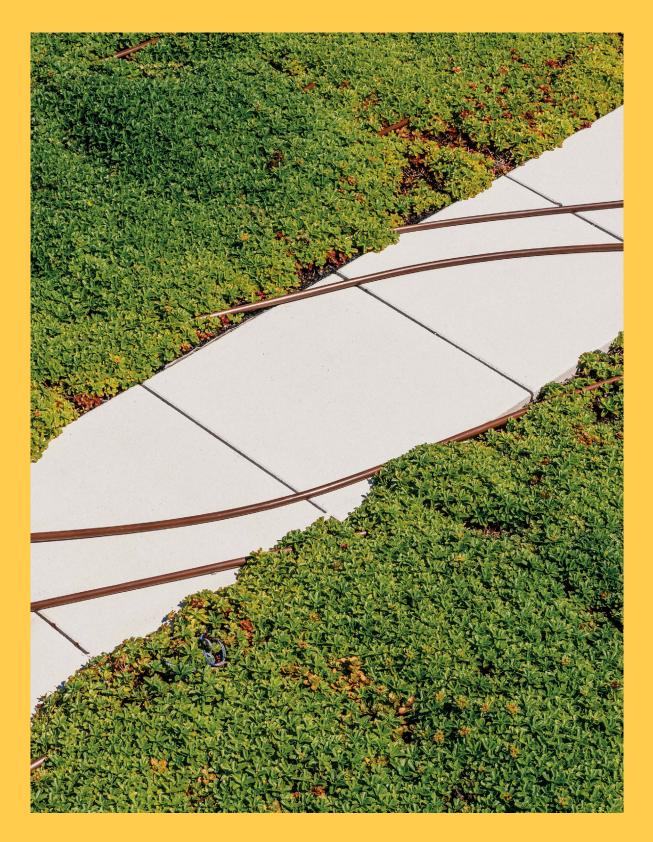
Montevideo, Uruguay, is a city of more than a million people, and a growing commercial centre in South America. But its future success will depend at least in part on developing a modern, efficient public transit system.

Eric Miller, a U of T professor in civil and mineral engineering, is working with the city to eventually create simulations that will help planners decide where to place bus lines, when and how to add rapid transit such as express buses or light rail - and even how much to charge for tickets.

His detailed simulations require extensive data, which Montevideo happens to have. The city uses smart-card payments for transit, and has a high penetration of cellphone usage, which can help track how people move around the city.

Miller, who is director of U of T's Transportation Research Institute, has done simulations of Toronto and other Canadian cities, but he cautions against assuming that what works in Canada will succeed elsewhere. Though his work is datadriven, his research also involves learning about local politics, culture, history and geography to ensure he's developing smart solutions that will work for that city.

-Patchen Barss

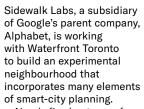


Over the past seven years, U of T's Green Roof Innovation Testing (GRIT) Lab at 230 College St. has found that green roofs can retain up to 70 per cent of rainwater, making them a crucial tool in reducing urban flooding. Their surface is also two degrees cooler, on average, than the air temperature – and as much as 50 degrees cooler than conventional rooftops. A second facility atop the Daniels Faculty at 1 Spadina Cres. (above) will investigate the effect of using surface water runoff, which contains urban pollutants, to irrigate green roofs



Sidewalk's

Lab for



Nearly five hectares of industrial land on Toronto's eastern waterfront will become a new community served by autonomous transport, buildings that can be quickly reconfigured for different uses, robot trash pickup and an ultra-efficient energy grid powered by renewable electricity. The project has attracted the attention of many U of T professors who are interested in contributing ideas and in studying the results. Initial plans are expected to be approved by the end of 2018.

The project has generated controversy, with some people uneasy about the types and amount of data Sidewalk Labs will collect. But Mark Fox, a professor of urban systems engineering at U of T, is still excited about the plan. "What is really smart here is they identified these great ideas that have been around for a while and brought them all together in this one location. It's an amazing experiment." -Patchen Barss





1-David Oliver helps keep cyclists moving at Bikechain, a notfor-profit group on St. George Campus that fixes bikes and teaches people how to do their own repairs. More than 25,000 cyclists have used the service since it opened a decade ago

2-Michael Muir (left) and Clement Chow of the U of T Beekeeping Education Enthusiast Society (B.E.E.S.) inspect a hive on the roof of the Faculty Club. The student society formed in 2008 to promote urban beekeeping

LLUSTRATION BY RAYMOND BIESINGER

practices have already started to become part of daily life, Robinson says.

Any large-scale change can't happen without political will. That realm, too, is rife with long-standing norms that result in unsustainable outcomes. Take bike lanes again. Building one is considered a new cost, sparking tortured debate at city council over funding. But cash for road repair is a normal feature of municipal spending. "We live in these systems where we fall back into the old way of doing things, because they're embedded in the institutions," Robinson says.

Seen from that perspective, solving our cities' environmental challenges is not merely a matter of technological improvements or emissions targets, but countless small changes that, taken together, can yield massive results. ■

THE **CITIES WE NEED** ARE...



Claude Cormier cools his dogs in his recently designed creation at Toronto's Berczy Park



Why cities can't get enough of Claude Cormier's playful designs

BY JASON McBRIDE / PHOTOGRAPHS BY JAIME HOGGE

DRMIER SKFD DESIGN

space in Toronto's St. Lawrence Market neighbourhood, there were several competing interests he and his team of landscape architects needed to please: young families, dog owners, office workers looking for a shady place to eat lunch. Five years later, Cormier (BLA 1986) stands and marvels. It's a cool and cloudy June day, but the park is thronged with mothers and strollers, picnickers and selfie-taking tourists beside a fountain adorned with dozens of cast-iron, water-spouting dogs. Real puppies nose around a patch of gravel designed just for them. Young American elm trees stand sentry, adding harmony to the bustle. "The park has become a magnet," Cormier says proudly, spreading his arms as if to embrace it all.

If you've spent any time in Toronto and Montreal recently, you've likely spent some time in Cormier's embrace. He's one of the country's best-known landscape architects. His firm, Claude Cormier et Associés, is as celebrated for the originality and whimsy of its work as it is for its resourcefulness. That work, ranging from pocket parks to innovative installations, is spread across Ontario and Quebec and, more recently, Chicago and Houston: places such as Sugar Beach, with its bubblegum-pink umbrellas, and the surprisingly lush gardens of Evergreen Brick Works. In some cases, these creations are subtle; others are as pleasantly in-your-face as a wedding cake. A graduate of U of T and Guelph and Harvard universities, Cormier opened his Montreal-based firm in 1995 and currently has 50 different projects on the go. In 2015, Phaidon Press included the company in a coffee-table book devoted to the world's 30 most renowned landscape architects.

In person, Cormier embodies some of the best qualities of his work-he's friendly, endearing, slightly goofy, brimming with intellectual and physical energy. He's dressed, as he often is, like a darkening cloud: billowy white shirt, stone-grey trousers, black brogues. He pulls a small suitcase behind him, an accessory he's rarely without. Though he still lives in Montreal, he's in Toronto (and elsewhere) several times a month to pitch, plan and work on projects. "I like construction sites," he says. "I love to see things come together."

Cormier's popularity is both surprising and not. With cities such as Toronto growing increasingly crowded and former industrial metropolises such as Pittsburgh having reinvented themselves as beacons for the creative class, urban public space has become both more precious and more complicated. "Living spaces are getting smaller," says Gregg Lintern (BA 1984 Innis), the City of Toronto's chief planner, "and even in a winter city, people like to experience the outdoors and being in public space - for health reasons, for social reasons. Many years ago, you'd have everybody over for coffee; now everybody's going out to the coffee shop or café." Public parks, specifically, are no longer seen as merely places to picnic or play Frisbee; to developers, government officials and



"We have a certain level of idea we fight for, and we don't give up"

residents alike they are catalysts for community and economic development.

From the High Line in New York City to Toronto's recently opened Bentway, innovative, adaptive, strategically designed parks – situated in unusual nooks of both congested and disused neighbourhoods - are built to bring people together, jump-start local business and boost tourism. The High Line, initially conceived to resuscitate New York immediately after the uncertainty and turmoil of 9-11, has been a financial and tourism miracle: in 2016, nearly eight

million people visited (more than any other destination in the city). And the condos, restaurants and museums that have flourished alongside it will generate about a billion dollars in tax revenue over the next 20 years. Less quantifiably, such public spaces also make city-dwellers happier and urban landscapes more enchanting. As Jake Tobin Garrett (MSc in Planning, 2012), a manager at the Toronto-based charity Park People, says of Berczy Park, "Cities are for living in, but they're also for having fun and shedding the stress of our daily lives. I dare you to walk by this park without being drawn in with a smile on your face."

Cormier's public spaces can be fanciful, expensive to build and even, to some eyes, weird. When he was a kid, growing up on a dairy farm in Princeville, Quebec, he dreamt of studying plant genetics so he could invent a new flower, and his best-known projects do involve a kind of hybridization, blending disparate elements-botanical, historical, artistic-to form something singular. "The way I use history and art – I'm assembling things in a way to create a different kind of space," he says. When he conceived of Berczy's Victorian-inspired fountain with its eccentric canine adornments, he was told by skeptical city officials that dogs had nothing to do with art. In response, he and his staff combed through archives and, of course, discovered the opposite. "We did our research and found dogs everywhere in art history," Cormier says, smiling. "It goes back 5,000 years!"

Cormier's encountered such opposition frequently throughout his career - his controversial "Lipstick Forest," at Montreal's Palais des Congrès, a futuristic winter garden of 52 concrete "trees" painted bright pink, was derided by local newspapers; the cost of the umbrellas for Sugar Beach outraged some Toronto city councillors. The approval process, with all its potential setbacks and multiple stakeholders, he says, is a constant reminder that his work could be rejected. But cost versus value is something that Cormier thinks about for each project. and he is adamant that, if anything, we don't spend enough money on our parks, streets and plazas: "What is spending too much? Is it spending \$100 a square foot on the public realm that's used by everybody, or \$600 or \$800 a square foot on the condo next to it? Sugar Beach, which was initially considered too expensive, is a great example of how urban infrastructure can increase the value of the area around it," says Cormier. "When

THE WORLD'S BEST **PUBLIC PLACES**

What makes for a truly great civic space? Bold imagination and an element of surprise, says Claude Cormier. Designers have to take risks: "It's not just about making something pretty." In his view, these three places got it right.



Millennium Park, Chicago

For Cormier, the magic surrounding Chicago's centrepiece park begins with "Cloud Gate," the highly reflective steel sculpture by artist Anish Kapoor commonly known as "The Bean." Photo-takers have made it their first stop ever since the park opened in 2004. "People see themselves in it, they interact with it and it's beautiful to watch," he says.



The High Line, **New York City**

The park sits in an old, elevated train track on the city's west side that was almost torn down before concerned citizens stepped in to save it in 1999. The park opened a decade later, and the 2.4-km ribbon of green is now one of New York's top attractions. "It shows what can happen when you have a bold vision

and a beautifully crafted landscape that allows the community to come back," says Cormier. "I wish I had it in my portfolio,"



Les Deux Plateaux, Palais-Royale, Paris

Artist Daniel Buren's striped "licorice" sculptures were hugely controversial when they were built in the palace courtyard in 1986. Yet the black and white marble columns of varying heights "became pedestals that people would stand or sit on to have their pictures taken," says Cormier, who loves the conflict between the 17th-century baroque palace and Buren's contemporary art. "It's like juxtaposing different languages. But by creating this clash, you make each one look more magnificent." -Scott Anderson

you do it cheaply, it's wasted, because people won't come back."

A good landscape architect must be part ecologist, project manager, visual artist, pitchman and politician. Every landscape architect who works with urban public space has to look at the built environment and assess how best to augment or enhance those forms with a combination of plant life, street furniture and public art. And every landscape architect who works with urban public space has to collaborate with developers, city officials, community residents and engineers. But a great landscape architect is also a bit of a pugilist. "You have to be ready for a fight," says Cormier, "because there will always be something on a project that you will need to stand up for. We have a certain level of idea we fight for, and we don't give up."

He's insistent that these ideas don't just blend into the background. He's been likened to landscape architects such as Frederick Law Olmsted, who designed New York's Central Park, and Martha Schwartz, who dropped a giant boulder into Toronto's Yorkville district. Like these projects, Cormier's work is defiantly visible, asserting its own presence and value. "I like things with personality," he says. "The whimsical aspects open up a different sense of perception and people respond well to it." Thanks to the success of Berczy, Cormier is now working on an amusing response to it west of downtown – this time, featuring about 20 cast-iron cats – as a small part of the massive redevelopment at Front Street West and Spadina Avenue known as The Well.

One could describe Cormier as a kind of Robin Hood of landscape architecture. The analogy's not perfect – he doesn't exactly rob the rich to give to the poor-but what he is doing is using the funds available to him to create something beautiful that everybody can enjoy. It's no secret that our major cities, from Toronto to Tokyo, are becoming increasingly unaffordable – that income and spatial inequality have become almost intractable problems. But public spaces such as Cormier's serve as compelling, vital arenas where citizens – no matter their income level or background - can interact. The more appealing those places are, the more likely those interactions. "If you design something to induce positive behaviours," Gregg Lintern, the city planner, says, "you're going to have a richer, healthier, more socially cohesive city environment."



IY (PARIS) JEFF GREENBERG/UIG/GETTY IMAGES; NATKIN/GETTY IMAGES; (NEW YORK) SHUTTERSTOCK RAYMOND BIESINGER

CITIES SMARTER



Choosing

the Right Recreation

Facilities

Even within Canada, a seemingly straightforward issue such as encouraging exercise varies from city to city. What works in snowy, sunny Edmonton might not work in warm, rainy Vancouver.

A database called the Canadian Active Living Environments (Can-ALE) already provides researchers and planners with estimates of the potential for physical activity for neighbourhoods across the country.

Jeffrey Brook, a professor at U of T's Dalla Lana School of Public Health, is also the scientific director of the Canadian Urban **Environmental Health** Research Consortium. which hosts a platform for research on urban form and human health. The platform allows researchers to drill down into the Can-ALE database by demographics, climate and other variables. It can help guide decisions on the location of parks, playgrounds and other public facilities that encourage physical fitness.

In its third year, the consortium makes it easier for researchers to collect and share data with planners to make cities healthier places to live, Brook says. -Patchen Barss



This cast-iron golden retriever is named Smiley, in honour of a beloved therapy dog in Toronto

Cormier insists his first priority is the city-dwellers that live with his projects every day. "We're doing it for the people," he says. "We are working with developers who are starting to understand that if you do a good landscape, it's going to bring them value. A way to do that is through good open-space plans, good amenities, good integration with the street. Then the public feels that they have something there for them."

Cormier grabs his suitcase. He has to get to more meetings, including one for a project whose details he couldn't yet disclose except to say, "We are having fun imagining it. We are laughing. Laughing!" He looked like someone about to open a Christmas present. "But I think you can do that in many projects. You just need the guts to do it." ■

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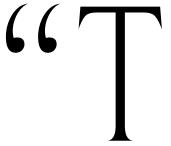
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Imposter syndrome is widespread, but new research—which U of T students helped conduct—suggests ways to combat feeling like a fraud





here's an old Groucho Marx joke," says Joel West, on the topic of self-esteem. "It goes: 'I wouldn't join a club that would have me as a member.'" But to West, it's no joke: "That, for me, is how I live my life."

Well, almost. Today, West is very much a member of the club at the University of Toronto, studying semiotics and religion at Victoria College. But back in 1997, struggling with depression and feeling out of place, West felt so strongly that they didn't deserve a spot at the university (West uses the gender-neutral "they" pronoun) that they dropped out entirely. "I was still getting good

marks, pulling off 85s and a 90 or two. But I was miserable," West says. "And the thing is, nobody understands why you're miserable, because you're doing so well. That's the trap." West was dealing with a particularly acute form of something that many university students grapple with at some point: Imposter syndrome.

Since the phrase "imposter syndrome" was first coined 40 years ago, its usage has slowly crept into the mainstream. It describes a common trait among high-achieving people:

a belief that their successes are flukes, and that they will one day be unmasked as the frauds they feel themselves to be. That they are, in short, imposters.

U of T is known for attracting some of the smartest, most ambitious achievers in the world. New research conducted at the university suggests that imposter syndrome is widespread but rarely discussed here.

"It seems to be quite a common feeling among students: that everyone at this school is doing better than you are," says Nick Feinig, a PhD candidate in anthropology who worked on a study for the Innovation Hub at U of T's Student Life. (The project is led by Student Life, which launched the hub last year to investigate students' needs and propose measures to improve their quality of life.) For this new research, volunteers conducted in-depth interviews with 20 students to uncover the traits that help them overcome obstacles and recover from setbacks. As the project progressed, the interviewers discovered that signs of imposter syndrome cropped up again and again.

"When students are struggling with their grades or do poorly on a test, they always feel like their failure is unique and everybody else at this institution is some kind of superstar," says Feinig. "I teach a lot of courses and that's just not the case. But there's a sense that you're a unique failure."

The condition was originally named "imposter phenomenon" in a groundbreaking 1978 research paper by Georgia State University psychologists Pauline Clance and Suzanne Imes. Clance and Imes interviewed more than 150 high-achieving women - PhDs, senior administrators, scholars and experts - and found a troubling pattern: despite their objective measures of achievement, "these women do not experience an internal sense of success." Many of them believed that they had somehow bluffed or blundered

their way into their roles, and that it was only a matter of time before some authority figure unmasked their incompetence.

Isabel Carlin, another Innovation Hub volunteer who interviewed many of the study's subjects, says that while many people experience imposter syndrome at some point, gender still plays a powerful role today. "Imposter syndrome really affects women and minorities." says Carlin, who graduated from U of T last spring with a BA in Indigenous Studies. Women are more likely to be talked down to, to have things "mansplained" or to get interrupted when they're speaking. "It happens all the time," says Carlin. "And when that happens all the time, you start to think, 'Maybe I really don't know what I'm talking about."

"Everyone experiences feelings of inadequacy at some stage," says Lianne Picot, a leadership coach who is also completing a master's in education at U of T's Ontario Institute for Studies in Education. "Any time we're stretching ourselves, people have a feeling of 'maybe I'm not good enough." That feeling can even be healthy: it



HELP YOU? U of T can be a confusing place, especially to new students. The Innovation Hub has proposed a "U of T concierge," a central spot on campus to help students find their way around and get referrals to the services they need.

highlights areas where we truly do need to hone our skills, she says. It's when this feeling becomes chronic self-doubt – even when the person is presented with evidence of their success - that it becomes paralyzing. "People allow imposter syndrome to stop them from stretching themselves. That can manifest as a more serious mental health issue."

Student Life's research suggests a number of ways to combat these feelings. Sharing your situation with peers, who can sympathize, commiserate and reassure as needed, is one of the most powerful. "When you're left to your own devices and it's all in your head, you typically imagine worst-case scenarios," says Feinig. "A sense of isolation from your peers really skews your perception of your performance."

The researchers found that another confidence-builder is to pursue activities outside the classroom. Students who participated in extracurriculars said they felt less anxious about their classroom performance since they had other ways of measuring success. "Workstudy research positions in a lab,



for example, or volunteer work," says Feinig. "Basically, anything that wasn't in a class and wasn't graded on a letter or a numerical scale did wonders."

Carlin can vouch for this approach. She spent four years volunteering for U of T's Sexual Education Centre, including a stint as its executive director. Experiencing different kinds of success outside the classroom helped her keep things in perspective. "I had this self-esteem from other parts of my life, so, if I was having trouble with my academics, I didn't get too broken up over it." And best of all, getting more involved in extracurricular activities tends to solve the isolation problem, too. "Because you're making friends in your workstudy position or your volunteer position, you're getting to know the community," says Feinig. "It kills two birds with one stone."

Joel West says this approach is what's made it possible to finally return to an undergraduate degree after more than 20 years. The first time around, "I was very alone at the university," West says. "U of T is huge, and it's very easy to hide if you want to hide." This time around, encouraged by Victoria College's registrar's office, West got involved with U of T's Accessibility Office. They are now the volunteer co-ordinator with the Innovation Hub.

"What it's come down to is finding community at the university," says West, who is on track to graduate in May 2019. "That's not to say I don't believe I'm an imposter -because I still do." But those thoughts aren't as all-consuming as they once were, and, even on bad days, there are people around who can provide perspective. "I remind myself that I can probably con one person," says West. "I can probably con three people. But conning an entire university? That's just not possible. So if that's true, then I must be as good as they say I am." - Graham F. Scott



How to Stay Fulfilled in Retirement When Work Has Defined Your Life

In her new book, Retirement and Its Discontents: Why We Won't Stop Working, Even If We Can, UTSC professor Michelle Pannor Silver interviews people who struggled in retirement because their personal and work identities were deeply intertwined. Without work, they often lost their sense of self-worth and purpose. In her book, Silver offers some ideas for staying content in retirement. -Stacey Gibson

Working in place

There's a popular concept called "aging in place:" by making changes to seniors' homes to accommodate their needs, they can continue living contentedly in a familiar environment. Silver proposes the idea of "working in place:" using retirement to continue one's career in an adapted manner. The professors she talked to, for example, shed their heavy administrative work and continued only the most meaningful projects, such as writing books and researching.

Is pay important to you?

The CEOs that Silver interviewed had excelled at developing their careers - but were not as competent at developing a life distinct from their work identity. All of them ended up re-engaging in the workforce – with consulting being a popular choice. How did the CEOs differ from the professors? CEOs viewed paid work as being personally fulfilling whereas professors kept at it whether or not they received a paycheque.

Channel your strengths

The elite athletes Silver spoke with struggled mightily with retirement at a young age, after focusing on a single goal for so long. One athlete channelled his competitive nature into a career as a professor, eventually becoming a top-ranking administrator - and also used his abundant energy to advocate for human rights. What's the lesson for others? Take the skills that got you far in the workplace and direct them into other areas: your leadership abilities, for example, could find an outlet in the charitable arena.

More than two million Canadians don't take their full dose of medications because of the cost. How can they be helped?



unemployed, as well as those with workplace insurance who can't afford the deductibles or who have topped out their maximum annual coverage.

Last year, Persaud's team launched a two-year study to help inform room visits or hospital admissions. Preliminary results of the study are expected later this year. "We hope that by testing this program, we can inform public policy changes that would improve health and reduce health inequities across Canada," says Persaud.

of their studies, but Persaud is also interested in following-and shar-University Health Network to cretheir own stories.

David, for example, owned his own company in the auto sector. On video, he speaks about how the 2008 financial crisis wiped out his business, taking him from "comfortably well off to desperate and living in my car." A few years later, he underwent chemotherapy for lymphoma and recovered, but then had a heart attack. He skipped taking his meds because of stress over his financial situation, but now has his prescriptions filled through the study. "Stress is a huge killer," he says. "It can exacerbate any illness. And to not have

that stress every month has made me feel much, much better."

The study's quantitative results will eventually be posted to a website, but so will videos of David and four other patients - to give politicians and the general public a sense of the real-life impact of pharmacare, or the lack of it. "We'll also ask patients to talk about what happens to them after the study ends, when they no longer get free meds," says Persaud.

Excluding pharmacare from our universal health-care system is an accident of history, says Dr. Danielle Martin, a professor in U of T's Faculty of Medicine. She says back when medicare was being built, most health care occurred in hospitals, where drug costs are covered. Now that medical science has turned many fatal diseases into chronic conditions, care has shifted into the home and community - with costs of medicines borne by an inefficient patchwork of private and public plans and individuals. It means doctors can examine, send for tests and refer to specialists, all with no direct cost to patients – but if treatment requires a prescription medicine, "all of a sudden they drop off the edge of the cliff in terms of what our publicly funded health-care system covers," Martin says.

Canada is the only developed country that has public health care without universal pharmacare. Despite more than 13,000 approved pharmaceutical products, 137 medicines account for 77 per cent of all prescriptions. Persaud says a shortlist of essential medicines would focus competition on a small number of products that Canada could collectively purchase in larger quantities, saving Canadians \$3 billion a year.

-Marcia Kaye

public policy around universal pharmacare. The CLEAN-Meds study (Carefully seLected and Easily Accessible at No Charge MEDications) involves 786 patients in four family clinics in Toronto and at three sites in northern Ontario who had expressed difficulty affording medications. Half have been randomly assigned to receive their medicines free (mailed to their address for extra convenience), while half continue to have their usual access. The two groups will be compared for health outcomes as well as costs of the drugs versus costs of emergency

Many researchers are concerned primarily with the statistical results ing - the lived experience of his patients. As part of his research, he is working with Open Lab at the ate short videos of patients telling



CANADIANS SPENT \$32 BILLION ON PRE-**SCRIPTION DRUGS IN** 2016



43% was covered by public drug plans

o 32% of public spending was on generic drugs

at all. These may include people with no private insurance such as taxi drivers, restaurant servers, contract workers, farmers, artists,

hysician-researcher Nav

Persaud was worried.

Several of his patients at

the family practice unit

in Toronto's St. Michael's

Hospital weren't getting better,

despite having very manageable

conditions such as high blood

pressure, high cholesterol, HIV-

AIDS or diabetes. The reason?

They simply couldn't afford their

prescription medicines. "Some of

my patients can't afford insulin

for their diabetes, even though

they live in the city where insulin

was discovered," says Persaud, a

professor in U of T's department of

family and community medicine.

many with similar patient experi-

ences, considered their options.

While the pharmaceutical samples

they'd been giving out provided

free meds for a week or so, they

did little for chronic illnesses that

required years of ongoing treat-

ment. The doctors even consid-

ered pooling their own money to

buy the necessary medicines, until

they realized the problem required

a bigger solution because it went

Almost two and a half million

Canadians are in the same situ-

ation. Because of affordability

issues, they take half doses, skip

days or don't fill their prescriptions

small-business owners and the

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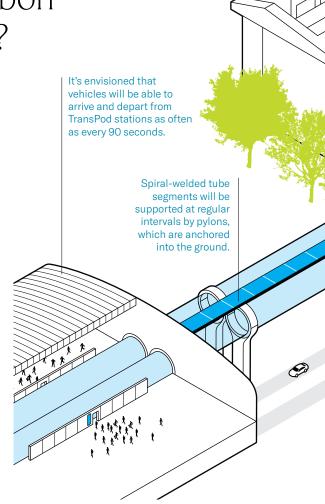
Persaud and his fellow clinicians,

A new transportation technology could revolutionize intercity travel while dramatically reducing carbon emissions. Will it get built?

magine travelling from Toronto to Montreal in 45 minutes, without flying, for less than it costs to take the plane. Ryan Janzen believes that "tube transportation" - a new technology that advocates say will whisk streetcar-sized pods filled with cargo or people down metal tubes at almost the speed of sound – could be in operation somewhere in the world by 2030. Janzen (BASc 2005, MASc 2008), the co-founder of TransPod, a company racing to develop the technology, hopes to see a line one day connect Toronto with Montreal. He recently walked us through how the low-carbon technology works.

For tube transportation to truly rival aircraft for speed, engineers had to figure out how to dramatically reduce two things inside the tube: friction and air resistance. Instead of rolling along a track, as a typical train does, TransPod will use moving magnetic fields to levitate the vehicles. Magnetic engines at the bottom of the "pods" will interact with both the tube and the track, creating a magnetic field. As the pods travel, the repelling force created by the magnetic field keeps the vehicles floating above the bottom of the tube and pushes them forward. This ability to levitate will maintain a smooth ride for passengers, and reduce wear on the tube and vehicles. To keep resistance to a minimum, the TransPod system will use vacuum pumps to remove most of the air from the tube.

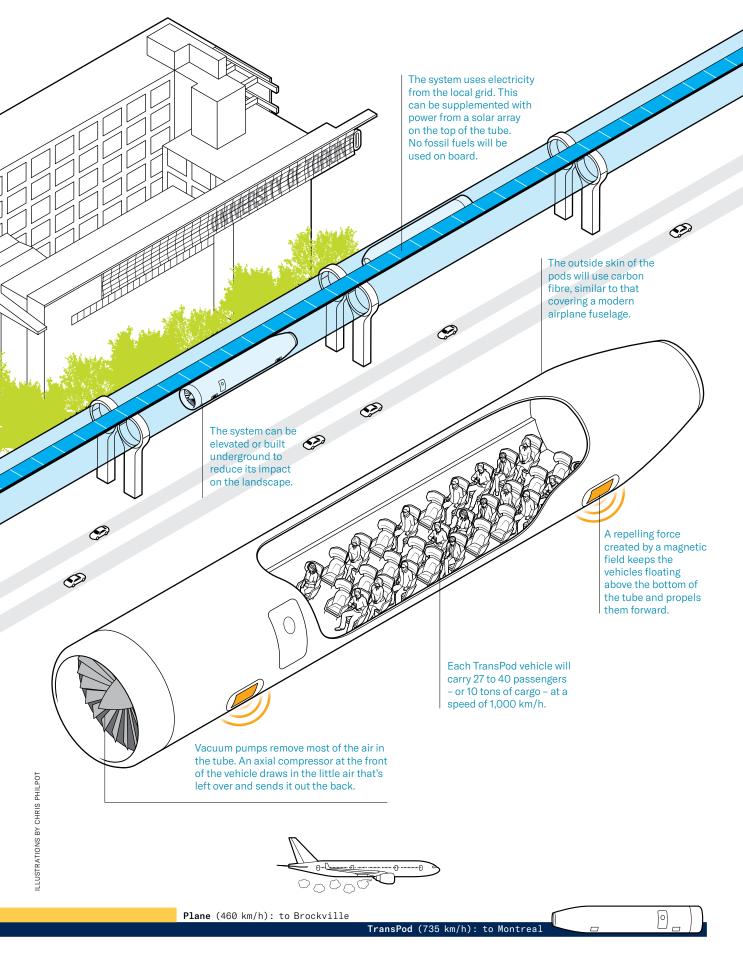
The result is vehicles that can maintain a very high speed while using no fossil fuels. -Micah Toub



TORONTO TO MONTREAL IN LESS THAN AN HOUR? NO PROBLEM

TransPod will travel the 550 kilometres in just 45 minutes. How far could you get in that time by...





Brave Heart

Arij Elmi gained the courage to speak up against racist comments after studying Wen-Do. Now she teaches other women to do the same

he sounds of kids playing in Christie Pits Park on a cloudless July morning grow suddenly quiet every time Arij Elmi yells. She's in a shady spot near the playground, demonstrating self-defence moves such as the "hammer fist" and "knife hand," punctuating each strike with a powerful cry. "I found my voice again through teaching self-defence," says Elmi, a PhD student at U of T's Ontario Institute for Studies in Education, and a social worker.

She was a feisty kid, a largerthan-life extrovert who always said what she thought. Then, in her preteens, she turned inward, especially when confronted with racist and Islamophobic comments. As a Muslim woman who wore the hijab until recently, Elmi has heard a lot of these in her personal and professional life.

There was the man on the train who helped lift her bag, then asked loudly if it contained a bomb; the client who refused to work with a Muslim social worker: and the stranger who called her "raghead"-just to name a few incidents in a long list. Her experience reflects

the alarming rise of police-reported hate crimes against Muslims in Canada in recent years: there was a threefold increase between 2012 and 2016, the most recent year for which statistics are available.

"I was always attracted to the idea of self-defence, but the emotional, not physical, side," says Elmi, 30, who is researching Islamophobia in the Social Justice Education stream at OISE. "I wanted to speak up when people said ignorant things. Instead, I'd go home and feel terrible."

Then she discovered Wen-Do, a form of physical and verbal self-defence for women, as a master's student at the University of Windsor. It not only teaches women techniques to ward off attackers, but helps them feel more confident in all kinds of threatening situations. As Elmi became more immersed in the Wen-Do community and eventually earned her instructor certification, she developed the courage to call people out for racist behaviour. And she wanted to help





Arij Elmi in Salem Parkette,

other women do the same.

Elmi knew from personal experience that many Muslim women, especially those who wore a hijab or niqab, were feeling unsafe in public spaces and wanted a better way to cope than avoiding the subway, for example, or wearing hats. In 2016, with support from crowdfunding, she and fellow instructors held six free Wen-Do workshops for Muslim women and girls in the Greater Toronto Area. Since then, she's taught all over the city, including at U of T, through the Toronto-based Wen-Do Women's Self-Defence organization.

"In the classes, we challenge the construction of Muslim women as being meek and passive," says Elmi, adding that she tells women they deserve to know how to protect themselves - just like they want their daughters to know.

Research shows that women who fight back physically or verbally are more likely to stop an assault. Above all, Wen-Do teaches women that it's OK to be loud, yell, scream and generally forget about being "nice" if they feel threatened. Their voices can either surprise attackers or draw in bystanders. Physical self-defence skills include strikes (such as "eagle's claw"), releases from holds ("hammer-fist wrist release") and blocks. Elmi says the participants often express their gratitude to her not only for giving them practical skills, but a venue for open discussion. "There are few opportunities where women, and particularly Muslim women, are able to get together and talk about how sexism, racism, xenophobia and Islamophobia affect our daily lives," says one student.

It was her women's studies courses that sparked Elmi's ongoing passion for empowering women - and led her to Wen-Do. "I felt like I'd finally found my tribe



"MOST OF US KNOW WHAT COERCION FEELS LIKE AND WHAT ABUSE IS. MY ROLE IS TO SUPPORT WOMEN AS THEY ASSERT THEMSELVES"

in those classes," she says. "I was so happy talking about the issues that had been on my mind for as long as I can remember - like gender and socialization, and access to opportunity. They gave me language for things I always knew."

Sitting in the park with kids racing around behind her, she recalls her eight-year-old self having an epiphany about gender roles. "I had pet bunnies as a kid, and a neighbour would joke, 'The girl bunny needs to stay in the cage to cook and clean.' Watching the bunnies I realized that only the male was learning how to run and jump. Right away I knew: girls are limited by their circumstances."

Today, Elmi takes a feminist, anti-oppressive approach in her practice. She's been a mental health crisis worker as well as a therapist for children and families. Elmi now works part time at Hard Feelings, a Toronto practice that provides low-cost, short-term mental health services.

"I love frontline counselling, and I see great parallels between it and teaching self-defence," says Elmi. "In the end, I'm trying to help people get past their emotional blocks. Most of us know what coercion feels like and what abuse is. We don't need more knowledge. My role is to find out what's getting in their way, and support them as they assert themselves. Watching women build self-knowledge and self-confidence is beautiful."

When Elmi recently stopped wearing a hijab for personal reasons-not political ones, she stresses - she worried about the impact of that decision on her efforts to raise awareness about Islamophobia through teaching and media appearances. "I didn't want to lose legitimacy or disappoint the women I teach," she says. But the reaction from her students, friends, family and colleagues has been positive. "No one felt let down, and I experienced acceptance across the board," she says.

This summer Elmi expanded the reach of her Wen-Do teaching by travelling to Dawson City, Yukon, to provide workshops and a course, supported by the Tr'ondëk Hwëch'in government and Dawson Women's Shelter. She hopes to include more parents and adult survivors of sexual abuse in upcoming classes, and is developing a program that combines elements of emotion-focused therapy with Wen-Do.

Elmi is also testing her voice in an entirely different arena: She took a stand-up comedy class and has already performed a couple of times, saying it's not as much of a departure from her other roles as it first appears. "I make jokes about Islamophobia and racism and all those things that come from a place of pain. I'm now able to share my stories and say, 'How absurd is this?' There's great catharsis in feeling emotionally connected with the audience and making them laugh." Not to mention the fact that it's another way to reconnect with the gutsy little girl she once was-who wasn't afraid to stand up to anyone.

-Megan Easton

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May 29-June 2, 2019

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Friday, May 31

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Stress-Free Degree Lectures

Saturday, June 1

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Stress-Free Degree Lectures, Campus Tours and more

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Fighting Climate Change, One Course at a Time

A new Trinity program aims to educate the next generation of green leaders

rinity College has received \$1.25 million from George and Martha Butterfield, co-founders of the travel company Butterfield and Robinson, to launch a new program in environmental issues for first-year students. It's called the Butterfield Environment and Sustainability Stream in the Margaret MacMillan Trinity One Program, and it began this fall.

While the U.S. decision to withdraw from the Paris climate accord has left many feeling defeated, the Butterfields remain focused on, and optimistic about, educating the next generation. "I feel anger,

but I don't feel it's hopeless," says George. "We're not giving up."

Humans and nature

Students in the Butterfield stream take two year-long seminar courses. One examines the ethics of how humans interact with nature; the other looks at how people affect the Earth's systems, and identifies how to make society more sustainable. Until now, U of T students have not had access to small-group environmental study until late in their undergraduate career. This new program aims to get them working on solutions to environmental issues at the start of their first year.

Donors: George and Martha Butterfield

Amount: \$1.25 million

Goal: Find new solutions to environmental problems

To live more sustainably: "Be frugal. Turn off the lights, turn off the taps"

Next-generation climate leaders

Making the transition to a low-carbon economy will require fresh thinking from a new generation of green leaders. Yet the rhetoric around climate change makes it easy for young people to believe there's nothing they can do, says Larissa Parker (BA 2016 Trinity), who pursued environmental studies and public policy at U of T and now works at the Youth Climate Lab. "The biggest mistake is thinking that an action toward sustainability is too small. Your own drive for change will inspire others," she says.

The change-makers

In the early 1960s, the Butterfields teamed up with Martha's brother Sidney Robinson (all Trinity College grads) to organize a student bike trip to Europe. That first trip sold out, and Butterfield and Robinson went on to become one of the world's top active-travel companies.

Last year, Hurricane Maria devastated Puerto Rico, which the Butterfields have visited often. Their personal connection to the island heightened their sense of urgency around climate change especially that warming temperatures are fuelling more powerful storms. Reversing course, they say, will require leaders with a deep understanding of environmental issues. "We wish to give students the foundation they need to effect real change," says Martha.

Sustaining the gift

Trinity has invested the Butterfields' gift with Greenchip Financial, a clean energy fund. It was important to the Butterfields that their gift be invested in a way that reflects their commitment to the environment. They also wanted students to know that the courses are funded by sustainable investments. -Staff



TAKE THESE MEN FOR YOUR ENSAMPLES LIKE THEM REMEMBERTHAT PROSPERITY CAN BE ONLY FOR THE FREE THAT FREEDOM IS THE SURE POSSESSION OF THOSE ALONE WHO HAVE THE COURAGE TO DEFEND IT

OUR SOLDIERS KEPT US SAFE.

NOW WE KEEP THEM IN OUR HEARTS.

November 11, 2018 marks the 100th anniversary of the end of the First World War. This Remembrance Day, we will gather around the beautifully restored Soldiers' Tower to honour the memory of the thousands of U of T alumni, students and faculty who served overseas and at home to keep Canada safe.

Generous alumni and friends like you have supported the restoration of Soldiers' Tower. Thank you! Preserving

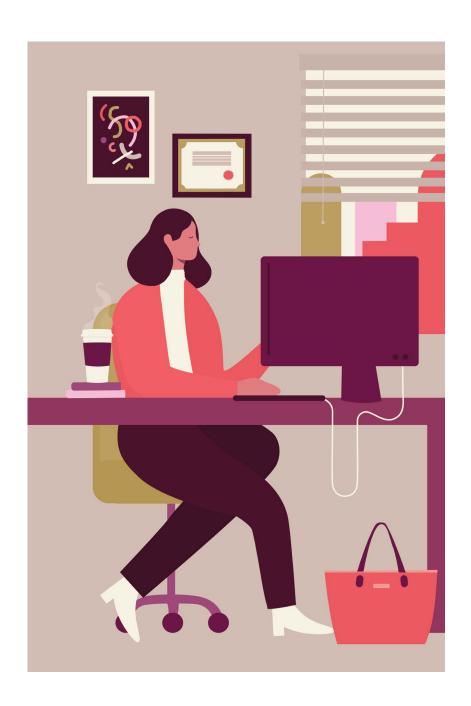
the University's memorial to the 1,185 members of the U of T community who gave their lives in the First and Second World Wars continues to be a sacred responsibility. With your help, we will ensure Soldiers' Tower venerates their bravery and sacrifices for generations to come.

Please make your gift to the Soldiers' Tower Fund today. We hope you will join us on Friday, November 9 at 10:20 a.m. for this special service of remembrance.



BOUNDLESS

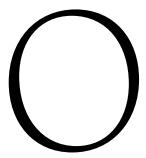
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The Motherhood Penalty

Women pay a price for seeking more flexible jobs after having children. Good legislation won't solve the problem we need to look at cultural changes, too

By Sarah Kaplan



ntario has had the world's most advanced pay equity legislation for more than 30 years. And yet women in the province still earn significantly less, on average, than men. Why?

We read the papers and see Iceland and the U.K. and other jurisdictions passing new laws focused on equal pay, and our first reaction is to think that Ontario needs to get on the bandwagon. But, in reality, Ontario's 1987 Pay Equity Act (which is further bolstered by the Human Rights Code and recent changes in the Employment Standards Act) is actually state of the art. Many of the pay transparency provisions emerging in countries around the world are occurring in jurisdictions that did not have the excellent legislation that we already have. And their provisions are not as effective or targeted as those that we have in place. If you review the company reports coming out of the U.K., you will learn, for example, that the large Canadian banks operating there have a 30 to 60 per cent wage gap. But, those reports don't tell us anything about pay. Instead, they simply show that these companies (and most of the rest of the companies reporting) have few women in top jobs (which pay more than jobs at lower tiers of the organization). It says nothing about whether or not women and men are paid the same for the same jobs.

So if Ontario has such good legislation, why do we still have a wage gap after all these years?

There are a lot of myths about

the gender wage gap and they are getting in the way of good policy, both by governments and by employers. It's not that the wage gap doesn't exist - it does! But, the mechanisms underlying it are not what most people think.

When people hear the term "gender wage gap," they often imagine that the gap is coming from women being paid less than men for the same job. Of course, there are many high-profile cases such as the 2017 settlement of a human rights claim against the LCBO for paying the (mainly female) part-time retail workers less per hour than the (mainly male) full-time workers. However, research shows that, in aggregate, the violation of equal pay for equal work likely accounts for only about five per cent of the total wage gap, resulting in women earning about 95 cents for every dollar a man earns. Now even that amount is unacceptable, and accumulated over a lifetime - can create substantial gaps in savings. However, there are other more important factors at work.

Recent research suggests that the majority of the wage gap opens up around the time of the birth of the first child. This is the case even in some of the world's most gender equal societies, such as in Scandinavia, where the wage gap is stuck at about the same as Ontario's (88 cents when comparing hourly wages of full-time workers).

Why would this be? The evidence suggests that even if women return to the workforce after having children, they often switch careers to a job that will allow them more flexibility to cope with responsibilities at home. This is the case because women still perform much more care work and are expected to put caring over career. (In Ontario, according to StatsCan, women do 50 per cent more work at home than men.) Thus, if a woman were in a client-facing role before, she might move into an internal role or she might switch from a corporate job to a government or non-profit job. And, these positions are often

paid less than the ones that men can maintain even after they have children. The highest paying jobs are often the ones that have been designed with the least flexibility for handling responsibilities outside work.

The research from Scandinavia suggests that most of the wage gap can be explained by this career-switching effect. My U of T colleagues and I have initiated a study to test whether this is also the case in the Canadian context.

The other "wage gap" number one hears is around 70 cents. This is the number you get when you compare the weekly wages of all working women and men: it's a larger gap than the 88 cents reported above because many more women work part time and often in precarious and low-paid job classes. Again, the difference is because women are expected to do more care work and therefore often find it hard to maintain full-time jobs.

These gender wage gap figures, whether they be 95 cents or 88 cents or 70 cents, are average numbers and disguise even more substantial gaps for women of colour, Indigenous women, LBTQ women, women with disabilities and also gender non-binary people. That is, multiple and intersecting

THE GLOBAL **PAY GAP**

Women's pay as a percentage of men's the world over.



forms of disadvantage multiply the wage gap.

And, whether it is career-switching or part-time work, there is no pay transparency law that is going to fix these largest sources of the wage gap. What has been shown to help is:

Comprehensive governmentsupported child care.

We need to increase the number of spaces in daycare centres for all children and especially for infants. We also need more widely available extended daycare for schoolaged children. And, both of these need to be affordable for families at all income levels. An irony here is that paid care workers are often women (of colour) and often not paid very well, so better pay for care work needs to be part of the solution, too.

Equitable parental leaves for men and women.

Research has shown that if men take substantial parental leave (not just a couple of weeks) when a child is an infant, it has ramifications years down the line for how much they participate in child care and other household responsibilities. It also increases the likelihood that women stay in fulltime employment and reduces the amount of time women spend on housework.

Adaptations in work and job design.

There are many small changes that companies could make to address the motherhood penalty in wages, including providing clean and pleasant lactation rooms, avoiding scheduling meetings during school pickup and drop-off, and flexible work practices. In addition, research shows that men need not just to be invited but aggressively encouraged to take parental leave and also to take advantage of other family-friendly policies. Senior executives must set the tone. If women are the only ones using such policies, then they will

remain gendered and signals of lower status in organizations.

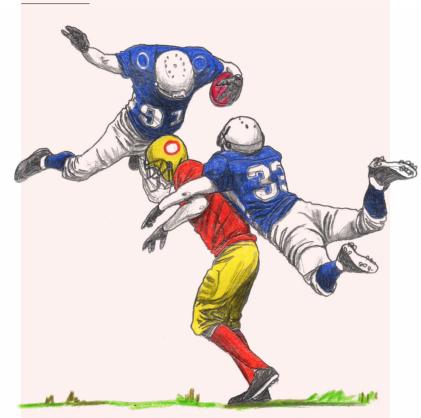
The goal is to change expectations at work and at home about the division of care work to enable women to advance their careers at the same rates as men.

So, what could further legislation do? Ontario's Pay Transparency Act provides for public reporting of gender wage gaps (for large companies by 2020 and for smaller companies by 2021). Public reporting aims to "name and shame" companies into action. However, this is the same logic applied by the Ontario Securities Commission in its "comply or explain" rules for disclosing numbers of women on boards and in the executive suite. That regulation has been in place for three years and - despite a lot of press coverage - there has been very little improvement. Public reporting may force organizations to focus too much on the public relations aspects of compliance rather than on using the analysis as a diagnostic and source of potential solutions. One worries that the current pay transparency legislation may not accomplish its goals.

There are many strong advocates for closing the gender wage gap. But for this advocacy to be effective, we need to know the sources of the gap. It is easy to be seduced by the latest trends, but a better approach would be to pay attention to insights that come from rigorous research. Only then do we have a realistic chance of achieving the goal of gender equality. Pay transparency and pay equity legislation will never close the wage gap without also considering the promotions and advancement gap that women face because of expectations that they will be primarily responsible for care work at home. ■

Professor Sarah Kaplan is director of the Institute for Gender and the Economy at U of T's Rotman School of Management.

AN ORIGIN



Did America's Game Kick Off at U of T?

On a crisp fall day in 1861 in Queen's Park, passersby who noticed a group of young men playing a vigorous, if slightly unorganized, ball game were in fact witnesses to a historic event. The November 9 pickup match is recognized as the first documented North American style football game ever played at U of T, and perhaps in the world.

"Although the rules used in 1861 were somewhat eclectic, the key is that the ball was carried," says Paul Carson, former sports information director at U of T and co-author of 150 Years of Football at the University of Toronto. "This game was truly the forerunner of modern Canadian/American football – distinct from British association football, or soccer, in which the ball is always kicked." Yet some aspects of soccer – and rugby - went into the creation

of today's gridiron football.

The game took place on the site of what is now the Ontario Legislative Building, but was then part of campus. One of the players was James Loudon, who later served as U of T president.

"In those days, we had no particular number of players and no particular rules," wrote Dr. William Tytler, also in the lineup that day, in a letter to the Toronto Daily Mail in 1891. He emphasized that, though the game was informal, it was not violent, as British football was historically known to be: "It was certainly not that sort of football where 'everything is kicked except the ball."

In 1877 U of T formed an official football team, eventually winning the first Ontario intercollegiate Yates Cup -North America's oldest football trophy - in 1898. - Megan Easton Listening to those who have experienced inequality is a good start, says Kofi Hope



Kofi Hope has been working to make Toronto a better place since his student days at U of T when he organized a citywide coalition on combating gun violence. After earning a PhD at Oxford, he founded CEE Centre for Young Black Professionals, which helps foster the careers of black youth in Toronto. Hope (BA 2006 Innis) has returned to the university for a semester to engage with grad students as a Bousfield Distinguished Visitor in Planning. He talks to U of T News writer Romi Levine about his views on how to make a city stronger.

What do you hope to accomplish this fall at U of T?

For me, it's about adding new voices to the conversation: bringing in city-builders from marginalized communities to enrich the student experience. We get better policy solutions when people with lived experience and a connection to inequality are at the table.

As part of Progress Toronto, you're interested in getting new faces elected to municipal office. How will you do this?

People in this city are worried about employment, pedestrian and community safety, the environment, house prices. The key for new candidates is to speak to the issues folks are experiencing day to day and say "we can collectively do something about this." This isn't easy. It means analyzing the issues well and communicating what you'll do about them with a deep understanding of the local community.

Using this approach, how should we deal with the housing affordability crisis?

People get upset about all the condos being built, but we need density and we need housing. The question is how to build in a way that actually creates homes for families and not just assets for foreign investors. How do we preserve communities that have been historically rooted in certain parts of the city? There are ways to blend old and new and manage change at a much more equitable pace than has been happening here.

Back Story: As a Rhodes Scholar, Hope studied South Africa's anti-apartheid movement

Hobby: Screenwriting

Honour: Jane Jacobs Prize, 2017

Quote: "Courage is about taking a stand that may be unpopular'

Who inspires your own leadership style?

People like Martin Luther King Jr. or political activist Cornel West in the States, who made their faith and values central to their leadership, along with a rigorous intellect and an inclusive approach to organizing. What I love about Dr. King, who is not well understood in popular culture, is how radical he was. He died planning a poor people's march on Washington, and his main adviser was an openly gay communist man - at a time when it was extremely difficult to be either of these things. -Romi Levine



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BOUNDLESS