

Western Alumni Magazine

Fall 2023

Day One.

The world is facing
wicked problems. What if
we could stop everything
and start over?



Dr. Rebecca Barnfield examines a patient who came into London Health Sciences Centre's emergency department with pain that wouldn't let up. Barnfield is a resident in emergency medicine at Western's Schulich School of Medicine & Dentistry.

Beyond the physical exam, she also provides warmth and reassurance. "When you see someone in the emergency department, you see them in their street clothes, you see them with the stuff they came in with in their pockets, you see them as they are and as they exist outside of the walls of the hospital," says Barnfield. "You also see some patients on the worst day of their lives or at their most vulnerable."

This patient is one of many Barnfield sees on this day, from another in tears after a night in pain, to those seeking emergency treatment for mental health or addictions.

"Given the overwhelming burden on the system as a whole, it means the role of an emergency medicine doctor is expanding," she said. "For me, the human side of medicine—understanding all the factors that led them to the emergency department—is why I chose to practise medicine in the first place."



PHOTO COURTESY OF WESTERN COMMUNICATIONS

Universities are all about possibility

↑

My “day one” moment: Speaking to incoming first-year students during Orientation Week festivities, September 3, 2019 — two months after becoming president.

If this magazine looks different to you, it's not just your imagination. We have, indeed, shaken it up.

About a year ago, we set about re-imagining what is now called *Western Alumni Magazine*. Why? It really comes down to this: if a university is a lens through which we can understand global society, then we wanted a magazine that allows you, our readers, to see how Western is working to achieve that understanding—and what we're doing to help ease the problems we're all grappling with.

There is no question that one of the driving forces of Western, as a globally respected research university, is to understand and tackle tough problems. This is a mission we take seriously.

That drive comes into clear focus in this issue, which features stories that explore how members of the Western community believe we can move forward on five issues that continue to confound society: homelessness, access to health care, the degradation of the natural environment, the impact of social media and food insecurity.

This new take on the magazine also places a big emphasis on our alumni. I have never seen alumni as enthusiastic about their alma mater as Western's. With that in mind, we've created new ways to share your stories in this magazine.

Western Alumni Magazine also highlights our other mission—creating an experience that helps our students shape their futures.

This past summer, someone asked me just what it is that fascinates me about universities. My response is simple and comes from my own first year of university in Minnesota. Within a week of being there, a whole new world opened up for me. A world that immersed me in a wave of possibility.

More than 40 years later, I still feel that way.

At a university, you see people, of all ages, on an upward trajectory. They're excited. They're building and often re-building their lives and careers. They're gaining knowledge and learning to apply it. They're sending what they learn out into the world as students, as teachers, as scholars and researchers and as the hundreds of thousands of alumni who span the globe.

It's an experience rooted in growth and transformation.

Both of these driving forces—research and learning—are enriched through collaboration. Across disciplines, and in partnership with government, businesses, organizations and peer institutions, we look at everything through a variety of angles. That's because global problems are not one-dimensional.

This multidisciplinary approach to understanding the world brings me back to where I started, with the launch of this revitalized magazine—which will examine global society and our challenges through a multitude of connecting perspectives.

What the Western community—faculty, students, staff and alumni—is doing is important. Through this magazine, we'll be sharing their stories of innovation and impact.

I hope you enjoy this issue.

Alan Shepard
President & Vice-Chancellor



Western Alumni Magazine

Fall 2023

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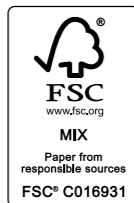
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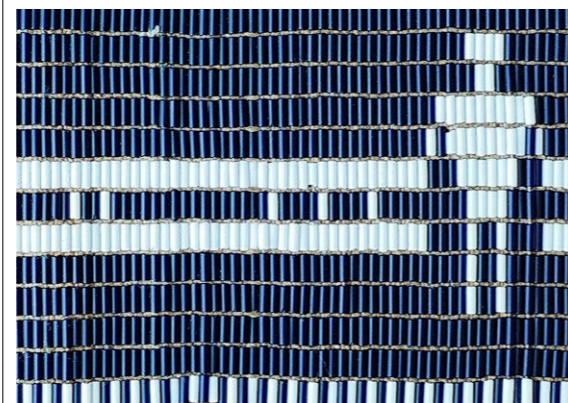
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Western University is located on the traditional lands of the Anishinaabek, Haudenosaunee, Lūnaapéewak and Attawandaron peoples, on lands connected with the London Township and Sombra Treaties of 1796 and the Dish with One Spoon Covenant Wampum.

This land continues to be home to diverse Indigenous Peoples (First Nations, Métis and Inuit) whom we recognize as contemporary stewards of the land and vital contributors of our society. Their distinct rights are an important part of our institutional responsibility to Reconciliation, and they are essential partners as we continue our commitment to increasing Indigenous voices and presence across all levels of community life, work, study and research.



Office of Indigenous Initiatives Wampum Belt (detail)
quahog shells, textile, 2013

Designed by Mishiikenh Nini (Jason George), BA'17, Bodéwadmi from Kettle and Stony Point First Nation, and Katsitsyahawi (Lori George), BA'17, Haudenosaunee from Oneida Nation of the Thames.

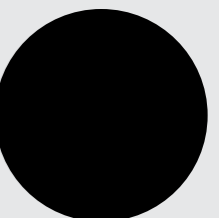
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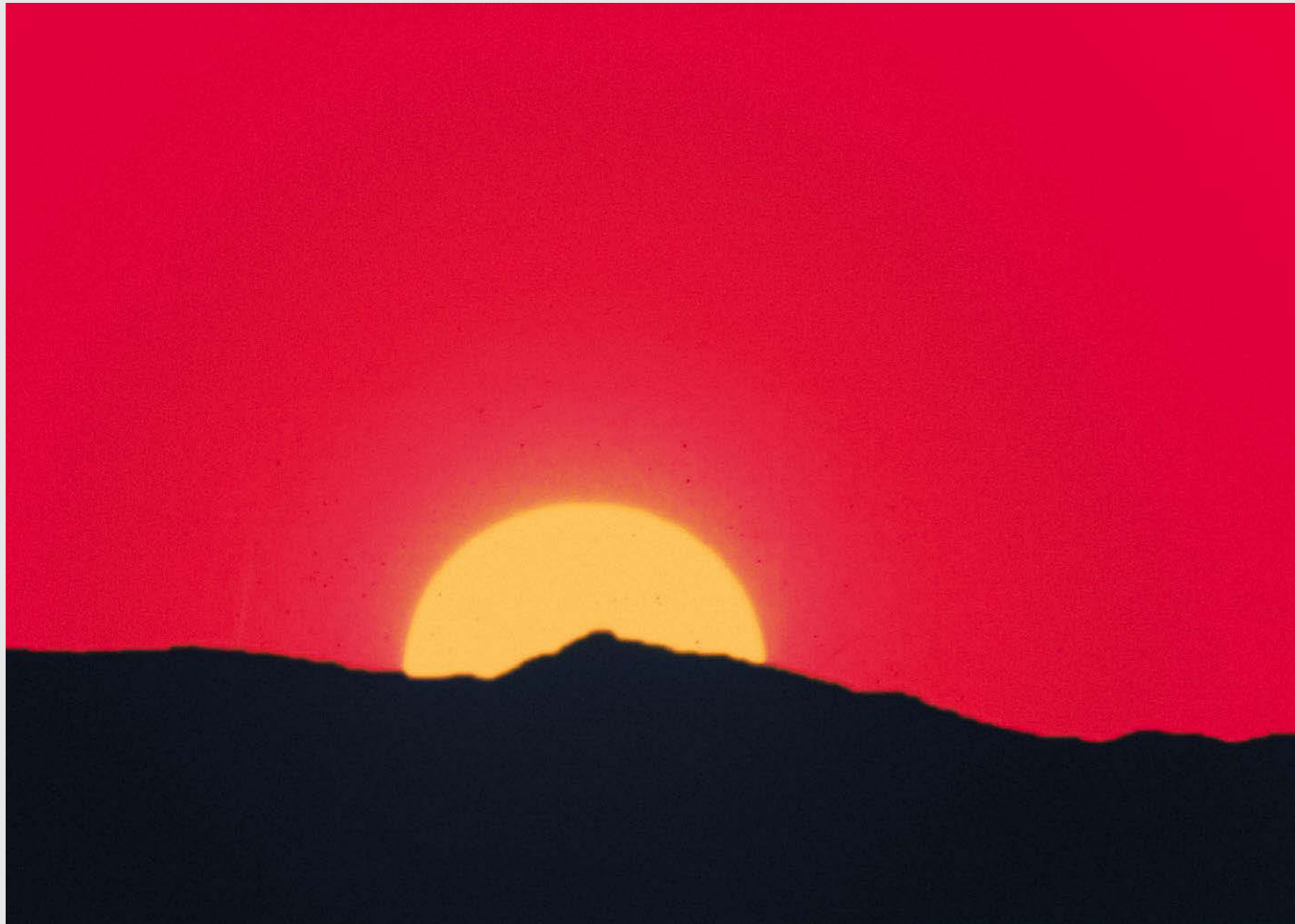


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Ukraine
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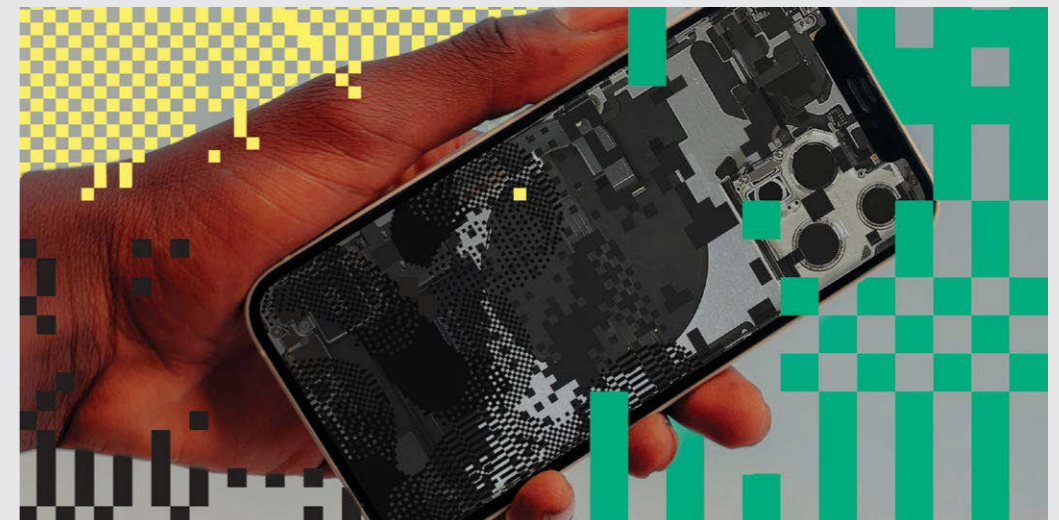
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Nota
Bene





Project reveals biodiversity bonanza

The red-spotted purple butterfly (*Limenitis arthemis astyanax*) is among more than 2,000 species of wildlife documented on campus by Western's new biodiversity inventory project. The chokecherry (*Prunus virginiana*), host plant for this butterfly, is prominent among the gardens recently installed on UC Hill. The inventory captures an astounding range of species—some rare or at-risk—using photographs taken by observers and uploaded to the iNaturalist app.

MILLARD H. SHARP/SCIENCE PHOTO LIBRARY, UK

More on these stories online:
magazine.westernu.ca

Free course empowers climate change action

Western's new, award-winning *Connecting for Climate Change Action* course brings together Indigenous knowledge and Eurowestern science to educate and motivate action on climate change.

The second session of this free, open course will be available for adult learners through Coursera in January 2024.

Charging up campus

As part of a \$1.45-million upgrade jointly funded by Western and Natural Resources Canada, 74 new electric vehicle charging stations will be spread across campus over the next two years, from parking lots to the fleet and facilities garage and residence buildings.

A culinary revolution

Western's dining hall menus are now 43 per cent plant based.

In May, the university hosted the Humane Society International's *Forward Food* program, where culinary teams learned to make egg salad sandwiches and French toast without the eggs, trim the meat from traditional beef, pork and chicken offerings and create meals solely using plants—all without sacrificing flavour.

"We're meeting the demand from our students, in terms of widening the variety on our menu, but also responding to what aligns with Western's values," says Colin Porter, director of hospitality services. ●



Unlocking the secrets of 'SuperAgers'

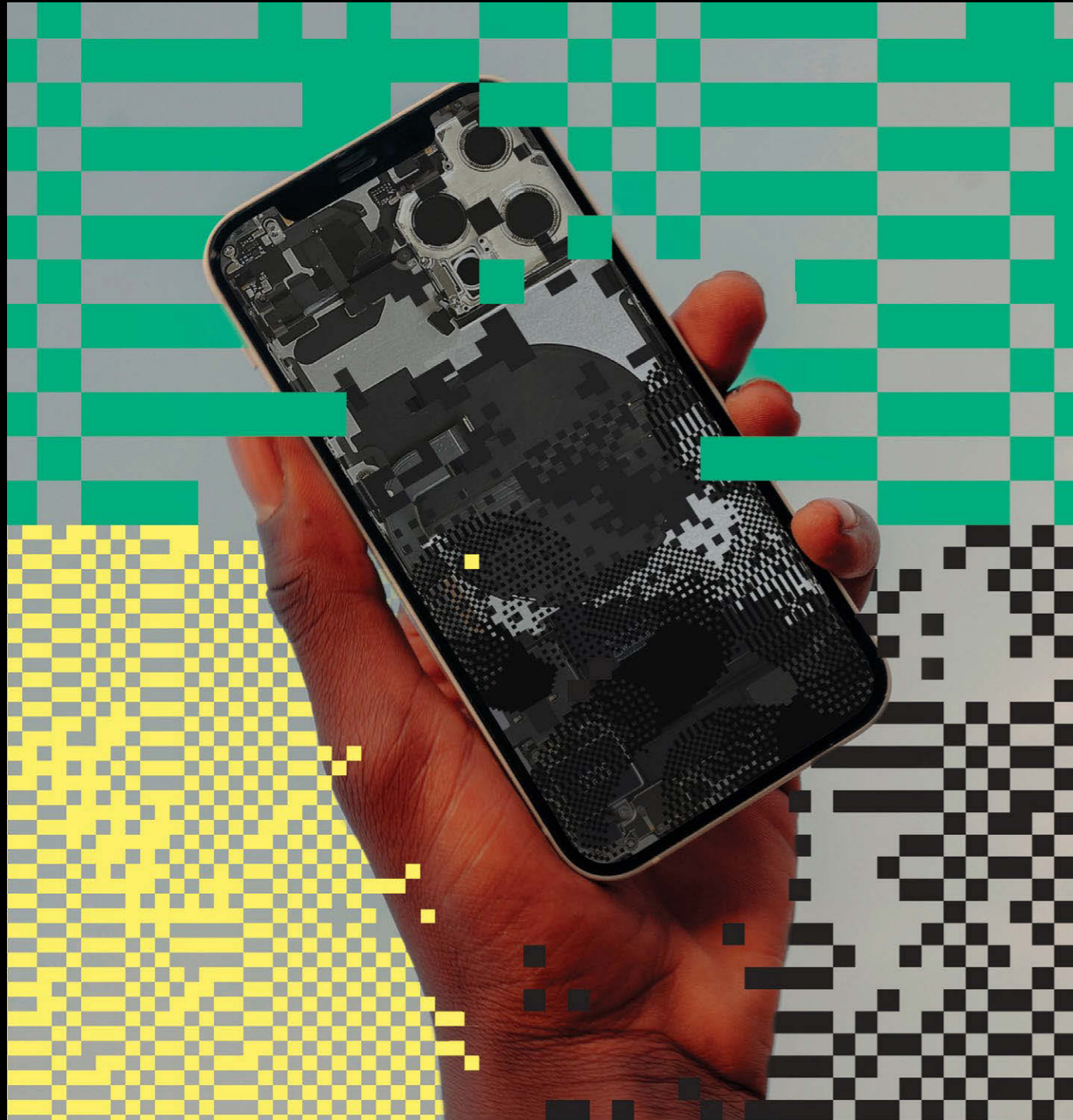
A pioneering study at Western is set to explore Canadian individuals in their 80s, 90s and beyond who retain remarkable cognitive capacities—those known as 'SuperAgers'.

"In order to understand what happens in these diseases that slowly deteriorate the brain and cognitive functions over time, we need to look at people for whom that doesn't happen. Let's see what's different—is it diet,

lifestyle, genetics? We want to determine what it is that defines exceptional aging," says professor Angela Roberts of the School of Communication Sciences and Disorders, who is leading the study.

By analyzing brain scans and conducting cognitive assessments, the findings could shed light on the factors contributing to sustained cognitive ability, potentially improving quality of life for future generations. ●

Illustration by Dalbert B. Vilarino



Fighting for your right to fix your stuff

Last year, Alissa Centivany and her daughters embarked on an adventure sparked by one ambitious goal: not buying anything new for 365 days.

A professor in the Faculty of Information & Media Studies, Centivany is an expert on the “Right to Repair,” a growing movement advocating for Canadians to have the ability to fix their own products

and devices, despite corporate practices that block them from doing just that.

Earlier this year, Centivany testified before Canada’s House of Commons on how copyright law affects repairs and consumers’ rights, highlighting environmental and societal consequences of overconsumption.

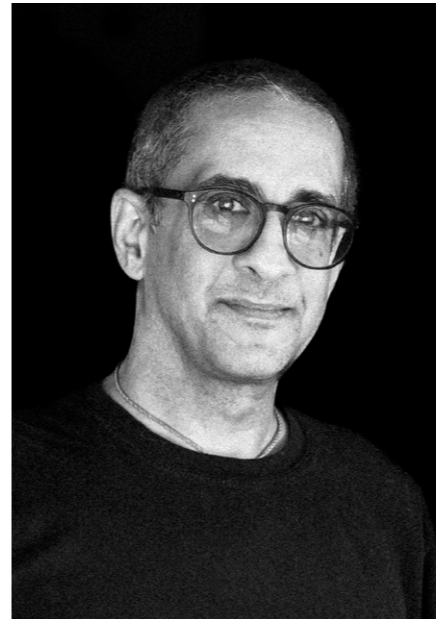


PHOTO BY MAC LAI / COURTESY OF SCHULICH COMMUNICATIONS

Speeding up brain science

With \$24 million in support from the federal New Frontiers in Research Fund, a Western research team is creating a one-stop shop for fast-tracking promising therapies for diseases like Alzheimer’s and Parkinson’s.

Led by Ravi Menon (pictured) of the Schulich School of Medicine & Dentistry, the first-of-its-kind platform employs advanced tests to assess the cognitive impact of potential treatments, bridging the gap between lab testing and human trials. With its nucleus at Western, the multi-centre project—called TRanslational Initiative to DE-risk NeuroTherapeutics (TRIDENT)—brings together multiple universities and centres, ensuring transparency through data sharing. The goal is to revolutionize drug testing and accelerate effective treatments for neurodegenerative disorders.

Student eyes in the sky

Western’s first-ever cubical miniature satellite (known as a CubeSat) launched into space aboard the SpaceX Falcon on June 5.

Led by engineering professor Jaysfri Sabarinathan and supported by the Canadian Space Agency, a team of students has been collaborating with Nunavut Arctic College since 2018 to create the CubeSat, named Ukpik-1.

Small (about the size of a Rubik’s Cube), modular and relatively inexpensive to build and launch, CubeSats are the great equalizers when it comes to space exploration and Earth observation. Ukpik-1 will allow students to operate a virtual reality camera in orbit and provide them with hands-on experience in space mission development.

(IN) DETAIL

Each issue tells a story using numbers. This issue: Western’s recent rankings.

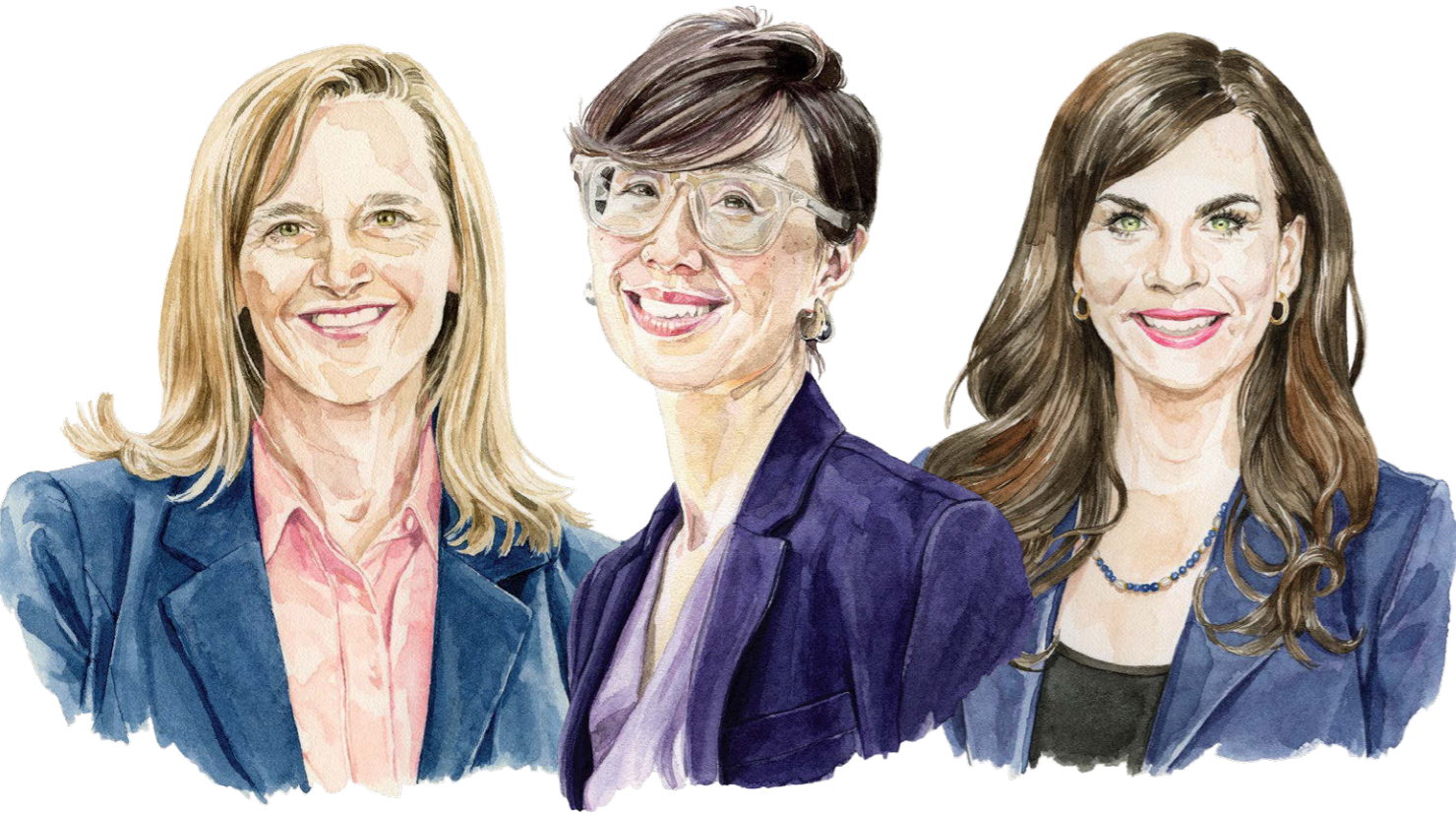


#9 overall among more than 1,700 universities worldwide according to the Times Higher Education Impact Rankings, which measure work towards the UN’s Sustainable Development Goals.

↑60 spots from the previous year in QS World University Rankings.

5★+ from QS Stars University Rankings (only Canadian university to achieve this top status)

↗ Learn more at magazine.westernu.ca



Penny Pexman
Vice-President (Research);
Professor, Psychology

JOINED WESTERN:
September 1, 2023

PREVIOUSLY:
Associate Vice-President, Research,
University of Calgary

EXPERTISE:
Internationally recognized
leader in cognitive development,
psycholinguistics and cognitive
neuroscience

DID YOU KNOW?
While a Western student, Pexman
was on the women's varsity
rowing team alongside future
three-time Olympic gold medalist
Marnie McBean.

“Western has a longstanding
tradition of producing
outstanding research that has
important impact on society.
I'm so pleased to be back
at my alma mater, to build
relationships and catalyze new
interdisciplinary activity.”

Illustrations by Melinda Josie

Lily Cho
Vice-Provost & Associate
Vice-President (International);
Professor, English & Writing Studies

JOINED WESTERN:
July 1, 2023

PREVIOUSLY:
Associate Dean, Global and Community
Engagement, Faculty of Liberal Arts &
Professional Studies, York University

EXPERTISE:
Supporting international student success;
Asian, North American and Canadian
literature

DID YOU KNOW?
A first-generation scholar, Cho is the author
of *Eating Chinese: Culture on the Menu in
Small Town Canada*, which looks at Chinese
restaurants as spaces that define what it
means to be Chinese-Canadian.

“I'm excited to bring more of the
world to Western, and more of
Western to the world. We're really a
home away from home for students
from every corner of the globe and
I want to build on that sense of
community, while also growing
our international collaborations
so Western's global reputation
continues to rise.”

Marisa Modeski
University Registrar

JOINED WESTERN:
May 1, 2023

PREVIOUSLY:
Director and Associate Registrar,
University of Toronto (Mississauga)

EXPERTISE:
Student recruitment and retention
strategies with a focus on equity, diversity
and inclusion

DID YOU KNOW?
Modeski has helped support refugees and
survivors of domestic violence as a volunteer
with Dress for Success, a global non-for-
profit organization that empowers women
to achieve economic independence by
providing mentorship and professional attire.

“My personal values of curiosity,
courage, critical thinking and
diversity of thought align perfectly
with higher education, and
specifically with Western. I'm
looking forward to advancing these
values and fostering our shared
commitments to both equity
and equality with the Western
community.”

Bridging the 10/90 gap

Words by Margaret Mutumba
Photo by Frank Neufeld

Frugal innovation is a term you may not be familiar with, and on first glance can be misunderstood. Essentially, it's a creative problem-solving movement, rooted in the ability to generate better social and economic value with fewer resources. It emphasizes sustainability and the needs of marginalized populations, from design to implementation to distribution.

While some may consider frugality a crutch or even a curse, Benjamin Franklin predicted — more than 200 years ago — that it was critical to financial security: “Waste neither time nor money but make the best use of both. Without industry and frugality nothing will do, and with them everything.” We must apply this same mindset to accelerate research and education when developing medical prototype devices.

Western's new Frugal Biomedical Innovations program is doing just that. And we're further advancing this philosophy by addressing the “10/90 gap” in global health. Remarkably, less than 10 per cent of the world's health-care resources are provided to 90 per cent of its population, many living outside major urban centres of developed countries. This inequity often translates into tragically adverse health outcomes seen in remote areas of Canada, and in low-resource settings around the globe.

Some assume frugal innovation implies a simplified, lower-quality version of an existing technology. On the contrary, we are co-developing new

medical technologies that significantly improve the balance of performance and cost. We are investigating multiple strategies to achieve high-performing medical devices at lower cost, including 3-D-printed prosthetics to improve quality of life for disabled persons in Ethiopia and an open-source surgical fracture table for use by health-care providers in Uganda.

Frugal innovations must be user-friendly and easily maintained as many remote communities are serviced by generalist health-care providers, not specialists. Safety and effectiveness must meet the standards of any hospital in North America or Europe.

Collaborative partnerships with researchers, clinicians and end users in low-resource communities are crucial to the development of frugal innovations. We are working to establish partnerships with colleagues in northern Canada and Africa and hope to increase awareness of the benefits of frugal innovation, as a flexible and inclusive approach to increasing access to health care around the world. ●

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Frugal innovation

TERM

You've heard the old cliché, “let's do more with less.” On first glance, this may sound like that — but it's not. So just what is frugal innovation and why does it hold such promise for easing inequity in health care?



Margaret Mutumba joined Western as the first-ever director of the Frugal Biomedical Innovations program in January 2023. Originally from Uganda, she has a PhD in public health and health systems and has worked as a consultant for the World Health Organization. She is also founder and CEO of MedAtlas, a telemedicine health-care platform that makes fertility care more accessible in Africa.

From poverty to perseverance Embracing my past to advocate for others

Story by Demo Kaltabanis
BScN'23, MScN, Class of '25

Within the first 30 seconds of stepping foot on campus, I felt like I was a part of something.

As I walked up the stairs in Saugeen-Maitland Hall and entered my room, 384 Up, I stared with awe. This was the first time in my life when I had my own room, my own bed and my own quiet study space.

This room, and this university, were about to change my life.

Before this, I thought I was different and it was this notion that occupied my mind throughout high school.

Every day as I woke up, and every night before I went to bed, I would compare myself to others, wishing I wasn't different.

Growing up in Markham, Ont., my family's circumstances were anything but ordinary. With my parents' combined annual income of less than \$40,000, the six people in our family lived in a cramped 700-square-foot apartment. My siblings and I slept on couch cushions and foam mattresses, rolled out each night on the living room floor. Our daily struggles sculpted my outlook on life.

While the kindness of family friends and teachers helped us camouflage our poverty, I lived with the constant fear others might discover how I lived, and who I really was. As I grew older, hiding my circumstances became an exhausting endeavour.

My study space throughout high school consisted of a square kitchen table with folded pieces of paper under two of its legs to offset the apartment's slanted floor. As I tried to do my homework, I could hear my brothers' constant crying in the background and my parents' arguments over money.

The loud noise and lack of personal space made it almost impossible to study, and in turn, had a negative impact on my grades.

Dreams of becoming a family physician seemed beyond my reach, a feeling exacerbated by my status as a first-generation student.

But Western offered a ray of light. A haven of learning and personal growth, this university offered an opportunity to break from my past. My productivity soared, and the stability allowed me to explore extracurriculars. I joined student council, teaching and diversity committees, nurturing newfound confidence in my abilities.

Learning about the social determinants of health in my nursing classes shattered my fixed mindset. I began to realize my socioeconomic status had caused me to make false, limiting assumptions about my abilities and my future.

Today, having graduated from the nursing program, in the midst of my graduate degree, and in the process of applying to medical school, I am no longer trying to hide my experience with poverty. Instead, I embrace it, and use it as a way to encourage and advocate for students facing similar challenges.

One thing I learned for certain is that my past does not, and will not, determine my future. Financial hurdles may still persist, but my journey underscores that perseverance and determination can help manage the burden. Poverty should never limit ambition. ●



↑

(Top left) Demo and his family at his convocation on June 19, 2023. (From left) brother Leo, mom Tracy, yia-yia (grandmother) Voula, Demo, dad Bill and brother Mateo. (Bottom) Demo on campus in 2023, photographed by Christopher Kindratsky.

↗

(Right) Growing up, Demo and his siblings, Leo and Mateo, lived with three other family members in an apartment roughly the size of a three-car garage.

COURTESY OF DEMO KALTABANIS

I began to realize my socioeconomic status had caused me to make false, limiting assumptions about my abilities and my future.



Ukraine Calling

They take different approaches, but Marta Dyczok and Svitlana Stoiko-Hota share a common goal: support Ukraine amid the unrelenting war

After she arrived in Kyiv on Aug. 3, 2023 — the final leg of a 42-hour journey by plane and train to reach Ukraine — Marta Dyczok downloaded a new app on her iPhone with a friend's help.

Air Alert, linked to Ukraine's air defense system, prompts users to take cover — echoing the air strike sirens — when Russian assault is imminent. It's a pocket-sized reminder of the ever-present danger for a population plunged into war and under constant threat of attack.

"There's this undercurrent of tension," Dyczok, a Western history and political science professor, says of Kyiv, despite daily realities of life continuing in the capital city. She

travelled to Ukraine to research the role of social media in war, from public dependence on Twitter and Telegram for the latest invasion news, to journalists using online platforms to document potential war crimes.

Dyczok wasn't sure in what state she'd find her beloved Kyiv, knowing the death and destruction that has pounded the country for more than a year.

"As soon as I got here, I took a little walk to the Maidan, the central square. There's this big sign, 'I love Ukraine' — I had to take a selfie — and all these people walking around. I thought 'phew. It's not just the bombs falling.'"

Dyczok's trip marked an emotional reunion with the country her parents fled during the Second World War. Though she was born in Canada, Dyczok has deep roots in Ukraine, connections that are reflected in her research and writing. She's authored six books on Ukraine and even produced and hosted a weekly English-language show, *Ukraine Calling*, on Hromadske Radio, an independent broadcaster in Ukraine.

She was in the country in 1991 when it declared independence and for many of its celebrations each year thereafter on Aug. 24.

This year there was no parade, no flood of people in the city centre.

Dyczok has travelled to Ukraine for research, academic work — including a role as an adjunct professor at the National University of the Kyiv Mohyla Academy — and leisure for 30 years. But her recent trip was the first visit since the global pandemic and Russia's unprovoked war.

Much has changed.

During her three weeks in Kyiv, the Air Alert app frequently flashed notifications — as many as four or five a day — to warn of looming danger. Dyczok posted daily on Facebook, at the request of a friend, so those back home would know she was still alive.



In a classroom 7,700 kilometres away, Svitlana Stoiko-Hota and a group of students follow news of attacks on Ukraine — and their fallout — as closely as Dyczok.

Stoiko-Hota teaches English to Ukrainians who found jobs in Western's dining halls after leaving their homeland for Canada. Hospitality workers in the second wave of that work-learn project — created to connect Ukrainian newcomers with employment at Western — study with her every morning.

Like many in her class, Stoiko-Hota fled Ukraine with her young child amid the war, first staying in Poland with a kind stranger who opened their home. She left her family, career and country, in hopes of finding safety, arriving in London, Ont. with her son in June 2022.

"Everything was so different and so bizarre for us. But I had a great advantage: I spoke English, so at least I could communicate and help myself. How do people who drag their families across the ocean, who have been deprived of everything due to the war, survive without being able to communicate?" she says.

Stoiko-Hota applied for jobs for months before finding Western and starting as a desk clerk. She was later recruited to teach after managers learned she held a PhD in English as a Second Language (ESL) and previously worked as a translator. Back home, she had spent more than a decade working as a freelance English interpreter and university lecturer.

Now, she sees herself as the missing link to help Ukrainian newcomers gain skills they need for their new lives.

"I decided this would be my mission here. When I left my country, I understood this was for the safety of my family, my child. On the other hand, I felt I was abandoning my country in the worst time ever."

She's since been reunited with her husband and has also taken in her teenage nephew, but still worries about the many friends and close family members left behind.

It's a comfort to know she is helping Ukraine, even far from home, she says.

It's not just about language. Stoiko-Hota is a trusted resource, frequently called upon as new part-time Western workers and their family members seek housing, support services and the nearest grocery stores.

"I couldn't feel more privileged and honoured to be serving my community, helping Ukrainians however I can," she says. "I am helping people find a new home, a new life."

Story by Megan Stacey
Photos by Geoff Robins (London, Ont.)
and Efrem Lukatsky (Kyiv, Ukraine)

For Dyczok, returning to Ukraine and reveling in the resilience of its people — including her friends and colleagues — was powerful motivation. But she put up walls to complete her research, staying away from trauma sites and scenes of attack.

"I need to be emotionally strong and intellectually coherent," she says in an interview from Kyiv.

She slowly became accustomed to working while knowing an attack on Kyiv could come at any time.

Dyczok and Stoiko-Hota are among the millions of people in Ukraine and around the world tracking each invasion and watching for air raid alerts.

These days, looking for the small wins is what keeps Stoiko-Hota going.

She knows she's helping Ukrainians build new lives in their new home, aiding the Western hospitality team and resettlement workers across the city with the same mission.

"We might not have changed the world, but we are improving people's lives and making the world a better place." ●



Dyczok in the cathedral at St. Michael's Golden-Domed Monastery, Kyiv.



Story by Megan Stacey
Photo by Jalani Morgan

From A to B Amy Bi's career path is anything but ordinary

Amy Bi had her dream job. It wasn't the childhood wish to follow in her dad's footsteps as an artist, or her teenage dream of joining Much Music as a video jockey. Bi was a global brand director at Nike, based out of the iconic sports company's headquarters in Oregon, U.S. But when the COVID-19 pandemic hit, she felt the itch to come home.

Deciem, a rapidly growing Canadian beauty corporation with a worldwide following and parent company of popular brand The Ordinary—came calling as Bi (pronounced Bee), BA'07, was mulling her next move. Given her lifelong interest in skincare and beauty, the offer seemed fitting.

"I always listen to my gut when it comes to the next step. You just know if it's right," Bi says. "These days, I'm driven by this broader mission for myself and my career. I want to be someone that young, immigrant, Asian girls who grew up like me can look up to. I want to be the best role model possible."

She saw Deciem as an underrated Canadian company on a dramatic upswing as it won over younger generations with an accessible approach to ingredients and pricing. "Their belief in the democratization of beauty really resonated with me," Bi says.

She wanted to return to Toronto, where she had a strong community, after 10 years away from home. Going home would bring Bi back to her friends—many of them made during her sociology and philosophy degree at Western—and closer to her parents. But she wasn't willing to uproot without an attractive, challenging new role. It had to be a business with an underlying mission, and one that aligned with her passions—a lesson Bi learned at Nike.

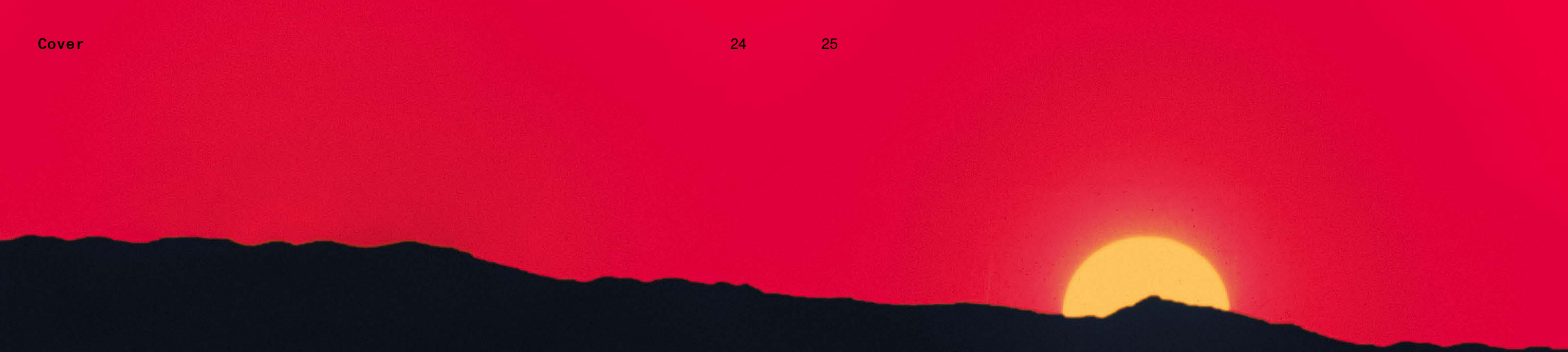
She joined Deciem in 2021 as the global vice-president of brand, leading marketing, creative design and branding for social and retail. "To be able to work on a brand that is world class, has great values underneath the product offering, and is Canadian was really exciting," Bi says. "It's such a wonderful Canadian success story. I'm really honoured to be part of taking The Ordinary to the next level."

Budgets are smaller and tactics have to be "scrappier" than at Nike, but Deciem allows Bi to harness her powers of persuasion—the lure that initially drew her to the business world—and work for a company with a "values-based approach."

"I always loved the more interactive and human side of business," Bi says of her journey. As an executive, she still focuses on the foundation underpinning a company's success, looking for that "strong value system" she found at Nike and Deciem.

"Nike's idea is that sport can change the world, and sport can make you a better person," Bi says. "It's not even about winning, it's about trying."

She sees "massive" opportunities ahead for Deciem and The Ordinary, thanks to a "no fluff" approach to skincare. That means championing transparency to build trust with consumers at every possible stage, from sustainability and simple product labels to answering each and every direct message on Instagram. "Brands that are driven by values are the best playground for a marketer," Bi says. "It gives me meaning, knowing what I can bring to life by tapping into those beliefs." ●



“Day One”

When it comes to the world’s toughest problems, how do we go forward?

You don’t need much backstory. You’re living the backstory. You can’t find a family doctor. People near your town drowned recently in flash floods – and that’s never happened. You’re encountering people living on the streets in numbers you’ve never seen before. Your groceries are costing double what they did last year. You communicate with people daily via social media, but somehow you still feel lonely and depressed.

Health care. The environment. Homelessness. Food insecurity. How we connect (or disconnect) with one another. The world is beset and bewildered and suffering from wicked problems. Issues that are perennial, but current times have put their own nasty spin on them.

But what if we could stop everything and start over? What could be done? Not in a pie-in-the-sky way, but in terms of feasible steps forward?

We asked five writers to explore a brighter future with Western researchers, scholars and alumni who are working on these very problems. What do they think?

Read on. →

CONNECT



AND DIVIDE

The good and bad of online social platforms and the coming wave of AI

Story by Patchen Barss with additional reporting from Marcia Steyaert and comment from Julie Aitken Schermer, Mark Daley, Kaitlynn Mendes and Luke Stark

On Jan. 1, 1983, the U.S. Department of Defense’s Advanced Research Projects Agency deployed a “transmission control protocol/internet protocol,” which allowed distant computers to communicate easily with each other. Universities and other research institutions quickly adopted TCP/IP, and the “Internet” was born.

Early users found the experience breathtaking. Despite glitchy connections, text-only interfaces, slow data speeds and many other dehumanizing factors, online communities, friendships and romances sprang up. Interactions could be intimate, liberating and intense.

The combination of anonymity and the ability to connect with likeminded people anywhere in the world was a boon for queer people, activists, cultural diasporas, and members of other scattered or discriminated-against groups.

Unfortunately, it was just as freeing for fascists, terrorists, predators and other perpetrators of violence and bigotry.

“The idea of bringing people together has been a trope that boosters of every electronic media technology of the last 200 years have used. Somebody says, ‘This technology is going to bring the world together. It’s going to produce world peace. It’s going to create understanding,’” says Luke Stark, a historian of computer-mediated social interactions in Western’s Faculty of Information & Media Studies. “And it just doesn’t. For instance, one of the ways digital media technologies bring people together is through fostering extremely strong ‘negative affinity bonds’ against other groups.”

Forty years later, technology and society have both evolved nearly beyond recognition. Yet the same conflicts linger. Can the billions of devices now connected to a planet-wide mesh of cable and satellite signals knit people together into stronger social fabric? Or are technology-mediated social interactions inherently divisive and dangerous?

People going online for the first time tend to be optimistic they will feel less alone, not more.

“If you look at the way young people are adopting digital technologies and social media apps, they’re still energetic and hopeful,” says Kaitlynn Mendes, associate professor of sociology and Canada Research Chair in Inequality and Gender. But unalloyed excitement doesn’t last long. “Often they’re like, ‘Yeah, I joined Instagram or Snapchat and I thought it was going to be amazing. And then all of a sudden, I started getting dick pics or weird messages.’ They often seem genuinely surprised that the Internet isn’t a safe, open, welcoming space.”

Some users tune out the worst aspects of their online experience, while others instinctively fade into the background, lurking online rather than risking attention.

Withdrawing, though, comes with its own risks.

“Simply scrolling through social media will not help reduce loneliness. People who use their cellular telephones for the purpose of actually communicating with others, are less lonely,” says Julie Aitken Schermer, BA’92, professor of psychology and management and organizational studies. She researches how personality, intelligence and other factors influence technology-related loneliness.

“The problem with online situations is that an individual can easily avoid interacting with others. True, an individual can stay in a corner of a room at an in-person gathering, but it is easier to hide online.”

With seemingly every online interaction carrying the risk of unwanted attention, it’s not easy to build the trust and safety needed for meaningful connections.

Mendes is currently working on a book for parents about preparing kids for digital life. She says the mitigation should start long before a child’s first day online and carry on long after.

“Think of digital technologies as you would a car. It’s an incredibly powerful device. But you have to recognize as soon as you introduce this technology, you’re introducing risk. Not necessarily harm, but risk,”

The systems and the structures are set up in a way that makes it difficult for anyone to just have an unfiltered, positive experience^①

she says. “You would never just hand over your car keys to your kids. We spend years preparing them before they’re fully autonomous and driving on their own.”

And while cars keep introducing new safety features, navigating the information superhighway seems to come with continual new threats.

Mendes sees the challenges as daunting and complex, but not intractable.

“Right now my focus is on talking to young people. What support are they getting and what kind of support do they want? We don’t even have that basic level of information. We need to involve them and make sure their lived experience is reflected in the curriculum, in conversations with parents or teachers and with legislators and policy makers. We start from there and build up.”

While systemic changes such as structural improvements, regulation and moderation come slowly, individuals and communities still try to make the most of these flawed online communities.

“The systems and the structures are set up in a way that it makes it difficult for anyone to just have an unfiltered, positive experience,” Mendes says.^② Some people use anonymized “alt” accounts or private messaging to shield themselves from personal attacks. Some tune out or laugh off the onslaught of bots and creeps. Others harness the technology to create more positive connections.

“In terms of loneliness, I actually think many of these experiences can bring people together. You can find lots of groups like Bye Felipe where girls and women can share and call out hostile men on dating sites. People still look for—and find—community despite negative online experiences. I have seen both the good and the bad—and I am not yet ready to give up.”

Then there is artificial intelligence, better known as AI. Once something only computer scientists understood and science fiction writers imagined, now AI’s capabilities and possibilities are fascinating—and causing anxiety.

This tsunami-like transformation is at the root of why Western appointed Mark Daley as its first-ever chief AI officer in October 2023.

“Comparing the onset of AI to the internet or even the steam engine is legitimate, but I think it’s even bigger. It’s more like the discovery of fire,” says Daley, a Western professor and alum (BSc’99, PhD’03) whose position is also the first of its kind at an academic institution in North America.

The debut of OpenAI’s ChatGPT chatbot in November 2022 was a game changer on a number of fronts, but how will AI impact the ways in which we connect with one another?

“Sooner than anyone thinks, we’re going to be dealing with AI entities that are functionally indistinguishable from humans. Even with the current immature state of this technology, people are forming serious attachments to chatbots,” says Daley, who is also an AI researcher and respected leader in neural computation, a branch of computer science focused on AI where computers are taught to process information based on how the human brain works.

He looks at the development of human-AI relationships as a two-sided coin.

“Sure, AIs may be friendly, fun to interact with, and compliant, but what if they subtly bias the human towards the views of the AI’s creators? That is a slippery slope. On the other hand, there is an epidemic of loneliness in much of the world. So, what if these technologies can offer compassion, support and joy to those who would not otherwise have it?”

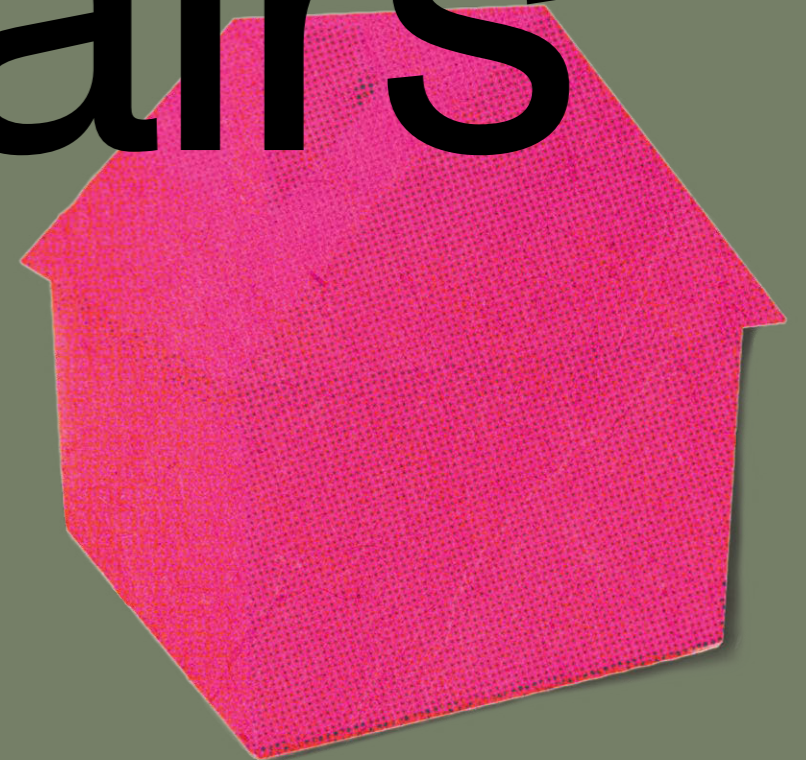
This technology is here, it’s progressing at warp speed, and it’s changing our lives. So how can society ensure these changes are as positive as possible?

“We—universities, governments, businesses and users—need to continue to step back, consider, judge, decide what is useful and good and restrict when we need to. There is a lot of AI fear and doom generated in the media, but I’m an optimist. This is an important moment in history and we—all of us—have an opportunity to help push toward making good decisions for humanity when it comes to AI and all digital technology. We have a responsibility to constantly explore how we use it to do good and how we can keep it from causing harm.” ●

Homelessness: the game of musical chairs

Supportive housing,
anti-poverty strategies
and community integration
offer keys to change

Story by Keri Ferguson with comment from Cheryl Forchuk,
Carrie Anne Marshall and Abe Oudshoorn





When Western nursing professor Abe Oudshoorn, BScN'04, PhD'11, started working with people experiencing homelessness nearly 20 years ago, he'd often have to convince Londoners the problem existed. Today, that's no longer the case.

Increased visibility has brought the issue to the forefront, with the number of people experiencing homelessness rising in urban and rural areas across the country. Yet, individuals living rough remain largely unseen when it comes to housing options.

"If we want to address homelessness in Canada, we need to change our systems," Oudshoorn says. He points to the National Housing Strategy, currently under review.

"It identifies homelessness as a priority, but it primarily supports the development of more rental units at market rates, not genuinely affordable housing that provides support for those most at risk of chronic homelessness—a group deeply and perpetually excluded from the housing market."

Oudshoorn's ongoing research shows permanent supportive housing—affordable units with on-site supports to meet individual needs—has been transformational for those who have spent years or decades experiencing homelessness or in mental health-care facilities.

Delivering these supports on a continual basis, however, is beyond the budgets of the non-profit organizations providing these services, with no straightforward ways to access public funding.

Western experts say Canada's homelessness crisis demands a national response, with support from provincial governments to cross broader systems—housing, criminal justice, child welfare, health care and education—and municipal action to implement programs best suited to their communities.

A willingness of London to loosen zoning restrictions, along with an ambitious plan to address the housing crisis, led the federal government to recently choose the city as the first municipality in Canada to access a \$4-billion federal housing fund, with an investment of \$74 million earmarked to build more than 2,000 housing units.

"This is a step in the right direction in increasing the overall supply of housing," Oudshoorn says. "I hope that affordability criteria will be attached to all uses of these new federal dollars."

Cheryl Forchuk, a Distinguished University Professor in the Arthur Labatt Family School of Nursing, says the answer to the homelessness crisis is actually "quite simple," using a metaphor to drive her point home.

"If you understand the game of musical chairs, you understand homelessness. The chairs represent the affordable housing available and the people circling are experiencing poverty. The more people circling the dwindling chairs, the greater the number of people experiencing homelessness.

"We need strategies to increase the number of chairs and to decrease the discrepancies between them, as well as the number of people circling. We also have to pay attention when the music stops abruptly during periods of transition—leaving foster care, hospitals or incarceration—when people are most vulnerable. If we don't, we'll continue to have a homelessness problem."

It's important to first know the true scope of homelessness, to shape policy and identify success.

The federal government reports approximately 230,000 people experience homelessness across Canada in a given year. But relying on shelter data alone leaves the number seriously underestimated—and many uncounted, including rural, Indigenous and young people.

I've visited shelters and encampments under bridges and in the woods, and I can tell you, after decades in this field, homelessness has become worse everywhere^②

To get a more accurate picture to effectively deliver and measure services, Forchuk and nursing professor Richard Booth, MScN'07, PhD'14, are integrating provincial health data to get a better grasp on the numbers. Early indicators show they're three times the current estimate.

Forchuk and her team have also travelled across the country, talking to more than 400 homeless individuals, to understand the specific needs of individuals living in different regions.

"I've visited shelters and encampments under bridges and in the woods, and I can tell you, after decades in this field, homelessness has become worse everywhere," Forchuk says. "Sixteen per cent of the people we interviewed first experienced homelessness during the pandemic."^②

People living on low incomes are most at risk of homelessness, regardless of whether they've been unhoused before.

Most are living on social assistance, with disabilities, mental illness or substance abuse challenges.

"We need to reevaluate our social assistance programs and implement policies that increase the incomes of these individuals, so we aren't leaving them in a constant state of lack," says Carrie Anne Marshall, a professor in Western's School of Occupational Therapy and director of the Social Justice in Mental Health Research Lab.

For those living on support from Ontario Works or Ontario Disability Support Program (ODSP) funding, at approximately \$700 or \$1,200 a month, respectively, Marshall says safe and dignified housing is often out of reach.

"Often the only housing available to individuals leaving homelessness has bed bugs, vermin and cockroaches—or it's poorly maintained. Or they feel unsafe there. But it's all they can afford."

On an extremely limited budget, food is also less available than when they were unhoused and could access it through shelters.

"People leaving homelessness are not 'lazy,' but rather excluded from employment opportunities due to a range of factors, including their health," Marshall stresses. "They've faced a lot of disadvantages in their lives. If they're on ODSP, they've been identified as unable to work by a medical professional. Now they're in a situation where they're constantly trying to manage their own survival following homelessness. And survival takes all day long."

In addition to secure tenancy and daily, affordable living, a recent study led by Marshall showed there's a need to support individuals to attain more than just survival following homelessness. Community integration and engaging in meaningful activity are key to helping them thrive.

"Human beings are social animals. We need to interact with other people and feel included in social groups. That's where services can help people who've only known people in the shelter or on the street find connections with their broader community."

Marshall and her team are currently working on a Peer to Community (P2C) model, co-designed with persons with lived experiences of homelessness, service providers and policy makers.

The model includes an occupational therapist and peer support specialist collaborating to help a person identify and participate in meaningful activities and build relationships in their community following homelessness.

Citing her observation of a group run by a peer support specialist who organized an outing at a driving range, Marshall says, "it was heartwarming seeing people who've just been housed and faced multiple barriers to social inclusion being welcomed. One person had been all over the world golfing prior to losing his housing. To return to that activity, and be seen for his strengths, rather than his deficits, was incredibly meaningful for him."

Integral to the success of the P2C model is including people from the broader community. Not only does it help restore dignity and citizenship to individuals who experience homelessness, but "it helps shift society's lens," Marshall says, "and we start to really see people with histories of homelessness as individual human beings with strengths and challenges like the rest of us." ●



FOOD BANK

For those without enough
to eat, answers may be
closer than we think

Story by Alice Taylor with comment from Richie Bloomfield,
Isaac Luginaah, Janan McNaughton and Peggy O'Neil

As you are reading this, the number of people worldwide who don't have enough to eat is growing.

The formal term is food insecurity. And it's happening everywhere—even in high-income countries like Canada.

Peggy O'Neil acknowledges food insecurity is an enormous, highly complex problem, but she also believes there are feasible ways to tackle it. We all, she contends, can improve our small corners of the world.

"As food prices rise and more people experience food insecurity, we're seeing more of a push for innovation and back-to-basics approaches," says O'Neil, PhD'16, who holds four Western degrees and is an assistant professor of food and nutritional sciences at Western-affiliated Brescia University College.

"People are reinventing spaces, re-establishing local markets and getting to know the people who produce what we eat."

Only a 15-minute drive south of Western's campus, what O'Neil is talking about is happening.

On a warm August afternoon, a dozen or so people are lined up on the side of a residential street, reusable bags in hand, waiting for the vegetable stand run by Urban Roots London—co-founded by Ivey MBA graduate Richie Bloomfield in 2017—to open.

A couple is comparing bunches of carrots, an older man and his daughter are deliberating over four varieties of kale and a young woman is thumbing through a "free seeds" box.



A proudly local operation, Urban Roots lives up to its name. Garden plots and greenhouses are sandwiched between a quiet dead-end street and one of the city's busiest thoroughfares. Giant power towers loom over rows of organic vegetables tended by volunteers who plant and harvest the crops, prune plants to increase production, weed out invasive species and fight what seems to be a never-ending battle against thistle.

The non-profit has grown and distributed tens of thousands of kilograms of produce, a portion of which is sold to cover its operating costs and the rest is distributed and donated. Miniscule by comparison to the yields of conventional factory farms, this localized strategy for food production could nevertheless hold the answer to addressing one of the most challenging global issues.

And the need for this kind of intervention is greater than ever. In March 2022, food bank usage in Canada hit an all-time high, with nearly 1.5 million visits—a 35 per cent increase from 2020. Yet measuring food bank use alone greatly underestimates the magnitude of the crisis happening in this country.

Food insecurity is about not having enough food, but hunger is only part of it. It's also about not having reliable access to culturally suitable and nourishing food for every household member to live a healthy and active life.

Measured this way, new data from Statistics Canada's *Canadian Income Survey* reveals nearly seven million people across 10 Canadian provinces, including one in four children, live in food-insecure households. Indigenous and Black households experience two to three times the food insecurity rates of white households, and a staggering 57 per cent of residents of Nunavut lack consistent and adequate access to food.

Globally, the picture is even starker. According to the United Nations (UN), more than 2.4 billion people worldwide experienced food insecurity last year, and these numbers are predicted to rise as our global food supply becomes increasingly unstable and unpredictable.

Experts point to a convergence of threats—extreme weather, geopolitical tensions and trade protectionism—creating a "new normal" of increased volatility in food production, distribution and cost. "The world is moving backward in its efforts

Land, water, plants and animals are not distinct entities, but parts of an interconnected system^③

to end hunger, food insecurity and malnutrition in all its forms," the UN states in its recent report on global food security and nutrition.

A community-led, culturally informed approach tailored to local needs and conditions is where we must begin to solve this problem, says Isaac Luginaah, a Distinguished University Professor in the department of geography and environment at Western.

"We know traditional food systems are the best for every contextual environment," says Luginaah. His collaborative research in Malawi employs agroecological farming practices to grow sustainable produce and provides rural households with income-generating opportunities and community-based nutrition education focused on social equity and crop diversity. "It's working," he says. And Luginaah and his collaborators are using the findings to teach other farmers how to do it elsewhere.

In Canada, more and more larger-scale farms are also adopting culturally informed, ecologically minded approaches to food production. Co-owner of Proof Line Farm just outside London, Western graduate Janan McNaughton, BA'08 (Anthropology) and her husband and brother-in-law employ a systems-based farming approach.

"We see land, water, plants and animals not as distinct entities but as parts of an interconnected system," says McNaughton.^⑧ For example, they let their chickens forage through empty cow pastures, which minimizes pests when cows return. Diverse grasses sustain their cows in the warmer months and contribute to hay production for use in winter. And they rotate crops to keep the soil strong. "These small decisions create a healthier and more sustainable environment that benefits all—us, animals and consumers alike."

The critical importance of family farms—like Proof Line—in maintaining stable food production and supply is why, O'Neil argues, "we need more policies, at all levels, to safeguard family farms and farmers."

McNaughton, who also chairs Middlesex London Food Policy Council, stresses food insecurity involves more than providing basic sustenance, locally produced

or otherwise—it also means ensuring people have access to healthy, affordable and culturally appropriate food choices. "Even in tough times, individual food preferences persist. Conversations about food insecurity must address survival needs alongside emotional, cultural and belief-related aspects of food."

All of which, she says, ties back to preserving local farmland and ensuring we have ample, accessible spaces to grow, prepare and distribute adequate and appropriate food options to all members of our communities.

O'Neil sees a tangible way forward in narrowing our scope to ensure every person within a particular city or region can access affordable and appropriate food choices.

"If we were, for example, to keep our focus on London or even Southwestern Ontario, we could quantify the population, multiply it by three daily meals and then multiply that by 365 days. Then we could quantify the required resources, funding, expertise and volunteer efforts to ensure everyone in this city or region is food secure. Then we step back, evaluate what worked and didn't, and openly share our blueprint with other cities and regions."

And, emphasizes Luginaah, the key is starting small and having everyone do their part.

"We're all overwhelmed, right? But as we can see clearly with climate change, our actions are tied together. We can all do something to improve this world. It's really that simple. We just have to do it." ●



The fish were first to tell the story

A healthier planet is possible if communities can contribute to solutions

Story by Siddhartha Sarma with comment from Joshua Pearce and Chantelle Richmond



From the 1950s to the 1980s, industries along the St. Lawrence River dumped chemicals into the water. These chemicals included polychlorinated biphenyls (PCBs). Insidious, carcinogenic and ubiquitous across industries, PCBs entered the water near the Mohawk Nation at Akwesasne on the Canada-U.S. border, just south of Cornwall, Ont.

Subsistence fishing was an important cultural and lifestyle activity of the community. By the 1980s, the fish being consumed by Akwesasne residents were found laced with PCBs. The community confronted a terrible choice: continue with their traditional lifestyle and face severe health consequences, or be uprooted from their traditional land and waters.

The contamination of the river and neighbouring waterways was so dangerous that there are still parts of Akwesasne where fish from these waters should not be consumed. Long after the polluting industries were closed down, the fish of the St. Lawrence continue to tell a story of environmental degradation and cultural uprooting.

And, there was another, equally dire problem. “A 200 per cent greater concentration of PCBs was found in the breastmilk of women who continued consuming fish from the river. Here, contamination not only restricted the ability to fish, but also severed a link between mother and child by reducing her capacity to breastfeed safely,” wrote Western’s Chantelle Richmond, professor in the department of geography and environment, in a joint paper published in *Health & Place*, in 2014.

This was seven years before a research paper published in *Environment International* documented the discovery of microplastics in human placentas at a hospital in Rome, Italy. This was a distressing finding, but the fact is Indigenous communities with closer connections to land and water have experienced the devastating impact of environmental degradation and climate change in more intimate ways than other communities — and for a much longer time.

For Richmond, Canada Research Chair in Indigenous Health and Environment, the path to saving the natural world lies in understanding Indigenous relations to the environment, and in greater recognition of Indigenous knowledge systems.

This is a holistic model that recognizes what Indigenous communities have long known and what the rest of the world is realizing now: the deterioration of the environment is also the demise of the community and often a blow to mental and physical health. At the Indigenous Health Lab in the Faculty of Social Science, Richmond and her team of researchers work on community-based projects that address major concerns about the environment and public health.

The research, as well as solutions to these concerns, are based on a consultative approach grounded in the knowledge and perspectives of communities.

“I am often called into communities, including my own (Biigtigong Anishinabe) who suggest an idea for research. It’s the community that informs my work and the work of my students,” said Richmond.

That collaborative approach, which places the views and perspectives of Indigenous people first, helps build learning spaces and active solutions to help communities deal with the environmental impact of climate change.

The same old perspective and the same old approaches are not working^④



“We are trying to create spaces of learning that target climate change, food insecurity and all these big problems, in ways that actually encompass and build from Indigenous knowledge systems. This approach brings in the people who know best how to address these concerns,” says Richmond.

She offers the example of land-based learning or “bush” camps, which she wrote about in a co-authored paper published in *Environment Research and Public Health* in 2022. The camps emphasize reconnecting the community with the land, and with one another, and promoting the idea among youth. There is also an emphasis on moving away from a worldview that sees the land as a resource to be exploited to a more balanced, respectful approach to the environment.

“The work that we do is about healing, restoring and responding to the needs of communities. We need to realize that the same old perspective and the same old approaches are not working.^④ And that means sharing leadership and opening the forms of knowledge available to us,” says Richmond.

Sharing innovation to accelerate positive change

Elsewhere on campus, Western Engineering researchers are taking a new approach to easing the environmental crisis. They’re making their designs and discoveries available to anyone and everyone to use, modify and distribute—at no cost.

The Free Appropriate Sustainability Technology (FAST) research group, led by world-renowned engineer Joshua Pearce, is driven by open-source (free to use and re-use) technology and strives to find globally relevant, collaborative solutions to problems in sustainability, food security, global health and the reduction of poverty.

Predominantly using 3-D printing and readily available machines and materials, Pearce and his team have designed dozens, if not hundreds, of solar technology advancements and frugal biomedical innovations—all just a click away. (Learn more about frugal biomedical innovations on page 15.)

Pearce’s latest book, *To Catch the Sun*, which he has made available to people for free, shows step-by-step

how to set up a photovoltaics system (solar cell panels) for their home or business.

“We’re starting to turn the wealth generation model on its head. The model used to be: If you wanted to make a product, the cheapest method was to manufacture at one location using low-wage labour and polluting fossil-fuel power to make and ship it all over the world,” says Pearce, the John M. Thompson Chair in Information Technology and Innovation at Western Engineering and the Ivey Business School. “Now, you can download a free design, make it yourself or send it to a local manufacturer.”

Pearce and the FAST research group have led countless studies showing consumers and companies save millions working this way, but the big bonus is open source pays huge dividends for the environment.

“The solution to our environmental challenges ultimately lies with people, and with restructuring the production system so local communities can find greater autonomy, both in economic terms and in their access to knowledge, technology and innovation,” says Pearce.

FAST team members are currently setting up a solar technology testing station north of campus, specifically agrivoltaics, to increase food production by protecting crops with partially transparent solar panels. The team is using open-source and 3-D-printed technologies to develop lower-cost, more sustainable wood-based racks for solar panels that will allow conventional farming and solar revenue at the same time.

“Canada could produce all of its electrical needs with no carbon emissions using less than one per cent of our farm area, all while making more food,” says Pearce.

Pearce and his team are also working with Kenyatta University in Nairobi to make calibration devices for light therapy beds to help jaundiced newborns, and with Makerere University in Kampala, Uganda to make operating tables for 1/100th of the cost of conventional systems.

“We believe work like ours is an excellent start, but what the world really needs now are citizens to get involved, adopt affordable, sustainable technologies and share. Using open-source technologies enables people to read, learn and get to work on their own,” says Pearce. ●

BACK TO THE FUTURE OF HEALTH CARE

A focus on primary
care will repair
a broken model

Story by Kurt Kleiner with comment
from Lauren Cipriano, Dr. Danielle Martin
and Maria Mathews



Fixing health care in Canada doesn't require building more hospitals, or investing in sophisticated new technology, or expensive breakthrough drugs.

The most important thing, according to some Western University experts, is to make sure every Canadian has easy and regular access to a primary health-care provider. And we could make it happen tomorrow with the resources we're already using today.

"There is extremely strong evidence, hard medical evidence, that this relationship, that connection over time with a trusted health-care provider, produces better health outcomes and saves money," says Dr. Danielle Martin, MD'03, DSc'22, chair of the department of family and community medicine at the University of Toronto and a practicing family doctor at Women's College Hospital in Toronto.

A founder of Canadian Doctors for Medicare, Martin is a well-known advocate of Canada's universal health-care system. She's also a reformer and has joined with others who say Canada needs to concentrate on fixing our primary care model—the routine, day-to-day care offered to a patient by a family doctor or other health-care provider.

The problems in Canadian health care are well known. One in five Canadian adults don't have a regular family doctor. More than one-third of patients who needed a joint replacement had to wait more than six months for surgery. Hospital emergency rooms are overrun, to the point some doctors have written open letters warning of imminent collapse.

And yet Canada doesn't skimp on health care spending. At an average of \$8,563 per person per year, Canada spends more than most other wealthy countries.

Our real problem, say Martin and others, is in how we organize—or fail to organize—health care. They believe we need to reshape our system around primary care.

"Primary care is the foundation for the rest of the health-care system," says Maria Mathews, a professor in the department of family medicine at the Schulich School of Medicine & Dentistry.

"The primary care provider is supposed to know the patient well, is supposed to understand their individual circumstances and take a really patient-centred approach. Primary care is like the quarterback in the health-care system."⁶

With adequate primary care, a lot of the stress on the rest of the system is reduced. People don't crowd emergency rooms looking for treatment a family doctor could give them—and they stay healthier longer.

"When people's preventive care and the management of their chronic diseases are deferred and delayed, they end up in the hospital with more acute issues, and it's more expensive," Martin says.

The health-care system quarterback: Primary care providers are supposed to know the patient well, understand their individual circumstances and take a patient-centred approach⁶

But fewer doctors are deciding to practice family medicine than ever. "We would like 50 per cent of Canadian medical school graduates to go into family medicine. Only 30 per cent do, with the rest becoming specialists," says Mathews, who holds a Canada Research Chair in Primary Health Care and Health Equity.

She adds that fewer of them are attracted by the old lone practitioner model, in which an individual doctor hung out a shingle and practiced solo. Many working under that system have felt increasingly burned out by the lack of support, the demands of an aging patient population and ballooning time requirements for paperwork and electronic medical records.

An increasing number of advocates are calling for a different model for family medicine—a team-based approach that makes it easier for doctors to work in groups with other doctors, as well as with nurses and nurse practitioners, pharmacists, and even educators and social workers.

The idea is that doctors will get more support from colleagues, and the teams can provide more care, more efficiently. A nurse practitioner on the team might see patients for routine vaccinations and medical tests, for instance, and refer them to the doctor only for something that requires an MD's skills.

The team-based approach could help get every Canadian a primary care spot within 30 minutes of their home. That's a goal set by the Taking Back Health Care project, a group of reformers to which Martin belongs.

The group says Canadians should expect access to primary care the same way we expect access to primary education for our children.

"If you move into a neighbourhood, anywhere in this country, your kid has a right to go to the local public school," Martin says. "You don't have to go and beg the principal to let them in, you don't have to ask around if anybody knows of a Grade 3 teacher who's taking students."

Lauren Cipriano, BSc'03, HBA'05, is also in favour of integrated primary care teams. She is an associate professor in management science at the Ivey Business

School, and Canada Research Chair in Healthcare Analytics, Management, and Policy.

Cipriano thinks integrated teams would help Canadian medicine return to the ideal of delivering compassionate care centered on the individual patient.

"As we've emphasized technology and expensive drugs, that's something that's been lost. When we think that technologies will treat patients, we've missed an opportunity for patient-centred care," she says.

Cipriano says the government should spend less money on expensive drugs and technologies that don't give as much value for the money as basic care.

"Our system is often attracted to the new, and sometimes new technologies are really revolutionizing health care and the health of patients. But some are just marketed well to physicians and to patients," she says.

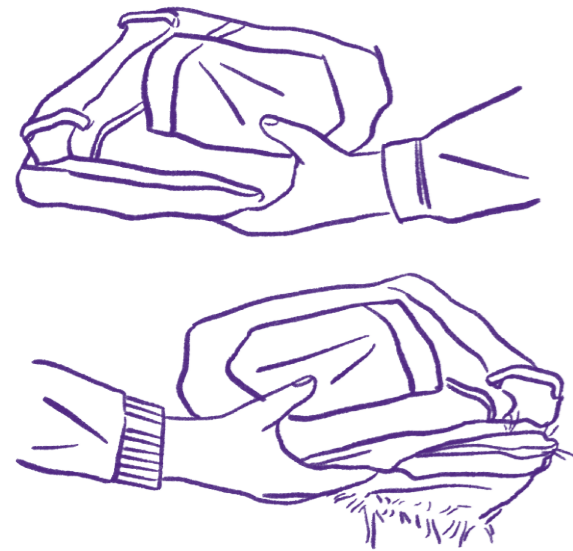
There are many other reforms that should be made, she says. A public drug plan would make sure people can afford the medications they need. Canadians currently pay the third highest drug prices in the world. Cipriano says more aggressive price negotiations by the pan-Canadian Pharmaceutical Alliance would ensure resources are available for other types of health care including surgeries and mental health support for which there are long waits.

But the emphasis should be on reforming how primary care is delivered, Martin says.

The changes don't require lots of new spending or big technological breakthroughs—only commitment and strong leadership from government and medical leaders.

"If we declare a national goal and then we take all of the existing resources in our systems and we put them in service of that goal, I think we can do it." ●





Frantically, I asked if she'd swap pants with me

It was 9 a.m. on a Wednesday. My alarm, set for 8 a.m., was still ringing when it hit me: I'd overslept and might not make it to my Chemistry 1301 lab.

Still half asleep and in a panic, I grabbed yesterday's ripped jeans and a sweatshirt from the dreadful pile of clothes on my chair and made a run for it.

Within 20 minutes, I arrived on campus and was about to walk into the lab. And there he stood, the lab coordinator staring at the holes in my jeans. He wouldn't let me in. Nothing personal of course, just for safety reasons.

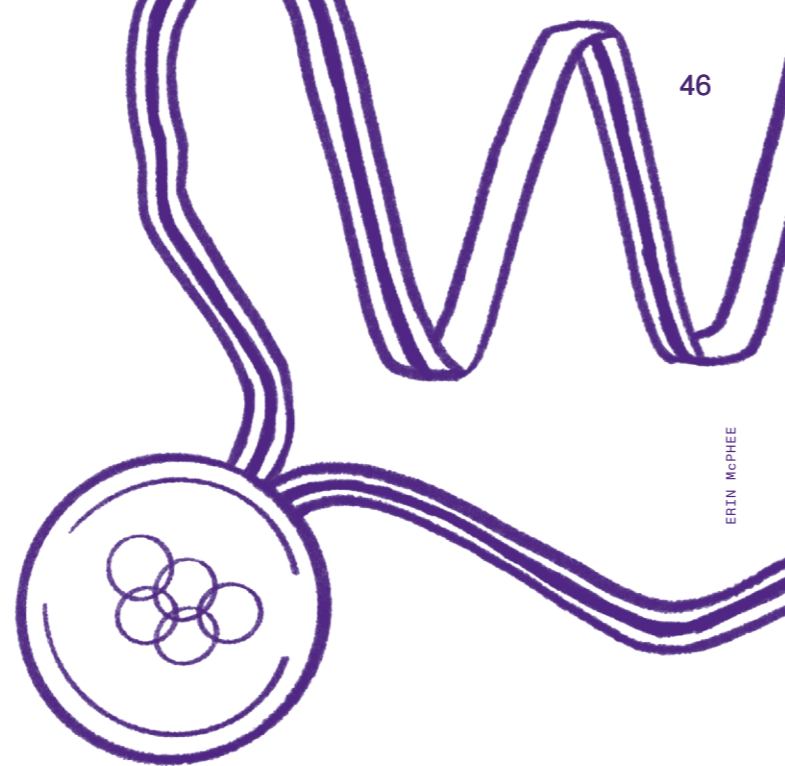
And there she was, sitting outside the lab. Just a random girl. Frantically, I asked if she'd swap pants with me.

With a smile, and to my surprise, she said, "No problem!" So, together we ran to the washrooms, changed quick and threw our pants over the stalls to each other.

On the way out, she put her number in my phone, and said, "Good luck, text me when you're out."

That day, I met Arianne. Who became my best friend at Western.

Kristina Schaaf, second-year medical sciences student



Since that day, our Western roots have been at the heart of our friendship

My best Western moment didn't actually happen at Western.

By 1996, I'd been a sports reporter for CBC for 11 years. I'd interviewed hundreds of athletes — but never an Olympic champion. I got my chance that summer at the Atlanta Games. Marnie McBean and her rowing partner, the late Kathleen Heddle, won the gold medal in the double sculls. I interviewed Marnie and that moment turned into a friendship that's now 27 years old.

As we discovered that day, Marnie and I are both Western grads. And our Western roots have been at the heart of our friendship.

Our paths crossed again in 2016 when we were honoured as inaugural recipients of the Mustang Award of Excellence. Then, when Marnie was honoured with the 2023 Conn Smythe Lifetime Achievement Award for leadership in sport, she asked me to introduce her at the ceremony.

Marnie had once told me something about her Western experience that I included in my remarks that day.

She said, "Those years wrapped me in the depth of what it means to be an Olympian."

It struck me that my own time at our school gave me the chance to appreciate not only the Olympics, but also what it means to be a Mustang — and a champion of her calibre.

CBC broadcaster and author Scott Russell, BA'80, BEd'81, MA'85



COURTESY OF DAVID F. MEWA

Our alumni inspire us— and each other

David F. Mewa, BA'02, began showrunning after more than a decade of directing. His recent project, MTV's unscripted TV series *Hip Hop My House*, is available worldwide on MTV International and Paramount+.

Find out what alumni have been up to by visiting our new online *Class Notes*. The page is searchable by faculty, decade and news category at alumni.westernu.ca

Also, be sure to follow our social media accounts where we regularly share alumni Class Notes.

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Interview by Keri Ferguson
Photo by Jacklyn Atlas

Raising their voice

Even as a child, **Emma Pennell**, BMus'23, had power in their voice. Growing up in South River, Ont., the two-spirit Mi'kmaw of Ktaqmkuk sang at all the county fairs. Delighted to make the cut for 'Sundridge Fall Fair Idol' as a 10-year-old, Pennell recalls exiting the audition with "one big Hallelujah." The celebratory outburst brought the judges running. "They made me come back in and sing parts of the Hallelujah Chorus."

They won the competition singing the 1940s pop song *Don't Fence Me In*, with an adjudicator advising Pennell to seriously consider classical voice and opera. Ten years later, they did, coming to Western to study vocal performance. Here, they raised their voice, performing as Alice Ford in Verdi's *Falstaff* and as an advocate for increased Indigenous visibility.

Pennell is currently studying voice at The Glenn Gould School in Toronto, under Canadian soprano and fellow Western grad Adrienne Pieczonka, BMus'85, DMus'12.

Keri Ferguson sat down with Pennell before they headed to the highly competitive program.

Keri Ferguson: When did you choose to study opera?

Emma Pennell: My first day of classes at Cambrian College, I heard my friend (soprano) Hannah Crawford sing in this grandiose, operatic style. I was equal parts amazed and terrified. I caught the bug for opera that day. It fit like a glove. I started lessons that week and it's been an incredible journey since. After I earned my diploma, I knew I wanted to take opera seriously and chose to study at Western.

KF: How did it feel to land a lead role in *Falstaff*?

EP: It was the absolute pinnacle for me. I knew I wanted to be on that stage from the day I set foot in the Paul Davenport Theatre. I wanted to be in that moment, with the light on me, in costume. It was hard work, but there's something so special about this art form. You get to know the characters deeply, come to love the stories and are so excited to tell them to the audience."

KF: You also explored your Indigeneity, minoring in Indigenous Studies.

EP: I wanted to learn more about myself and the community around me. Professor Diana Lewis had a huge impact on me, inspiring a lot of my writing, research and even my music.

I became more intentional, making a point of telling people who I am, so they'd be comfortable identifying themselves, too. I'm not just Emma, a musician. I'm Emma, an Indigenous musician.

Studying music, with a majority of white students, I wanted to be in the room, loud and proud of who I am.

KF: How did that influence your work as a student leader?

EP: While I was on student council, I advocated about the importance of inviting Indigenous artists and performers to the faculty. There's a community of Indigenous opera singers and musicians who love their work and their identity and culture too. I wanted to talk to them and learn from them.

This led to the most wonderful opportunity where (Canadian Métis mezzo soprano and Western alum) Rebecca Cuddy, BMus'15, let me shadow her on the National Day for Truth and Reconciliation. It was culturally immersive and showed me what my future could look like as an Indigenous performer. ●



Cronyn Observatory October 25, 1941

LONDON FREE PRESS NEGATIVE COLLECTION, c.1941

When the Hume Cronyn Memorial Observatory opened on campus in 1940, board chair Arthur Little emphasized it was meant to inspire students and faculty and benefit the surrounding community.

From visits such as this one from Aberdeen Public School in 1941, to free public summer nights that take place to this day, the Observatory has certainly achieved its intended purpose—and beyond.

Today, Western is home to Canada's leading organization for space exploration research. In the past year alone, Western Space has interpreted images from the James Webb Space Telescope, completed the CubeSat Ukpik-1 (launched by SpaceX in July 2023) and helped develop a network of cameras originally set up to find meteors that can also be used to track satellites. What's next? Stay tuned.

Isaac Luginaah
Canada Research Chair,
Health Geography

From *Day One*, starting on
page 24 of this issue



Our actions are tied
together. We can
all do something to
improve this world.
It's really that simple.
We just have to do it.



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