"We ask people to focus in on everyone else. Improv is first and foremost about listening." P. 58

Northwestern

SPRING 2020

Rhino Rescue

Student Saif Bhatti created a smart device to stop poachers in their tracks. P. 34

Robot Swarm
In nature, individual birds, fish and bees work together to exhibit cohesive behavior in flocks, schools and swarms. Professor Michael Rubenstein is training 100 pint-sized robots to behave similarly in his robotics laboratory. His swarm robots communicate and work together to self-assemble — and then reassemble — into various shapes, all while avoiding collision and traffic jams.

PHOTO: JUSTIN BARBIN

Contents

24

Prison Education Unlocks Potential
New Northwestern program, founded and directed by philosophy professor Jennifer Lackey, transforms the lives of inmates, students and faculty by creating a community of scholars behind bars.
By Monika Wnuk

16

The Demise of the Dinosaurs
Fossilized seashells show a surge of carbon in the oceans — before the asteroid impact — findings that may help scientists understand the effects of climate change.

40

Freak Agent
Alex Saratsis represents some of the NBA's best, including his fellow countryman — the "Greek Freak," Giannis Antetokounmpo.

48

← "We just wanted to write songs that we would find beautiful — songs that, if we had discovered them out in the world, we would wish we had written them."

—Danny M. Cohen '06 MA, '11 PhD, right in photo, associate professor of instruction in the School of Education and Social Policy and part of the band They Won't Win

LACKEY: MONIKA WNUK

SARATSIS: JEFF SCIORTINO

49

Pure Wine Made Simple
Alum James Kornacki created a purification process to remove sulfites from wine.

72

With a Song in His Heart
Alum Alan Tripp might be part of the oldest songwriting team in the world. The 102-year-old achieved a lifelong dream with the release of his debut album, *Senior Song Book*.

On the Cover: Fatu, one of the last two northern white rhinos; photo by Ami Vitale

SPRING 2020
Vol. 22 Issue 2

Northwestern Magazine

VICE PRESIDENT, OFFICE OF GLOBAL MARKETING AND COMMUNICATIONS
Jeri Ward '01 MEM, MBA

ASSISTANT VICE PRESIDENT, CHIEF CREATIVE OFFICER
Andy Madorsky '86 MS

EXECUTIVE EDITOR
Stephanie Russell

SENIOR EDITOR
Sean Hargadon

ART DIRECTOR
Christina Senese

INTERIM ASSISTANT ALUMNI NEWS EDITOR
Lena Elmeligy '18

PUBLICATIONS DIRECTOR
Anne Egger

CONTRIBUTING ALUMNI AND CAMPAIGN NEWS EDITORS
Lindsay Beller
Deborah Cassell '00 MS

CONTRIBUTING DESIGNERS
Heather Cosgrove
Mark Meyer
Leslie-Anne Mock

EDITORIAL INTERNS
Sophia Lo '22, Jacob Munoz '21, Dan Rosenzweig-Ziff '21, Emma Yarger '23

EDITORIAL ADVISORY BOARD
Krishnan Anantharaman '91, chair; David Beard '81; Emily Chow '12; Alex Freund '17, '20 JD, Alex Garcia '89; Adrienne Samuels Gibbs '99; Ryan Haggerty '07, '16 MS; Jerry Lai '04; Robert Leighton '82; Mike McGee '10; Cate Plys '84; Gita Pullapilly '00 MS; Christina Rosales '11; Joshua Rosenblat '17; Kerem Taskin '14; William Weinbaum '82, '83 MS; Steph Yiu '08; Cat Zakrzewski '15

© 2020 Northwestern University. *Northwestern Magazine* is published in fall, winter and spring. All Rights Reserved. Produced by the Office of Global Marketing and Communications, 1603 Orrington Ave., Suite 200, Evanston, IL 60201. Telephone: 847-491-5000 Website: magazine.northwestern.edu

Views expressed in *Northwestern Magazine* do not necessarily reflect the opinions of the editors or the University.

ADDRESS CHANGES
Mail to:
Alumni News Editor
Northwestern Magazine
1603 Orrington Ave.
Suite 200
Evanston, IL 60201

Email: address-change@northwestern.edu

Web: magazine.northwestern.edu/change-your-address

Networking Crucial to Rhino Rescue

Our cover this issue features Ami Vitale's magnificent photo of Fatu, one of the last two surviving female northern white rhinos on Earth.

The northern white rhino once ranged over parts of Central Africa. But years of widespread poaching and civil war in their home range devastated northern white rhino populations, and they are now extinct in the wild.

Today South Africa is home to nearly 70% of the remaining rhinos left in the world, mainly southern white rhinos and black rhinos, numbering about 24,000. In 2007, 13 rhinos were killed in South Africa. Then demand skyrocketed in China and Vietnam for rhino horn as a cure-all for everything from cancer to hangovers. In the last decade poachers have killed more than 8,000 rhinos in South Africa.

Faced with the realization that rhinos could become extinct in his lifetime, McCormick School of Engineering senior Saif Bhatti decided to do something to stop the slaughter. Just a year ago the industrial engineering and philosophy double major created a smart listening device that can detect gunshots on the savanna and send signals to ranger stations to help catch poachers in the act (see page 34).

How Bhatti went from the kernel of this idea to field-testing his Renoster device in Thornybush Game Reserve in South Africa last summer is a tribute to Bhatti's determination and the power of Northwestern networking. After meeting first with his computer science and mechatronics professors, he's turned to more than a dozen faculty, students and staff at McCormick School of Engineering, Northwestern Pritzker School of Law and the University's Global Learning Office for support to get the project off the ground.

"I see the value of making connections with people," Bhatti says. This project started just last April, and he returned to South Africa last December. Now Thornybush wants to do a long-term development program with Renoster.

"We wouldn't have been able to get where we are today without all of Northwestern's help," Bhatti says.

Stephanie A. Russell
Executive Editor

NORTHWESTERN RESPONDS TO CORONAVIRUS

We finished our spring issue in late March, just before Gov. J.B. Pritzker '93 JD ordered Illinois residents to shelter in place. Northwestern had moved quickly to protect the health and welfare of the University community from the coronavirus pandemic by extending spring break, conducting courses remotely for the start of the spring quarter and requiring nonessential staff to work from home.

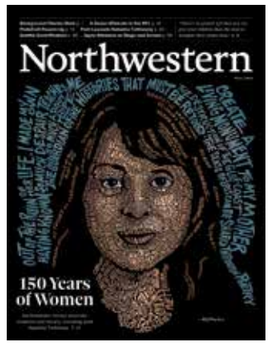
Northwestern faculty, students and alumni the world over are doing their part to help stop and cope with the spread of COVID-19. We'd like to tell these stories in *Northwestern Magazine*. Please share your experiences at bit.ly/NU_Coronavirus_Stories.

In the meantime, may our spring issue inspire you with these stories about alumni, faculty and students who represent Northwestern's can-do spirit.

You and your loved ones are in our thoughts as we all battle the coronavirus pandemic.

ANJE JAGER

Talk Back



150 YEARS OF WOMEN

After 42 years in print journalism, I retired from the *Los Angeles Times* in 2015 and have been busily freelancing. One of my current assignments is writing about a new California law requiring publicly held companies to add women to their boards of directors. One (extremely lame and outmoded) argument against the idea has been that there is not a large enough pool of talent for every public company to appoint a woman.

Good grief! Your "150 Years of Women" cover story [fall 2019] is further proof, if any were needed, of the idiocy of that notion!

Thanks for sharing the stories of these accomplished women.
Martha Groves '73 MS
Los Angeles

Awesome read! Awesome women!
Meg Harlin
Berlin, Md.

The fall 2019 *Northwestern Magazine* arrives: "150 Years of Women," poet Natasha Trethewey and Todd's "Ultimate Condiment Combo" — plus 74 pages of stunning, creative and emotional images. Outstanding accomplishment with each issue.
Robert F. Pendergrast
Salt Lake City

I greatly appreciate Jolene Loetscher's service to end sexual abuse.
Ramesh Natarajan '17 MS
East Brunswick, N.J.

I commend you on your issue on "150 Years of Women." And now I want to know, when are you going to do 150 years of men?
Robert Richmond '70 MMus
Wewoka, Okla.

CLAUDIA LÓPEZ, BOGOTÁ'S NEW MAYOR

As a Colombian woman, Northwestern alum and current student, I could not feel more proud to hear the news about Claudia López ["150 Years of Women," page 27, fall 2019]. Wishing Claudia success during her tenure as mayor of Bogotá. I am sure the Northwestern community will support her leadership.

Go Wildcat values!
Sandra Wagner '09 CERT
Chicago

Many people woke up the day after the mayoral election to find this fantastic event that filled our hearts with hope. As a fellow researcher, I feel proud that finally someone with a good education has taken the lead of chaotic Bogotá. I am sure she will do a fantastic job, but it will certainly be tough because she receives the city in very poor conditions.
Leslie Solorzano
Sweden

I do think there is a tendency to assume that Colombia and its capital Bogotá are essentially chaotic and ill-governed. Mayor López did say in her inaugural speech that poverty in Bogotá, with close to 8 million inhabitants (10 million in the metropolitan area), has been reduced over time from the high double digits to the current poverty level of close to 10%. She did as well acknowledge the outgoing administration's job and will, in fact, preserve some of its policies.

It is not accurate to portray Colombia as a lawless, deinstitutionalized country. Claudia, for whom I voted, did state that 200 years of democracy had led to her election. All mayors who took office on Jan. 1 in Colombia's major cities (80% of the close to 50 million population is urban) were elected on much the same surge of opinion. Old politics are on the way out, albeit through the country's long-standing electoral system.
Augusto Figueroa
Bogotá, Colombia

Claudia is giving all Colombians an example of how we can change our reality and become a peaceful land. As a young Colombian from the countryside, I regard her victory hopefully.
Alberto Guaranda
Sucre, Colombia

I'm so proud of what she's doing. She's the light of Colombia, and I'm 100% sure she will be the first female president of Colombia.

"Claudia López is giving all Colombians an example of how we can change our reality and become a peaceful land."
— Alberto Guaranda

Also I would like to highlight that behind this amazing woman there is another amazing woman, Angelica Lozano. Glad my country is waking up from choosing bad candidates.
Felipe Suarez
London, Ontario

Claudia gives hope to Bogotá, and I'm sure that with a bit of luck and tons of her efforts, we will have the best city that we can dream of in four years.

We may not agree on everything, but, as she says, there's a whole lot more that we have in common than what divides us. We hope for the best, and I'm sure she will exceed all our expectations.
Carol Naranjo
Kaiserslautern, Germany

Claudia is the living and clear example that those of the middle and lower social classes can also make most important political decisions.

This victory — like that of other alternative candidates throughout our country — is undoubtedly a good start on the course that Colombia must take.

Thank you for inspiring us, Claudia.
Julián Henao Buitrago
Bogotá, Colombia

We want to hear from you: letters@northwestern.edu @NorthwesternU /NorthwesternU @NorthwesternU

SOCIAL MEDIA FEEDBACK

150 Years of Women/Ashley Nicole Black — Thank you @ashnb1 and @northwesternu social media team — for these inspirational words! For a black, female, trans alum who has just begun acting (as a second career!), this encouraging and hopeful message is incredibly helpful. — **@sunna.bee**

Soul Restoration/Poet Natasha Trethewey — Really loved this issue. I was blown away by there being a poet laureate at NU as well as all of the other brilliant things going on at NU. — **@Ballingercole**

Economic Uncertainty Costs Women Politicians — We have to be strong and continue to challenge gender biases. The more we speak up, the better! It's only a matter of time until the tables turn. — **Lynette Kruk**

A Healthy Start/ Maziwa Breast Pump — Congratulations for having a positive impact on the lives of people in vulnerable situations. Keep doing what you do. The world needs more people like you. — **Malik Talib**

Sound Off: Modern Parenting — However you "parent," you just have to enforce the fact that you've ALWAYS "got their back!" — **Donna L. Cope**

AMEN! Let the kids make mistakes. This how they grow. Parents need to let the kids navigate the challenges on campus and stop hand-holding! — **Moureen Conroy Wenik**

Our society is on track toward important social and political changes. Colombia is a beautiful, rich and amazing country, where just a few are giving us a bad image.

Claudia, as politician, woman and lesbian, shows perfectly how we are growing as a country and society.
Julian García
Bogotá, Colombia

BATTERY-POWERED BREAST PUMP

Much is made of the invention of a battery-powered breast pump in "Alumna's Startup Gives Babies a Healthy Start" [Innovation, News, page 18, fall 2019], with specific references to its use in Africa. This seems to be a misdirected effort, suggesting the use of a pump that requires the purchase of batteries or of recharging in places that often have no electricity.

There are numerous hand-operated breast pumps available. Promoting the use of an electrical pump seems to be similar to the promotion of the use of infant formula in places where there is no clean water.
Michael Steinitz '70 PhD
Antigonish, Nova Scotia

Response: From my experience, basic hand pumps haven't succeeded in driving behavior change in Kenya or allowed mums to balance working and breastfeeding, because mothers would still need to find a private place to pump and a fridge to keep their breast milk cool throughout the day. That said, a discreet pump that comes with milk storage could come closer to addressing their needs. In terms of its battery operation, women would just have to plug in a basic USB charger, which many are already using to charge their mobile phones. This would allow for much more efficient pumping sessions (15 to 20 minutes vs. 45 minutes) and reduced interruptions to their workday.
Sahar Jamal '19 MBA
Creator, Maziwa Breast Pump
Nairobi, Kenya

↑ **Maria Goodavage with a Labrador retriever in Japan**

DOGS ARE OUR BEST MEDICINE

"Doctor Dogs" [Creation, page 48, fall 2019] is an excellent article about a potentially powerful gift our beloved dogs give us. Looking forward to reading Maria Goodavage's book.
Marianne Oehser '77 MBA
Huntsville, Ala.

I am a retired physician who recently trained with my dog for dog therapy. I make rounds once a week at a local hospital in inpatient and outpatient settings for patients, families and guests. I have observed both acute and chronic medical and psychological issues healed by the love of my dog.

Hospital administrative, professional and support staff also appreciate the visit and return to work with gratitude and smiles that change their thoughts and actions. This further benefits the patients. The reason is that love heals. This is a new frontier of improving health that benefits health care providers and those for whom they care.
Alan Goldberg '88 MBA
Chicago

This is a wonderful article about a fantastic phenomenon. There is a player in the National Hockey League, Max Domi, who is a Type 1 diabetic. He plays for the Montreal Canadiens and has a service dog that travels with him to help him detect low blood sugar. It is an incredible story.
Greg Messina '76 DDS
Rockford, Ill.

WHAT INSPIRES ME

I love when Dr. Nicholas Pearce ["The Authentic Life," What Inspires Me, Voices, fall 2019] preaches because you can tell that he studies the Bible, and his presentation clearly reveals what the pages are saying. He really breaks it down. I always look forward to hearing him.
Karen Barnes
Chicago

Read more letters from readers on our website at magazine.northwestern.edu /talk-back.

Voices

FACULTY OPINION

More than Meets the Eye in Biometrics

By Matthew B. Kugler

In our increasingly computer-facilitated lives, we are constantly confronted by new threats to our personal privacy. We have learned that our credit cards, electronic home assistants and smartphones are all capable of sharing our personal information with their corporate sponsors. Yet carried with us every day is another thing that risks exposing our personal information: our faces.

Use of biometric identifiers is a growing challenge in the privacy space. People can now be automatically identified by their faces, their fingerprints, their eyes, and even their voices. Cameras in public places can scan crowds, and then both private companies and the government are able to use databases of facial recognition information to identify individuals. On one level, this is nothing new. Whenever you are in public, there is a chance that a person might see and recognize you. Famous people are recognized by strangers all the time, and the rest of us may still be known to those we see regularly: baristas, salespeople, secretaries and, if we are unlucky, the police. But this is on a completely different scale. The proliferation of cameras, and of long-term storage, vastly increases the chances that people will be seen as they go about their lives. And automated facial recognition may turn a slim possibility of being recognized into a virtual certainty.

Biometric identification can be incredibly useful. Imagine a transit camera observes a mugging and gets a shot of the offender's face. Or a doorbell camera sees a jogger going by a murder scene — a potential witness. Wouldn't it be great to be able to put names to the faces? Biometrics also allow police to scan crowds for known bad actors, people with outstanding warrants and celebrity stalkers. On the private side, stores may use facial recognition to track known shoplifters, casinos to ban card counters and airlines to check in customers.

Facial recognition makes all these tasks far easier than they were. But that ease comes at a real privacy cost. Suddenly a face in a picture of a crowd may be almost as good as a name. What do we lose? The ability to protest without everyone knowing that we did, the ability to enter an Alcoholics Anonymous meeting or doctor's office without being noticed by the camera across the street.

Biometric identification is not flawless. We know that facial recognition tends to be less reliable at identifying nonwhite people, and it is often hard to find out how accurate a particular vendor's software is. The more we begin to rely on biometric identification, the more we must be carefully modest about our level of certainty.

When something is incredibly useful but also incredibly dangerous, the answer is to set rules for it. Communities have begun to do that. Use of facial recognition by law enforcement has been banned in some municipalities, and private use of biometric information is tightly regulated in states like Illinois, Texas and California.

This is a balancing exercise. My research shows that people respond very differently to uses of biometric technology depending on who is using it and what they are using it for. One study showed, for example, that 59% of people were comfortable with a store using facial recognition to track shoplifters, but only 26% were comfortable with the same store using it to track customers for advertising. If a bank uses a voiceprint as extra verification over the phone, that is probably an unalloyed good. But widespread use of biometric monitoring in public places turns science-fiction-level Big Brother into a real possibility.

RANDY BELICE © 2016, NORTHWESTERN UNIVERSITY

↑ **Law professor Matthew Kugler**

Matthew Kugler is an associate professor at Northwestern Pritzker School of Law.

SOUND OFF

In the Eye of the Beholder

What is beauty, and who gets to decide what is beautiful?

Renee Engeln, professor of instruction in the Department of Psychology

Most of us long for beauty — in nature, in art, in what we see in the mirror and what we see in romantic partners. Physical beauty captures our attention, whether we want it to or not. One layer of physical beauty is relatively universal. For example, around the world, humans find features like clear, flawless skin visually appealing.

A second layer of physical beauty is determined by historical forces and cultural norms. Some fashions that strike us as ugly now were viewed as beautiful just a few years ago.

Physical beauty is evaluated according to ideals, and ideals are, by definition, difficult to attain. Our quest to attain physical beauty for ourselves drives a startling array of behaviors — everything from purchasing cosmetics to chronic dieting. Our desire for physical beauty in others leaves us prone to biases. We are told not to judge books by covers, but this tendency is nearly impossible to shut down when it comes to physical attractiveness.

Janet Dees, Steven and Lisa Munster Tananbaum Curator of Modern and Contemporary Art at the Block Museum of Art

When I think about beauty, I think about this constellation of external qualities that are linked to eliciting positive emotions. I think about the feeling of pleasure, but I also think about what more can beauty do — what work it's doing.

Beauty can be one of those things creating that pause, that moment for us to take time and pay attention. Artists can use beauty to draw us in and point us to some deeper understanding about our social situation, our history.

The end result can be about education or social awareness, and that's pleasurable in its own right.

Jennifer McGee Preschern '98, '00 MA, English professor at Johannes Kepler University Linz in Austria and strength and conditioning coach for the upper Austrian girls soccer development program

As a fitness instructor for 20 years in America and as a CrossFit athlete, I've often heard women say, "I want to be strong, but I don't want to be big, as in too muscular."

Women will limit themselves in what they are physically able to do because they're worried about not looking feminine. That's really interesting to me because you wouldn't say, "I don't want to study anymore because I don't want to be too smart." Why are we limiting ourselves in this way?

I coach teenage girls for soccer and I hear them say, "I'm not pretty" or "I want to be attractive to boys." I told them to forget about that. They're bombarded with this message of fake beauty by Hollywood. Instead of focusing on the physical, "what I look like," change that and say "Wow, what can my body do? How strong can I be?" I think it's a complete reframing of the concept of beauty. This is about being the best possible version of yourself — and that is beautiful.

Have a "Sound Off" question you'd like answered? Email us at magazine @northwestern.edu.

SOCIAL FEEDS

From the annual @thewaamushow show to undisputed hits like #LegallyBlonde or *Fun Home*, #Northwestern student-run theater productions are on fire. Tell us your favs.

> @thewaamushow *For the Record*! Amazing, unforgettable and so timely!
>
> **@marybeaubien**

> Special hats off to the lighting, set & costume designers who take every show to the next level & make the actors look (and feel!) like they are already the industry professionals they are becoming.
>
> **@lizardteach**

> *Cry It Out* was amazing!!
>
> **@kimnontoxic**

> *In the Red and Brown Water, Bright Star,* Makasha Copeland's *Extreme Home Makeover* and Morgan Rielly's *And to Live by the Girl Scout Law* are just a few of my favorites off the top of my head!
>
> **@tango.lango**

MY NORTHWESTERN DIRECTION

Acting Classes Guide Film Editor

By Matt Friedman '93

Film editor and senior lecturer at the American Film Institute Conservatory in Los Angeles

To this day I'm still not sure how I managed, as an RTVF major, to weasel my way into Craig Kinzer's sophomore acting class. The theater department almost never let nonmajors into those classes. And I never even wanted to be an actor. But I knew filmmaking involved working with actors, so I talked my way into the class.

There I was: a shy, socially awkward kid from East Tennessee, sitting in a room surrounded by talented, experienced theater majors with larger-than-life personalities and passions for performance. I felt totally out of place, yet infinitely inspired.

Fast forward 30 years to this past January. I was nominated for an American Cinema Editors Eddie Award for best film editing for my work on Lulu Wang's *The Farewell*, her semi-autobiographical movie about family and cultural identity. Sitting in that awards ceremony, I once again was surrounded by immensely talented and passionate storytellers.

My path between these two places — from Evanston to Hollywood — has led me to an amazing career. For two years in a row now, I've cut films that premiered at Sundance. I've edited both Academy Award–winning actors and singing, dancing chipmunks. I also teach editing to MFA candidates at the American Film Institute (AFI) Conservatory in Los Angeles. And as I do all these things, I still think about the lessons I learned in my Northwestern acting classes.

One of the first monologues I performed in Kinzer's class was a period piece, delivered while the character was shaving with a straight razor. After I finished, Kinzer gently stated, "You've never used a straight razor before."

> **"I teach my film editing students that their job focuses on performance more than anything. Then we spend the year trying to make people laugh or cry — or even both."**

That act of shaving was designed to say so much about my character: his precision, his attention to detail, the knife's edge on which he lived. How could I convey any of that if I appeared to not know how to shave with that tool? It made the entire performance unbelievable.

I think back to that lesson every time I cut, not with a razor but with Avid editing software instead. Eye blinks, sighs, hesitations, glances — all these actions carry meaning and can make a performance believable or not. As an editor, I collaborate with directors and actors to ensure that audiences see the best, subtlest, truest performances possible. And hopefully those performances move them.

Editing *The Farewell* was especially challenging given that more than half the film was in Mandarin, a language that I do not speak. To increase the complexity of the storytelling, the characters in the film come from immigrant backgrounds, so their actions are influenced by experiences that are unfamiliar to most American audiences. In editing the film, we had to use straight-razor precision to make sure American audiences understood where each character was coming from, while not being over-expositional.

When the film came out in theaters, I went several times, but instead of watching the movie, I watched the audience. I saw their smiles and heard their laughter. Then I heard that laughter turn to crying. Bringing an audience from laughter to crying is a delicate journey, but that combination of emotions is so true and honest.

Every year I get a new class of young editors at AFI. I teach them that their job focuses on performance more than anything. Then we spend the year trying to make people laugh or cry — or even both.

Illustration by Bruce Morser

WHAT INSPIRES ME

Finding Courage in Resilience

Former prosecutor for victims of domestic violence prepares law students in the "me too" era.

Deborah Tuerkheimer, Class of 1940 Research Professor of Law, Northwestern Pritzker School of Law

"My work has centered in recent years on sexual misconduct and on the legal and cultural impediments to accountability for assault and harassment.

"I feel incredibly fortunate to be in a position where part of my job is to think and write about issues in ways that I hope ultimately can contribute to improving people's lives.

"One experience that I took from my time as a prosecutor was watching people who've been hurt move forward and demonstrate remarkable resilience. And so as I do my writing, which is very different from work in the trenches, I am informed by those years working directly with people who experienced this kind of violation. That has been seared into me."

Deborah Tuerkheimer teaches courses on criminal law, evidence and feminist jurisprudence at the Northwestern Pritzker School of Law. She served as an assistant district attorney in New York County for five years before working as a professor at the University of Maine School of Law and the DePaul University College of Law. She wrote *Flawed Convictions: "Shaken Baby Syndrome" and the Inertia of Injustice* in 2015 and is at work on a book about credibility in sexual misconduct cases.

↑ Deborah Tuerkheimer

HEARD ON CAMPUS

Points of View

Last fall and winter Northwestern hosted several political leaders and social activists who offered insights into the world today.

"I'm desperately concerned that the ugliness of this moment is a discouragement to good people going into public service. It instead should be a clarion call. We need you to fix this mess."
U.S. Rep. **Adam Schiff,** chair of the House Intelligence Committee, at the Weinberg College of Arts and Sciences' 30th annual Richard W. Leopold Lecture

"As Americans, we have the right to determine our leaders, we have the right to voice our opinions … [and] we have the right to be wrong. But that right is not real if we don't have free and fair elections."
Former Georgia gubernatorial candidate **Stacey Abrams** at a speech hosted by the College Democrats

"As a prosecutor in the federal system for 15 years, as an assistant U.S. attorney and 12 years as U.S. attorney, I think this issue [immigration] is open and shut to me — you don't get to come into the country illegally."
Former U.S. Attorney General **Jeff Sessions** at a speech hosted by the College Republicans

"We need real empathy and understanding of what it looks like to survive. As long as survivors recognize … that there is power in the fact that you are surviving every day, we can do something with that. We can build movement. We can galvanize folks."
Tarana Burke, left, founder of the "me too" Movement, as part of Northwestern's MLK Dream Week and the commemoration of 150 Years of Women

BURKE: BENJAMIN BRETH/DYNAMIC PHOTO SYSTEMS; TUERKHEIMER: EILEEN MOLONY

News

Earth was stressed before dino extinction p 16

Women's hoops wins first title in 30 years p 14

MedKit makes pharmacy in a box p 18

HEALTH

AI Boosts Cancer Detection

Artificial intelligence improves breast, lung cancer diagnostics by reducing false positives and false negatives.

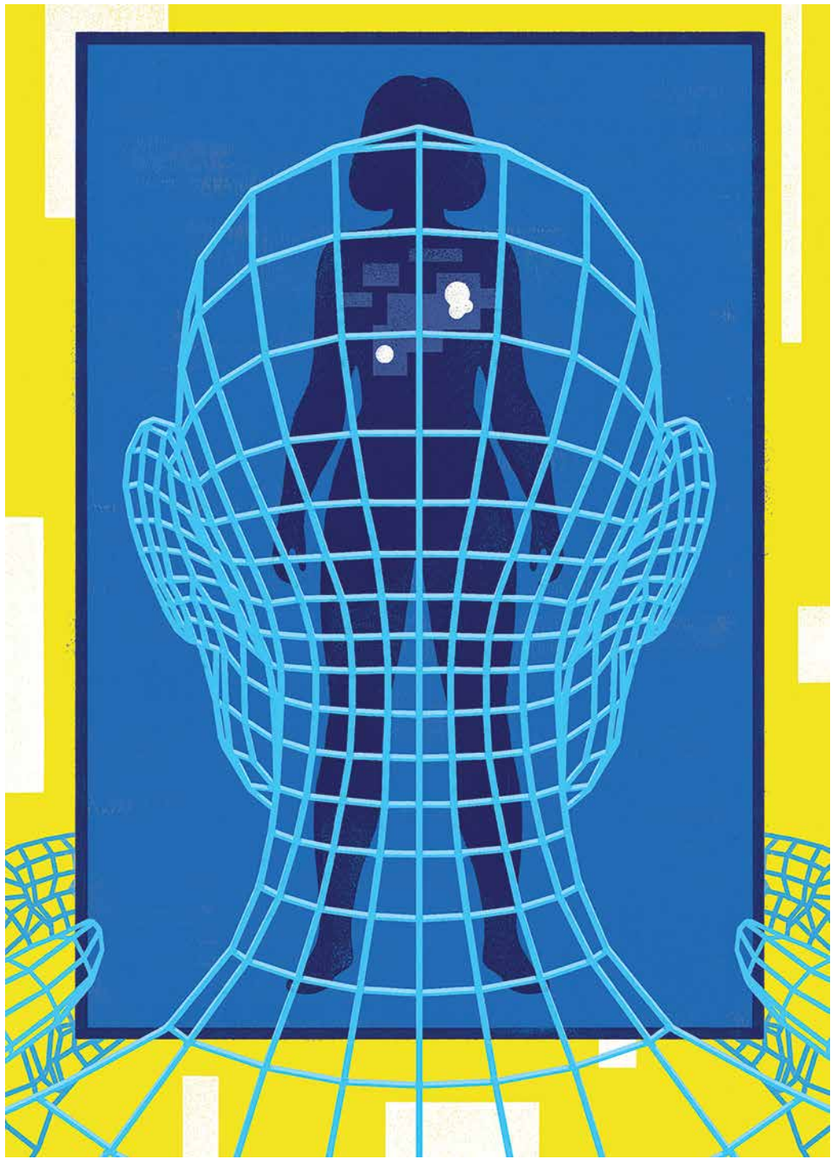
Artificial intelligence turns out to be terrific at predicting breast cancer in mammograms and lung cancer in tomography scans. And it's more accurate than radiologists in many cases, according to new studies from Northwestern Medicine and Google.

"We hope someday this AI tool for radiologists becomes as ubiquitous as spell-check for writing email," says Google software engineer and study author Scott McKinney.

The research team developed the AI model to train computers to identify these cancers early.

In breast cancer, the AI model significantly reduced false positives and false negatives.

"This is a huge advance in the potential for early



Illustrations by Chris Gash


Mozziyar Etemadi

breast cancer detection," says Northwestern study author Mozziyar Etemadi, a research assistant professor of anesthesiology at the Feinberg School of Medicine and of engineering at the McCormick School of Engineering. "Breast cancer is one of the highest causes of cancer mortality in women. Finding cancer earlier means it can be smaller and easier to treat. We hope this will save a lot of lives."

"This is a huge advance in the potential for early breast cancer detection."
— Mozziyar Etemadi

Breast cancer is the most common type of cancer in women globally, occurring in about one in eight women.

Mammography is the most widely used breast cancer screening tool, but diagnosing cancer from these images is a challenge. One in five cases of breast cancer is missed by radiologists, and according to the American Cancer Society, 50% of all women who undergo screening for a 10-year period will experience a false positive, in which cancer is wrongly suspected.

A false positive can lead to overtreatment with invasive biopsies and unnecessary stress for patients. A false negative can result in delayed detection and treatment.

In lung cancer, Northwestern and Google found that AI was able to detect malignant lung nodules on low-dose computed tomography chest scans with a performance meeting or exceeding that of expert radiologists. (Tomography is imaging by sections.) This deep-learning system provides an automated image-evaluation system to enhance the accuracy of early lung cancer diagnosis that could lead to earlier treatment. Deep learning teaches computers to learn by example.

The deep-learning system also produced fewer false positives and fewer false negatives, which could lead to fewer unnecessary follow-up procedures and fewer missed tumors if used in a clinical setting.

"Radiologists generally examine hundreds of two-dimensional images or 'slices' in a single CT scan, but this new machine-learning system views the lungs in a huge, single three-dimensional image," says Etemadi. "AI in 3D can be much more sensitive in its ability to detect early lung cancer than the human eye looking at 2D images. This is technically '4D' because it is not only looking at one CT scan but two [the current and prior scan] over time."

More research is needed before AI can be integrated into clinical practice. "In some examples, the human outperforms the AI. In others, it's the opposite," Etemadi says. "The ultimate goal will be to find the best way to combine the two. The magic of the human brain isn't going anywhere anytime soon."

GLOBAL REACH

Studying Sustainability Around the World

HARNESSING THE POWER OF RIVERS
Colombia

Colin Phillips, center, a postdoctoral researcher in civil and environmental engineering, worked with the Nature Conservancy in the Magdalena River Basin in Colombia to develop water management tools that could be used to preserve river networks around the world. The NatureNet Fellowship recipient is also building valuation models that could help land managers decide how to fund river management.

SUSTAINABLE CHOICES
Scotland

With support from the Institute for Sustainability and Energy at Northwestern, Simone Laszuk planned to attend the Clinton Global Initiative University meeting in April in Edinburgh. The senior anthropology major is part of the Reducing Inequalities in Sustainable Engagement team, a student-led initiative to empower low-income communities to make environmentally friendly choices.

WATER MANAGEMENT IN THE DESERT
Israel

Deo Mukuralinda visited Israel in September as part of Northwestern's Global Engineering Trek program. The trip — to a region central to innovation in water management — emphasized the importance of politics, geography and culture in an interdisciplinary understanding of water. Mukuralinda, a sophomore industrial engineering major, says the experience will shape how he thinks about and serves communities in need of improved water management.

SAVING TROPICAL FORESTS
Thailand

Giuseppe Buscarnera, an associate professor of civil and environmental engineering, worked with the World Wildlife Fund to balance development plans with conservation efforts in Southeast Asia. He has used geoenvironmental landscape analysis to determine how a major highway that connects cities in Myanmar and Thailand can be built while preserving the Dawna Tenasserim Landscape.

THAILAND: ©HKUN LAT/ WWF-MYANMAR

THE BOTTOM OF THE WORLD
Antarctica

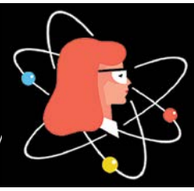
Krissa Skogen, an adjunct professor in the Program in Plant Biology and Conservation, traveled to Antarctica in November and December with Homeward Bound. The trip was the culmination of a yearlong global leadership development program for women in science, technology, engineering, math and medicine who are interested in sustainability and conservation. Skogen saw firsthand the effects of climate change in West Antarctica.

The Ticker

- Thirty-two faculty members who are affiliated with Northwestern are among the most-cited researchers in the world, according to Clarivate Analytics. Materials science professor **Yonggang Huang**, chemistry professor **Mercouri Kanatzidis** and materials science and chemistry professor **Tobin Marks** are the most-cited researchers.

- **Marwan M. Kraidy**, a leading authority on Arab media, was named dean and CEO of Northwestern University in Qatar. Kraidy will also hold a named chair and a tenured appointment. A native of Lebanon, Kraidy has for more than two decades taught and published award-winning research about the Middle East. He starts July 1.

- Twenty-three women from around the world visited the Simpson Querrey Institute's Center for Bio-Integrated Electronics as part of **"Hidden No More: Empowering Women Leaders in STEM."** The women learned about technologies that integrate with the human body to monitor clinically relevant information.

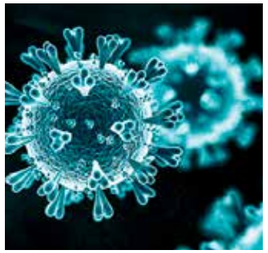


- Northwestern professors **Guillermo A. Ameer** and **Sir Fraser Stoddart** were named 2019 fellows of the National Academy of Inventors. Ameer designs biodegradable materials that promote tissue regeneration and prevent scarring, and Stoddart, a Nobel Prize winner, introduced the mechanical bond into chemical compounds.

NORTHWESTERN LEADERSHIP

Coping with Coronavirus

Northwestern professors offer expertise on the global pandemic.



As the coronavirus outbreak emerged in late winter and early spring, Northwestern experts contributed to the search for solutions — from research on potential therapeutics to strategies to limit the loneliness of social isolation.

Microbiologist **Karla Satchell**, principal investigator for Northwestern's Center for Structural Genomics of Infectious Diseases, is leading an effort to study the structure biology of the components of the virus to understand how to stop it from replicating in human cells through a medication or vaccine.

Psychiatry and behavioral sciences professor **Stewart Shankman** '97 explained hoarding behavior. Expert **Judith Moskowitz**, professor of medical social sciences at the Feinberg School, encouraged habits to overcome stress, fear and anxiety in a time of isolation.

In a Buffett Institute for Global Affairs webinar, **Adia Benton**, associate professor of anthropology, discussed how emergency declarations provide opportunities for authoritarianism to expand and explained how social distancing practices increase inequality. "We have people for whom the disease is the least of their worries," Benton said.

Finally, in a *Chicago Tribune* op-ed, Northwestern President **Morton Schapiro** reflected on the early days of the pandemic. "Are there lessons to be learned? I think so. When you are in a crisis, you need to model resilience and empathy. We will all be remembered for how we handled adversity, and sought to protect others."

WOMEN'S BASKETBALL

Led by junior guard Lindsey Pulliam, one of the country's leading scorers, Northwestern women's basketball (26-3, 16-2) won the Big Ten regular season title for the first time in 30 years. Pulliam's 31-point night against Michigan State in February propelled her past 1,500 career points. She is the fastest player in Wildcats history to accomplish that feat.

← Lindsey Pulliam averaged nearly 20 points per game while leading the Wildcats to the Big Ten regular season title.

STEPHEN CARRERA

'CAT TALES

Project Survival

Three months before the first Earth Day in April 1970, Northwestern Students for a Better Environment hosted Project Survival, a public "teach-out" on environmental issues such as air and water pollution, oil in rivers, and threatened species.

More than 10,000 people attended the event at the Technological Institute in January 1970, and it served as a model for future Earth Day programs. The event included speeches from Lt. Gov. Paul Simon '83 H and a performance by folk singer Tom Paxton, as well as a series of workshops.

"It was to educate people," says Jim Reisa '71 MS, '72 PhD, then an environmental biology graduate student who chaired Project Survival. "The main theme was 'get the facts out there.' The best thing you can do is to let the facts prevail."

↑ A group of American Indians interrupted Project Survival to protest "pollution of Indian, lands, religion and minds."

ROBERT HINSHAW

→ Student Andrea Martin completes cerumen [ear wax] removal for a child in Guatemala.

MEDICAL MISSION

Hearing Aides

Team of audiology doctoral students provide care in rural Guatemala.

Last August, Northwestern audiology graduate students made the trek to Nuevo Progreso in western Guatemala to provide comprehensive care for the local residents. Over the course of four more-than-12-hour days, eight students worked alongside four professional audiologists. They performed diagnostic testing and hearing-aid fittings. Some patients walked 10 hours overnight to start lining up for care at 6 a.m. at Hospital de la Familia. The Northwestern team partnered with the nonprofit Entheos Audiology Cooperative.

For doctoral students Sarah Rosen and Andrew Burleson, their goal was to provide the specialized care that many of their patients lack.

Burleson helped fit a 17-year-old Guatemalan woman with a hearing aid. She later found him on Facebook and told him that because of his care, she planned to pursue higher education. She could now hear well enough to understand academic lectures.

"It's one thing to read about the experience of providing care in a textbook," Burleson says. "But it's a whole other thing to actually do the work."

For both Burleson and Rosen, this global experience influenced their career aspirations. Rosen hopes to continue to do audiology humanitarian work, while Burleson's goal is to use the experience to found a startup or make humanitarian work part of his day-to-day routine.

In the future, both want to help students interested in providing global health care to afford the trip, which can cost $2,500 or more. Rosen and Burleson hope to encourage alumni of the trip to fundraise for students to go the following year.

Discovery

MATT GARLICK/SCIENCE PHOTO LIBRARY

EARTH SCIENCE

Climate Change and the Demise of Dinos

Fossilized seashells show signs of ocean acidification before the asteroid impact that caused mass extinction.

New evidence gleaned from Antarctic seashells suggests that the Earth was unstable before the asteroid impact that wiped out the dinosaurs.

Northwestern-led research on preserved clam and snail shells offers evidence of climate change occurring before the Cretaceous-Paleogene mass extinction event. The researchers found that the shells' calcium isotope composition shifted in response to a surge of carbon in the oceans — findings that may help scientists better understand the effects of today's human-made climate disruption.

This carbon influx was likely due to long-term eruptions from the Deccan Traps, a 200,000-square-mile volcanic province located in modern India — a land area roughly equivalent to the states of Illinois, Indiana, Wisconsin and Iowa combined. Eruptions spewed large amounts of carbon dioxide into the atmosphere, which led to ocean acidification, directly affecting the organisms living there.

"The Earth was under stress before the major mass extinction event," says Andrew D. Jacobson, professor of Earth and planetary sciences. "The asteroid impact coincided with preexisting carbon cycle instability. Our findings support the hypothesis that the combined effects of Deccan volcanism and the Chicxulub impact were necessary to drive the extinction."

Jacobson was senior author of a study published in the January issue of *Geology*. The study's first author, Benjamin Linzmeier, was a postdoctoral researcher with the Ubben Program for Climate and Carbon Science at the Institute for Sustainability and Energy at Northwestern when the research was conducted. He is now a postdoctoral fellow at the University of Wisconsin–Madison in the Department of Geoscience.

Researchers studied shells taken from Seymour Island, Antarctica. "Shells grow quickly and change with water chemistry," says Linzmeier. "Because clams and snails live for such a short period of time, each shell is a short, preserved snapshot of the ocean's chemistry."

Seashells mostly comprise calcium carbonate, the same mineral found in chalk, limestone and some antacid tablets. Because carbon dioxide in water affects the formation and stability of calcium carbonate, researchers could determine how increasing levels of the compound in the water affected shell formation over time.

They analyzed the shells' calcium isotope compositions using a state-of-the-art technique employed in Jacobson's laboratory at Northwestern. The method involves dissolving shell samples to separate calcium from various other elements, followed by analysis with a mass spectrometer.

"We can measure calcium isotope abundance variations with high precision," Jacobson says. "And those variations are like fingerprints to help us understand what happened."

While the paper does not assert that climate change during the age of the dinosaurs directly contributed to their demise, it provides compelling information that could inform future research into the Cretaceous-Paleogene mass extinction. The study also offers a way to anticipate potential changes caused by the current climate crisis.

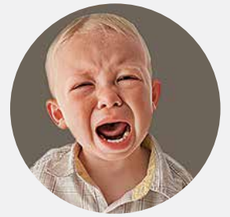
"Our results confirm what scientists expect, that increases in atmospheric CO_2, as a consequence of anthropogenic emissions, will cause ocean acidification," Jacobson says. "In a way, we're using the rock record as an analog to gain insight into what might happen in the future.

"The Earth system is sensitive to large and rapid additions of CO_2. Current emissions will have environmental consequences."

"In a way, we're using the rock record as an analog to gain insight into what might happen in the future." — Andrew D. Jacobson

RESEARCH

Toddler Temper Tantrums and Athletes' Brains



LATE TALKERS LIKELY TO HAVE TANTRUMS

Toddlers with delayed vocabulary have more frequent and severe temper tantrums than their peers with typical language skills. A "late talker" is a toddler who has fewer than 50 words or isn't putting words together by age 2. Certain kinds of frequent and severe tantrums in toddlers can indicate risk for future mental health problems, says Elizabeth Norton, an assistant professor of communication sciences and disorders, who worked on the study with Lauren Wakschlag, professor and vice chair in the department of medical social sciences.

KNEE REPLACEMENT TIMING IS WRONG

The timing of knee replacement surgery is critical to optimizing its benefit, says Hassan Ghomrawi, associate professor of surgery. But most patients are getting the procedure at the wrong time. Ninety percent of patients with knee osteoarthritis who would benefit from the surgery undergo it too late, while 25% of patients who don't need it are having surgery prematurely. The ideal timing for knee replacement surgery is based on an algorithm that factors in age, pain, joint function and radiographic assessment.

PLAY SPORTS FOR HEALTHIER BRAIN

In the absence of injury, people who play sports have healthier brains than those who do not. Athletes have an enhanced ability to tamp down the brain's background electrical noise to better process

external sounds, says Nina Kraus, director of Northwestern's Auditory Neuroscience Laboratory. "Think of background electrical noise in the brain like static on the radio," Kraus says. "There are two ways to hear the DJ better: minimize the static or boost the DJ's voice. We found that athlete brains minimize the background 'static' to hear the 'DJ' better."

Innovation

ENTREPRENEURS

Pharmacy in a Box

Student startup MedKit Solutions provides over-the-counter medications and other personal products in a dorm vending machine.

When a student gets sick on campus, mom's chicken soup is far away and sometimes the pharmacy is just not close enough.

To help provide students with easy access to medication and other personal care items, a team of students created MedKit Solutions, transforming a dorm vending machine into a pharmacy in a box.

Pre-med seniors Matthew Urban and Chris Holland, both neuroscience majors, developed the concept with Feinberg School of Medicine first-year student Ashorne Mahenthiran '19. The startup provides easy, on-campus access to medication, hygiene items and sexual health products. The group's first machine, introduced in fall 2019, offers name-brand medicine in Sargent Hall, and plans are underway for both new locations and new items.

At the 2018 ImproveNU Challenge, the team (then called Wildcat Wellness) received third place for its work. The co-founders conducted an online survey of more than 330 students. It revealed that about 40% of students felt sick at least once a week, and more than 80% were deterred by the long walk to Evanston-area pharmacies. As a result nearly 65% of students reportedly did not treat their symptoms due to the inconvenience of traveling for medicine.

The founders say MedKit fulfills a need. While campus locations such as Norris University Center and Lisa's Cafe offer health and wellness products, only 3% of students said they purchased medicine at the University.

Urban and Holland are part of the Residency Program at Northwestern's The Garage, a hub for student entrepreneurs, and plan to work on MedKit further during a post-graduation gap year. They intend to eventually hand off their creation and ideas — including expansion to other universities — to a new set of students.

Holland and Urban credit Northwestern's Residential Services, Canteen vending, and student marketing, entrepreneurship and business groups with helping to guide the project and keep it afloat as it grew from conception to reality.

Urban says the project has helped him bridge the gap between his interests in medicine and entrepreneurship.

"Coming into college as pre-meds, we knew it would be difficult to immerse ourselves in entrepreneurship and business courses despite our interest," Urban says. "MedKit was our way to take our passions beyond the classroom to the entire Northwestern community, and in doing so we have gained crucial entrepreneurial and medical experience."

↑ MedKit co-founder Chris Holland

HEALTH TECH

It takes 20 seconds of hand-washing to effectively kill germs. Most people wash their hands for 8 seconds or less. Industrial engineering major Ibraheem Alinur and his startup City Health Tech have created a device to monitor and motivate proper hand-washing. The easy-to-install timer and display is being used in five Chicago-area elementary schools to gather data on hand-washing habits with the hope of reducing illness and improving attendance rates.

MEDKIT PHOTO: SHANE COLLINS

OPEN AND SHUT

The stand's hinged leg deploys automatically when the magnetized latch mechanism is activated.

THIN TO WIN

The stand, made of spring steel, is thin enough that it can fit with the guitar in a hard-shell case, which is designed to allow little wiggle room. "And when you're playing, it lies flat against the guitar. It's so thin that you can't really feel it," says Morgan Lewis.

LATCH ATTACHMENT

When the mechanism at the bottom of the guitar touches the ground, it releases magnets that hold the leg in place. When the guitar is picked up, the spring-activated magnets move back down to catch the leg and keep it closed.

NO GLUE OR SCREWS

The stand attaches by compression. "It clamps onto the guitar with tension," says Morgan Lewis. "Everywhere that it might touch the guitar, it's covered in foam, so it's not going to scratch it. And it doesn't affect the guitar's acoustics because it doesn't touch the back of the guitar."

INVENTION

Auxilia

Morgan Lewis '18 MS wanted to create a storage solution to keep her guitar safe during "rest mode" — between songs or at breaks during gigs. For her Engineering Design Innovation final project, she created Auxilia, an attachable stand that stays out of the way while the guitarist is playing and deploys automatically when she sets the guitar down. It won the Farley Center for Entrepreneurship and Innovation's 2019 Creative Tech Showcase. Lewis created a prototype that she is refining and engineering for manufacturing. The singer also recently designed a shoe that celebrates women in country music as part of the Nike By You x Cultivator campaign.

ATHLETICS

Trienens Performance Center Transforms Team Practices

A cutting-edge facility on Central Street is changing how basketball, volleyball, baseball and softball players prepare to compete.

A 25-foot tall purple "N" is emblazoned on a wall within the Trienens Performance Center, Northwestern's newly redesigned athletics facility. The scale of this design detail is emblematic of the impact of the building's benefactor, University Trustee Howard J. Trienens '45, '49 JD, '95 H. Northwestern Athletics and Recreation celebrated Trienens' decades of service to and support for Northwestern at the November 2019 dedication of the Trienens Performance Center, which is located adjacent to Ryan Field and Welsh-Ryan Arena.

"This is the latest amazing place where my teammates and so many other Wildcats will have the chance to grow."
—Lindsey Pulliam

In 2017 Trienens gave $20 million to transform Trienens Hall, the indoor turf field he helped fund with a leadership gift in 1996, into a world-class developmental facility for Wildcats volleyball, baseball, softball, and men's and women's basketball teams.

"When the moment arrived to dramatically reinvent the space, Howard stepped up again — as he has time after time, year after year after year — for the University that means so much to his family," said Jim Phillips, the Combe Family Vice President for Athletics and Recreation, during the dedication.

The newly renovated, bright, open space — which houses three indoor practice courts, team meeting rooms, an expanded performance nutrition hub and more — profoundly enhances Northwestern's student-athlete experience.

Junior Lindsey Pulliam, who earned First Team All-Big Ten and Academic All-Big Ten honors as a sophomore on the women's basketball team, shared her fellow student-athletes' excitement to have everything they need under one roof. "This is the latest amazing place where my teammates and so many other Wildcats will have the chance to grow," she said.

In addition to two basketball courts and one volleyball court, the new facility features a large turf field and hitting and pitching pavilion for the baseball and softball teams in the Mogentale Training Facility, which is named for lead donors Eric '84 and Cindy Mogentale '84.

During the dedication, Trienens recalled how far the space has come since it was first constructed more than two decades ago, when it was "a big barn with a green carpet and two goal posts." Now it's a "gorgeous facility," he said.

Trienens received a bachelor's degree in business administration from Northwestern's School of Commerce (now the Kellogg School of Management) in 1945 and a JD from Northwestern Pritzker School of Law in 1949. He is a platinum member of NU Loyal, the giving society honoring consistent annual giving to the University, with 44 consecutive years of giving to Athletics, Northwestern Law and other areas. His late wife, Paula Trienens '47; daughter, Trustee Nan Trienens Kaehler '79 MA/MS; brother, Roger Trienens '47, '48 MA, '51 PhD; and three of his grandchildren also are Northwestern alumni.

← Howard Trienens and Sally Dumas at the dedication of the Trienens Performance Center

← Members of the women's volleyball team practice on their new court at the Trienens Performance Center.

Gleacher Golf Center: A Putt Above

The Northwestern golf community celebrated the generosity of University Trustee Eric Gleacher '62 and his wife, Paula, at the November 2019 dedication of the newly renovated Gleacher Golf Center — a premier player development facility for student-athletes.

"Providing a world-class experience to our student-athletes academically, socially and athletically is the core of our daily mission, and the complete renovation of the Gleacher Golf Center will help us deliver on this commitment," said Jim Phillips, the Combe Family Vice President for Athletics and Recreation.

Reflecting on the golf program's success and looking toward the future, Gleacher told dedication attendees, "Northwestern's stature in intercollegiate golf has been significantly enhanced, as is indicated by the results our coaches and student-athletes have earned. I have no doubt that our achievements over the next 20 years will be even more outstanding."

Two decades ago, also with Gleacher's support, Northwestern built the first-ever collegiate golf indoor training center, which helped take the men's and women's teams to new heights — including 50 tournament victories, seven Big Ten Conference titles and 10 Top 20 finishes at the NCAA Championships.

Gleacher attended Northwestern on a golf scholarship and earned a bachelor's degree in history from the Weinberg College of Arts and Sciences. After graduating, he served as a lieutenant in the U.S. Marine Corps. He has continued to golf competitively and has won 25 club championships over the years. Gleacher began his career at Lehman Brothers in 1968 and retired as chairman of Gleacher & Co. in 2013. He is a platinum member of NU Loyal — with 40 consecutive years of giving to Athletics, the Bienen School of Music and other areas — and received the Northwestern Alumni Medal in 2004. Two of his six children, Sarah Gleacher '91 and Patricia Pitcairn '12, are alumni.

The Gleacher Golf Center is located within Patten Gymnasium, which also has undergone a renovation and is the world-class home to Northwestern fencing.

↑ Eric Gleacher takes the first putt at the dedication of the Gleacher Golf Center.

Gleacher Features

- **5,400-square-foot** short-game and putting area
- Training area with three bays that include a **golf simulator** and a dedicated **video instruction bay**
- **1,200-square-foot lounge** with a study area, kitchen and sports performance hub

← **Alumnus Greg Berlanti, right, and Robbie Rogers at the premiere of *Love, Simon*, which Berlanti directed**

SCREENWRITING

Hollywood Producer Expands Dramatic Writing Program

A $2 million gift from alumnus Greg Berlanti and Robbie Rogers will endow a new professorship at the School of Communication.

Greg Berlanti is a writer, producer and director who has worked on many popular TV series — including *Dawson's Creek, Brothers & Sisters* and *The Flash* — as well as *Love, Simon*, the first gay teen romance to be backed by a major Hollywood movie studio. He also is a Northwestern graduate who hasn't forgotten how he got his start. The 1994 School of Communication alumnus and his husband, former professional soccer player Robbie Rogers, recently made a $2 million gift to the school via the Berlanti Family Foundation. The gift will endow a professorship and help expand opportunities for students interested in writing for the screen and stage.

Berlanti and Rogers established the Berlanti Family Foundation to improve the lives of all LGBTQIA people and their straight allies through education, the arts, medicine and other social services. This gift is the foundation's largest to any organization to date.

The Barbara Berlanti Professorship in Writing for the Screen and Stage is named in memory of Berlanti's mother, who passed away in 2017. The gift also commemorates Berlanti's 25th reunion year and counts toward **We Will. The Campaign for Northwestern**. The professorship was supported in part by alumni Patrick G. ’59, ’09 H and Shirley W. Ryan ’61, ’19 H through the Ryan Family Chair Challenge, which matches gifts made by other Northwestern supporters to establish new endowed professorships or chairs.

“My mom was a lifelong champion of the arts and my greatest advocate and patron,” Berlanti says. “She placed an old typewriter in front of me at 10 years old and told me to start writing all the stories that were in my head — instead of just talking her ear off — and I haven't stopped since. Our family is so proud to have a professorship in her name dedicated to helping Northwestern continue its great legacy of fostering the next generation of humane, diverse, courageous and bold storytellers.” (Learn about other inspirational women at northwestern.edu/150-years-of-women.)

The endowed professorship will increase the School of Communication's teaching capacity and bolster a curriculum that prepares students to work across media and genres. It also will encourage students to engage and create work by and for diverse, global audiences. The professorship will be housed in the Department of Radio/Television/Film.

“Thanks to Greg, Robbie and the Berlanti Family Foundation, the new Barbara Berlanti Professorship will play a major role in helping us attract leading artist-educators to our faculty — who can, in turn, recruit and nurture students from underrepresented and undersupported groups and help transform the creative industries,” says Barbara O'Keefe, dean of the School of Communication.

INTERNATIONAL GIFTS

Registered Charity Offers Benefits for UK Donors

The University's new foundation provides tax relief to those who support education at Northwestern.

Northwestern is committed to expanding its impact on the world. Northwestern alumni, parents and friends around the globe are equally dedicated to supporting the University's students, faculty and programs. To date, approximately 5,500 international donors have given more than $90 million to Northwestern as part of **We Will. The Campaign for Northwestern**.

If you live in the United Kingdom, you now have the opportunity to make tax-efficient gifts to the recently established Northwestern University (USA) Foundation Limited — an officially registered charity in England and Wales (registered charity number: 1184246). Gifts to the foundation are eligible for both U.K. and U.S. tax reliefs, meaning dual U.K.-U.S. taxpayers can claim tax reliefs in both the U.K. and U.S. on the same charitable donation. These gifts may be eligible for Gift Aid — a U.K. tax scheme that enables Northwestern University (USA) Foundation Limited to reclaim the basic rate of tax on your gift, thus increasing the value of your gift by 25 percent. Donors who are higher- or additional-rate taxpayers in the U.K. may claim an additional relief on their U.K. self-assessment tax return, and the entire gift will be deductible in the U.S.

Since its launch in 2019, the foundation has made it possible for many generous donors in the United Kingdom to support education at Northwestern tax-efficiently. Those benefactors include London resident Deborah Norton ’70.

Norton graduated from the Weinberg College of Arts and Sciences with a bachelor's degree in sociology. She and her husband, Jim Norton ’70, serve on the International Campaign Committee. She also is an Alumni Regent, a member of the Alumni Admission Council and a trustee of the Northwestern University (USA) Foundation Limited.

With 42 consecutive years of giving to Northwestern, the Nortons are platinum-level members of NU Loyal — the giving society recognizing alumni, parents and friends who make annual gifts of any size to the University year after year. Their recent gift to the foundation was used to provide scholarship support to undergraduate students at Weinberg College.

“As an alumna overseas, I think it is important to support the educational mission of Northwestern no matter where in the world you live.”
— Deborah Norton

“As an alumna overseas, I think it is important to support the educational mission of Northwestern no matter where in the world you live,” Deborah Norton says. “I am especially interested in supporting undergraduate financial aid, which enables qualified students to attend the university of their choice, regardless of their circumstances.”

Northwestern University (USA) Foundation Limited also works with Transnational Giving Europe so that European donors outside the United Kingdom may make gifts to the foundation and benefit from the tax advantages provided by their respective countries.

For more information about giving to the Northwestern University (USA) Foundation Limited, visit wewill.northwestern.edu/internationalgifts.

→ **Northwestern alumni and friends gathered in London last summer for a Celebrate Northwestern event.**

PRISON EDUCATION UNLOCKS POTENTIAL

New Northwestern program transforms the lives of inmates, students and faculty.

STORY AND PHOTOS BY MONIKA WNUK

← Andrea d'Aquino '20 PhD reviews chemistry concepts with student William Peeples during study hall at Stateville Correctional Center.

CORZELL COLE IS WORKING ON HIS REDEMPTION STORY.

During the 17 years he's been behind bars, Cole has actively tried to make positive change for his community, his family and himself.

"The reality is that I wake up in prison every day, but that doesn't mean I don't have goals," he says.

Cole is a 36-year-old man with a gregarious demeanor and perfectly maintained hair that he learned to trim while working as a barber at his cousin's barbershop in Joliet, Ill. In conversation, he'll take any opportunity to bring up his kids — three sons who are 21, 20 and 17 years old.

"I'm parenting from the penitentiary," says Cole. "My father wasn't around when I was growing up, and I want to make sure that my sons won't make the same mistakes I made."

↑ Corzell Cole is part of the inaugural cohort of Northwestern Prison Education Program students.

When Cole was 19, he was arrested on first-degree murder and attempted murder charges for his role as the driver in a shooting that killed a man and injured his teenage daughter. Cole was convicted and sentenced to 50 years in prison. He is contesting the conviction.

Almost two decades later, Cole is one of 42 men enrolled in the Northwestern Prison Education Program (NPEP) inside Stateville Correctional Center, a maximum-security prison for men in Crest Hill, Ill., located about an hour southwest of Chicago.

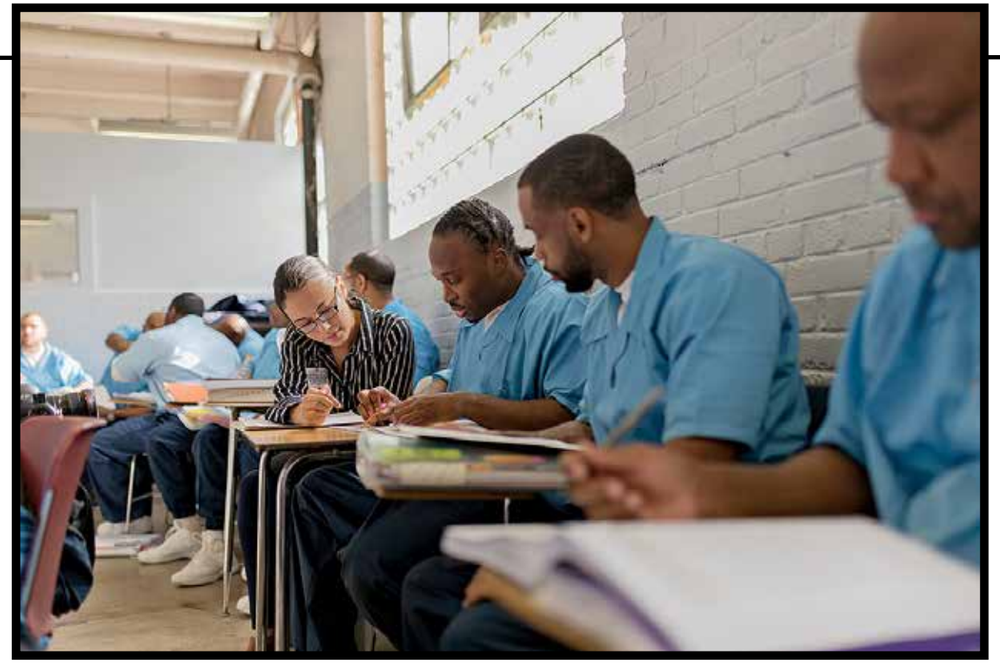
NPEP is a partnership between Northwestern and the Illinois Department of Corrections that grants college credit through the University's School of Professional Studies and in collaboration with Oakton Community College. Upon fulfillment of course requirements, NPEP students are eligible to earn an associate degree in general studies from Oakton. The program, founded and directed by Northwestern philosophy professor Jennifer Lackey, is the first in the state to offer a full liberal arts curriculum.

"The men in this program are phenomenal writers, they're aspiring lawyers, and they want to start businesses to promote economic development in their home communities," says Lackey, the Wayne and Elizabeth Jones Professor of Philosophy in Northwestern's Weinberg College of Arts and Sciences. "They're the same kinds of intellectually curious students we admit to Northwestern every year."

Northwestern volunteers, both faculty and students, play a vital role in every aspect of NPEP. At Stateville, Northwestern faculty teach in the program, and doctoral students also design and teach courses, while undergraduates serve as peer tutors at weekly study halls. On the Evanston campus, students organize extracurricular workshops and guest lectures to take place in the prison, raise funds for classroom supplies for Stateville students and run NPEP's social media channels.

"Hearing from our professors, students and volunteers, it's clear that NPEP has had a positive impact on the entire Northwestern community," says Lackey.

Lackey has cared about prison populations since she was 12 years old. To fulfill a community service requirement for school, she asked to volunteer at Cook County Jail. Once her request was approved, Lackey spent time visiting with women at the jail and hearing their stories.



↑ Northwestern senior Sophia Ruark volunteers as a tutor at Stateville. On campus in Evanston, she leads a group of undergraduates who support NPEP.

"I was raised by a single mother and I recognized — even as a child — just how many people end up incarcerated in this country due to circumstances outside of their control, and how incarceration can upend their entire lives," says Lackey.

The U.S. has the highest number of incarcerated people — roughly 2.2 million — of any country in the world, with incarceration rates four to eight times higher than other democracies. Additionally, a recent study by the Bureau of Justice Statistics showed that 77% of people released from state prisons return within five years.

Civil rights attorney Sheila Bedi has dedicated her career to ending mass incarceration. "The men at Stateville — and many men and women who are imprisoned in this country — have experienced systemic state disinvestment in their home communities, as well as the realities of mass incarceration and overpolicing," says Bedi, a clinical professor at Northwestern Pritzker School of Law. At Stateville she teaches Violence Reduction and Transformational Change in Justice Systems to a class made up of 10 incarcerated students and 10 law students.

One of her incarcerated students is William Peeples. At 55, Peeples is among the oldest students enrolled in the course and has spent almost all of his adult life in prison.

"The first time I went to prison was for something I wasn't guilty of," says Peeples. "I was 18 and thrown into a predatory environment, surrounded by hardened criminals. It didn't give me much faith in the judicial system."

While Peeples is grateful to learn more about the law himself — Stateville inmates are often well-versed in the legal details surrounding their cases — he also sees his involvement in NPEP as an opportunity to make a difference in the lives of others navigating the legal system.

"The opportunity to share my perspective with these young lawyers who are going to be defense attorneys, state's attorneys and judges who might even end up on the U.S. Supreme Court is invaluable and could really make a difference," says Peeples. (Read his essay, "When You Know Better, You Do Better," page 32.)

The Northwestern Prison Education Program

2018 NPEP classes began at Stateville

1st program in Illinois to offer a full liberal arts curriculum to the incarcerated

42 students enrolled (at Stateville) since the program's inception

40-plus Northwestern faculty have volunteered to teach

13 disciplines offered: biology, chemistry, philosophy, law, sociology, statistics, creative writing, English, political science, journalism, math, psychology, Asian languages and cultures

The discourse between the two populations was a big reason that Bedi decided on the 50-50 format enrollment for her class at Stateville.

Luke Fernbach, a second-year law student in class with Peeples is interested in civil rights law and prison reform. After graduation he hopes to pursue work that helps shrink the role of policing and reduce the number of people in prison by building up communities and promoting crisis intervention efforts — the types of efforts that might have helped some of his incarcerated classmates avoid prison. "One of the most important and often overlooked things you should learn as a lawyer is that in a lot of cases, the people who have the best solutions to legal questions are those most affected by them," says Fernbach.

Research has shown the numerous benefits of prison education. A large 2013 study by the Rand Corp. found that participation in a prison education program reduces re-arrests by 43%. The chance of re-offending also falls dramatically depending on the level of education completed. Furthermore, for every $1 spent on prison education, $4 to $5 is saved through reduced recidivism.

"I'm always surprised when people say we don't know how to deal with violence, because we absolutely do," says Lackey. "Education has been shown time and time again to be the most effective way of positively intervening in the criminal justice system."

The relationship between prison education and recidivism makes a strong case for Rob Jeffreys' agenda since he became acting director of the Illinois Department of Corrections last June.

"We have to be taking all the necessary steps to reduce recidivism and make people better when they leave than when they came in," he says. Jeffreys was appointed to the role by Gov. J.B. Pritzker '93 JD after 21 years with the Ohio Department of Rehabilitation and Corrections. Since he took office, Jeffreys has hired staff to lead efforts that bring technology — including internet access — to Illinois prisons, coordinate prison volunteer programs and provide re-entry services.

"I was raised by a single mother and I recognized — even as a child — just how many people end up incarcerated in this country due to circumstances outside of their control, and how incarceration can upend their entire lives." — Jennifer Lackey

Even with strong data to support it, prison education has not bounced back since the Crime Bill of 1994, through which Congress cut access to Federal Pell Grants — need-based grants for low-income undergraduate students — for prisoners, reducing the number of college-degree programs in prisons nationwide from 350 to just 12 by 2005. In 2015 the Obama administration approved a pilot program reinstating Pell Grant access to a portion of the incarcerated population — about 12,000 people to date — a first step toward incentivizing program development. In April 2019 a bipartisan bill was introduced in Congress to fully reinstate Pell Grant access for incarcerated people.

Still, programs like NPEP require investment from academic institutions and donors to exist. Recently NPEP was awarded a $1 million grant from the Andrew W. Mellon Foundation. In addition to supporting the NPEP program at Stateville, the grant will make it possible for Lackey to begin work on the only postsecondary prison education program for women in Illinois, at Logan Correctional Center in Lincoln — fulfilling her dream to help women like those she met on that first service trip years ago.

↑ NPEP founder and director Jennifer Lackey speaks with students and volunteers in a classroom at Stateville.

Mary Pattillo didn't know how a reading about foie gras would go over with her Stateville students. Teaching the same first-year sociology course at Stateville and in Evanston meant that she used the same syllabus for both cohorts, with identical readings and writing assignments. One of the readings was about the 2006 foie gras ban approved by the Chicago City Council after members decided it was inhumane to force-feed the birds.

"Very few students — whether from Evanston or Stateville — knew that foie gras is duck or goose liver," says Pattillo, the Harold Washington Professor of Sociology and African American Studies. "But we had the most fascinating discussion about the limits of government control, and the Stateville students chimed in about their own lack of control over their meals in prison."

This was not the first or last time that discussion topics produced different responses on both campuses. The class, which examines Chicago using sociological methods, included readings about various neighborhoods known for cultural diversity. While Pattillo's Evanston students were from all over the country, her Stateville students — many of whom grew up in the Chicago area — knew the city. They were also much older than the Evanston undergraduates. Some had children who were about the same age as their Evanston peers.

"Where Evanston students were green to sociology and to Chicago, the Stateville men knew Chicago and brought their experiences to class," says Pattillo, who is one of more than 40 Northwestern professors signed up to teach in the program. "What they didn't have was up-to-date information about the city, and because they were without internet access, I often had to go to the library and pull articles they requested for their research papers."

Corzell Cole is one of the students who took Pattillo's course. Cole grew up just a few minutes from Stateville, in neighboring Joliet, and recounts an early exposure to drug deals and shootings. When he was 8, Cole was hit in the arm by a stray bullet that ricocheted through his body, causing his lungs to collapse.

"That injury was a major setback for me — in sports and in school," says Cole.

He remembers taking care of his brother, while their mother worked two, sometimes three, jobs to support the family. Cole's father, who had battled addiction after losing a steady job, didn't play a consistent role in his life.

"Taking Professor Pattillo's sociology class allowed me to gain a deeper

NPEP at Cook County Jail

Magda Boutros '16 MA not only teaches sociology, she also shows her students at Chicago's Cook County Jail the ways in which education can lead to career possibilities. One of more than a dozen minicourses taught by Northwestern graduate students, Boutros' class serves as an introduction to an area of study at a critical juncture in her students' lives.

"The courses give people in jail an opportunity to get a taste of college at a time when most of them have few if any educational opportunities," says Boutros, who is also a coordinator of the program.

Since the Northwestern Prison Education Program (NPEP) partnership with Cook County Jail began in 2018, more than 100 certificates have been awarded to students who have completed courses in subject areas including biology, philosophy, poetry writing, statistics and more. Each course runs four to six weeks, and the curriculum is developed entirely by Northwestern graduate students who submit applications to the NPEP coordinators for consideration.

Boutros is a seventh-year doctoral student in sociology who studies police violence in France. Born to Egyptian parents, Boutros grew up in both Egypt and France. After graduating from college in France, she moved to Egypt, where she worked as an advocate for criminal justice reform during the 2011 Egyptian revolution. In 2013 she moved from Egypt to Evanston to pursue a doctoral degree.

When she heard about the opportunity to volunteer with NPEP, she was excited to work with incarcerated people again.

"It's been really inspiring to see the demand — from both sides — for these classes," says Boutros. "The jail students want more courses, and we have an increasing number of Northwestern students who are submitting proposals for courses they want to teach. Seeing this and teaching in the program myself have reinforced my belief in the transformative role that education can have within a prison setting." — *M.W.*

↑ Professor Mary Pattillo teaches Sociology of Chicago at Stateville. Pattillo, whose research focuses on sociology and African American history, has written about incarceration.

understanding of my own story," says Cole. "I was able to put my life into the context of systemic issues that happen in impoverished neighborhoods. My father losing his job, my parents separating and my mother raising two boys on her own — those things contributed to how I ended up in this situation."

Pattillo, whose research bridges sociology and African American history, has written about incarceration and has family and friends who have been incarcerated.

"People who are in prison are probably the absolute last constituency that even the champions of education would champion," she says. "What I have seen firsthand is just how much talent is locked up for life. I would argue that using your mind, your body and your spirit — which is what learning is to me — is humanity 101."

While many of the students are enrolled in core subjects including sociology, chemistry and math, there is room for electives as well. Quayshaun Bailey opted to take Writing the Dramatic Television Pilot.

"The assignment said we were supposed to write 15 pages, but I wrote the whole 60 required for a one-hour pilot," says Bailey, who wrote a script for a crime drama. "If I get some good feedback from that, I'm going to tuck it away and see if I can pitch it when I'm out."

Bailey, 27, has five years left in his sentence. He is one of a few students who transferred to Stateville from a medium-security prison after he was admitted to NPEP.

"I've been pursuing an education since I was first incarcerated, but when I heard about this opportunity with Northwestern, I saw the chance for my potential to skyrocket," he says.

The class Bailey took was taught by playwright Brett Neveu, who teaches in Northwestern's School of Communication. Neveu remembers his father volunteering at the prison in their hometown of Newton, Iowa.

"My father taught me that giving time could be just as valuable as giving money," says Neveu.

Neveu's course challenged students to learn the technical framework of TV pilot writing, starting with story mapping, and then to write their own pilot. As inspiration, he assigned readings of the pilot scripts of popular dramas including *Mad Men*, *Friday Night Lights* and *The Crown*. He was also able to get a gate pass approved for audiovisual equipment so that the students could watch the pilot for *Lost*. Neveu asked students to pay special attention to how the writer established tone and led the audience to want to watch the second episode.

"We talked a lot about the importance of voice in the television industry," says Neveu. "Reading the students' pilots, their voices — and the voices from their neighborhoods — came across loud and clear. It made me realize that voices like theirs are missing in writers' rooms today. We need their voices on television."

Stateville students have had their work picked up by prominent outlets before. In 2016 author and journalism senior lecturer and writer-in-residence Alex Kotlowitz helped eight inmates write personal essays that were published on the *New Yorker*'s website and became the basis for "Written Inside," a podcast produced by WBEZ, Chicago's NPR affiliate. This winter Kotlowitz, a two-time recipient of the Peabody Award for journalism, returned to Stateville to teach Criminal Justice Reporting: A Class Taught Inside to 10 Stateville students and 10 Northwestern journalism undergraduates.

"What I have seen firsthand is just how much talent is locked up for life. I would argue that using your mind, your body and your spirit — which is what learning is to me — is humanity 101." — Mary Pattillo

Many opportunities that are common on college campuses — like hearing prominent guest speakers, enrolling in workshops or assuming leadership roles in student organizations — can be difficult to replicate in a prison.

That's where Sophia Ruark comes in. As president of the Undergraduate Prison Education Partnership (UPEP), an army of Northwestern students behind the scenes who support NPEP, Ruark leads a group of students developing extracurricular programming, fundraising for academic supplies and building awareness of NPEP on the Evanston campus.

In 2019 UPEP organized a Buddhist psychology and meditation workshop at Stateville, which included Stateville and Evanston students.

"So many students came up to me after class to tell me how meaningful it was to have that space to share candid, emotional topics and learn how to use meditation," says Ruark, who is a senior pursuing a psychology major and legal studies minor. "In all the ways we would help Evanston students be successful, we should help the Stateville students too."

Ruark, who is from Grand Ledge, Mich., stepped into an adult role after her father went to prison while she was in high school. At the time, she wasn't sure if attending college would allow her to support her family. Interested in a future career in the U.S. Air Force, Ruark applied and was accepted to the Air Force Reserve Officer Training Corps, a program that allows students to complete officer training while getting a college degree. Now she says that her decision to support NPEP provided a way to bridge two important parts of her identity — student and servicewoman.

"The Air Force teaches you that you have a responsibility to your unit," says Ruark. "NPEP — my peers at Stateville and in Evanston, everyone who works so hard to make NPEP work — became my unit at Northwestern."

This spring Ruark, who received a Purple Pride Award at the 2019 Wildcat Excellence Awards for her work with UPEP, will graduate from Northwestern and become an officer in the Air Force. In the fall she will commission and begin serving as an aviator, becoming the first woman in her detachment in at least five years to do so.

NPEP tends to attract high-achieving Northwestern students like Ruark. On a Thursday night last fall, Andrea d'Aquino '20 PhD defended her doctoral thesis in front of the chemistry department, her friends and her family — including her identical twin, Anne d'Aquino '20 PhD, who would defend her biology doctoral thesis a month later. Andrea's defense was followed by a short celebration that wrapped up just before midnight. The next morning, the d'Aquino sisters woke up at 3 a.m. to make the trip to Stateville. Anne had been tutoring at the prison all quarter — and teaching a biology minicourse in a Cook County Jail program (which she co-coordinates) — while preparing to teach biology at Stateville the following quarter. (See "NPEP at Cook County Jail," page 29.)

Andrea had been coming weekly to teach chemistry with her co-teacher Steven Swick '20 PhD, who would also defend his chemistry doctoral thesis in the fall.

"Some of the students hadn't taken chemistry in a very long time," says Andrea, "so Steven and I worked together to design a course that made chemistry approachable. In their final papers, the students took a creative approach — explaining the chemistry of the world around them in letters addressed to their mothers, cousins and kids."

The d'Aquino sisters and Swick are headed to Stanford University for postdoctoral positions this year. They are just three graduate students whose experiences at Stateville have had a profound impact on their relationships with their disciplines and with teaching.

"NPEP has a positive impact on everyone involved — the Stateville and Evanston students who are expanding their worldview and the graduate students and professors who are becoming better teachers," says former Northwestern provost Jonathan Holloway. "When I look at how transformational the program has been for the Northwestern community, I'm inspired to think it has the potential to be a beacon in the world of prison education in this nation."

Monika Wnuk '14 MS, '19 MS is a writer and photographer in Northwestern's Office of Global Marketing and Communications.

Learn more about NPEP on our website at numag.nu/prison-education.

Prison Education Works

More than two-thirds of released state prisoners were arrested again within three years of release. Those numbers increased to 77% after five years and 83% after nine years.

- Prison education reduces re-arrests by 43%.
- The higher the degree, the lower the recidivism rate.
- Prison education, by cutting recidivism rates, saves $4 to $5 for each $1 spent.

When You Know Better, You Do Better

Stateville inmate says the Northwestern Prison Education Program has led to self-awareness and helped him grow as a conscientious human being.

by William Peeples Jr.

For the last 16 years, since my commutation from a death sentence, I've resided at Stateville prison in Joliet, Ill. My path to life without parole started when I was young.

I was born to teenage parents living in the Stateway Gardens housing project in Chicago's Bronzeville neighborhood. Less than a year later they separated and were headed for divorce. I would not meet my biological father until I was 7 years old. He remains a virtual stranger to me.

My late mother battled bipolar depression. One moment she would shower me with love and affection, the next she would physically and verbally abuse me. As an adult I would learn of her own sexual and physical abuse, as well as her mental illness. Growing up, I just thought she hated me, and all I ever wanted was her love.

During my formative years I had a stream of stepfathers, including some who negatively influenced me. I learned that fear and violence were tools of survival, and I was an apt pupil. At age 9 I bashed another boy's teeth out with a brick because he pushed my 4-year-old sister down, skinning her knee. At age 11 I stabbed another boy with a dinner fork because he called me a sissy.

By age 17 I was a full-grown delinquent and a member of the Black Gangster Disciples. But I was smart enough to pass the entrance exam and get into the then-prestigious Paul Laurence Dunbar vocational school. One teacher in particular saw great promise in me and tried to help me succeed.

However, the die had been cast. My short-lived career at Dunbar ended when I robbed a nurse at Michael Reese Hospital at knifepoint. I was caught, arrested and kicked out of high school.

I never looked back. Soon after, I was arrested for gang intimidation and aggravated assault. The case was eventually dismissed, but this latest incident convinced my mother that she had to get me out of the city.

Through a housing program called Section 8 my mother was able to move us to suburban Schaumburg, Ill. In the early '80s the city had only a handful of black residents.

The night after we moved in, my mom sent me to the store to buy cigarettes. On my way home a police officer stopped me, searched me and said, "We don't like you city n-----s in our town, so you be careful, boy." I thought of the stories my granny used to tell of black boys and men being lynched. I went home scared and humiliated.

One night my sister Kim and I got into a loud argument. Some concerned neighbor must have called the police, who kicked in our front door with guns drawn and shouted for me, and a relative who was visiting, to lie facedown on the ground. Hearing the commotion from her wheelchair upstairs, my mother demanded to know what they were doing to her son.

When my mom objected to the officers' threats to search the house, the younger cop barked, "We're gonna search this house even if I have to go through you to do it."

All fear left me at those words, and I stepped between the police and my mom and said, "If you put your hands on my mother, you're gonna need more than just a nightstick."

In the end, the sergeant arrived and said, "There's no reason for us to get involved. Let the n-----s handle their own problems."

The next day I was arrested while going to the store. They claimed I fit the description of a "black boy" who attempted to rape a white girl. I was beaten, choked and denied counsel until I signed a typed confession. At a hearing the judge ruled that I had "no proof to substantiate my claim" of innocence and that the confession was coerced. I could go to trial, but my public defender advised me to take four years for burglary and attempted rape and I'd be out in less than nine months. If convicted, I would face 30 years. I took the plea!

•••

An 18-year-old has no business being confined with seasoned criminals. But there I was, and if I wanted to survive I'd better learn the art of war. I learned too well. By the time I was paroled, I was a sociopath.

In prison it is mandatory that you carry a weapon. To be caught without a weapon can lead to certain death, or worse. Even on the outside, I could not shake the habit of being armed. One day while commuting to Chicago on a bus to go to school to become a medical assistant, I stabbed a white man after he called me a n----r! He caught all the rage from the injustice I felt I'd been afflicted with by whites in power. I went back to prison for 18 months, and when I came home this time, my soul was completely devoid of light. I began using drugs heavily; it was the only way I could numb the incessant pain in my heart. I took to burglarizing homes to get money for drugs. One such excursion would end in my vicious killing of another human being.

•••

In May 1990 I arrived on death row at Pontiac Correctional Center, where I would spend 13 years waiting to be executed.

My sentence was commuted in 2003 to life without parole. In April 2017 I'd been off death row for 14 years and was working in the chaplain department at Stateville when I bumped into a diminutive white lady who greeted me warmly. What was unusual about her was the way she navigated around the prison; she walked confidently and with a sense of purpose and wasn't fearful or standoffish. She looked me directly in the eye, acknowledging my humanity.

I'd heard about this powerful teacher — Professor Jennifer Lackey — who was determined to bring the torchlight of knowledge to the caves of Stateville. I had already begun my journey of self-actualization while still on death row, but I'd had no formal education since I received my GED in 1983.

I asked Professor Lackey if I could enroll in her values course, and she informed me that her class was already three weeks in. But then she said, "If you can catch up on the readings and write the six required papers, you're in." I assured her I could do it, and I missed yard and stayed up late two consecutive nights to accomplish my goal.

The values course was just the type of intellectual stimulation I craved, but more than anything I was impressed by how seriously Professor Lackey took educating the men in her class. Later that fall Professor Lackey told the class about the Northwestern Prison Education Program, in which we could earn credits toward a university degree!

I took an application with no intention of submitting it. After class Professor Lackey approached me and said sincerely, "William, I want you to apply. You'll be a wonderful student." I was 53 at the time, but I felt like a child who'd just been praised by his favorite teacher. I went back to my cell and wrote the best essay of my life. To my utter surprise, I was accepted! I felt so light, so ebullient, that I feared I might float away.

•••

NPEP has changed me in so many ways and enriched my life to a degree that constantly astounds me. I took a sociology course with the renowned Mary Pattillo. When I told my now-deceased granny about her, she exclaimed, "You mean the smart black woman I see on PBS all the time?" Professor Pattillo held us to the same academic standards as she did her Evanston students. She expanded my range of knowledge exponentially. Her writing assignments were challenging, and her hard-won praise of my essays made me beam with pride.

Then there are the Northwestern students who come here — rain, sleet or snow — every week to tutor us. One student, 19-year-old Devon, had a profound impact on me. I asked her to critique a paper on decision-making I had to write for Professor David Smith's psychology class. It dealt with my decision to marry a woman while I was on death row. After reading, and then re-reading my paper, Devon said, "You are an exceptional writer. I'm so sorry you've had such a difficult life." It was not what she said, but the sincerity behind what she said, that gave me the confidence that I could excel as a student.

NPEP has given me an extended family, people who see my human potential, and not just the horrible crime I committed. When you educate, you enlighten, and enlightenment leads to self-awareness and introspection. It sounds cliché, but it's nonetheless true: "When you know better, you do better."

NPEP has also had a big impact on my family. I grew up as the outcast. However, when they heard I'd been accepted into Northwestern University's education program, every one of them told me how proud they were.

Moving forward, my primary goal is to earn my freedom either through clemency or the "young adult" issue that allows judges to resentence men and women who committed their crimes at an age when they were not fully culpable. In the interim I intend to keep evolving, both intellectually and as a conscientious human being. I cannot undo what I've done, but I can atone.

The knowledge of what it means to be "human" awakened in me true remorse for the harm I have done to others. Knowledge gave me the courage to accept responsibility for my crimes against society, even though on many levels society had failed to nurture and protect the helpless child that I once was. True and lasting change is not the result of retributive justice and harsh sentencing. Change comes from a renewing of the mind, and that can only come through the education and cultivation of incarcerated men and women.

William Peeples, a student in the Northwestern Prison Education Program (NPEP), is serving life without parole in Stateville Correctional Center in Crest Hill, Ill. He was part of the original cohort of NPEP students.

Illustation by Katherine Lam

SAVING AFRICA'S LAST RHINOS

Engineering student Saif Bhatti has created an acoustic device that can detect poachers' gunshots — and help stop the relentless slaughter of rhinoceros for their horns.

BY AMANDA MORRIS

Photograph by Ami Vitale

You can tell a lot about a poacher by the way they dehorn a rhinoceros.

Was the horn hacked off crudely — snout and all — with a machete? Or was it removed skillfully with a sharp, scalpel-like instrument, right along the thin partition of cartilage that separates horn from bone?

As Saif Bhatti bumped along the dirt back roads of Thornybush Game Reserve in South Africa, he was unsure which one they might find. He sat shotgun in an old pickup truck next to the reserve's security manager, who held his phone in his right hand, gripped his radio in his left and steered through the savanna with his elbows. Someone in the area had reported two gunshots fired around 6 a.m. But in the sprawling 35,000-acre park, it was hard to know where to search.

With more than 8,000 poached in South Africa from 2010 through 2019, rhinos are likely to become extinct within our lifetime. Habitat loss is partially responsible for the rhinos' dwindling numbers. But, overwhelmingly, poaching remains the largest threat. On the black market rhino horn is worth more than gold, which fuels illegal hunting.

The search for the poachers in Thornybush took place throughout the day and night and included helicopter, patrol and canine units at different times.

It wasn't until the next morning that the security manager's radio crackled to life: His team had discovered the carcass of the reserve's last female black rhino.

The first bullet had ripped through the right side of the rhino's abdomen. As she turned to run, a second shot blew through her left shoulder. She finally stumbled to the ground and — likely painfully and slowly — bled to death. The rhino was pregnant; the fetus did not survive.

Where the rhino's horns once perched upright, now there were exposed sinuses, glistening and yawning toward the sun.

"The horn had been expertly removed," Bhatti says. "It was not this group's first poach."

But if Bhatti's new technology works as well as he imagines, this poach could be one of their last.

Cold-Hearted Reality and New Motivation In April 2019 Bhatti began developing Renoster, a smart listening device that detects gunshot sounds in the savanna. (The name means rhinoceros in Afrikaans.) The devices, which are slightly bigger than the palm of a hand, sit in trees, scattered throughout the reserve. When a unit detects a gunshot, it automatically sends a signal and location to the game rangers' operations hub. Having that location (within a 100-meter radius) means there is no aimless driving or needless dispatch of helicopters and canine search units. Rangers have a head start to reach a potentially still-alive rhino and perhaps even the culprit.

Thornybush Game Reserve lies to the west of Kruger National Park. One of Africa's largest game reserves at nearly 5 million acres, Kruger teems with wildlife, including more than 20,000 rhinos, and is a hotbed for poaching. Wedged against South Africa's northeastern border, Kruger and nearby game reserves like Thornybush are particularly vulnerable.

"At the current rate of poaching, rhinos will be extinct within my lifetime." — Saif Bhatti

Poachers can easily escape into nearby Mozambique, where enforcement of wildlife poaching laws remains inconsistent.

Before his first trip to Africa last August, Bhatti had only seen rhinos on television and at the zoo. Half Syrian and half Pakistani, Bhatti was born in Pakistan and then grew up in London. He credits U.S. and European movies and TV shows for expanding his grasp of English. Wildlife shows on the National Geographic channel drew Bhatti in and inspired him to protect and defend endangered animals.

Witnessing the discovery, recovery and subsequent autopsy of the black rhino in Thornybush marked the first time Bhatti saw a rhino up close in the wild.

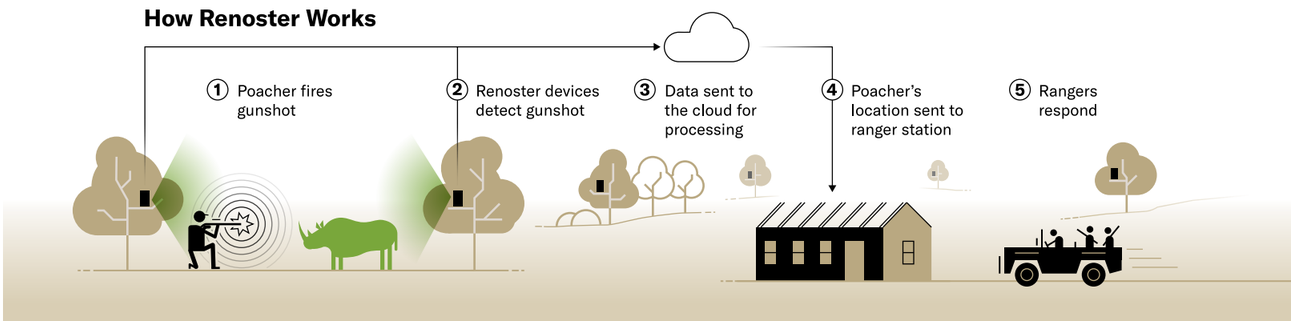
"Seeing the dead rhino was a devastating, cold-hearted reality," Bhatti says. "It was surreal but it gave me new motivation for why my technology is relevant and why it's important to get the product on the ground. If we could help catch one poacher, that would be a huge deterrent."

Purpose-Built Technology Bhatti's device uses signal processing to distinguish gunshots from other loud noises, such as thunder, branches breaking or elephants stampeding. To refine gunshot detection, Bhatti has worked closely with Stephen Tarzia '09 MS, '11 PhD, an assistant professor of computer science in the McCormick School of Engineering. An expert in acoustic sensing, Tarzia and his graduate students, Jiayue Sheng and Yuxing Guo, have helped Bhatti implement signal processing algorithms into his devices.

The basic challenge is to make a computer capable of listening for gunshots, Tarzia says. "The software must be simple enough to run on a cheap, solar-powered microprocessor but also sophisticated enough to distinguish between a gunshot and similar sounds."

To train the device, Bhatti and his collaborators went to an outdoor shooting range. They recorded sounds from guns commonly used in poaching — including those with silencers.

The shooting range trials paid off. "In tests at Thornybush during the African winter, our device was able to detect a nonsuppressed weapon from 800 meters away and a suppressed weapon from 300 meters away,"



INFOGRAPHIC: MATT TWOMBLY; PHOTO: AMI VITALE

Bhatti says. “Based on those estimates, we calculated that just 20 units could cover an area of 10,000 acres or so.”

Once a Renoster unit registers a gunshot, it sends relevant data to the cloud for trilateration, the process of determining locations by measurement of distances. Because cell service can be unreliable in the bush, Bhatti is focused on building a mesh network based on radio communication. For power, the device contains a battery that recharges with solar energy.

Africa has implemented other technological strategies to combat poaching, but none were specifically designed and built with poaching in mind, according to Bhatti. For example, a recent installation of a U.S. gunshot detection system in Kruger National Park did not fare well because the technology was designed for an urban environment.

“There are so many small intricacies and engineering challenges in the savanna,” Bhatti says. “It’s extremely hot with very little power supply and lots of dust. We wanted to make a purpose-built technology that takes those things into account.”

Tarzia credits Renoster’s innovative technology to Bhatti’s visionary thinking and collaborative approach.

“Saif has excelled at creating a vision for his project, forging partnerships and building prototypes,” Tarzia says. “My main role has been to slow him down when necessary to show him how to navigate the engineering product development steps that lead from that initial idea to successful deployment.”

On the Front Lines Conservationists and rangers have tried many methods to deter rhino poachers, with little success.

“The conservation of rhinos is not a simple issue,” says Martin Nieuwoudt, director of the Institute for Biomedical Engineering at Stellenbosch University in South Africa and one of Bhatti’s advisers. “It has turned into a literal war in the northeastern part of South Africa. Many conservation biologists, who got into science because of their love for ecosystems, are now soldiers in that war.”

Nieuwoudt has studied the radio tracking of rhinos, which is notoriously difficult. By continuously monitoring rhinos with an ankle bracelet, he says, experts could potentially learn more about rhino behaviors. This information could make rangers more proficient at protecting the world’s last rhinos and rebuilding their fading populations.

“This is difficult for many reasons,” Nieuwoudt says. “Rhinos have an incredibly thick hide and hate having anything attached to them. They will destroy those things.”

Rangers also have tried safely removing rhinos’ horns preemptively, hoping to remove the temptation to poachers. Tragically, this seemingly logical solution has not worked either. Poachers have continued to kill rhinos for the horns’ remaining, blunted stumps, because it is the heaviest — and thus most valuable — part of the horn.

Try, Try Again Of course, Bhatti’s system also has faced its own challenges.

Last summer he mounted 15 Renoster units in trees across Thornybush. From there, he encountered multiple unanticipated engineering challenges. Everything from the types of trees to the heat to the rain disrupted his plans.

“I wanted to put the devices up in the trees to avoid interference from the deviations of sound on the ground,” he says. “But then I learned that elephants just like smashing trees. It’s a favorite hobby of theirs. I had to make sure to pick sturdy trees, like the marula.”

And then there was the weather.

During the summer rainy season, parts of South Africa receive heavy amounts of rain. A big challenge is to make the units porous enough to allow sound to enter them while ensuring that they remain water- and dust-proof. Bhatti first put boxes around the devices to waterproof them. The boxes, however, made the devices more susceptible to heat. “It turns out that when you put a device in a black box out in the summer sun, it’ll bake,” Bhatti laughs. For his next iteration, he used a special UV coating.

To help solve the waterproofing problem, Bhatti used Gore-Tex material to make a semipermeable acoustic vent that would prevent dust and water droplets from getting inside the device but still allow the microphones to pick up sound.

In late December, Bhatti returned to Thornybush Game Reserve to add the acoustic vents to his devices. He also collected data from the devices to see how well they processed and correctly identified sounds.

“When I first installed the devices, it was winter, so the bush was dead,” Bhatti says. “When I returned in the summer, the landscape was lush with greenery. The additional foliage really influences how sound dissipates away from a gunshot, so capturing that difference was important.”

Those working with Bhatti expect that he will press on until he perfects Renoster.

“Saif’s primary personality trait is persistence,” Niewoudt says. “He simply does not give up.”

Northwestern Network in Action With its vulnerable rhino population and manageable size, Thornybush Game Reserve seemed like the natural place for Bhatti to field-test Renoster. And even better — Thornybush has a Northwestern connection.

← Clockwise from left, McCormick senior Saif Bhatti visits South Africa’s Thornybush Game Reserve in August 2019 to field-test Renoster; while testing the device (with circuitry exposed) in the bush, Bhatti saw a herd of white rhinos; the Renoster device sits perched high in a marula tree to maximize listening and transmission range.

Demand from Asia Drives Rhino Poaching

On the black market, rhino horns are worth more than gold — up to $100,000 for one kilogram of ground-up powder. Although global trade in rhino horn is banned by the Convention on International Trade in Endangered Species (CITES), skyrocketing demand in Asia since 2007 has led to unprecedented levels of poaching in South Africa. More than 8,000 rhinos have been slaughtered there in the last decade, mainly in and around Kruger National Park, including Thornybush Game Reserve, where engineering senior Saif Bhatti is testing his anti-poaching technology, Renoster.

Most poached rhino horns from Africa end up in China, where they are ground up, dissolved in liquid and used in traditional medicines. Rhino horns are made of keratin — the same substance in human fingernails and horse hooves. Although there is no evidence that keratin has any medicinal benefit, people have used rhino horns for 2,000 years for perceived treatments for many ailments, including hangovers, snakebites, headaches, cancer and impotence. In China and Vietnam rhino horns are also a status symbol and often used as ornaments, dagger handles and jewelry. — *A.M.*

MAP: MATT TWOMBLY

Northwestern’s Global Learning Office (GLO) connected Bhatti with Nieuwoudt, the Stellenbosch University professor who directs the South African side of Northwestern’s Global Healthcare Technologies study abroad program. The GLO also helped put Bhatti in touch with alumnus David Bunn ’80 MA, ’87 PhD. After meeting with Bhatti in Evanston, Nieuwoudt later introduced him to Bunn, the former director of the Wits Knowledge Hub for Rural Development at the Wits Rural Facility, one of the largest and most prestigious rural research centers in Africa.

Bunn then connected Bhatti to the owner of a resort at Thornybush. Once this connection was made, Bhatti was off to the reserve to begin testing device prototypes. “This project almost didn’t happen because I couldn’t find any inroads,” Bhatti says. “But after Martin and I connected over our shared passion for animal conservation, everything changed.”

Protecting the Bush This June, Bhatti graduates from Northwestern with a bachelor’s degree in industrial engineering and philosophy. But his journey with Renoster will not end with the Commencement ceremony. In addition to Gore-Tex, Bhatti has support from Thornybush, the Nature Conservancy, the Institute for Sustainability and Energy at Northwestern (ISEN) and the McCormick School to continue to develop his device.

Bhatti currently builds each device, one by one, in the lab. As soon as the prototypes are perfected, he will have enough funding from ISEN to enter a manufacturing stage. Professors at the Northwestern Pritzker School of Law also advised Bhatti on establishing Renoster as a private company, which will launch this summer.

Although developing the technology has been gratifying, Bhatti is motivated by the people he has met at the reserve and by the lifeless face of the lone rhino he saw on his first day at Thornybush.

“At the current rate of poaching, rhinos will be extinct within my lifetime,” he says. “People in South Africa are fighting to protect the bush on a daily basis. Just being able to help them in some way, that’s been the most rewarding.”

Amanda Morris ’14 MA is a science and engineering writer in Northwestern’s Office of Global Marketing and Communications.

Learn more on our website at numag.nu/renoster.

Multilingual international alum Alex Saratsis represents some of the NBA's best from around the globe, including his fellow countryman — the "Greek Freak," Giannis Antetokounmpo.

BY JAKE FISCHER

FREAK AGENT

After a 4:30 a.m. workout hitting mitts with his trainer, Alex Saratsis '02 is completely soaked in sweat. An amateur fighter with almost nine years of experience in muay thai, he finds that the intensity and focus of kickboxing prepare him for the day ahead. "I feel like I have to get into it," Saratsis says.

His thoughts turn to the day's itinerary. He'll return home by 5:45. His kids wake at 6. After his wife, Amanda Muhs Saratsis '02, an assistant professor of neurological surgery and biochemistry and molecular genetics at the Feinberg School of Medicine, departs for another day of pediatric neurosurgery at Lurie Children's Hospital of Chicago, Saratsis feeds Beckett, 6, and Eva, 3, and sends them off to school.

Finally, another day as perhaps the world's premier international sports player agent, directing Octagon Worldwide's global basketball operations, begins in earnest. With a pugilist's intensity, Saratsis is ready to fight for each of his clients.

This summer Saratsis' top client, Milwaukee Bucks superstar and reigning NBA MVP Giannis Antetokounmpo, faces a potential contract extension that could make him the highest-paid player in league history. Should Saratsis and Antetokounmpo decline the deal, they would signal that such a revelatory talent would be open to departing Milwaukee and reaching free agency in 2021, possibly shifting the balance of the NBA for the next decade before these new roaring '20s truly begin.

July's NBA offseason will improbably orbit two Greek nationals, both born in Athens — the connection that sparked Saratsis' fortuitous representation. "Honestly, to a certain degree, it was just right place, right time, right nationality," he says. That modesty downplays an intercontinental upbringing and a foundational Northwestern education that readied him to represent one of the greatest international athletes to ever grace the NBA.

Saratsis' skills have helped turn Octagon into an international basketball leader. "The company began focusing on international players in the decade before I was hired in 2009," says Saratsis. "Once I joined the agency, however, there was almost a mandate from the NBA to continue to grow and expand its international business."

A dual citizen of the U.S. and Greece, Saratsis could claim global citizenship given his multicultural and multilingual abilities (English, Greek, Spanish and Italian).

"It really does take a village to represent a top athlete well," says Phil de Picciotto, co-founder of Octagon Worldwide. "That village, especially in basketball, has become a global village. The fact that Alex is comfortable in multiple cultures, thinks of himself as a citizen of the world and can relate to people through his own background by extrapolating the similarities is, I think, very rare in this industry."

When he's not stateside, working out of Octagon's Chicago office, Saratsis is scouring the world for the next great international prospect.

"When I go out and look at different clients that we'd like to add to our practice, I don't always look at who's the most talented or who's the most marketable. I try to find guys whose priority is basketball, guys who want to be better," Saratsis says. "I really like guys who have something to prove and who are humble and hungry and work hard."

What makes the Greek phenom Antetokounmpo so exceptional — aside from his talent, measurements (6-foot-11 with a 7-foot-3 wingspan and 12-inch hands) and skill level, says Saratsis, is that "he is one of the hungriest and most driven people I have ever met in my life.

"He came from an environment where, if he didn't sell goods on the street, he couldn't feed his family. Giannis told me several years ago the reason why he's so determined is because he remembers what it was like to be on the streets in Sepolia [a neighborhood in Athens], selling things to survive. He can have as many endorsements as he wants, he can have a tremendous amount of off-court interests and partnerships — but his main focus is to be the best basketball player he can be."

•••

Generations of the Saratsis family called Greece home until Costas Saratsis' managerial role in a pharmaceutical conglomerate changed and the company shipped him, his wife, Sandy, and their three kids, including a 7-year-old Alex, to the Polanco neighborhood of Mexico City in 1987.

While Costas supervised his company's burgeoning new office, Alex quickly grasped the intricacies of Spanish in addition to speaking English and his native tongue. "I was lucky," he says. "I spoke three languages by the time I was 8."

Crime rose in Mexico amid the political unrest of the mid-1990s. Saratsis' home was robbed on three occasions, once while the family slept. The Saratsis children were warned against leaving the house by themselves. Two of Alex's closest friends, a pair of brothers, were kidnapped but fortunately returned in time for school on Monday. That was Costas' last straw. When the call came to relocate his family once more, he quickly relayed his options to his children: Czech Republic or Japan? His three teenagers unanimously chose Tokyo.

At school in Japan, Saratsis encountered classmates from across the globe. His friends were sons of diplomats from Nigeria, Italy and France. When visiting their houses, he ate and helped cook authentic udon or chin chin.

"Japan is such a magical place," he says. "And living internationally you learn so much about people and different environments."

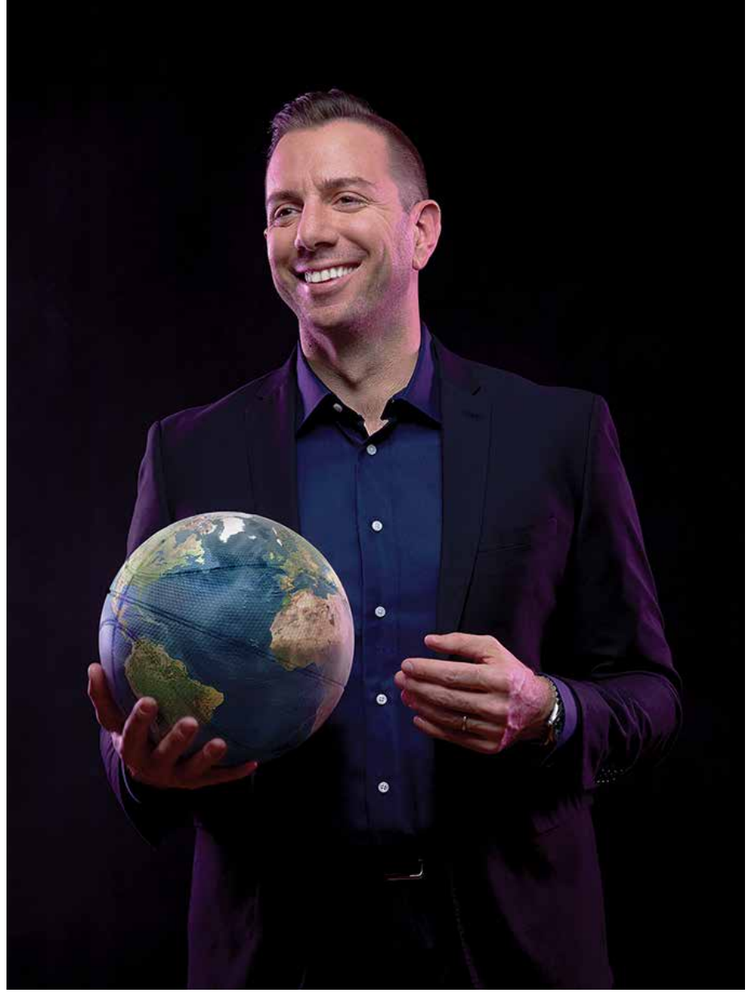
Saratsis developed a natural malleability, his worldly upbringing

"Honestly, to a certain degree, it was just right place, right time, right nationality." — Alex Saratsis

Photograph by Jeff Sciortino

“My political science major taught me to understand different cultures, how to do business in different countries and that decisions made in the past can shape what happens in the future.”

— Alex Saratsis



↑ Alex Saratsis

JEFF SCIORTINO

presenting nothing but new situations with foreign figures. He always assumed he’d someday return to Greece and thus chose to attend college in the United States. He landed in Evanston as a political science major, with dreams of becoming a Greek diplomat.

It turned out, however, that his political science and international relations classes were the ideal setup for his future as a sports agent. “My political science major taught me to understand different cultures, how to do business in different countries and that decisions made in the past can shape what happens in the future.”

While his Northwestern education prepared him well for his career, the University also led him to his life partner. During Senior Week he met Amanda Muhs, the woman who would become his wife. Because a diplomatic career in Greece first required two years of mandatory military service, Saratsis opted to remain in Chicago with Amanda after she completed a triple-major program in physiology, biological sciences and psychology in five years. He had interned at a local basketball agency throughout college, which provided a starting ground that helped him forge his career.

Through his increasing connections with the city’s hoops scene, Saratsis soon joined CSMG, a Chicago-based sports management and marketing firm.

“My first eight years in the business, I made more mistakes than I can count,” Saratsis says.

However, he scored some early success. The European market was an instinctive starting point for a multilingual agent. Within the first six months of his career in sports management, Saratsis signed a splashy Real Madrid basketball prospect from Poland — Maciej Lampe. His first client got drafted by the New York Knicks in 2003.

Some recruiting trips spanned a month in Europe, pit-stopping across eight different countries in 10 days, allowing Saratsis to expand his Rolodex as much as possible. “In the beginning I had nothing to sell,” he says. “I was trying to sell what I thought I could potentially be.”

Stateside, he followed Amanda to Washington, D.C., during her residency at Georgetown University Hospital and, through a contact, met with Octagon Basketball’s senior vice president Jeff Austin in the agency’s D.C. office. Austin had agreed to the sit-down as a courtesy interview. Saratsis arrived late to the meeting after struggling to find the building’s parking garage. Thirty minutes later he had detailed how the NBA was about to explode with overseas prospects and how Octagon could take advantage of the groundswell of young talent looking to play among America’s best.

“I remember his presence and the way he handled himself and his knowledge of European basketball and what he had done,” Austin recalls. “I got a good gut feeling that this was a guy I needed to have with me.”

Instead of paying international agents to essentially broker contracts for their clients with foreign teams, Octagon was employing European-based agents of its own. Saratsis soon partnered with Giorgos Dimitropoulos, a Greek industry veteran, to help direct Octagon’s European division.

The Dimitropoulos partnership quickly proved valuable. He knew former Greek national team assistant coach Giorgos Panou — whom they’d later employ at Octagon Basketball Europe. It was Panou who had spotted a young, gangly Giannis Antetokounmpo in a local Athens gym and referred the phenom to Octagon for representation.

With Saratsis’ assistance, Antetokounmpo became the 15th pick in the 2013 NBA Draft, landing in Milwaukee.

“Alex has been there since day one,” says Antetokounmpo.

“I think I’ve become a better basketball player, and he’s become a better agent,” he adds. “One of the things that I love about Alex, he never hypes me up. You know how agents say, ‘Oh you’re the best. You’re gonna make this amount of money. You’re gonna get this amount of endorsements.’ I don’t like that. And he respects that. He never does that to me.”

Saratsis has connected deeply with players’ families and team executives alike. While attempting to recruit Brazilian prospect Bruno Caboclo to play for the Toronto Raptors, Saratsis cemented a true friendship with Raptors lead executive Masai Ujiri. They spent two full days together in São Paolo, at one point finding their way into a dinner at the Brazilian president of basketball’s palatial estate. “They’re moments you remember all your life in terms of experience and growing,” Ujiri says.

Milwaukee Bucks’ co-owner Marc Lasry has also developed a kinship with Saratsis.

“It is a big deal when I say that he’s a good guy,” says Lasry. “When he calls me up to talk about something, I take him at his word, which is very important.”

“Alex has been there since day one. I think I’ve become a better basketball player, and he’s become a better agent.”

— Giannis Antetokounmpo

MIAMI HEAT; GARY DINEEN/NBAE VIA GETTY IMAGES; DALLAS MAVERICKS; LOS ANGELES CLIPPERS; OKLAHOMA CITY THUNDER

SARATSIS’ CLIENTS INCLUDE

BAM ADEBAYO

In his third season out of the University of Kentucky, the bounce forward is averaging 16 points, 11 rebounds and 5 assists per game for a surprisingly competitive Miami Heat team that is vying for a top seed in the Eastern Conference playoffs. In January Adebayo was named to his first All-Star Game.

GIANNIS ANTETOKOUNMPO

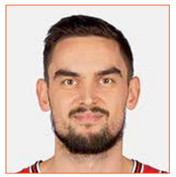
The reigning MVP is leading the Milwaukee Bucks to the league’s best record. At press time Antetokounmpo was averaging career highs in points (29.6) and rebounds (13.7) per game while dishing 5.8 assists per game (his career high is 5.9 per game). On July 1 he will be eligible to sign a five-year, $247 million contract extension that would be the largest deal in NBA history.

SETH CURRY

The younger brother of three-time champion and two-time MVP Steph Curry, Saratsis’ client has carved his own niche in the NBA. Having signed a four-year, $32 million deal with the Dallas Mavericks last summer, Curry is shooting 45.3% from 3-point range for the season.

MFIONDU KABENGELE

The nephew of NBA legend Dikembe Mutombo, the 6-foot-9 Kabengele was selected out of Florida State with the 27th pick in the 2019 NBA Draft by the Brooklyn Nets and immediately traded to the Los Angeles Clippers. The Burlington, Ontario, native is averaging 3.5 points per game.



TOMÁŠ SATORANSKÝ

Satoranský played three seasons with the Washington Wizards before being traded to the Chicago Bulls in June 2019. He has started every game for his new team, averaging 10 points per game. Satoranský is also a member of the Czech Republic men’s national team.

DENNIS SCHRÖDER

The German-born Schröder averages 19 points per game for the Oklahoma City Thunder. Having begun his career with the Atlanta Hawks, Schröder has helped Oklahoma City back to the playoffs this season.

↑ Giannis Antetokounmpo, left, and Alex Saratsis

Saratsis' transparency also greatly benefits his clients.

"If you don't have a connection with your agent, you don't have an agent. You just have somebody working for you," says Miami Heat forward Bam Adebayo, a budding All-Star who frequently gets earnest feedback from Saratsis by phone.

"He's really down to earth and honest," Adebayo adds. "He's not one of those yes-man types."

Saratsis would agree.

"I'm extremely blunt with people, which isn't always the best way to be, but I think, if you work for your client and not for yourself, honesty is paramount to being a good agent," he says. "And in an environment now where basketball is global, you have to get outside your comfort zone to understand how people think."

Looking to the future of basketball, Saratsis says that the NBA is doing a great job of growing its fan base internationally, recently adding streaming services in India, for example, and new development camps in Bangladesh.

"I'm continuing to see the growth of basketball globally — new sources of revenue, new ways that the game can touch the world.

"I'm excited to be a part of that."

Jake Fischer is a former Sports Illustrated *reporter.*

Get a behind-the-scenes look at our photo shoot with Alex Saratsis and watch an interview with him at numag.nu/freak-agent.

IT'S ALL GREEK — TO GIANNIS AND ALEX

On July 1 the Milwaukee Bucks are all but guaranteed to offer Giannis Antetokounmpo, the NBA's reigning MVP and Alex Saratsis' star client, a five-year contract extension expected to be worth a league-record $247 million.

The son of undocumented Nigerian immigrants in Greece, Antetokounmpo began playing basketball in a dilapidated Athens park with his brothers, Thanassis and Kostas, now NBA players as well. Through a chance discovery by local hoops figures, the brothers quickly ascended within the Greek basketball scene.

Saratsis originally observed Antetokounmpo's talent in Greece but didn't want to overwhelm the young phenom, on the threshold of changing his family's lives forever. He first spoke to his client when the 18-year-old arrived in New York City the day before the 2013 NBA Draft.

"You could just tell that there was an innocence to him, and a sweetness, but it's the same Giannis you see now," Saratsis says. "He has always been a fierce, fierce competitor."

After getting picked by the Milwaukee Bucks, Antetokounmpo spent his first six months living on his own in a Milwaukee hotel — until his family could get visas to join him. So Saratsis traveled to Milwaukee from Chicago every three to four days to see his new client, help him adapt and go shopping for food, sheets and toiletries. Sharing the same first language (Greek), birthplace (Athens) and mutual family values, Saratsis and Antetokounmpo developed a strong bond that goes far beyond the typical agent-client relationship.

"Our connection was really strengthened because when we'd be in meetings or talking with teams, he could easily turn to me and tell me something in Greek that he didn't want anybody else to know," Saratsis says. "We spend so much time together, Giannis and I are at the point now where it's almost nonverbal. I can tell what he's thinking without him even saying anything to me."

"He's not my agent, he's one of my best friends" says Antetokounmpo. "He's become family during these seven years, and it's always great to have him by my side."

This summer Antetokounmpo will visit Nigeria for the first time, to see the country where his parents grew up. Saratsis will be with him every step of the way.

— J.F.

ALEX SARATSIS

Alumni

ALUMNI TRAVEL

More than 180 Northwestern alumni and friends hit the slopes in Winter Park, Colo., for the 18th Young Alumni Ski and Snowboard Trip in February.

Creation

↑ Kevin Salwen, right, and his co-author Kent Alexander

TRUE CRIME

Five Questions with Kevin Salwen ’79

In his book *The Suspect* the former *Wall Street Journal* editor casts a wary eye on the FBI and the media for the rush to judgment that changed the life of Richard Jewell.

1

What were your motivations for writing this book?
At the 1996 Olympic Games, Richard Jewell discovered a massive bomb hidden under a bench in a crowded park, helped to clear a perimeter and saved scores of lives. But over the next several weeks, he was judged to have been the bomber, then tried and convicted in the court of public opinion. This case was led by two of the most powerful forces on earth: the FBI and the media. And I always wondered how it all went so horribly wrong, that a man who should have a statue in the center of Atlanta ended up being in the crosshairs of those two powerful forces.

2

How did you reconstruct the story of the bombing and the investigation?
At the time of the bombing, I was running the *Wall Street Journal*’s Southeast news operation. My co-author, Kent Alexander, was the U.S. attorney. So we thought he knew all the law enforcement stuff and I knew all the journalism stuff. Far from it. Over five years we did 187 formal interviews. We read through more than 90,000 pages of documents. We were frequently surprised by what we hadn’t known. Then, the trick was to create something that doesn’t read like a history book but instead reads much more like a work of narrative nonfiction, even a novel.

3

What are the lessons learned from the media’s role in what happened to Richard Jewell?
The media need to get back to valuing accuracy over speed, the critical nature of slowing down and getting it right. Not everything is knowable right now. Another important lesson: If the standard journalists are using for whether to run a story is whether it’s libelous, that standard isn’t high enough. That’s the lowest bar you can clear. In this case, the story about Richard Jewell being the lead suspect was factual. But he was never arrested or charged with any crime. Did everyone who was writing about that forget about the fact that there’s a human being on the other end of that story? And the toll that took on Richard Jewell — and his mother — was devastating.

4

Do you think the book vindicates Jewell?
We got a delightful note from Dana Jewell, Richard’s widow, saying, “I believe that the time you guys spent with me and the truth in the book has fulfilled my promise to Richard to ensure his story was told. I don’t have the words to tell you both how much I appreciate what you have accomplished with this book. Trust me, you did not disappoint.”

5

What was it like to work on the *Richard Jewell* film?
Every writer’s dream is to get Hollywood to make a film from the book. We so exceeded the dream when Clint Eastwood took over our project and became the director of the film based on our book. We met with Clint. We met with the screenwriter, Billy Ray. We met with the entire top line of the cast. Every single one of them was warm, friendly, open to ideas and interested in learning more about the people they were playing.

Interview conducted by senior editor Sean Hargadon.

HARRIS: STEPHEN KARLISCH

DÉCOR DESIGNER

In 2013 Flann Harris ’04, left, quit his gig as head of purchasing for the Waldorf Astoria in New York City and headed to Dallas to create Scout Design Studio with his lifelong friend Tiffany Taylor. They operate a 15,000-square-foot retail showroom in the Dallas Design District where you can find vintage originals and the studio’s private-label, limited-run home décor furniture line. Harris, an Oklahoma native who studied voice performance and opera at Northwestern, spends his days between Parisian trade shows and trips to local flea markets and estate sales, where he scouts for inspiration. “Northwestern really taught me never to limit what I thought I could do,” says Harris, a former president of the NU Club of Dallas/Fort Worth.

COMMUNITY DEVELOPMENT

International Flavor

When Alice Foeller ’98 wants to promote the potential of her international enclave on the north side of Columbus, Ohio, she takes visitors to Tasty Hands, “a hole in the wall African place” with incredible food — and some issues with service, Foeller admits. With a little help in understanding how to appeal to an upscale customer, Foeller thinks Tasty Hands could be part of an authentically international dining destination in the Ohio capital’s Northland neighborhood, an economically neglected part of town.

The strip malls along Northland’s main thoroughfares are filled with multicultural mom-and-pop shops and ethnic restaurants. Foeller, who lives in Northland and grew up 2 miles away, sees the importance of supporting the area’s economic backbone — immigrants and refugees from Africa and South Asia.

Foeller, owner of the online marketing company SiteInSight and president of the Northland Area Business Association, is co-founder of Elevate Northland, a community development corporation. With help from Columbus-area backers, including Roger Blackwell ’66 PhD, the social enterprise plans to open a facility this summer that will include event space, a shared commercial kitchen, flexible offices, artist studios and a retail area where vendors can sell handmade goods from kiosks. Elevate Northland will also offer business support services. “We want to provide a safe place for people who are motivated to start something on their own to take a risk,” Foeller says.

↑ Danny M. Cohen, right, and bandmate Greg Lanier

MUSIC

Professor's Debut Album Tackles Love and Justice

In the classroom, Danny M. Cohen '06 MA, '11 PhD grapples with the big issues. An associate professor in both the School of Education and Social Policy and the Crown Family Center for Jewish and Israel Studies, he teaches social change, human rights and Holocaust history.

Outside the classroom, the London native is an author, nonprofit leader and folk-rock singer-songwriter. In 2017 he formed the Chicago band They Won't Win alongside Greg Lanier after the two men discovered a shared passion for music. Having performed throughout the city, the duo expanded and released their debut album, *Lost at Sea*, in June 2019.

The album is a personal exploration of everything from mental health and LGBTQ acceptance to homelessness and modern love. "One of us will start writing a song," explains Cohen, "and the other will say, 'What's that really about?' Then we'll sort of push each other, especially on the lyrics."

While Cohen uses music as a respite from his teaching and research, social topics unintentionally found their way into the album's lyrics. Both he and Lanier are gay, married fathers and have close friends and family members who have experienced hardship, including homelessness and abuse. Their parallel backgrounds also extend to their professional work in social justice.

"All of these social issues started to bubble up to the surface," says Cohen. "Some parts of the album could be used to help communities have conversations they're currently not having."

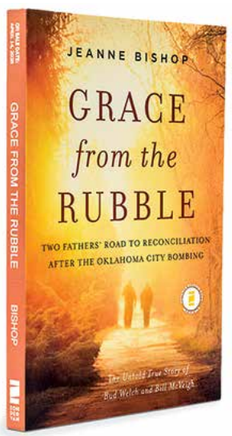
Though Cohen acknowledges the potential power of the project, he doesn't believe the album has a central message. As he points out, even the band's name — a nod to the Crowded House song "Don't Dream It's Over" — wasn't intended to be a statement.

"It's up to each listener to decide what they want to take," he says. "We just wanted to write songs that we would find beautiful — songs that, if we had discovered them out in the world, we would wish we had written them."

BIOGRAPHY

Grace from the Rubble by Jeanne Bishop

When Bud Welch lost his 23-year-old daughter, Julie, in the 1995 bombing of the Alfred P. Murrah Federal Building, he was consumed by grief at the loss of his only daughter and rage toward the perpetrator, Timothy McVeigh. Over time, however, Welch discovered that his anger wasn't helping him to heal. Connecting with McVeigh's father, Bill, he found peace and argued against McVeigh's execution. Jeanne Bishop '81, '84 JD, a Cook County assistant public defender, explores the friendship between these two fathers in her new book, *Grace from the Rubble: Two Fathers' Road to Reconciliation After the Oklahoma City Bombing* (2020). Bishop has dealt with tragedy in her own life. She lost her sister, Nancy, her brother-in-law and the couple's unborn child to murder in 1990. Bishop's first book, *Change of Heart: Justice, Mercy and Making Peace with My Sister's Killer* (2015), discusses her journey toward forgiveness.



ENTREPRENEURS

Pure Wine Made Simple

Chemistry alum James Kornacki invented a purification process to remove sulfites from wine.

Northwestern doctoral student James Kornacki looked at the boxed wine in his kitchen and considered a question: Could he use his chemistry expertise to remove the sulfites that can cause headaches for wine drinkers and affect the taste?

Many wine loves, including members of Kornacki's family, struggle with a sensitivity to sulfites — preservatives used in food and beverages. Kornacki drew from his research experience in the lab, where he was studying the biochemical properties of antioxidant wine compounds. While completing his doctorate, Kornacki set up a homemade lab in his apartment and created a polymer technology to remove free sulfites from wine and restore it to its original, from-the-vintner purity and taste. The purifier also doubles as an aerator, boosting flavors in red wines.

"Resin inside our filter captures just the sulfites. We can remove them without messing up the wine chemistry," explains Kornacki '15 PhD, who founded Üllo in 2014. (The "Ü" in Üllo is a reference to a symbol used by alchemists to describe purity.)

Kornacki, Üllo's CEO, refined the idea as part of the Farley Center for Entrepreneurship and Innovation's NUVention: Nanotechnology course and then participated in the NU Venture Challenge (now VentureCat), a student pitch competition where he won $5,000 — enough money to file for a patent and launch his search for investors.

By 2016 Üllo was shipping purifiers to consumers. Its filters are available online and with major retailers, including Williams Sonoma and Sur La Table and at select Costco locations nationwide. Kornacki is also working with restaurants and wineries.

Kornacki, who lives in Miami Beach, Fla., says he knew he wasn't cut out for a job as a bench scientist and wanted an opportunity to chart his own course.

"Science is driven almost entirely by curiosity, or at least it should be," Kornacki said in an interview with the Farley Center. "And if you're a good scientist, you're self-directed and you are operating independently. In many respects, entrepreneurship is really the same thing."

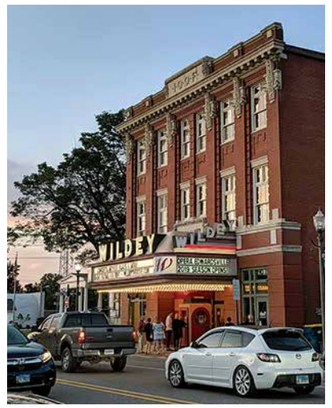
Kornacki acknowledges that combining his chemistry expertise with his business ambitions was initially a challenge, especially when it came to "understanding that there's a human element to all the decisions you're making," he told the Farley Center.

But Kornacki says he has found fulfillment. "Designing chemistry for an industrial process just isn't as much fun as creating something that people are going to use."

THE ARTS

Fandom of the Opera

After performing at opera festivals around Europe, tenor Chase Henry Hopkins '12 wanted to create the same musical atmosphere in his hometown, Edwardsville, Ill. So in 2018 he founded Opera Edwardsville to develop performances, arts education and community collaborations through live opera. A sellout crowd of 350 guests attended the inaugural concert at the historic Wildey Theatre, built in 1909. "I'm really interested in creating an arts organization that is not evangelical in nature but is actually being developed by and for this community," says Hopkins, the company's artistic director. He is also interim general director at Chicago's Haymarket Opera Company. Only in its second year, Opera Edwardsville has partnered with Southern Illinois University Edwardsville to offer master classes and children's programs. The company also seeks to bridge the divide between artist and audience by hosting meet-and-greets with the singers. Evan Bravos '13 MMus, Sofia Troncoso '13 and Julie Tabash Kelsheimer '11, '11 CERT have performed at Opera Edwardsville, and Bienen School of Music professor Karen Brunssen has taught master classes for the company.



With a Song in His Heart

Alum centenarian Alan Tripp might be part of the oldest songwriting duo in the world.

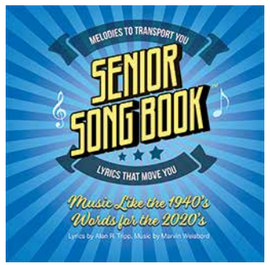
↑ Songwriter Alan Tripp at a Philadelphia-area recording studio

LISA SCHAEFFER

For the retirement-age and older crowd, the lead song of Alan Tripp's debut album has a catchy and relatable chorus: "I'm ready now to kiss you/but baby there's an issue/I just can't remember your name."

After graduating from Northwestern with an undergraduate business degree, Tripp '37 worked in broadcasting and advertising, at one point running his own ad agency. Now, from his retirement home in Bryn Mawr, Pa., the 102-year-old has achieved a lifelong dream with the release of *Senior Song Book* — a mix of '40s- and '50s-style tunes with modern lyrics that he calls "grown-up music."

Marvin Weisbord was at my 99th birthday party when I read a poem that I had written called "Best Old Friends." He wrote music to put that poem into a song as a present for my 100th birthday. Marvin didn't know that I had the lyrics for six other songs in a drawer. He's a very good jazz pianist. In a few months, we had written 14 songs together.



We decided we shouldn't let these songs disappear into the darkness of musical history. We put together a band of musicians and recorded them. Someone told me that the whole thing has gone viral. At first, I thought that was a disease. But it was a great success, and now we are working on making it into a cabaret night. [Tripp and Weisbord have been featured on *Access Hollywood*, *CBS Evening News* and NPR.]

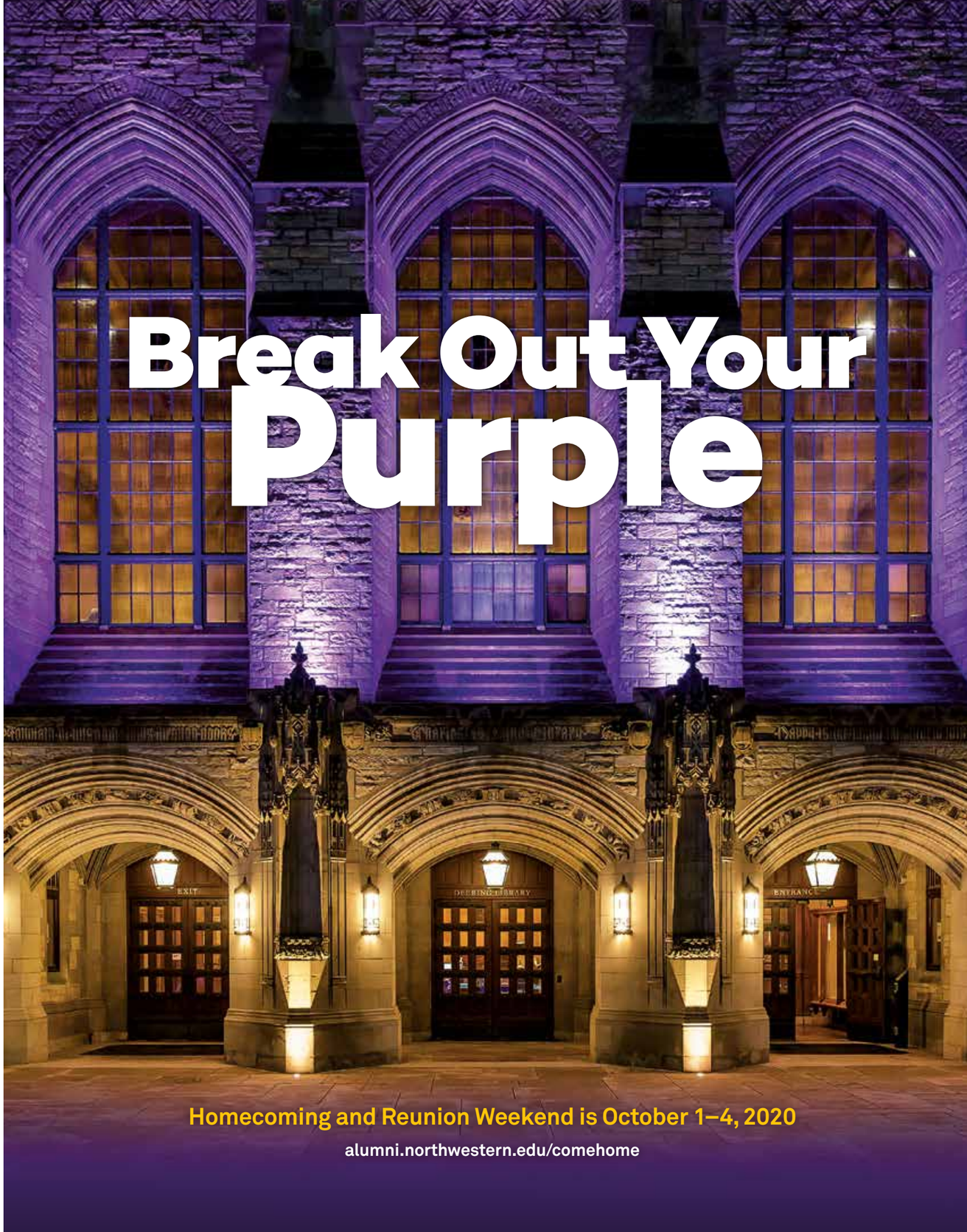
All my life I wanted to be a songwriter. When I was 15 years old, I used to hang out at the Brill Building in Manhattan, where all the song publishers had their offices. One day a little jingle popped into my mind for Kool cigarettes, so I took it over to the ad agency. When I sang it for them, they bought it for $75 on the spot. I again tried to be a songwriter when I was around 40 years old. I produced a weekly TV show in Philadelphia, and the director was Alan Bergman [who later won two Oscars for best original song]. Alan and I wrote a couple songs that never got anywhere. So finally, at 102, I have become a songwriter.

I was very happy at Northwestern. You do better work when you're happy. In college, you're honing and polishing a jewel — yourself. At that age, you don't understand that each day is precious. Make the most of those years. You don't get to repeat that experience.

John Paul Jones said, "Don't give up the ship!" If you really love something, you should do it. People talk about having a passion. It's just a word, but it's the right word.

If you like an idea, never just throw it away. I've got a song I'm writing now. I've written the first half, but I'm hung up on the second half. I'll beat it. I'll get it. I've always been that way. My kids always knew that I was like a little dog that gets hold of a ball and doesn't let it go. It's my nature.

Interview by Dan Rosenzweig-Ziff, a junior journalism major from Newton, Mass.



Northwestern

NORTHWESTERN MAGAZINE
NORTHWESTERN UNIVERSITY
BOX 1603
2020 RIDGE AVENUE
EVANSTON, IL 60208-4340

NON-PROFIT ORGANIZATION
U.S. POSTAGE PAID
NORTHWESTERN UNIVERSITY

MIX
Paper from responsible sources
FSC® C022085
FSC www.fsc.org