

AtBuffalo

The magazine for alumni and friends of the State University of New York at Buffalo

RoboBees **p11**

Our microbial masters **p26**

What's the big idea? **p32**

Spring 2016

The New Face of Sports Marketing

p22



Brooklyn Nets social media coordinator
Kathryn Przybyla (BA '11)





FIRST LOOK

Photographs by Dear World

Powerful Words

The UB community wears its hearts and minds on its sleeves. And hands and chests and...

By Lauren Newkirk Maynard

Last semester, a nonprofit called Dear World took its unique portrait project to North Campus, where it spent several days photographing strong,

See and read more at www.dearworld.me personal messages that UB

students, faculty and staff had written on themselves (mostly on their arms) in black ink. What began in 2009 as a “photographic love note” to New Orleans has grown into 50,000 portraits taken worldwide, including those collected during the annual Dear World Live college tours. Photos are uploaded online and via social media, capturing the heartwarming, sometimes heartbreaking stories of human experience, one phrase at a time.

Struck by the humanity, intelligence and diversity of the hundreds of UB voices included in the project, we had the difficult task of choosing just a few.



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Terri Miller has a creative solution for the country's prison problem.



Cover photograph by John Emerson

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Kathryn Przybyla is just as fast as the basketball players she tweets about—on her phone, that is. As social media coordinator for the Brooklyn Nets, this young alumna gives fans a 360-degree view of their team.

Story by Jennifer Kitses
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The microbiome—our body's community of microorganisms—plays a key role in human health. UB scientists are all over it.

Story by Lauren Newkirk Maynard
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How would you make the world a better place if you had unlimited time, money and resources? We asked eight faculty members for their magic-wand solutions to some of the most intractable problems facing humanity.

Story by Erin Peterson
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Moved? Please send address or name changes to Alumni Office, University at Buffalo, 201 Harriman Hall, Buffalo, N.Y. 14214, or email ub-alumni@buffalo.edu.

EDITOR'S ESSAY

Connecting for a Career

At a time when others might have been frozen with fear, Kathryn Przybyla (BA '11) bravely moved forward to set her career in motion.

Now social media coordinator for the Brooklyn Nets and Barclays Center, Przybyla recalls the pivotal moment when, as a UB undergraduate communications major, she introduced herself to CNN anchor Wolf Blitzer (BA '70) at a UB Alumni event. As we learn from Jennifer Kitses' profile of Przybyla (p. 22), this gutsy move led to an internship on CNN's "The Situation Room."

In landing a job or professional opportunity, it helps to have Przybyla's moxie—but not everyone is built that way. If confidence is in short supply, serendipity can sometimes intervene. Last year, for instance, 15 UB students touring Bloomberg L.P.'s Manhattan headquarters ran into Vineet Aguiar (MS '13), a software developer for the financial information and news giant, while waiting for the elevator. When he learned the students were participating in "Road Trip New York City," an annual event sponsored by UB's Office of Career Services, Aguiar stayed and chatted with them for 10 minutes before heading up to his office.

Buoyed by the chance encounter, Aguiar took on a more formal role in this year's Road Trip (p. 42), hosting a coffee chat with job seekers at a midtown café. Meanwhile, other successful alumni were on hand at various events throughout the week to pass out tips and



A full house for the January Career Conversations at the George Eastman House in Rochester.

pointers gleaned from working at such marquee firms as Facebook, NASDAQ, Omnicom Media Group and Yelp.

"Most jobs today are found through referrals from people," says Kristi Fields, an alumni career services officer who traveled to New York with the group this year to help facilitate alumni connections. The importance of networking underlies all of UB's efforts to assist young graduates as they set off into the world. Often job tips and advice are imparted at Career Conversations, an ongoing Alumni Association program that takes place in

New York as well as Buffalo, Rochester and, beginning this spring, Washington, D.C.

Almost as important as face-to-face interactions these days are connections made through social media. And so the Office of Alumni Engagement recently launched an initiative called "Twitter Takeover," in which successful alumni like Przybyla chat with recent grads and students about their careers. In her Takeover this fall, Przybyla was asked how to break into the competitive field of sports marketing. She responded with Twitter's mandatory concision: "Looking for jobs across all leagues, departments & sports will help. Ex: can start in sales, work towards marketing." "What's the golden rule of social media?" another inquired. Her answer: "Never tweet anything you wouldn't want to be published on the cover of The New York Times!"

Finally, regarding her bold self-introduction to Wolf Blitzer on that fateful day several years ago, she gave what is perhaps the best advice of all: "Take a chance!"

Ann Whitcher Gentzke, Editor
whitcher@buffalo.edu

Question: What are your goals for the university's future after 2020?

Let me start by giving you my 20-second definition of UB 2020.

UB 2020 is our university's vision of excellence, focused on realizing our full promise as one of the nation's great research universities. It's about bringing together the best and brightest faculty across the disciplines to take on some of the most pressing global challenges of the 21st century—whether it's improving access to education, addressing human rights issues, responding to climate change or seeking cures for HIV and cancer. And it's about preparing you and all of our students to be the next generation of global leaders in your fields, your professions and your communities.

You'll sometimes hear people talk about "2020" as a deadline for achieving these ambitions. But "2020" is also a reference to keen vision. It's about setting our sights on the future ... being able to see clearly where we want to go and the paths that will best take us there.

Whether the year is 2016 or 2060, we always need to be focused on where we want to be in five, ten, 50 years and beyond. And we have to be ready to keep taking our vision to the next level as we evolve to meet new challenges and opportunities.

That's what we've been doing, and continue to do, as we realize our UB 2020 ambitions. And right now, we are actively moving UB's vision forward in a number of exciting directions.

Let me give you a few examples that you'll see firsthand in the next few years. You probably already know we are revitalizing the general education curriculum to create a transformational liberal arts experience for our students—an experience I think is unique in the context of a major research university

environment. This new curriculum, launching next fall, will connect what you learn in the classroom directly with real-world experience, including internships, clinical and service learning, and study abroad opportunities.

We're developing graduate and professional programs, like our expanded inter-professional education across the five health science schools, and we're launching new programs like the Creative Arts Initiative that bring more renowned visiting artists to UB. We're creating cutting-edge departments too, like the Department of Materials Design and Innovation, housed jointly in the College of Arts and Sciences and the School of Engineering and Applied Sciences.

Across the university, we are pushing the boundaries of interdisciplinary research as we launch the Communities of Excellence initiative, which brings together faculty, students and staff to tackle urgent global challenges, like how to design more sustainable building materials for the future, and how to ensure better and more equitable access to health care, food and clean drinking water.

We also are greatly expanding our reach in our broader communities, from our role in Buffalo's renaissance to our 80-plus partnerships with distinguished higher education partners overseas. Our students have incredible opportunities to extend UB's engagement, both locally and globally.

As part of the Class of 2019, Bailey, you're in a great position to reap the benefits of these transformations. This is an exciting time to be at UB, and you'll be in the thick of much of the progress that will shape our university's future—in the year 2020 and beyond! 🍌

OUR STUDENT

Bailey Radel

A freshman from Liverpool, N.Y., Bailey Radel is majoring in math and economics, with her sights set on teaching high school. She is passionate about "getting people to like math again." The oldest of eight children, she already has experience helping her five sisters and two brothers with homework around the family's kitchen table. This semester she's supplementing her "in-home internship" by participating in an Honors Program service-learning seminar in the Buffalo Public Schools.

Tripathi told Radel that he, too, had wanted to be a math teacher, and urged her to take statistics and computer science courses as necessary tools for her chosen field. Conversation then turned to all those siblings queued up for college. "Potentially, we might have seven more Radels coming here?" the president asked with a smile. This could happen if her Buffalo-based grandmother has her way, Radel explained. "She's been giving the kids UB sweatshirts and mugs as gifts, slowly putting the idea in their minds!"



President Tripathi

Bailey Radel

We want to hear from you!

Send letters and comments to atbuffalomagazine@buffalo.edu with the subject heading "Letters." Or mail to Editor, At Buffalo, 330 Crofts Bldg., Buffalo, N.Y. 14260. Letters are subject to editing for length and clarity. Please include a daytime phone number for verification.

A more 'free-form' opening weekend

When I saw the photo depicting the Opening Weekend tradition of students assembling to form the UB logo ["First Look," Winter 2016], my first thought was, "What a difference 46 years makes." I remember my first event in September 1969 on the Main Street Campus as slightly more free-form. A live band played by the fountain behind the Student Union [now Squire Hall], everyone danced, and one overly exuberant attendee stripped off all his clothes and continued dancing naked. No one seemed to mind. It was, after all, only a month after Woodstock. Thanks for the memories.

Diane Olivo (BA '73)
Oceanside, Calif.

Up close with UB's GRoW Home

I enjoy receiving At Buffalo magazine—it helps me to stay connected with Buffalo. I grew up in the area, and left for employment reasons in 1963; I now reside in Anaheim, Calif. Because of this, I was able to view the GRoW Home when it was on display in Irvine ["The GRoW Home!" Winter 2016]. I was delighted to see that they were awarded second place. The day I was there, the GRoW Home was the only home of the 14 that was returning energy to the grid. It is a marvelous accomplishment!

Dale Gilbert (BS '60)
Anaheim, Calif.

The joys of java

The article on the research of alumna Roseann Santos ["Top Five," Winter 2016] offered excellent reminders for making good coffee, especially regarding water quality. I would love to see a discussion of the types of coffee beans and their countries of origin.

Bob Adamski (BA '71)
Loudon, Tenn.

Latin lesson

Reading my copy of At Buffalo, I was shocked to read, "it's produced by a bacteria called..." ["E. Coli: Man's Best Friend?" Winter 2016]. "Bacteria" is plural, so "bacterium" is the word that should have been used here. Thanks for the magazine.

James W. Corpening (PhD '02, MA '97)
Buffalo, N.Y.

Editor's response: You're right, Dr. Corpening. Apologies for the error.

Kudos for At Buffalo

Thank you for the "Small Wonders" article on UB research to contain cancer ["Keeping Cancer in Its Place," Fall 2015] and your super-interesting alumni magazine. Every issue is a gem, and I read it cover to cover.

Rosalie Turton (EdD '89)
Washington, N.J.

More class notes please

I recently received the Winter 2016 edition of At Buffalo and noted that your "Class Notes by Decade" starts with the 1970s. I graduated from UB with a bachelor of arts in 1957 and then graduated from the Law School in 1960. It's a shame that you do not have class notes by decade from the 1950s and 1960s, because I am sure there are many graduates from that era. Why no class notes on alumni of this era?

Anthony D. Parone (JD '60, BA '57)
Niagara Falls, N.Y.

Editor's response: We welcome news from graduates of all eras. However, we rely on submissions from alumni to fill this section. Please email your updates to ub-alumni-news@buffalo.edu or submit them through UB Connect (www.ub-connect.com).



From the Editor's Desk

In response to the editor's essay asking (not so rhetorically), "**Is Anyone Out There?**" several readers sent us reassuring messages. "Of course, we're out there reading your fine magazine," wrote the dad of a recent graduate. An alumna left an after-hours voicemail saying she especially liked our stories on research discoveries and community outreach. But another reader, a marketing professional and UB graduate, chided us for not including more inclusive contact information, like email or Twitter addresses, if we're serious about encouraging reader submissions. So beginning with this issue, we're including the editor's email address with the essay to make ourselves more available.



Valarie Ellis (BS '02) of Fayetteville, N.Y., is the winner of our Careful Reader Quiz ("What weighs 2,000 pounds and is roughly as tall as Shaquille O'Neal?"). The answer: "Mars Curiosity Rover," as reported in our story on UB's longstanding relationship with NASA ("The Right Stuff," Winter 2016). Ellis, whose name was randomly chosen from the correct submissions, will receive an At Buffalo mug.

On Campus

- » UB students fight for fair trials
- » Around the world in Spaulding
- » A future without humanities?

The Voice of Life

After a hiatus of several years, the South Campus bells peel again

SOUTH CAMPUS

A technician examines the Hayes Hall clock movement.

» Hear the bells chime at www.buffalo.edu/atbuffalo.

By Charlotte Hsu » The Westminster chimes of the South Campus clock tower went silent in 2011 as the university began an extensive renovation of Edmund B. Hayes Hall, the iconic 19th-century building that houses the clock.

With Hayes' construction nearing completion (it is scheduled to open this fall), the chimes were restarted last October, and now sound every quarter hour once again. Originally set in motion on July 19, 1928, each of the four bronze bells weighs between 400 and 1,800 pounds, and carries an inscription befitting its presence at a place of learning. The smallest bell bears the words of Cuthbert W. Pound, former chief judge of the New York State Court of Appeals: "I am the voice of life; I call you: Come and learn."

At the heart of the clock is its historically preserved move-

ment—a hulking mass of gears, weights and levers forming the mechanism that keeps time and triggers the chimes. In early October, a team of horologists, or clock doctors, took several days to carefully dust, oil, paint and repair UB's version of Big Ben.

The return of the chimes marks a new beginning for UB's oldest campus. The \$43.8 million restoration of Hayes Hall, home to the School of Architecture and Planning, will be followed by the relocation of the School of Social Work and the Graduate School of Education to the South Campus.

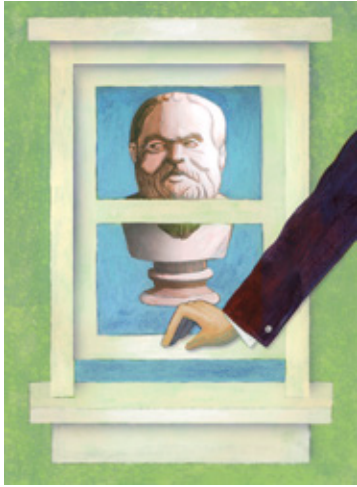
At the official reopening of the clock tower on Oct. 15, President Satish K. Tripathi succinctly captured the poetry of the moment: "Just as the famous clock tower is in many ways the symbolic face of our university, its chimes have been UB's voice for decades." **B**



Tweetable: The @UBReporterNews, #UBuffalo's weekly faculty/staff paper for 45 years, went daily in January!

THE WEIGH-IN

Faculty experts shed light on news that makes us go, “wha?”



BARRY FITZGERALD, MFA '90

The News: In September 2015, the Japanese government called upon its national universities to close or convert humanities and social sciences programs in order to focus on “areas that better meet society’s needs,” after which 26 of the 60 national universities with such programs said they would comply. What kind of an impact could eliminating humanities programs have on a society?

The Expert: **Graham Hammill**, vice provost for graduate education and dean of the Graduate School

“

“It’s important to understand that universities help societies thrive economically. It’s part of what we do, but it’s not all that we do. We help students live full lives as individuals and as citizens, to be intelligent when confronting the complex ethical choices that life throws at them, and to be able to process information and think in nuanced ways about current events. The idea that higher education is simply job training is truly short-sighted. But I’m not worried that we’re going to become a society of unthinking, un-self-reflective robots. People want to have deeper understandings of themselves and of the world around them. I simply don’t think trying to do away with the humanities is going to work.”

”



WHITNEY SHERMAN

Justice for All

UB law students fight to right judicial wrongs

NORTH CAMPUS

By Olivia W. Bae » “If you’re going to be convicted,” says John Nuchereno (BA ’74), adjunct professor of law at UB and a trial attorney at Nuchereno & Nagel law firm in Buffalo, “it should be fair and by the law.” That may seem obvious, but it’s not always how things work. Vital information is sometimes withheld from the defendant. Key witnesses aren’t called to the stand. False evidence is used in trial.

So it’s not that unusual for prisoners who think they have been wrongfully convicted to file a Freedom of Information Act request, and discover a whole host of new data that might have changed the outcome of their trial. Unfortunately, they tend to figure this out long after the appeals process is complete.

That’s where the Innocence and Justice Project, a new initiative of the law school’s Advocacy Institute, comes in.

Students participating in the pro bono project seek out cases where there is strong evidence that an incarcerated individual either didn’t commit the crime for which he or she was convicted, or didn’t get due process, and then they pursue post-conviction remedies. In the best-case scenario, they can overturn the conviction of an innocent person.

Nuchereno—with four exoneration cases under his belt—was selected last spring by SUNY Distinguished Service Professor Charles Patrick Ewing to operate as the program’s director. Now in their busy, student-run law office on the fourth floor of O’Brian Hall, he and eight second- and third-year students have been reviewing the petitions of 440 potential applicants and voting on which cases to pursue.

“It’s one of the first programs of its kind in Western New York,” says third-year law student Jesse Pyle. “You really appreciate the difference you can make in someone’s life ... between having them spend a long time in jail or experience freedom.”

Before Pyle and the other students were accepted into the program, they had to complete a course taught by Nuchereno on state and federal post-conviction remedies. “My course was offered after registration closed,” Nuchereno recalls. “But more than 30 students dropped a course to be in this one. That really says something.” When the class was over, every student applied to the project. Only eight, including Pyle, were selected. Nuchereno hopes to grow the program in the future since interest is clearly high.

Students in the program are working directly with applicants to hear their side of the story. They are also meeting with their families, trial and appellate attorneys, and witnesses. If there’s a case to be made, they’ll prepare a motion and eventually represent the applicant in court.

Pyle graduates this year, so he won’t see any cases reach completion, as the process to overturn convictions is a long one. But he remains hopeful. Although most clients won’t be proven innocent (“most people in jail are guilty of something,” Nuchereno says), the project will give them the fair trial they deserve.

And that’s no small matter. After all, Nuchereno says, the goal is not to overturn as many convictions as possible, but “to uphold the integrity of our entire judicial process.” ■

We received the sad news at press time that John Nuchereno passed away suddenly on Feb. 2. The Law School has named Gary J. Muldoon (JD ’76) and Jon P. Getz (JD ’92), both of whom have extensive experience in the criminal courts, to succeed Nuchereno as co-leaders of the Innocence and Justice Project.

Space Invaders A REVEALING LOOK AT UB'S PERSONAL AND PUBLIC SPACES

Interview by Michael Flatt



Above: Filipino fertility crown
Below: Maotai, China's state spirit

Room 133, Spaulding 6, Ellicott Complex

The office of **A. Theodore Steegmann, professor emeritus, Department of Anthropology**



Theodore Steegmann, a leading anthropologist on the biology of adaptation to cold climates, has been on the UB faculty for almost 50 years. But that doesn't mean he has stayed in one place—far from it. In the course of his career, he has traveled to countries near and far and has had many an adventure along the way, including being mistaken for a CIA agent in the Philippines. If you're looking for a glimpse of the other side of the world, look no further than Spaulding, Building 6.

A Wagon: I've always been interested in building models, and I saw that in a market in Budapest. That is a standard central European style of wagon used in the late 19th and early 20th centuries. They were using it as a display, and I asked if they would sell it to me.

B Rooster tote: That's a stylized rooster illustration. In the Philippines they have

fighting roosters—cock fights. It's part of their tradition. I saw one cock fight there; it was kind of messy. It was in the 1990s, when the government was fighting the New People's Army, the leftist guerilla group, and so there might have been some danger there if you started asking questions. But I felt pretty safe in this village, because I had a grad student who worked there.

C Snake spine headdress: This is a snake backbone made into a headpiece for a woman—also from the Philippines. They believe it increases fertility and protects you from lightning. I don't know what happens if you're a man and you wear it. Probably something bad.

D Maotai: That's a Chinese distilled grain liquor. It's an indescribable flavor.

When you first try it, you say, "That's the worst stuff I've ever tasted," but it's an acquired taste, like beer. The Chinese have all kinds of opinions about the different distilleries, just like we have about beer.

E Workstation: I make some of my own tools for certain studies. Right now I'm starting a study comparing raccoons, deer and humans

in tropical environments and arctic environments. We're pretty sure that human nose width varies according to how dry and cold the climate is. Some of the measurements are hard to do with standard tools because the bone inside the nose is delicate, so I make little devices that can do the job.

Legacy of a Sports Legend

Ralph Wilson Jr.'s dedication to his players lives on in a new sports medicine center

By Mary Cochrane and Ann Whitcher Gentzke » As an NFL team owner, Ralph Wilson Jr. witnessed first-hand the expertise of UB's sports medicine faculty. For many years, these physicians served as team doctors for his beloved Buffalo Bills, evaluating and

“Mr. Wilson’s loyalty to his players was legendary.”

John Marzo, former Bills’ medical director

treating players on and off the field. Mary Wilson said her late husband, among the league’s longest-tenured owners, often noted that the Bills’ team doctors were “the most important players on the sidelines.”

Wilson’s legacy of caring for athletes will endure,

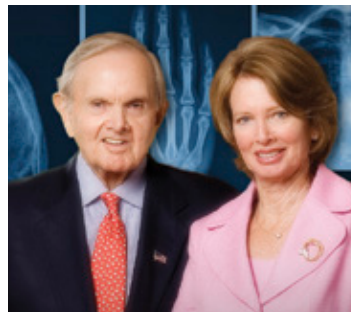
thanks in no small part to a \$4 million gift to establish the Ralph C. Wilson Jr. Center for Excellence in Sports Medicine in the Jacobs School of Medicine and Biomedical Sciences. Announced last fall in Buffalo, the donation comes from the Ralph C. Wilson Jr. Foundation in Grosse Pointe, Mich., established shortly after Wilson’s death in 2014. “Mr. Wilson’s loyalty to his players was legendary,” recalls John Marzo (MA ’86), associate professor of clinical orthopaedics, who formerly served as the Bills’ medical director for two decades.

The Wilson Foundation gift builds on a \$1 million donation from Ralph and Mary Wilson in 2011, and will support initiatives begun with that earlier gift, including a virtual arthroscopy simulator, the Ralph

and Mary Wilson Visiting Professor Lecture Series, and efforts to recruit and train the best physicians and keep them in the region. It also will provide a major boost to UB’s cutting-edge research on traumatic brain injury, which already is creating a new paradigm for treating concussion.

Benefits of UB sports medicine extend to a diverse public, including not just NFL players but aging seniors, weekend warriors, and high school and college athletes. UB wrestler Corey Hollister is among the latter, having returned to the mat after being treated for a concussion by John Leddy (MD ’85), medical director of UB’s Concussion Management Clinic. “The UB sports medicine folks monitored me every step of the way and helped me recover,” says Hollister.

As Mary Wilson notes, “The grant is yet another testament to the incredible, groundbreaking work taking place right here in Western New York that has an impact on athletes across the country.”



Ralph Wilson Jr. and Mary Wilson

POLL POSITION

An unofficial survey of 100 UB students



MICHAEL GELEN, JD '88

Do you talk to your parents every day?



MEDICAL SCHOOL CONSTRUCTION UPDATE



Narrow windows went up on the western side of the Jacobs School of Medicine and Biomedical Sciences. Each window is two stories tall, which “creates a more dynamic façade along Main Street,” says Ken Drucker, design principal at HOK, the project’s architect. The windows help reduce the building’s sense of scale, keeping it more in line with the adjacent Roosevelt building (the white one above). They also provide daylight while decreasing the amount of energy required to heat the building.

Eureka!

- » **Fixing the DSM**
- » **Hard-working robot**
- » **The bias behind school security**

MICROBOTICS LAB, HARVARD JOHN A. PAULSON SCHOOL OF ENGINEERING AND APPLIED SCIENCES AND THE WYSS INSTITUTE FOR BIOLOGICALLY INSPIRED ENGINEERING



Un-BEE-lievable!

Computer scientist Karthik Dantu is working to give laser vision to robot bees

By Cory Nealon (BA '02) » The world of science buzzed in 2012 when Harvard researchers announced they had created a robot insect. Smaller than a penny, lighter than a paper clip, the RoboBee could fly and land. A year later, it could follow a pre-programmed path. More recently, it became capable of swimming underwater.

Despite these advancements, the diminutive drones are years away from pollinating crop fields, searching collapsed buildings or performing the numerous other tasks that researchers envision swarms of the tiny machines doing. This is mainly because the RoboBee cannot sense the size, shape or

distance of approaching objects. In other words, it can't see.

To solve the problem, a UB-led team of researchers, supported by a \$1.1 million grant from the National Science Foundation, is testing ways to shrink lidar—the laser-based sensor system currently used in driverless cars.

“Essentially, it's the same technology that auto-makers are using to ensure that driverless cars don't crash into things,” says Karthik Dantu, a computer science professor in UB's School of Engineering and Applied Sciences, who is leading the project. “Only we need to shrink that technology so it works on

robot bees that are no bigger than your fingertip.”

Developed in the 1960s, lidar works like radar, except that it emits invisible laser beams instead of microwaves. Mounted on a car, the beams capture light reflected from distant objects. Sensors then measure the time it takes the light to return to calculate the distance and shape of the objects. The information is analyzed by computer algorithms to form an image of the car's path, which enables the car to “see” its environment and follow traffic signals, avoid obstacles and make other adjustments.

These systems, which are typically mounted on

CONTINUED



Tweetable: Will potatoes grow in space? Middle schoolers advised by #UBuffalo biologists will find out when they send spuds into orbit with #NASA.



Karthik Dantu

the car roof, are about the size of a camping lantern. The team Dantu is leading, which includes researchers from Harvard and the University of Florida, wants to make a much smaller version, called microlidar.

“The smallest commercial lidar systems weigh just over 800 grams, or nearly two pounds, but the robot bees are just 80 milligrams. To make this work, we need to shrink the entire sensing system,” says Dantu, who worked on the RoboBee project as a postdoctoral researcher at Harvard before joining UB in 2013.

Over the next three years, Florida researchers will develop tiny, lightweight sensors that

Swarms of robot bees could be deployed to conduct search missions during landslides.

measure the light’s reflection. Meanwhile, Dantu will create algorithms that enable the bees to process and map the world around

them. Harvard researchers will then incorporate the technology into the bees.

The technology is years, if not decades, away from commercial viability. For example, the bees currently do not fly solo; they are tethered by a wire to an external power source.

But the potential applications are inspiring. For example, swarms of robot bees could be deployed to monitor air quality or the health of crops. They could be sent out to conduct search missions during landslides and other disasters, or examine buildings damaged by earthquakes.

Microlidar could be used to improve endoscopic tools, the wand-like probes that doctors use in surgery to visualize internal organs, and wearable technology, including sensors that monitor our bodies for signs of illness or stress. It could also help people use mobile devices in a way similar to Microsoft Kinect, which enables users to interact with computers by detecting the gestures people make.

“The technology could have so many uses, which have the potential to help so many people in need,” says Dantu. “That’s what really excites me about the work we’re doing.”

Meet OSCR

By Rachel Teaman » This humanoid helper—the On-Site Construction Robot (OSCR)—was designed to do the dirty work on construction sites. Less than two feet tall, it can pick up bricks, climb ladders and navigate scaffolding. The fourth and latest prototype, which was cited by Architect Magazine’s 2015 R&D Awards, is also getting linked to the cloud, enabling it to transmit data like scheduling adjustments and materials needs between a jobsite and its offsite project team.

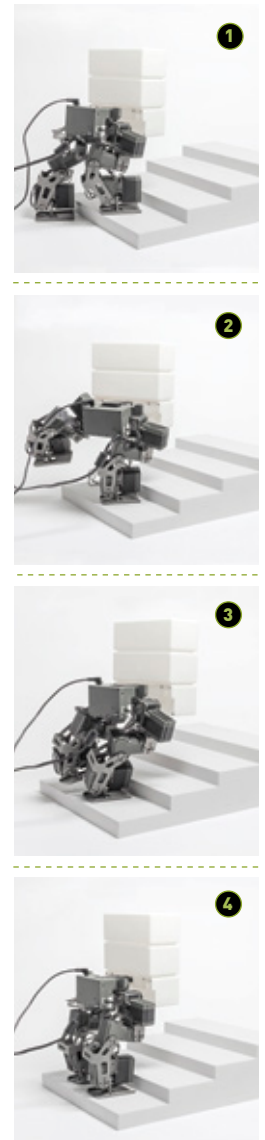
OSCR (pronounced “Oscar”) was created by UB’s multidisciplinary Rust Belt Robotics Group, led by Assistant Professor of Architecture Michael Silver and Assistant Professors of Computer Science and Engineering Karthik Dantu and Nils Napp. The group stresses that OSCR, which is being developed in consultation with masonry trade organizations, is a “co-robot”—designed not to replace humans, but to work alongside them, increasing productivity and supporting workforce development.

The next step, a multiyear, proof-of-concept initiative with Buffalo-based construction firm LPCiminelli, will determine how the little guy performs on an actual jobsite.



PAUL DAVISI

OSCR-2 carrying three blocks up a staircase



SMART people

OSCR is one of the first products to emerge from UB’s Sustainable Manufacturing and Advanced Robotic Technologies (SMART) Community of Excellence, focused on bringing students, faculty and industry leaders together across disciplines to create next-generation technologies and processes that will help transform the fields of manufacturing and construction.

Beaker Briefs

Research highlights from the desk, lab and field in 50 words or less

By Marcene Robinson (BA '13)



Maximum Security High

New research has found that security measures in high schools are disproportionately used in big schools with large populations of African-American students, independent of objective criteria like crime levels. This is especially disturbing as the study also found that the measures result in higher suspension rates, which can impact learning.

LED BY: Education researcher Jeremy Finn and Canisius College psychology researcher Tim Servoss (PhD '02)

Conditional Cash

When is \$4 trillion considered bad money? When it comes from a foreign government investor, particularly a nondemocratic regime. While stock markets usually react positively to news of any major financial investment, research found that sovereign wealth funds generally hurt returns, especially when a large or controlling stake was acquired.

LED BY: Finance researcher Veljko Fotak, University of Turin economics researcher Bernardo Bortolotti and University of Oklahoma finance researcher William L. Megginson

Designer Dopamine

By weakening the protein that guards our DNA, researchers were able to reprogram average skin cells into valuable dopamine neurons at record speeds. The finding may revolutionize Parkinson's disease treatment by allowing scientists to create patient-specific dopamine neurons and then transplant them into the brain to repair faulty ones.

LED BY: Physiology and biophysics researcher Jian Feng



60 SECONDS WITH RACHAEL HAGEMAN BLAIR

Big Data & Mood Disorders

Interview by David J. Hill

For decades, the "Diagnostic and Statistical Manual of Mental Disorders" (DSM) has been the bible for psychiatric diagnosis. But it's controversial, with many mental health experts questioning the scientific validity of the data on which it's based. Continual revisions have not fixed the problem; the DSM-5, published in 2013, is the most controversial yet. Now, a team of researchers, including Rachael Hageman Blair, an assistant professor of biostatistics in UB's School of Public Health and Health Professions, has received an NSF grant to investigate whether big data can be used to develop a more rigorous approach to classifying mood disorders—one that, hopefully, everyone can agree on.

How are mood disorders diagnosed?

There is no biological marker. The diagnosis is based on a semi-structured interview, which consists of various modules related to different disorders. There are other tools like a "Mood Disorder Diagnostic Questionnaire," which is based on patient self-reporting.

How is this approach failing us?

The National Institute of Mental Health noted recently that treatment for mood disorders is effective in less than 25 percent of patients.

Why is it so hard to categorize mood disorders?

The symptoms overlap considerably. And they're very elusive, arising from different biological, psychosocial and genetic factors.

How are you using big data to solve this problem?

We're taking first steps to cluster patients with respect to some of the features known to drive mood disorders. It's challenging, because there's uncertainty everywhere. There's uncertainty in the data, especially self-reporting data. It's also not clear what features contribute to the disorder, so there's a variable selection problem. And the labels of the disorders themselves—such as unipolar and bipolar—are loaded with uncertainty that comes from doctor bias and the ambiguity of the DSM. We're developing new methods to overcome some of these challenges.

One such method involves regrouping patients based on comprehensive data profiles. What will these profiles include?

We have a tremendous amount of data that ranges from MRI images to genetic profiles, clinical measures, information about childhood, finances, diet and many self-reporting-style questions on mood.

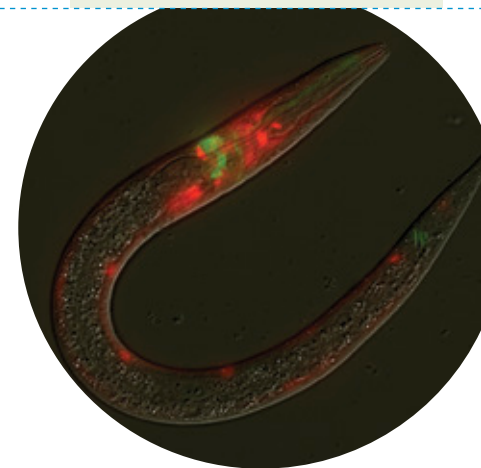
What is the goal?

Our long-term goal is to develop interactive tools that can be used by a clinician to help categorize patients, and identify those who would benefit from certain drugs.

What can't big data do these days?

There are lots of things, because existing methods simply "break" under the load. More work needs to be done at a fundamental level to fully realize what big data has to offer. **B**

Rachael Hageman Blair



SMALL WONDERS By Charlotte Hsu

Following the Trail of a Hypersensitive Worm

In experiments, the worm species *C. elegans* (pictured) exhibits weird behavior—backing away from nasty odors unusually fast—when it's missing an enzyme called PRMT-5. Why should we care? A heightened sense of smell can signify problems with dopamine signaling, a process that facilitates communication between cells. When UB biologists Denise Ferkey and Michael Yu spotted the hypersensitive worms, they investigated what was happening behind the scenes and found that PRMT-5 helps to alter the function of certain cellular proteins in a way that promotes dopamine signaling. The discovery could open new treatment avenues for diseases linked to dopamine signaling defects, such as schizophrenia and Parkinson's.

JORDAN WOOD

The Mystery of the Missing Medallion

UB alumnus helps bring a Polish hero home

Something always gets lost when you move, right? That's what happened to the Marie Curie medallion when Lockwood Library moved to the North Campus in the 1970s. In fact, four of eight medallions that were created for UB by stained glass artisan Jozef Mazur disappeared. Then, in 2007, Gregory Witul (BA '05), a historian researching Mazur, spotted the Curie medallion on eBay and alerted the curator of UB's Polish Collection. On learning of the situation, the seller donated the medallion back to the university. But there are still three more at large, so keep an eye out.

A Nobel woman

Science wonder couple Marie Curie (born Maria Salomea Skłodowska) and husband Pierre discovered radium and polonium, coined the term "radioactivity," and generously chose not to patent the medical applications of radium so that all researchers could benefit from their findings. The Curies won a Nobel Prize for physics, and Marie was awarded a second one for chemistry. Her curiosity and bravery while studying one of the most dangerous elements on the planet led to the radiation therapy we still use to fight cancer today. Unfortunately, it also caused her death at 66, as safety measures for handling radium had not yet been developed.

One glassy guy

Born in 1897 on Buffalo's Polish east side, Jozef Mazur completed more than 50 stained-glass projects in his hometown alone—and many more in churches around the country. In 1955, he designed eight medallions portraying famous Poles, including Curie, Copernicus and Chopin, for UB's Polish Room in the original Lockwood Library (now Abbott Hall). Four decorated a paned window; the others were made into a chandelier, which currently hangs in the Polish Room in Lockwood Library.

Sacred art, secular subject

While stained glass is typically used in churches to depict angels and saints, "in the cathedral of learning that is the university, they chose to make Marie Curie a saint," says Witul. "They" refers to the Polish Arts Club of Buffalo, which commissioned the medallions. To portray Curie, Mazur combined elements from two stained-glass styles popular in Buffalo at the time: Gothic Revival (indicated by the use of primary colors) and Munich Pictorial (finely drawn faces, hair and clothing).

» To see four of the medallions in their original location, go online to www.buffalo.edu/atbuffalo.

Fun (and not-so-fun) facts about radiation



- » Bananas contain high levels of a radioactive isotope of potassium. But not to worry: You'd have to eat millions to experience even mild radiation sickness.
- » In the early 20th century, radium was added to dozens of items—from water to face powder—with the promise of healthfulness and radiance. Instead, the quack concoctions caused necrosis of the jaw, bone fractures and death.



Locker Room

- » [Get to know Greene](#)
- » [Hoops milestone](#)
- » [Take our quiz!](#)



HIS WAY

Joe Licata made a statement by staying close to home

By David J. Hill » UB football fans know Joe Licata (BA '15) as the guy in the helmet throwing touchdown passes. Most don't know that this record-setting passer is just as comfortable sporting a fedora and singing along to Frank Sinatra.

Licata proudly hails from a "100-percent Italian" family, one that has a deep admiration for Ol' Blue Eyes. Last summer, he organized a gathering at the family cottage in Crystal Beach, Ontario, to celebrate Sinatra and, simultaneously, the day a half-century earlier when his grandmother bought the place where they vacation each year. Licata posted a picture on Twitter of his parents, three sisters and him—all clad in fedoras—posing with a cardboard cutout of Frank. He included the hashtag #MyWay.

Licata graduated in May 2015 but had one year of eligibility remaining, allowing him to play this past fall. He left UB as the program's all-time leader in career passing yards (9,485), touchdowns (76) and wins as a starter (he went 21-19). He led the Bulls to their third bowl bid in program history in 2013; they lost to San Diego State in the Famous Idaho Potato Bowl. He threw a school-record 29 TD passes his junior year.

"When people look back, I want them to see a team that fought hard and had a lot of pride in the name on their chest, and someone who had fun out there playing for the city, his family and friends," Licata said in January by phone from New Jersey, where he planned to spend eight weeks training in preparation for show-

CONTINUED



TweetaBULL: Former #UBuffalo standout Khalil Mack made #NFL history in 2016, becoming the first player ever to garner All-Pro honors at two positions.

casing his skills to pro scouts at UB's Pro Day this spring.

After excelling in both football and basketball at Williamsville South High School, practically in UB's back yard, Licata received scholarship offers from Syracuse and North Carolina, among others. But he wanted to stay home, close to the support network of his family, and make a statement that the region's best players don't have to leave to play at college football's highest level. He took the reins as starting quarterback near the end of his redshirt freshman season in 2012, going 3-1. For the next three seasons, he started every game.

His family was there to witness it all. "My parents never missed a game. At least one of my three sisters was at every game except for the one at Baylor," Licata says.

If he could do it over, would he leave Buffalo for the limelight of a more prominent program? Licata quotes his alter ego—"Regrets, I've had a few. But then again, too few to mention"—and then gets serious. "I wouldn't want to go anywhere else. My only regret is that we didn't bring a championship back to Buffalo." 📌

Greene Gets Personal

UB's new athletic director has lofty goals for himself and for the Bulls

By David J. Hill >> Allen Greene knew he'd cry if he talked about his mom first. So during the November press conference announcing his appointment as UB's new AD, with his parents, wife and three children in attendance, he started with his dad—and still choked up.

"As an only child, to be an athletic director at a younger age, at an FBS [Football Bowl Subdivision] school, at an AAU institution, as a person of color, knowing what my parents have been through to support me—all that hit me as I was talking about them. It punched me in the gut," says the new AD, whom UB President Satish K. Tripathi promoted from Deputy AD after Danny White left for Central Florida.

Greene, who turns 39 in April, came to UB with White in 2012 after holding various roles in athletics fundraising at Ole Miss. A Seattle native, he had been a standout baseball player at Notre Dame and was drafted by the Yankees organization, playing three years in the minor leagues. He spoke with At Buffalo from his office in Alumni Arena.

What was your childhood like?

I'm blessed to have such caring parents, who worked extremely hard to support me. It took a village to raise me. I was a multisport athlete and I needed to get from A to B and B to C and C back to A and then to D. My parents relied on all my friends' parents to get me around whenever they couldn't.

What did your parents do?

My mother has an entrepreneurial spirit. During my adolescence she owned her own bridal shop and was a wedding planner. My father worked for Papa Aldo's, the precursor to Papa Murphy's Take 'N' Bake Pizza. He had an entrepreneurial spirit as well and was a part owner of that company.

How did they shape who you are?

My mother is resilient. I've seen her try, fail, triumph, fail again and bounce back. If I was a good baseball player, it's because of her in terms of failing but knowing I had the ability to be successful. If I



have people skills, it's because of my father. He taught me from a young age that the most important people in any organization are the ones whom many consider to be the least important.

How exciting is this opportunity for you?

Incredible. I didn't really realize I wanted to be an athletic director until probably five years ago. Once I became Deputy AD here and had a good view into the role of a Division I AD, I thought, "That's something I'd really like to do." To do it here at a place that I'm familiar with, that's an established academic institution and where we're building an athletic program ... I couldn't ask for a better situation.

CAREFUL (BACK ISSUE) READER

Quiz

To which former UB student-athlete does this national championship ring belong?

- A Bobby Shuttleworth
- B Meli Carpenter
- C Jonathan Jones
- D Gerry Philbin

Bonus question:
What was his or her sport?



Submit answers to atbuffalomagazine@buffalo.edu. The winner, to be drawn randomly from correct responses, will receive an At Buffalo mug. Correct answer to the bonus question gets our esteem.



leader. Externally, there's lots of talk about being able to raise money, sell tickets, brand or market the program, and those things are all important. But the day-to-day aspect of our enterprise is managing and leading with a servant mentality.

Are there particular challenges with being one of the youngest ADs in the country?

I think that being a younger AD allows you to be a little bit more creative in taking calculated risks. But there is value in being in this industry for 20 years, where you've experienced everything. There's a healthy balance, and since I can't control how old I am, I'm going to use it to my advantage.

What is your vision for UB Athletics?

We have a very bold vision of where we want this department to go. Athletics can serve as the "front door"; it can help elevate the profile of this world-class university. That occurs at major universities, even minor universities. If we have a thriving athletics program, we can better tell the story of the whole university and increase pride throughout UB.

What do you think of Buffalo?

The rest of the country has no idea how beautiful this city is. The summers and falls are spectacular. It's a vibrant city with lots of culture, great food, great festivals, great music and great people. I don't want the secret to get out too much, but it does need to get out a little bit that this is a great place to raise a family.

That secret gets out more with a heightened athletic profile.

Absolutely. I call those things trade-offs. You think about cities like Chapel Hill, Austin and Ann Arbor; those are typical college towns. A vibrant athletics culture and environment along with a world-class academic institution is a recipe for success. If the value of UB is increased across the country, then the value of people's homes is increased, and people are going to restaurants on Saturdays before football games, elevating the local economy. Everybody wins.

Whether you're in this role for a few years or decades, what do you hope to achieve?

I want to be the best AD that UB has ever had and will ever have. If we can get 1 percent better every day, then the totality of that over a long period of time will be incredible. It'll be more than we could have ever imagined. ☺

>> Read the full Q&A online at buffalo.edu/atbuffalo.

What did you learn as a Deputy AD?

As a student-athlete, I didn't know there were people behind the scenes working to make my experience great. Danny taught me something I kind of already knew, but he really brought it to the forefront, and that is to support those who are supporting student-athletes. Our coaches, academic services, video productions and all the other staff who impact our student-athletes take great pride in the student-athlete experience.

How do you see yourself as an AD?

I've listened to lots of successful ADs speak and one of the things they talk about is being a servant

The Clubhouse

Stats from right, center and left field

Compiled by Michael Flatt

And many more

Women's basketball coach Felisha Legette-Jack won her 200th career game when the Bulls stunned MAC powerhouse Ohio University in early February. Here's to 200 more!

200

Lucky seven

Assistant wrestling coach Justin Grant placed seventh in the 275-pound weight class at the U.S. nationals, qualifying for the Olympic Team Trials in Iowa later this year. With only seven spots available, he might have a new lucky number.

7

Burnin' up the pool

Megan Burns swam the 50-yard freestyle in 22.16 seconds at the MAC Championships, breaking the conference, pool and school records in that event while hitting an NCAA B cut time.

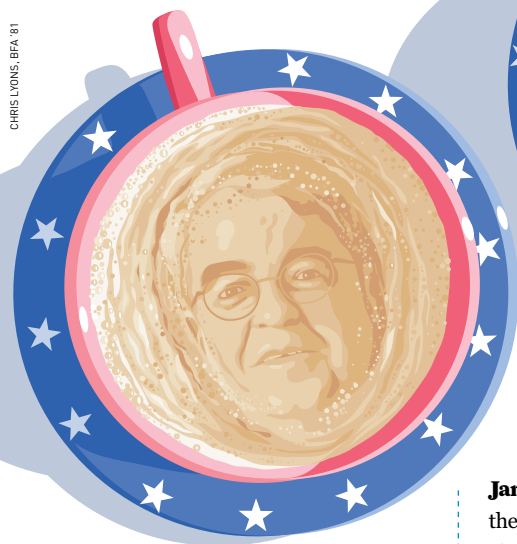
22.16

Can we call it an "eight-peat"?

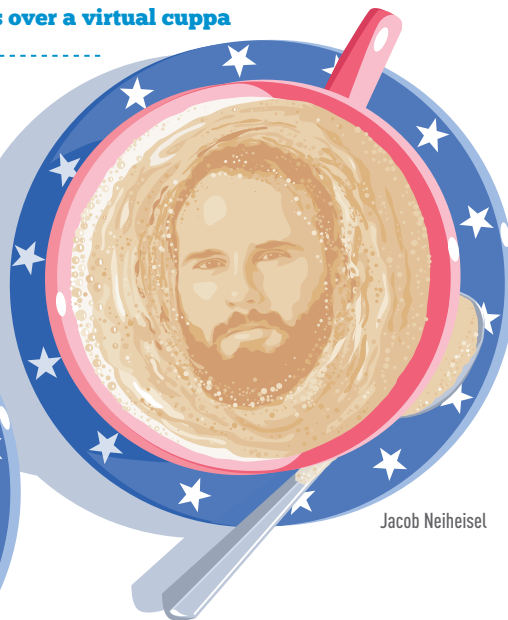
For the eighth semester in a row, UB athletes have registered a cumulative GPA above 3.0. Given that many D-1 schools celebrate passing that bar just once, we think doing it eight times running deserves a curtain call.

8

CHRIS LYONS, BFA '81



James Campbell



Jacob Neiheisel

Polarization—is it us or is it them?

Over the past few election cycles, we've seen conservative politicians moving further to the right and progressives moving further to the left, making simple governance seemingly impossible. We asked Jacob Neiheisel, assistant professor of American politics, and James Campbell, UB Distinguished Professor of American Politics (and author of the forthcoming "Polarized: Making Sense of a Divided America"), why this polarization is taking place and whether there's anything that can be done about it.

James Campbell: I think the principal reason is that the public is polarized. There are a lot of misconceptions about polarization. A lot of political science research had suggested that it was a top-down phenomenon—that the leaders are leading it, and the public is just being dragged along. I think the reverse is actually the case.

Jacob Neiheisel: I agree. In the abstract, everyone wants to get along. If you do a survey asking whether people would like to see the parties get along better, of course they would. But then you ask them what they want their representatives to do, and you see them punishing representatives who aren't as extreme as they want them to be.

JC: For the immediate future, at least, I think we're going to be a divided nation. Consensus is based in public opinion—in people's ideas about what they want the course of government to be. That battle has to be fought out, and it won't happen overnight. But we can make the debate more civil. A big problem now is that people are only talking with people who share their views, so everybody thinks their views are more popular than they really are.

JN: Technology's feeding that too. Our news is calculated to appeal to whatever an algorithm believes our preferences to be, so it's pretty easy to get in these bubbles and be surrounded by our own opinion. Then we don't know what to do when we find dissent. Some of the research in social psychology has suggested that illiberalism—the inability to extend rights to others, be they minority groups or the other side of the political aisle—is on the rise. It's not necessarily polarization that's rising, but the inability to get along, to see others as having rights as well.

JC: We have to develop new rules of engagement for political discussion. That's a tough thing to do, and it doesn't happen unless universities, the media and everyone else who helps shape how people deal with each other are on board. But one thing that is sometimes missed in this is that, because we are so polarized, elections are actually

decided less on ideological matters than they are on performance. The liberals offset the conservatives, and the middle is looking at issues like: Is the party in control keeping the country safe? Is the economy robust? Ironically, those basic performance issues are elevated because of polarization.

JN: Right. The inability to communicate creates immovable ends. Change comes from the middle, where there are persuadable voters who can be convinced to move in one direction or another.

JC: In recent history, the problem is that those performance issues for a short time gave a lot of power to the Democrats. They used it, in part, to enact some very liberal legislation that upset the conservatives. I think that's built up a huge amount of frustration on the right.

JN: It's Newtonian in some ways. The shift to the left helped create the religious right. Even though the latter are the ones who seem really fired up now, their perception is that they've been on the losing end for three decades. I think in the future we might see more unilateral action from the executive, no matter who's occupying it, to get around what is perceived as gridlock in Congress.

JC: It's a natural response. You can't make any headway with Congress, so you push your own presidential powers. But it's not a good, democratic way to run a government. It reflects the one real downside of polarization, which is that compromise has become a dirty word.

JN: In one of my favorite experiments that I've seen in recent years, researchers gave voters a description of a legislator's voting record one year when he was fairly in line with the party and one year when there was some skipping across the aisle. The evaluations of that same legislator were much lower among the base when he was seen as having a bipartisan record.

JC: That's the real problem: How to convince the public to be more accepting of compromise. I think it begins with leaders talking to the public as though they were reasonable adults, and somehow getting the public to be patient and listen.

JN: For the longest time, legislators have not felt the need to explain themselves to the electorate. They thought it was wasted effort because so few people paid attention to politics. Well, now people are paying attention, and they need to know the rules of the game. They can't have an in-depth and passionate understanding of one particular issue and expect that to translate into results. ☹

How do you take your coffee?

James: With a hazelnut coffee creamer and Splenda.

Jacob: I don't take coffee anymore, but when I was a coffee drinker it was black.

MixedMedia

» Indie insider » Hard-boiled Buffalo » Clarice Lispector's legacy



Words Like Snowflakes

Experimental author Shelley Jackson makes her mark on the UB landscape

By Lauren Newkirk Maynard » Shelley Jackson's fiction, as she puts it, "straddles the borders between literature, art and electronic media." Her innovative, often nonlinear storytelling inhabits both physical and virtual worlds, from tattooed bodies of volunteers in "SKIN," an ongoing series, to her groundbreaking hypertext novel "Patchwork Girl," written in 1995 when the Internet was still young.

Jackson's latest project, "SNOW," is built for Buffalo. Over the winter, she created a short story written in the snow, sharing individual words through separate, consecutive images posted on Instagram (@snowshelleyjackson).

"It was suggested by the appearance of streets and sidewalks on a snowy day: white with black marks, like a printed page," she says. As WBFO's Visiting Professor in the Arts for 2015-2016, Jackson came to campus twice last fall to give a reading and expose English students to new ways of approaching creative writing through art, science and other disciplines. She returned in February to create and photograph more frosty words.

In a recent email exchange with At Buffalo, Jackson provided a glimpse into a life immersed in the world of words. For the complete interview, visit www.buffalo.edu/atbuffalo.

What excites you most about digital forms of literature?
I've been especially drawn to the way they emphasize patterns of relationship over linear narrative, and how easily they

CONTINUED

SHELLEY JACKSON



Jackson

incorporate other media. Right now I am fascinated with the way their shifty, contingent relationship with their “body” (i.e., whatever device you’re reading on) underscores the ghostliness of language, its tension with the material world to which it’s ambiguously tethered.

What about social media—what is its potential in art and literature?

Any form not ordinarily used for literature has a lot of potential, I think. And each form will have its particular merits (e.g., Twitter’s haiku-like compression). But what feels newest to me is the *social* in social media, and this has been important to my work from the beginning. Every book depends on its readers, but in “SKIN,” the readers *are* the work. The story has actually become a social network, an invisible web of relationships spanning the globe, intimate and distant at the same time.

Is there a particular attraction to doing a project via Instagram?

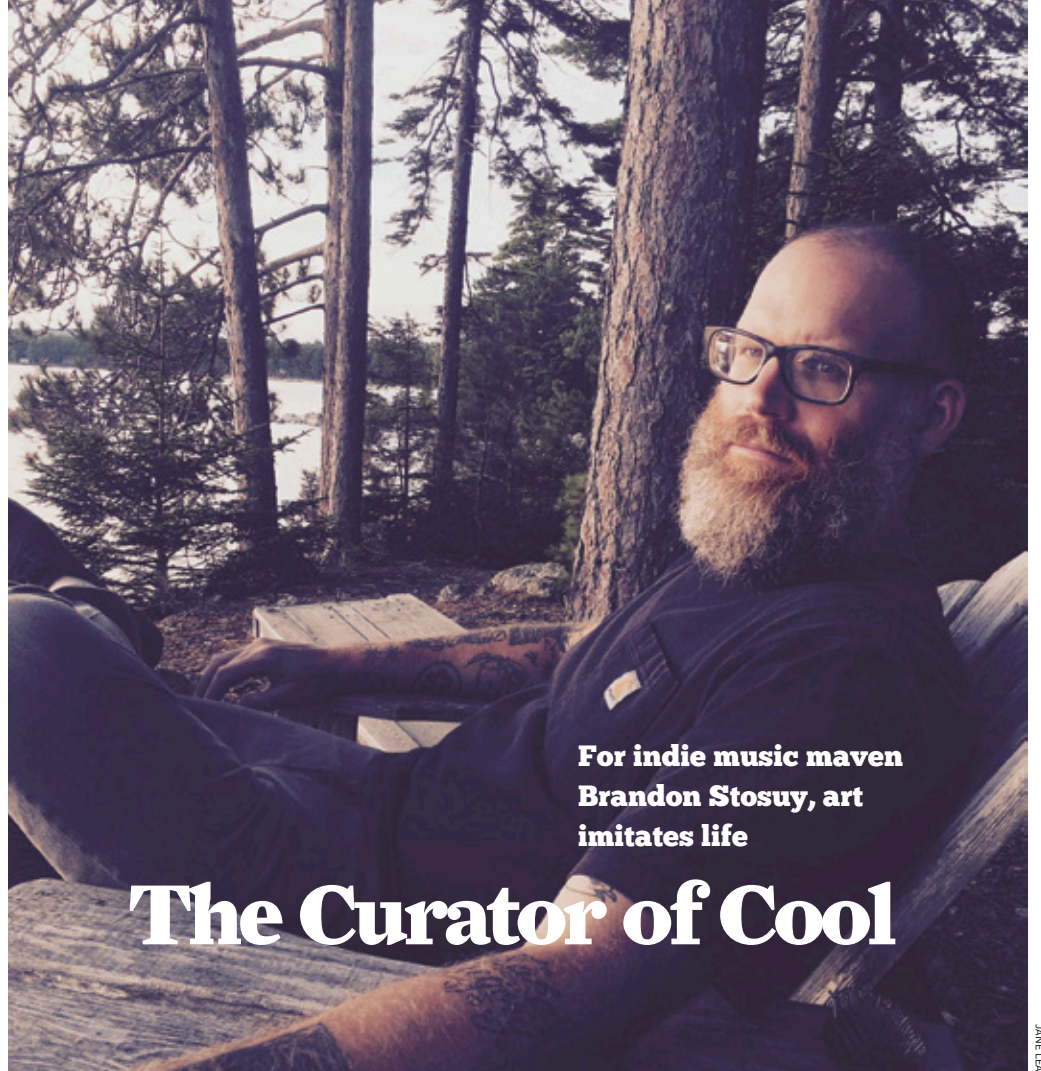
I like the serial-release form, which feels appropriate to a project that is (1) incredibly slow and (2) entirely subject to weather conditions, so that the words come in flurries, like snowflakes. I’m always conscious that certain early writers—Dickens, famously—published their novels serially, and it makes me laugh to think of this project as a weird heir to that tradition.

What did you do with UB students, both in and out of the classroom?

My role at UB was to provoke encounters between students in a variety of different departments. For example, some writing students and I visited Professor of Art Paul Vanouse’s Biological Art class, where we prepared petri dishes for an expedition to a polluted stream to take samples and talk about the different ways that a writer and an artist might engage with the material properties of the site.

Has your work, like “SNOW,” become more ephemeral over time compared to the permanency of a tattoo?

Is a tattoo permanent? Bodies are not permanent. People are not permanent. Hence the subtitle of my project, “a mortal work of art.” We are just slower-melting snowflakes. **B**



**For indie music maven
Brandon Stosuy, art
imitates life**

The Curator of Cool

JANE LEA

By Michael Flatt ▶▶ At 13, Brandon Stosuy (MA '01) began hosting music concerts in his father’s backyard in rural New Jersey. “We’d get an old hay truck and borrow a PA from my friend Ed,” he says. “We didn’t really think of it as DIY in those days. It’s just what you did if you wanted to have a show.” For his 18th birthday, he held a three-day festival there he called the Indie 500, featuring then-popular (but never mainstream) groups like Swirlies and Lilys.

Now director of editorial operations for Pitchfork Media—the influential online music magazine—Stosuy is the “big picture” guy on the masthead, keeping the editorial voice consistent across Pitchfork’s ever-widening platform of websites, live events, online radio, videos and other multimedia experiments.

His boyhood love for underground music was just the beginning of an itinerant, sometimes irreverent journey to Pitchfork’s front door. In high school, he started an amateur magazine with a friend and called it “Nasal Spray,” because they thought it sounded funny. He moved to Portland, Ore., after college because his band had made a tour stop there and he liked the town. Then he followed his heart to Calgary, Alberta, to work some odd jobs and live with a girlfriend. A few years later, after getting his MA in English at UB, Stosuy moved to

New York City, where he slept in a friend’s closet to save money and finally zeroed in on music writing. “I wanted to give music a go because it was how I started as a teenager, and I felt like it was the right path,” he says.

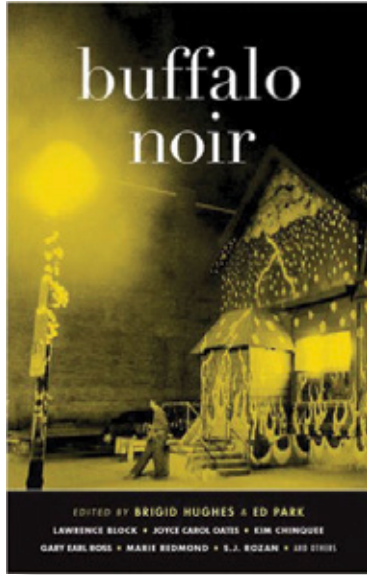
He began freelancing for Pitchfork, which is based in Chicago, in 2003, and started writing his monthly heavy metal column, “Show No Mercy,” in 2006, when Pitchfork was still focused on the indie music scene. As Stosuy’s star rose, so did the company’s, becoming larger, more popular—and more mainstream. Last fall, it was purchased by publishing giant Condé Nast.

For his part, Stosuy is still constantly reinventing himself and pushing at the boundaries of culture. His numerous side projects include co-curating Basilica Soundscape, an annual indie music, art and literature “anti-festival” in Hudson, N.Y., and collaborating on exhibits, publications and events with artists like the uber-edgy Matthew Barney. In 2006, he published a well-received anthology on New York’s downtown literary scene, “Up Is Up, But So Is Down,” and later this year—in yet another instance of a seemingly random career move that actually isn’t (especially given Stosuy’s newest side project: dad)—he’ll publish a children’s book, titled “Music Is,” with Simon & Schuster. **B**

FEATURED TITLE

Buffalo Noir

Edited by Ed Park and Brigid Hughes



A few years ago, Buffalo-born author Ed Park reached out to Akashic Books, publisher of a popular noir fiction series based in various American cities, with a proposal. Park thought his hometown's turbulent history and gritty charm made it a perfect fit for the City Noir series—and the publisher agreed. "Buffalo Noir," edited by Park and former Paris Review editor Brigid Hughes, brings together an impressive array of writers with Queen City ties, including Joyce Carol Oates, Lawrence Block, Tom Fontana, several former and current UB professors (Gary Earl Ross, Christina Milletti, Dimitri Anastasopoulos) and a sprinkling of

UB alumni (award-winning mystery writer S.J. Rozan (M'Arch '80); Buffalo police detective Lissa Marie Redmond (BA '98)). In addition to the individual neighborhoods where each story is set, Buffalo fans will recognize beloved urban icons, such as the Anchor Bar, the H.H. Richardson Complex and the Bubble Man of Allentown. (Akashic Books, 2015)



Captive of Friendly Cove: Based on the Secret Journals of John Jewitt

Rebecca Goldfield (BA '75) and Mike Short

Author Goldfield and artist Short have brought to life the writings of John Jewitt in this graphic novel. Jewitt was a British sailor who was taken captive by the Mowachaht people of Vancouver Island in 1803. The illustrations aspire to historical accuracy in terms of clothing, tools and weapons, while the story authentically portrays the aboriginal perspective. (Fulcrum, 2015)

The Good Dinosaur

Adapted by Bill Scollon. Illustrated by Michaelangelo Rocco (BFA '01)

Adorably illustrated by Disney's senior digital designer, the book adaption of Disney Pixar's film "The Good Dinosaur" follows the story of young Arlo's perilous journey home to Clawtooth Mountain. Along the way, he befriends a human cave-boy, Spot, and together they learn the importance of family, friendship and bravery. (A Golden Book, 2015)

Calling alumni authors

Send us your latest novel, mystery thriller, memoir, poetry collection, non-fiction or other published work! Last two years only, please. Mail to At Buffalo, 330 Crofts Hall, Buffalo, N.Y. 14260. Please note: Works will not be returned.

The Free Market Existentialist: Capitalism Without Consumerism

William Irwin (PhD '96)

In this accessible volume, Irwin, chair of philosophy at King's College in Pennsylvania, brings together two disciplines that rarely overlap—economics and continental philosophy—arguing for a marriage of capitalism and existentialism. Their offspring, Irwin posits, would be a form of libertarianism that resists crass consumption. (Wiley Blackwell, 2015)

The Nihilist: A Philosophical Novel

John Marmysz (PhD '01)

Marmysz has been thinking about Nothing for a while now; he is also author of "Laughing at Nothing: Humor as a Response to Nihilism" (SUNY Press, 2003). This, his first novel, follows a young, unnamed narrator's punk rock-fueled journey to believing that life is just a stretch of futile suffering before an inevitably cold and lonely death. The book is, believe it or not, quite funny. (No Frills Buffalo, 2015)



Nightstand WHAT WE'RE READING



Christina Milletti, associate professor of English

"The Complete Stories," by Clarice Lispector

"I've admired the novels of Brazilian writer Clarice Lispector for years. So when her collected short fiction was newly translated, I picked it up at once. In this big book filled with bite-sized stories, Lispector grapples with the roles women play—the roles they're allowed to play—showcasing the uncanny landscape of their lives. Every story is full of dark humor and is just a little bit devastating. I can't recommend the collection enough."



Tweetable: @UBalumni-owned Lloyd Taco Factory to appear on @CNBC a second time, even after turning down a deal with the network's #RestaurantStartup.



GAME ON

STORY BY JENNIFER KITSES ● PHOTOGRAPHS BY BRENDAN AWERBUCH



For Kathryn Przybyla, the social media coordinator for the Brooklyn Nets, a 15-hour workday without breaks is business as usual. She wouldn't have it any other way.

It's three hours before the players hit the court, and Kathryn "Kat" Przybyla (BA '11) moves fast through the basement corridors of Barclays Center in Brooklyn before ducking into the lounge down the hall from the Media Room. Minutes later, she emerges in her game-night clothes: black dress, gold cuff and the three-inch stilettos in which she will stand for the next six hours (by choice; she likes to be on her feet) as she brings fans of the Brooklyn Nets as close to the team as anyone can get—on the court during warm-ups, in the locker room after the game and with better-than-courtside seats during the game itself. All the while she'll be churning out

content, tweeting video clips and photos and quotes and stats, meeting the demands of a never-ending news and entertainment cycle.

Przybyla, at the age of 26, is in her third season as the social media coordinator

for the Nets and Barclays Center. Born and raised in Getzville, northeast of Buffalo, where she grew up as a fan of the Bills and Sabres and was active in sports herself—basketball, soccer, tennis, competitive Irish dancing—she has what many would consider a dream job. And she appears to be ideally suited for both its thrills and its pressures. "I'm always busy; that's a definite," she says. "But I'm a person who thrives in high-pressure environments. With live sports, you can have your notes, but you can never predict what's going to happen. That's where I'm best—in the heat of the moment. I love it."

She is not exaggerating when she says she is always busy. Today, her workday began around 8 a.m., when she caught up on the news and the team's social media feeds, and then posted @Brooklyn-Nets' first tweet of the day: "*Beautiful day for a game. #Nets look to start win streak vs. #Sixers.*"

Most days, as soon as she gets her coffee, she's on her iPhone, which she relies on almost exclusively to post content. "I try to hit the morning commute crowd," she says. "I plug in, see what we're talking about today. This is not a 9-to-5 position."

Przybyla's job is to rally the fans and draw them in, and a big part of that is giving them an inside look: images and information that they can't get anywhere else. Early this morning, she made her first of two trips to the arena, arriving an hour before "shootaround," the NBA term for practice on game days. "I take photos, post sound bites from the players about tonight's game—anything cool about the matchup," she says. "We'll do a gallery of the players going through their warm-ups."

She posts a black-and-white shot she takes of the team, standing in a circle on the court: "*Good morning from @barclayscenter.*" Today, voting opens for the All-Star team, and she encourages fans to make their voices heard: "*Send your favorite #Nets players to represent Brooklyn.*" If a fan posts something interesting, she'll respond. "I'm really big on interactions with fans. It's a conversation with our base. If fans are hyped about something, I'll retweet that."

After practice ends, she's back on the subway, to grab lunch and swing by her apartment for a purse. But she's still posting content—there's no break on game day. "My work schedule is the team's schedule," she says. "Friday nights, a lot of weekends. Sometimes my night off is a Tuesday. Every day is different, and some days are kind of crazy."

From boot camp to courtside

Przybyla started taking computer classes in middle school, around the time that her parents bought their first home computer. "There weren't really any restrictions, except maybe keeping the house phone lines open at certain times when we had dial-up," she says. "That's so funny to think about."

In 2009, when she was a sophomore at UB, she signed up for her first Twitter account. "I tried to teach myself as much as possible on my own," she says. "Most of my friends weren't as plugged in as I was in the beginning." Later, she took an advertis-



Przybyla catches the team getting pumped up just before taking on the Philadelphia 76ers.

continued

ing class taught by Marc Adler (MA '83, MBA '82, BA '79) in which students were required to have a Twitter account and to submit homework via tweets and using hashtags. "I loved that sort of real-world experience," Przybyla says. "Just using the medium was a great start. I never realized that it would be a major part of my career."

The following year, she applied for an internship at CNN's "The Situation Room with Wolf Blitzer." She had introduced herself to Blitzer (BA '70) at a university awards ceremony—he was receiving a Distinguished Alumni Award; Przybyla a J. Scott Fleming Scholarship from the UB Future Alumni Network—and told the news anchor that she followed him on Twitter. Blitzer encouraged her to apply for CNN's internship program. She did, and the next summer ended up working for one of the show's on-air correspondents in New York City—transcribing interviews, helping with on-location shoots, cutting background video for the Web and on-air packages. It was her first time living away from home. "I fell in love with the city. And big media," she says. "After that, I was always keeping an eye out for opportunities in New York."

A communications major, Przybyla interned for the Sabres during her senior year, working in the hockey team's broadcast department. After graduation, she landed a job at The Buffalo News' Buffalo.com, working as the social content coordinator for the newspaper's website. "It was a fantastic job, a great writing boot camp," she says. "I was writing up to four or five articles a day."

Two years later, she made the move to the Nets. In a market in which so many sought-after positions are won through personal connections, Przybyla got the job through an online application and by reaching out to the hiring manager with an email. In her new role, she made the jump from daily reporting to what is possibly the shortest form of communication that can still fall under the rubric of news. "I still consider myself a writer," she says. "But now I write in 140-character tweets."

Not that she's given up longer-form writing completely. During her rare moments of downtime, she writes posts for her food blog, Rookie Chef, which she launched with her sister, Kristin, a 2015 UB graduate who lives in Buffalo. Posts include a recipe for Honey Chili Chicken created by their father, a finalist in the National Buffalo Chicken Wing Festival. "It's a way to keep up with my writing," Przybyla says. "And it's a nice step away from basketball for the day."

You know what time it is

Today, however, there are no steps away from basketball. She's back at the arena in the late afternoon, and in the thick of it. Tonight is Jewish Heritage Night at Barclays Center, and on court, Yoni Z, a Jewish recording artist with an operatic voice, is warming up for his pregame performance of the national anthem. There's an oversized menorah decorated with basketballs on the main floor, and young fans who belong to the Hasidic Chabad movement are pouring in. Special T-shirts are on sale, sporting the Nets' "Brooklyn Represent" marketing slogan in Hebrew.

Przybyla sets up in the Media Room, with her laptop and two phones: one that she uses for calls, and the other for taking photos and videos and creating GIFs. "Now is the key time: before the doors open," she says. "The players are warming up, and I can provide that exclusive look—things you wouldn't even be able to see in the arena." No matter what the occasion, Przybyla wants to be there, even when it's the sort of community event where she could easily get the photos from someone else. "Kat's passion and pride for her work are showcased in everything that she does," says Mandy Gutmann, communications director for Barclays Center and the Nets.

At the front row of Coach Lionel Hollins' pregame press conference, Przybyla tweets some photos and quotes, then hurries off to get dinner. Ten minutes is all she needs to eat and plug in her phone for a last-minute charge. Then she's outside one of the arena's luxury lounges, the Calvin Klein Courtside Club, ready for the next photo op. Unlike almost everyone who's there to watch the players emerge from their locker room, she's on the players' side of the velvet rope. "You know what time it is, Brooklyn," she tweets, with a clip of Markel Brown, who usually leads the way on game nights, bouncing a ball against the wall as he heads onto the court. She follows the players and claims her space at the corner of the court for all of the pregame activities—where she'll stay until the horn blows.

The underdogs prevail

The mood is upbeat, because the Nets are coming off a win. Two nights ago, at home, they defeated the Houston Rockets 110 to 105. Among basketball fans, the Nets are known for their less-than-stellar record; they are the second-lowest ranked team in the NBA. Just a few days ago, the team was the subject of an online Vice feature that railed against their performance. The article, "This Is Not Basketball: The Brooklyn Nets as Dada Masterpiece," argued that

"the Brooklyn Nets have been a moribund failure for many years, but only as a basketball team and a business."

It's the kind of snarky press that Przybyla takes in stride. "It's the nature of the business to have good press and bad press," she says. "[My job] is always challenging. After a loss, it's more challenging." The fans know the score; there's no point in trying to hide it or pretend there weren't mistakes. Even after the worst performances, Przybyla is unflappable. "There are positives to pull out of any game," she says. "I'll try to focus on an amazing highlight. If something funny happens, you can be lighthearted about it and post funny GIFs."

But tonight her job is a little easier, because the Nets are playing the Philadelphia 76ers—the only team with a lower ranking. As of today, the Sixers have won just one game this calendar year. And the Nets are in good form; Przybyla doesn't need to stretch to post highlights like: "@44Bojan making a splash in the first." and "The 13 pts the #Nets allowed in the 1Q are the fewest points the Nets have allowed in any quarter this season." By the end of the first quarter, the Nets are leading 24 to 13, and her earlier hope of a winning streak seems within reach.

The Nets hold on to their lead until halftime. Then, in the third quarter, the Sixers manage to sneak ahead. Przybyla posts: "One quarter to go. #Sixers grab a 74-70 lead over the #Nets at the end of the third here in Brooklyn." The game is saved with a play by Shane Larkin, and Przybyla posts some congratulatory tweets: "One more look at that Larkin hustle. #Nets @ShaneLarkin_3." Later, with evident relief, she is able to celebrate a victory: "We'll take it! #Nets win 100-91 over the #Sixers tonight in Brooklyn."

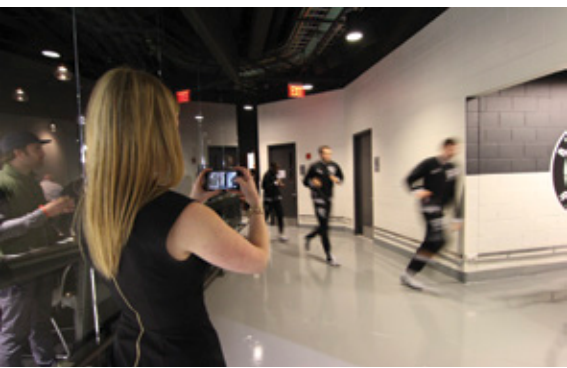
Przybyla's night, however, is far from over. She tweets quotes from Larkin, Andrea Bargnani and Brook Lopez. "Game photos? We've got game photos." "Big play from @ShaneLarkin_3 makes him our @SecureWatch24 Defender of the Game! #Nets" Stoking the fans' celebration of another win, she posts all the postgame content she can get: sound bites from the coach's press conference, postgame quotes from locker room interviews, highlights, photo galleries, clips of big plays.

She generally leaves about an hour after the horn blows, unless there's something else she can bring to the fans, like video of a meet-and-greet or player signings. Tonight, she's in no rush to leave, and there's plenty to keep her busy; in two days, the Nets will be playing the Los Angeles Clippers. And so Przybyla is off again, talking to the players, eager to provide the fans with an answer to that perennial sports question: *What's next?* 📍

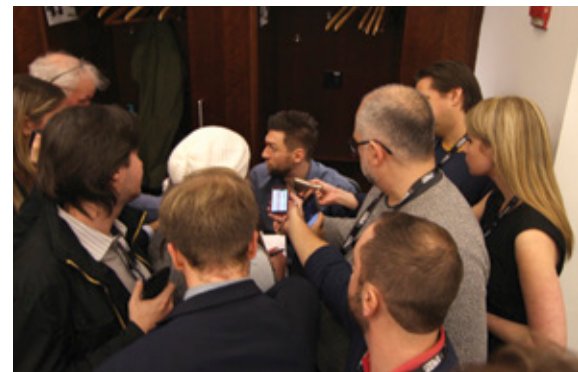
Jennifer Kitses is a freelance writer based in New York City.

"With live sports, you can have your notes, but you can never predict what's going to happen. That's where I'm best—in the heat of the moment."

—Kathryn Przybyla



In the Heat of the Moment
"My work schedule is the team's schedule," says Przybyla.
All photos from the Dec. 10 game at Barclays Center
against the Philadelphia 76ers.



THE MICROBIOME, POISED TO TRANSFORM MODERN MEDICINE—PERHAPS EVEN TO ALTER OUR PERCEPTION OF WHAT IT IS TO BE HUMAN—IS STILL LARGELY A MYSTERY. BUT RESEARCHERS AT UB AND ELSEWHERE ARE ON THE PATH TO SOLVING IT.

STORY BY LAUREN NEWKIRK MAYNARD  ILLUSTRATIONS BY SHAW NIELSEN

Gut Feelings



uch like the Earth itself, our bodies teem with life that is not, strictly speaking, our own. Trillions of tiny organisms, including bacteria, fungi, viruses and other one-celled microbes invisible to the naked eye, reside in and on us in specialized communities. Together they form what's called the microbiome—our body's complete ecosystem of microorganisms.

To illustrate just how prolific these little guys are, our microbes are estimated to outnumber the body's cells 10 to 1; together they weigh between one and three pounds in an average-size adult. And they're not just along for the ride. Many organisms making up the microbiome play well with their hosts and with each other, helping control and maintain our immune system, weight, hormone levels and other vital life functions. But balance is the key. All microbes are opportunistic and can flood our systems when competing microbes are absent; some, like the *E. coli* bacterium, can do quite a bit of harm as a result, causing serious illness or, if they succeed in overwhelming the microbial and bodily defenses, even killing their host.

Consequently, it's the nastier microbes that often dominate headlines, as the medical community rushes to develop and prescribe ever more potent antibiotics to combat new strains. However, scientists, physicians and the public are starting to pay more attention to our body's beneficial microbes, realizing the powerful, healing roles they play in human health and well-being.

continued



Microbiologist David Relman, who co-directs the Center for International Security and Cooperation at Stanford University, is among those who are attempting to shift the focus of infectious disease research to include not just the pathogenic microbes but the “good guys” as well. Speaking about the microbiome at UB this past fall as part of President Tripathi’s Critical Conversations series, Relman, one of the country’s top researchers pursuing this relatively new field, seemed at times to be in awe of our dual biologies—that of our own cells and that of the cells of our microbial partners. “We are one type of life among many, many others. Nothing exists in isolation,” he said.

Indeed, human microbes have been around as long as we have, and thrive in different amounts and groups inside our body’s many habitats, including in our intestines and mouth, on our skin, and in our nostrils. These groups can be quite different from each other, but, as Relman described, there are also similarities among microbial communities around the world. For instance, a North American’s gut bacteria, or flora, may have more in common with the gut bacteria of someone in Japan than they do with the bacteria in that individual’s own guts.

Microbes, like our own genes, may also predict our future health. Bacteria found in a pregnant woman’s vagina are passed along to the baby’s underdeveloped gastrointestinal tract at birth and, along with breast milk, help seed the newborn’s gut flora with the right microbial mix to help it—and the child—develop normally. Some researchers suspect that birth by cesarean section and formula feeding may be linked to health issues later in life because the infant wasn’t exposed to that very specific combination of beneficial bacteria.

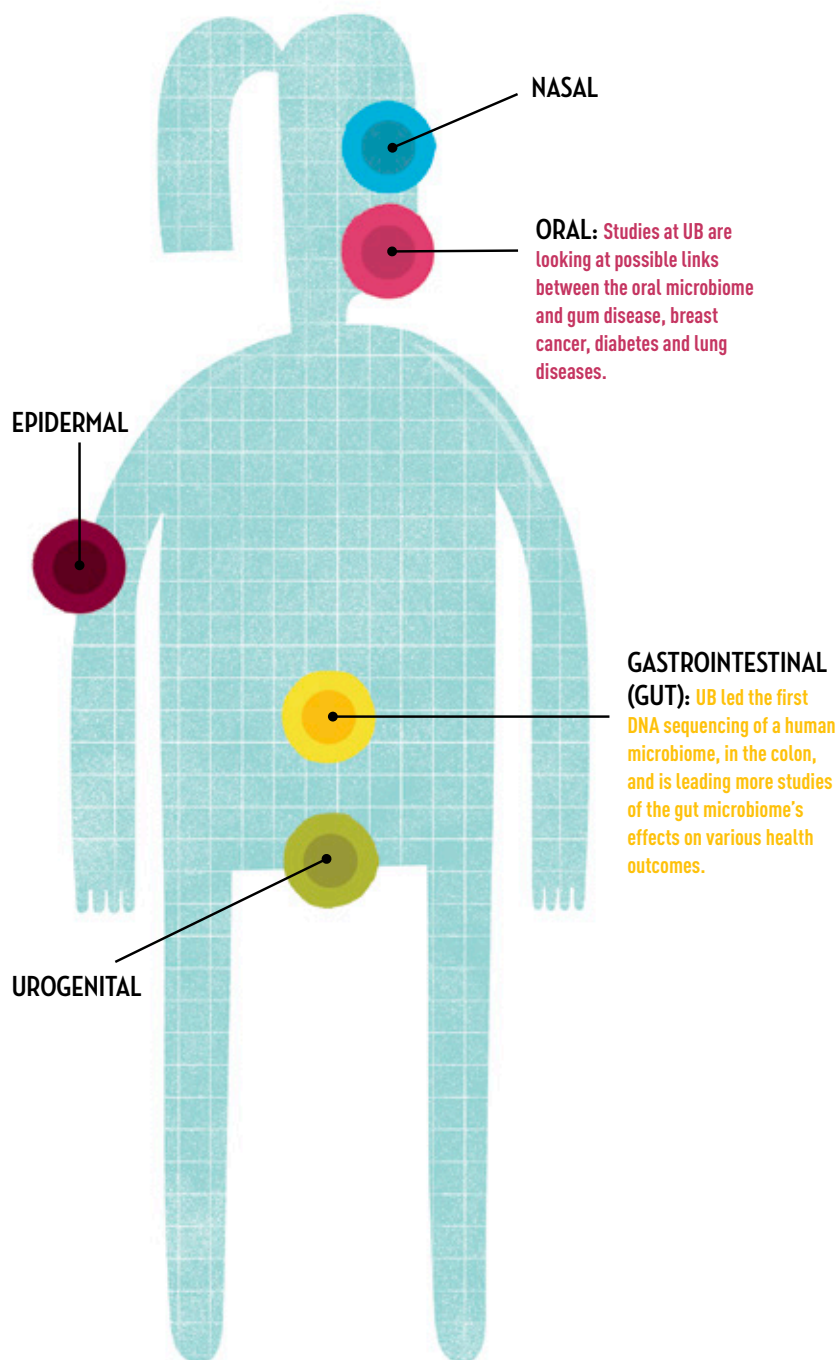
A new chapter for UB’s genomic experts

Before the microbiome, our bodies’ genes were another great medical mystery to be solved. While scientists have mapped the human genome—the DNA-driven genetic material common to all of us—our microbes are another story. Their genes, as well as their overall structures, functions and interactions with each other, and with us, are still greatly unknown.

UB has long held a pioneering role in genomics—the study of genes and their DNA building blocks. In the 1990s, UB geneticists, including J. Craig Venter (now with the J. Craig Venter Institute) and Norma Nowak (PhD ’86 & MS ’80), helped sequence and map the human body’s 23,000 genes in the landmark Human Genome Project. Encouraged by that achievement, in 2007 the National Institutes

Body of Knowledge

The Human Microbiome Project, a nationwide study of the body’s microorganisms, analyzed the microbiota, or microbial communities, of five major body sites: nasal, oral, epidermal, gastrointestinal and urogenital. While most UB research focuses on the gut and the oral cavity (mouth, teeth and gums), there are studies underway or in the works looking at possible links between these two powerful microbiota and a number of diseases.



of Health launched the Human Microbiome Project (HMP) to study the genetic material of microbial communities found in 18 different sites within the body, including the oral cavity, lower intestine, skin and vagina. In total, they collected more than 11,000

specimens from 300 adults using cutting-edge genomic sequencing technology to spot the microbes' presence.

A year before the HMP launch, a team of scientists from UB, Stanford, Washington University in St. Louis and what was then called The Institute for Genomic Research (now the J. Craig Venter Institute) published results of a milestone study on the human colon in the journal *Science*. It was the world's first DNA sequencing of all the genes of an entire community of human microbes.

The researchers on that study included Relman and microbiologist

Stephen Gill, who was then on faculty in the Department of Oral Biology in UB's School of Dental Medicine. Today, researchers worldwide—including an increasing number at UB—study the microbiome using genetic blueprints from these previous projects. "Our work at UB has grown exponentially, and it's terrifically exciting," says Robert Genco (DDS '63), SUNY Distinguished Professor in the departments of Oral Biology and Microbiology and Immunology—and a vocal proponent of microbiome research. "What's happening here and elsewhere has the potential to rewrite the microbiology textbooks we all learned from."

With its scientific rigor and public outreach, the HMP also brought gut bacteria into the mainstream, prompting best-selling food journalist Michael Pollan in 2013 to have his own gut microbiome tested. His results (and many others') are proudly promoted by the "American Gut" initiative, a crowdsourced version of the HMP that aims to collect data on Americans' fecal flora. In turn, that data will become part of the open-source Earth Microbiome Project, a massive, global study attempting to characterize all microbial life on the planet.

"Our work at UB has grown exponentially, and it's terrifically exciting. What's happening here and elsewhere has the potential to rewrite the microbiology textbooks we all learned from."

—ROBERT GENCO



Jeffrey Lackner, professor of medicine and director of UB's Behavioral Medicine Clinic.

UB'S MICROBIOME HUNTERS

DOUGLAS LEVERRE

The Gut: A new mind-body connection



In the past decade, microbiome research has spread into other fields beyond microbiology and genomics, including neurology and psychology. Most recently, researchers have found evidence that microbes and the brain can communicate, helping regulate how we think and feel. Many studies are underway to test whether our microbiomes play key roles in autism, anxiety, depression and other psychological disorders.

Jeffrey Lackner, professor of medicine and director of UB's Behavioral Medicine Clinic, takes the mind-body connection even further; he has a hunch that it may be a two-way street. With funding from UB and the National Institutes of Health, and using stool samples collected from subjects enrolled in a much larger study he led to test how a behavioral treatment program could improve GI symptoms of irritable bowel syndrome (IBS), Lackner aims

continued

"Most of the research being done regarding the effects of psychological stress on the microbiome has been preclinical, or at least not done on humans."

—JEFFREY LACKNER



Jean Wactawski-Wende (PhD '89, MS '83), dean of the School of Public Health and Health Professions.

“There is no other prospective epidemiological study as large and rich as this that can address questions about the oral microbiome.”

—JEAN WACTAWSKI-WENDE

to explore the brain's effects on the gut microbiome—an angle he says hasn't been clinically studied before. “We know there's a connection between the gut and the brain, but we don't know how it works, or why,” he says. “Most of the research being done regarding the effects of psychological stress on the microbiome has been preclinical, or at least not done on humans.”

Joining him on this two-year pilot study are UCLA gastroenterologists Emeran Mayer, a noted microbiome expert, and Kirsten Tillisch, an expert on how the brain and microbiome interact in patients with functional gastrointestinal disorders. Both helped design the study, and they will play key roles in analyzing its data. The trio hopes to find evidence proving their hypothesis that the brain not only can receive messages from the gut microbiome, but can also send messages back, thereby changing the microbes and how they behave. If it succeeds, Lackner believes the research could one day lead to more effective self-management treatments for IBS and other common yet intractable gastrointestinal disorders influenced by the microbiome.

The Mouth: An oral history



UB researchers in the schools of medicine, dental medicine and public health have built a reputation for rigorous clinical research of the microbes in the mouth. The oral cavity, as it's called, has a relatively complex microbiome, meaning it contains a high genetic diversity and distribution of many microbial species. Some of them, it's believed, may be linked to systemic diseases outside the mouth, such as heart disease, stroke, diabetes and pneumonia.

The mouth is an ideal target, then, for a project led by Jean Wactawski-Wende (PhD '89, MS '83), dean of the School of Public Health and Health Professions. She and Genco, along with several other UB researchers, are conducting a five-year, \$4 million study funded by the National Institute of Dental and Craniofacial Research to examine postmenopausal women and the possible connections between the communities of microbes living under their gums and the prevalence of periodontitis, a common and chronic inflammatory disorder also known as periodontal (gum) disease. “There is no other prospective epidemiological study as large and rich as this that can address questions about the oral microbiome,” she says.

Population health researchers use this kind of prospective study, Wactawski-Wende explains, to follow a group of individuals who have clear differences, like diet or weight, and then determine how these factors may affect long-term rates of a certain outcome, such as the development of a disease. Now, she says, the characteristics of these women's oral microbiome can be set alongside these and other personal attributes, showing possible associations with and risk factors for disease—and perhaps avenues for prevention or treatment.

Wactawski-Wende's team is looking at the severity and progression of gum disease in a unique way. Unlike most microbiome studies to date, UB has access to an unprecedented amount of data from the Buffalo OsteoPerio study, one arm of a massive, nationally funded project called the Women's Health Initiative (WHI) conducted here for more than 15 years—an extremely long time in terms of human scientific studies. The larger WHI has tracked the lifestyle, diet and many other health-related factors of more than 162,000 postmenopausal women over the past 23 years.

Microbes on multiple fronts



These are exciting times at UB as its work on the human genome and microbiome matures, says Wactawski-Wende. Encouraged by better genetic sequencing technologies and increased funding from the federal government for personalized medicine, UB is investing in a wide range of multidisciplinary studies, mostly in the sciences and medicine, but also in fields ranging from engineering to art.

In addition to the studies led by Lackner and Wactawski-Wende, several teams of public health researchers, microbiologists and biostatisticians have joined forces to investigate bacteria's role in health, and many are doing it with data from the WHI. Last

year, Michael LaMonte, a UB epidemiologist and co-investigator on Wactawski-Wende's periodontal study, began assessing a proposed study that would look at the gut microbiome's role in cardiovascular disease in older women. His UB colleague Jo Freudenheim, an epidemiologist and breast cancer expert, just published data from another study ancillary to the WHI, indicating that there appears to be an increased risk of breast cancer in postmenopausal women who have periodontal disease (oral microbes have been found in cancerous tumors), while another research group is about to test its theory that the lack of diversity of gut flora collected from newborn babies in Kenya could be linked to a risk for stunted growth later in life. Similarly, Frank Scannapieco (PhD '91, PMCRT '89), chair of UB's Department of Oral Biology, has been investigating connections between the

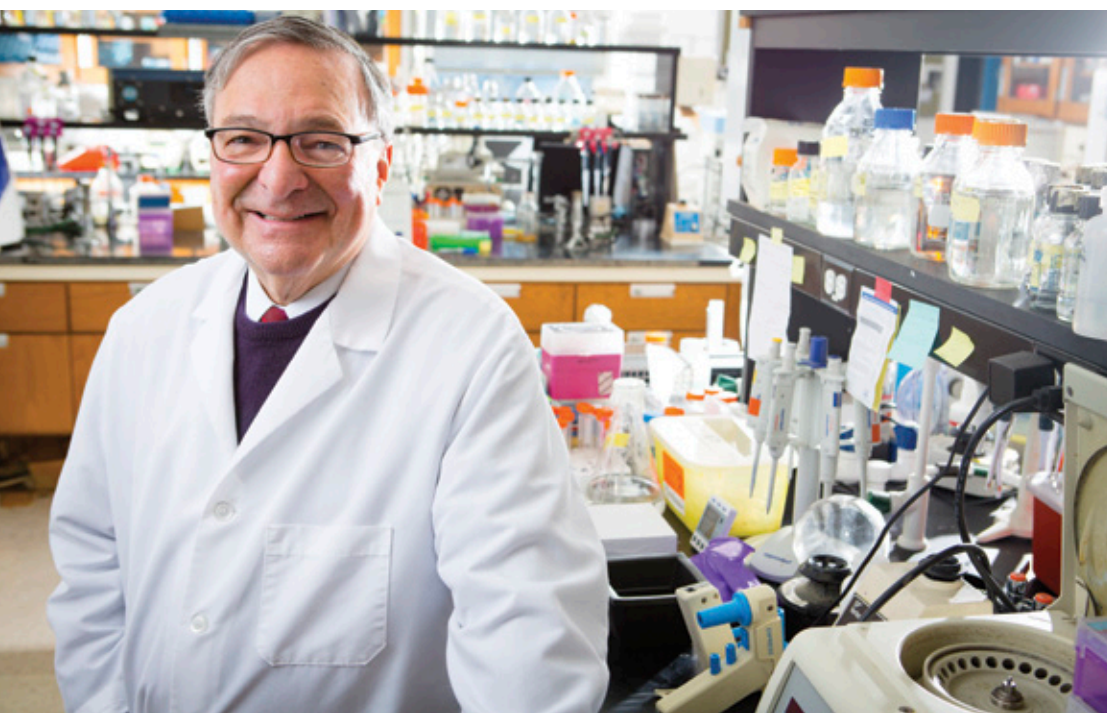
oral microbiome and lung disease, while Genco has conducted and presented research on its associations with diabetes.

The laboratory of Timothy Murphy, SUNY Distinguished Professor in the Jacobs School of Medicine and Biomedical Sciences, has been studying the bacterial species that are present—and periodically cause flare-ups—in people with chronic obstructive pulmonary disease, or COPD, which restricts the amount of air entering the lungs. Murphy also helps direct UB's new Genome, Environment and Microbiome Community of Excellence, or GEM for short (see sidebar below).

Students as well as faculty are taking part in UB's cutting-edge microbiome work. At the Coalesce Center for Biological Art, a hybrid "bio-art" laboratory facility on the North Campus sponsored by the GEM working group, faculty, students, visiting researchers, artists-in-residence and the general public are exploring ideas about our relationship to the unseen living world through hands-on creative engagement. In the Honors College, biochemistry undergraduates, genomics and bioinformatics experts, and computer science faculty have used next-generation genetic sequencing to analyze human gut bacteria before and after gastric bypass surgery. Other students have assisted on studies of the gut microbiome of marine mammals and prehistoric polar bears.

Wactawski-Wende sees her school's various projects as parts of a greater whole regarding microbiome research at UB, and says the work has provided her with a fresh injection of professional fulfillment and focus. "As a longtime researcher and administrator, it's not often that I get to work with people outside my field," she says. Genco agrees. "We're all talking and working together in ways we never have before. Who knows what we'll uncover?"

Lauren Newkirk Maynard is a section editor for At Buffalo.



Robert Genco (DDS '63), SUNY Distinguished Professor in the departments of Oral Biology and Microbiology and Immunology.

THE GENOME, THE ENVIRONMENT AND THE MICROBIOME (GEM)

One of UB's three Communities of Excellence, the Genome, the Environment and the Microbiome (GEM) is a research, education and engagement

group working to advance our understanding of the genome, the microbiome and their interactions with the environment. Co-led by Timothy Murphy, director of UB's Clinical and Translational Research Center, pioneering genomic scientist Norma Nowak (PhD '86 & MS '80) and Associate Professor of Biochemistry Jennifer Surtees, GEM has spent the last year or so gathering a powerhouse team of faculty,

including scientists, lawyers, educators, biostatisticians, philosophers, historians, artists and other relevant experts across the university.

GEM will collaborate with students, and with the public, to develop models for personalized medicine, educate individuals about their health, and accelerate vital public policy discussions about the ethical, legal and social implications of genome sequencing. It's not just about better medicine, says Surtees, but a deeper understanding of ourselves and our place in the world. "There's a huge gap between what scientists know about genetics and the microbiome, and what the public knows," she says. "Especially about how it all relates to their own health."

Big. The Idea

Story by **Erin Peterson** // PHOTOGRAPHS BY DOUGLAS LEVERE

We live in a world of modest changes. Politicians make tweaks to the tax code and refinements to policy. Infrastructure gets patched, successful movies get prequels (and sequels and threequels), and “new and improved” products are usually just more of the same.

For this story, we set aside the idea of incremental improvements and asked eight members of our faculty to think big. If they had unlimited time, money and persuasion techniques, what audacious idea from their fields would they want to implement today?

You might find their bold visions—offering free college classes for prisoners, developing a national call system to fight hackers, requiring everyone to have real conversations with people whose beliefs make their blood boil—amazing or absurd. But either way, we hope their ideas make you think.



THE PROBLEM

The refugee crisis

THE BIG IDEA

Require everyone—particularly political leaders—to have real encounters with people very different from them.

Hilary Weaver is associate dean for academic affairs in the School of Social Work

No. 1 If I had a magic wand, I would make sure that all of us have meaningful contact with 10 people who have realities that are much different from ours.

We tend to live in very segmented societies, where we have minimal contact with anyone who is significantly different from us. This allows suspicion and fear to breed, because we lose sight of our common humanity. Difference becomes value-laden—not the difference between blue and green, but differences that lead us to say that some people are less than others. And that can lead to so many forms of injustice. The crippling effects of racism, for example, affect both the targets of racism and racists.

So I would like to set up encounters with people of different classes, races, sexualities, immigration statuses, abilities and spiritualities. What if all of our policymakers had meaningful encounters with refugees and really understood, on a face-to-face basis, what their reality looks like when they have watched family members get killed? Would they think differently? If we—people of comfortable means—spent time with the poorest of the poor, would we be able to turn a blind eye when we walk down the street and someone asks us for money? Would these kinds of experiences make us more able to make decisions based on compassion rather than fear?

I think this big idea would help bridge the gap between “us” and “them,” and bring about really powerful changes in the world.



THE PROBLEM

Mass incarceration

THE BIG IDEA

Offer robust education opportunities to all inmates.

Teresa A. Miller is vice provost for equity and inclusion, and professor of law

No.
2

Incarceration in America is at unprecedented levels. For example, the United States has about 5 percent of the world's population, but 20 percent of the world's prisoners. One study by the Texas Department of Criminal Justice found that of those who are incarcerated and lack a college education, 60 percent will return to prison at some point after they're released. Those are discouraging numbers, emblematic of a broken system.

But one thing that does seem to make a difference is education. If I could, I would make college courses available to any prisoner with a clean disciplinary record and a high school diploma. In this way I would create incentives for prisoners to follow the rules, and provide an invaluable opportunity to incarcerated men and women on the basis of merit.

I've worked with many incarcerated people, and I find that those who are taking college classes see their horizon expand beyond the end of their cell block. It gives them a way of experiencing life beyond their present circumstances.

It also gives them an opportunity, once they're released, to take advantage of work opportunities that may not have been available to them before. Studies have found that this kind of education can reduce recidivism by more than 40 percent.

Better educational opportunities don't just benefit prisoners; they're a huge cost savings, too. For example, the organization I work with, the Correctional Association of New York, estimates that every dollar that's invested in prison education returns two dollars back to taxpayers, because they're not paying for solitary confinement, medical care, prisoner transport and all sorts of other expenses. That's why this is an idea that would benefit all of us.

THE PROBLEM

Cybersecurity

THE BIG IDEA

Develop a nationwide 911-type system for reporting online breaches.

Arun Vishwanath (PhD '01) is an associate professor of communication

No.
3

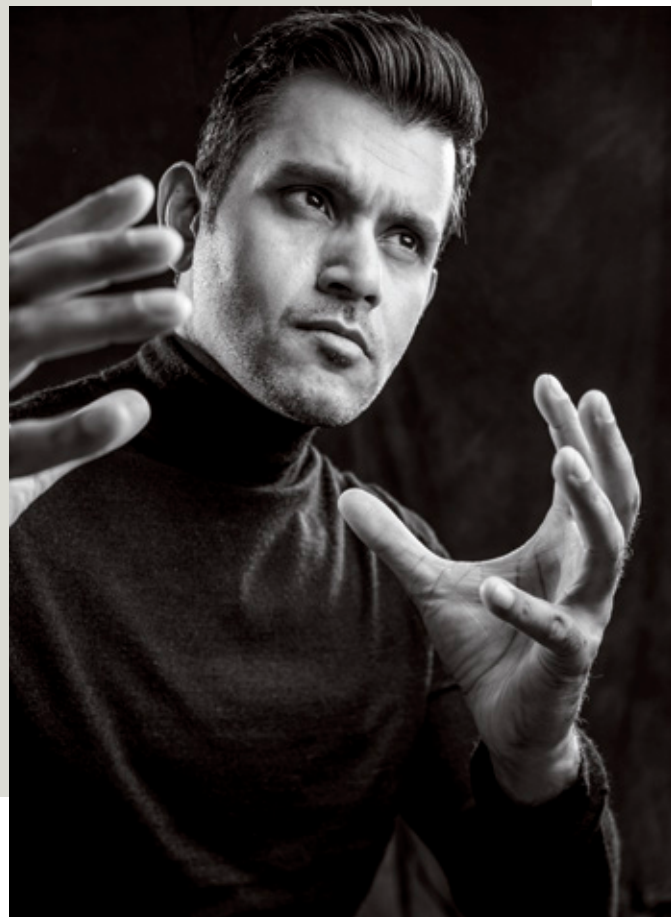
Right now, the single biggest threat to cybersecurity and national security is "spear phishing"—a targeted email scam that appears to be from an individual or business that you know, but is actually from a hacker.

The scale and scope of these problems is enormous, and likely to get bigger over time. So much of our data is stored online—our business data, our health information, our financial information. We need to stop this. If we don't, all of our information could get released, and we could suffer consequences for the rest of our lives.

So how do you stop it? If you get something suspicious at your work email account or your home account, who do you contact? You probably don't know. That's why my big idea is a simple, nationwide 911-type system for reporting online breaches.

For example, we know that less than 30 percent of people fall for these phishing attacks—but that's enough to make the breach spread. So I'd like to see a system where those 70 percent who recognize an attack have an easy way to report it and get feedback. The person would report it and receive a call within 24 hours from this organization to explain what it's doing to resolve it.

But it's not just that we need to have a way to report these breaches—we also need to create a culture of reporting. In many cases, it takes more than a year for an organization to discover a breach because no one is reporting it. A culture of reporting, and a system that allows us to take action on these reports, could shorten this cycle and make a big difference.



THE PROBLEM

The spread of infectious disease

THE BIG IDEA

Cultivate a worldwide hand-washing habit.

Pavani Ram is a co-leader for UB's Community for Global Health Equity and an associate professor of epidemiology and environmental health

No. 4 There's plenty of evidence that good hand hygiene substantially reduces the incidence of preventable illnesses including diarrhea, respiratory infections and influenza.

Most people know that they should wash their hands—even my kids know—but they don't do it. Sure, we might do it when we're being watched, but we need to wash even when others aren't around. That means after using the bathroom, changing a diaper, sneezing into your hands or touching an animal, and before and after preparing food.

One of the most effective ways to think about change like this—not just one person at a time, but as a society—is by changing social norms.

For example, my kids saw a DVD at school that says everyone should wear seat belts, and they came home and asked me if I wear my seat belt. That's become an expectation now—a social norm. We need to create these types of effective campaigns in schools for hand-washing.

That's on the positive side. We can also seek to change the social norms for people who don't wash their hands. For example, with smoking, we pushed smokers outside of restaurants and bars and office buildings. Non-smokers walking by judged their smoking peers negatively. When people don't wash their hands and the rest of us think "eww," that will go a long way toward changing the social norms.

These are just a couple ways we can create social expectations that drive people into behaviors that benefit the public good.



THE PROBLEM

Unsustainable growth

THE BIG IDEA

Integrate technology with natural systems in cities and towns.

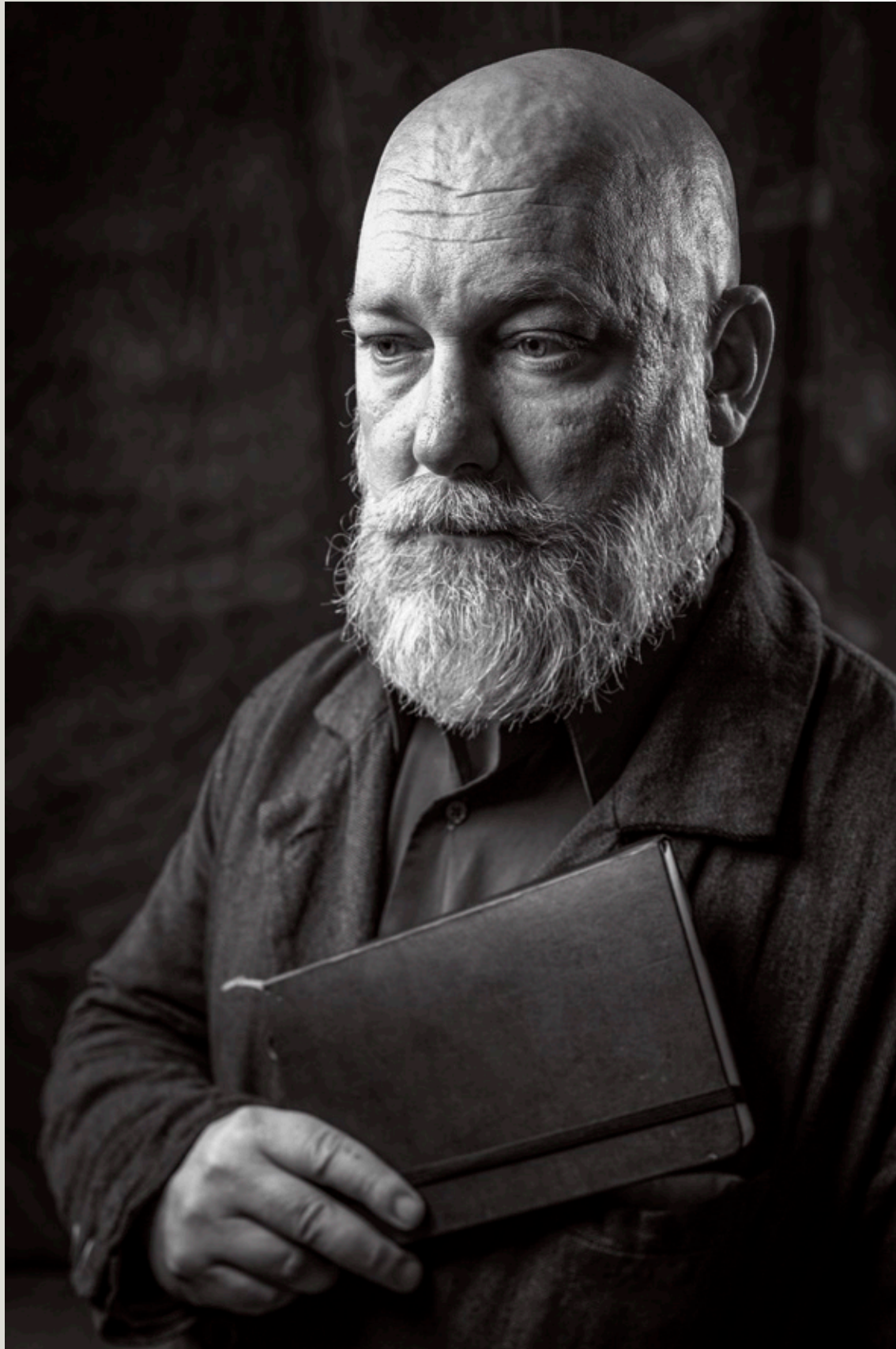
Mark Shepard is director of the Media Arts and Architecture Program and co-directs the Center for Architecture and Situated Technologies

No. 5 One of my big ideas would be to actually realize some of the projects that my architecture graduate students are already developing. These are amazing projects that integrate natural and human-made systems to make cities and towns more sustainable.

For example, one student is working on developing roof tiles that incorporate hydrogels. Hydrogels are substances that can absorb water, expanding up to ten times their size during heavy rains, and then slowly disperse the water over time. If you were to develop roofing that incorporated this system, you could alleviate some of the stress on existing runoff systems in the towns along rivers. It would be a line of defense against extreme weather conditions, including flooding, that may be more common as a result of climate change.

Another example is using technology to help improve biodiversity through sound. We know that many animals—frogs, foxes, rabbits and snakes, to name a few—are attracted to or repelled by specific sounds. So to shape the biodiversity of a certain region, students have developed instruments that look like reeds you might see by the seaside. When they're blown by the wind, they create certain pitches and frequencies that can help strengthen that region's biodiversity.

It would be fantastic to be able to start funding these kinds of projects, which could dramatically change the way our environment is shaped in the future.





THE PROBLEM

Economic inequality

THE BIG IDEA

Give all children a development account for their future.

Yunju Nam is an associate professor of social work

No.
6

We know that economic inequality is a problem, and it continues to get worse. One reason is that parents in lower- or even middle-income families don't have the economic resources they need for their children to prepare for

their future. For example, kids from poor families have trouble starting new businesses, even if they have a great idea. They simply don't have the startup funds. Many kids would benefit from college educations, but we all know how expensive they are.

I propose that every child be given an account at birth—at the same time that they get a Social Security number—that they can use to invest in their future. They would start with some amount of money, maybe enough for a year of community college, and then they, their family members and their friends could add to it over time. I would pair that account with strong financial education.

The key isn't just that people have money that they can use when they're young adults—it's also that they and their parents can dream about the future in a different way. Maybe they decide to get a car so they can get to a job, or use it as part of a down payment on a house. It's important to give them a lot of flexibility, because we just don't know how society will change over the course of 18 years, or what will be most important. We need to give them the power to make, and learn from, their own decisions.

THE PROBLEM

America's growing lack of faith in politicians and political institutions

THE BIG IDEA

Use the law's idea of "fiduciary principles" to revitalize trust.

Michael Halberstam is an associate professor of law

No.
7

Democracy is based on principles of trust and trustworthiness that are deeply embedded in the American legal tradition. These principles, which lawyers call "fiduciary principles," should be revitalized and applied to address public concerns about governmental and legislative ethics.

To be clear, a fiduciary is someone who acts on behalf of someone else without looking for personal gain. In other words, it's someone

who can be absolutely trusted. This idea is very common for lawyers and financial advisers.

But it's not simply a mindset: There are ways to use the law to approach these issues of trust.

For example, we need to focus not just on actual corruption in politics, but also the appearance of corruption. In many cases, simply the appearance of corruption, even if none exists, can make people cynical.

So, for instance, instead of trying to root out the corruption that might occur when large donors try to influence politics, we should understand that the very idea of private funding of elections reeks of conflict of interest. We should use the law to find ways to avoid these unmanageable conflicts of interest entirely. That is part of what it means to be trustworthy.

The fact is, we all delegate decision-making to others in one way or another. But it requires that we work to build trust, both politically and legally.





THE PROBLEM

Climate change

THE BIG IDEA

Reframe the threat as a grand opportunity.

Kenneth Shockley (MA '95) is an associate professor of philosophy and director of UB's Sustainability Academy

No. 8 Climate change is one of the greatest moral challenges of our age. There's no way around that. But sometimes monumental challenges can bring about monumental change—they can motivate us to think differently, and to work together to think more carefully about the costs of our actions.

First, we may be inspired to communicate more effectively. In the recent Paris climate talks, for example, at a key moment when the talks were on the edge of breaking down, climate negotiators took a page from the traditional “indaba” process, wherein each party voices its opinion and is required to provide solutions drawing all toward a common ground. The effectiveness of this method in the face of a problem on the scale of climate change provides promise for a new era of communication.

Second, we may start thinking of ourselves as a global community, and rethink how we understand vulnerable populations. They're not “vulnerable people from country X”; they're vulnerable human beings. That's a morally important shift. Because we can recognize and respond to problems worldwide in a way that was unimaginable 200 years ago, we can also begin to think of ourselves as a global community.

Finally, climate change gives us an opportunity to take full stock of the costs of our actions. Once we see our problems as global problems, then it is much harder to justify ignoring the economic, environmental or social costs of our actions—whether in terms of energy use or resource extraction or manufacturing—when those costs are borne by someone else. It's not easy to make these kinds of measurements, but it is vitally important to acknowledge what we're actually spending, and what we're kicking down the road for future generations or other populations to pay for.

Climate change is a huge, multifaceted problem, but it's also an opportunity to fix grave injustices, to fix the relationships among humans, and to fix the relationship between humans and the world itself. **8**

Erin Peterson lives in Minneapolis. She writes for colleges and universities across the country.

Alumni Life

- » Ladies who lunch
- » Bangalore or bust
- » Don't arm-wrestle this robot

Tiny Particles, Massive Rewards

Luisa Whittaker-Brooks' work with nanomaterials might one day power the planet

LUISA WHITTAKER-BROOKS, PHD '11, MS '09

By Rebecca Rudell » Nanomaterials—substances that measure a billionth of a meter (a sheet of paper is about 100,000 nanometers thick)—have been a hot topic among scientists for the past decade or so. They are also the main focus of Luisa Whittaker-Brooks' (PhD '11, MS '09) research. Since 2013, her findings on these miniscule materials have helped her earn more than \$100,000 in funding. Not bad for a scientist just a few years out of graduate school.

Whittaker-Brooks, 32, has been intrigued by chemistry since high school. A teacher in her native Panama recognized her as an exceptional student and encouraged her to pursue chemistry as a career. In 2007, the budding scientist came to UB as a Fulbright fellow; in 2011, she received the Materials Research Society's highest award presented to

graduate students. She also completed her master's and her PhD within three and a half years.

For her doctoral research, Whittaker-Brooks studied vanadium oxide, an inorganic compound with intriguing properties when prepared as a nanomaterial. "The cool thing is, when you work on a nanoscale, you start seeing extraordinary properties you don't see in bulk materials," she explains. For example, bulk copper bends, copper nanoparticles don't. This feature of nanomaterials opens up a wide range of applications for medical, electronic and other fields. It's as if Whittaker-Brooks and other material chemists have a whole new periodic table to play with.

At UB, she worked under Sarbajit Banerjee, a former assistant professor of chemistry, who led a study proposing that vanadium oxide could be used

continued

Alumni Life

to coat windows and block sunlight when it's hot out. "I always called it my baby," Whittaker-Brooks says of the material. "It has a unique temperature response. When it's hot, it turns opaque. When it's cooler, it's transparent." The only problem: The transformation occurs at 68 C (154 F), which is too high to make it a viable technology.

Her PhD work focused on decreasing this temperature. "We were able to get the trigger point down to room temperature. In fact, a U.S. company optioned the patent, and now the technology is approaching commercialization. I got my PhD and made some money!"

The awards have continued to roll in since graduation. While performing postdoctoral research at Princeton in 2013, Whittaker-Brooks received a L'Oréal USA for Women in Science Fellowship, accompanied by a \$60,000 research grant. Two years later, she won an additional \$50,000 in funding through the Marion Milligan Mason Award, presented by the American Association for the Advancement of Science to four women in the U.S. who are beginning careers in the chemical sciences.

"She's very gifted," says Banerjee. "She's done an incredible amount of important work, and these

awards recognize her potential to be a leader in the field. I think she's a superstar."

Today, Whittaker-Brooks is an assistant professor of chemistry at the University of Utah. Her research group—made up of 14 students ranging from high school to

"A U.S. company optioned the patent, and now the technology is approaching commercialization. I got my PhD and made some money!"

Luisa Whittaker-Brooks

postdoctorate—is trying to improve alternative renewable energy sources, specifically by combining solar and thermal energy.

It's been suggested that if all the solar energy that hit the Earth in one hour could be collected, it would fulfill the energy needs of the planet for one year. But currently, silicon solar panels are only about 25 percent efficient, meaning 75 percent of the energy is dissipated as heat. Whittaker-Brooks' team hopes to develop the nanotechnology to help collect this lost heat and convert it into electricity.

"We just need to find the right technology to increase this energy conversion," she says. "I would be happy if I could get efficiency to 45 percent." That would certainly be an incredible accomplishment—but just another day at the office for Whittaker-Brooks. **B**



Left to right: Debbie Berner (EdB '62), Carol Clayback (EdB '62), Lynn Ensminger (EdB '62) and Pat Kenyon Smith (BA '62).

BLUE BOND

Sisterhood of the Traveling Pantsuits

Sigma Kappa members hold tight to a 50-plus-year connection

By Ann Whitcher Gentzke >> Their friendships began with building Moving Up Day floats, attending contests to crown the campus queen and competing in "Greek Sing." More than 50 years later, Mary Helenbrook (EdB '64) of Williamsville, N.Y., still remembers performing Cole Porter's "It's De-lovely" with other members of Sigma Kappa (later Sigma Kappa Phi) sorority.

Though many of the sorority sisters drifted apart after graduation, a small group of these UB alumni from 1958 to 1964 assembled in the early '90s to rekindle the connection. Several years later, efforts began to forge a larger club. Pat Kenyon Smith (BA '62) of North Wales, Pa., says she developed a "sore butt" from countless hours at her computer trying to locate sorority members across the country. She eventually collected 100 email addresses; reunions have since been held in Western New York and greater Philadelphia.

Today the group has about 60 members, of whom roughly 25 are active, attending bimonthly lunches in Buffalo, participating in UB activities, or just keeping

the others apprised of travel adventures and family news, both happy and sad. "We've supported each other through divorces and deaths, of husbands and even children," says Smith. If a sister is in town from out of state, word goes out quickly to see if anyone is free for coffee or lunch. One loyal sister stays in touch from her home base in Buenos Aires, Argentina.

No matter where they live or how much time they have to get involved, they all know they have the sisterhood to lean on. "You might have been disconnected for a period of time. But the

bond was there and you could go back to it depending on circumstances in life," says Helenbrook. "It's such a good feeling when we're together." **B**

For more photos of Sigma Kappa old and new, visit buffalo.edu/atbuffalo. Psst, that's Pat Kenyon Smith back in 1962!



TELL US YOUR BLUE BOND STORY >> Do you have a lifelong relationship that started at UB? Email a brief account to bluebond@buffalo.edu.

BUSINESS IN BANGALORE

M

ore than 2,000 UB graduates live in India, making them the university's largest alumni contingent overseas. It is high time, then, to establish an official Indian alumni chapter, said President Tripathi at the country's first-ever alumni gathering, held in Bangalore last October. The president, who regularly travels around the world to meet with alumni, had a dual mission: to host the above-mentioned event (which drew more than 120 graduates and their families) and to participate in commencement ceremonies at the Bangalore campus of Amrita University. Amrita collaborates with UB on several dual-degree master's programs and is just one of its many institutional partners abroad.

Top: President Tripathi and Wei-Loon Leong (MBA '05, BS '03), director of international alumni engagement, greet guests at UB's inaugural alumni gathering in India. Bottom: Tripathi participates in graduation ceremonies at Amrita University in Bangalore.



Hey! Is that an At Buffalo he's holding?



Mary's* Spring Picks

A selection of campus events, open to all alumni



April

All-Alumni Celebration in D.C.

04.19.16

Mellon Auditorium, Washington, D.C.

UB Social: Young Alumni Mixer

04.26.16

42 North Brewing Company, East Aurora, N.Y.

29th Annual UB Distinguished Speakers Series with Kevin Spacey

04.27.16

North Campus

Oozefest

04.30.16

North Campus

May

Alumni Association Achievement Awards

05.05.16

North Campus

University Commencement

05.15.16

North Campus

CAS Scholars on the Road, with Professor Emeritus Mike Frisch

05.19.16

Museum of Chinese in America, New York City

June

Celebration of Achievement: Rochester Alumni Awards

06.02.16

Casa Larga Vineyards, Fairport, N.Y.

At Buffalo goes to press before many event dates are set, so please make sure to check buffalo.edu/alumni/events for updates.

* Mary Garlick Roll (MS '88, BS '84) is our Alumni Association president.

Mary says: "Did you know Kevin Spacey is an Honorary Knight Commander of the Order of the British Empire?"

John Amend's robots work hard, but they're also clutch at a party

Getting a Grip

By Michael Flatt >> Despite their humanity-threatening roles in sci-fi movies, robots these days tend to perform pretty banal tasks. So if you work in industrial robotics—as does John Amend (BS '08), co-founder and CTO of Empire Robotics in Boston—it can be tricky to make your product stand out. That's when it helps to have a robot that plays beer pong.

The Versaball, Empire Robotics' core product, is a balloon filled with granular material, which can be made harder or softer by adjusting the air pressure inside. Featured on the cover of the December 2015 issue of Popular Mechanics (it won one of the magazine's Breakthrough Awards), the Versaball can grasp items many other industrial grabbers can't. Consequently, it's been adopted by several manufacturers to pick up and place objects on assembly lines.

But as Amend found out, when attached to a robotic arm, the Versaball also can be programmed to shoot an object through the air—such as, say, a ping-pong ball. The Versaball bot beat a professional beer

pong player (yes, that's a real occupation) at the Consumer Electronics Show in Las Vegas last year, then took on Jimmy Fallon on "The Tonight Show."

Amend already had some experience making robots do unusual things. As a member of the UB Robotics Club, he took part in Bot Wars, in which two robots do their best to destroy each other, and Firefighter Bot, where students program robots to navigate a maze and blow out a candle at the center.

But his focus now is on the serious stuff. "The goal isn't to play beer pong for the rest of our lives. It's to

do industrial manufacturing work." Amend and his team are currently working to develop hybrid grippers that will use suction and mechanical pinchers to grip an even wider range of objects and materials.

In the meantime, we can all rest easy knowing we'll be able to party with our future robot overlords. **B**

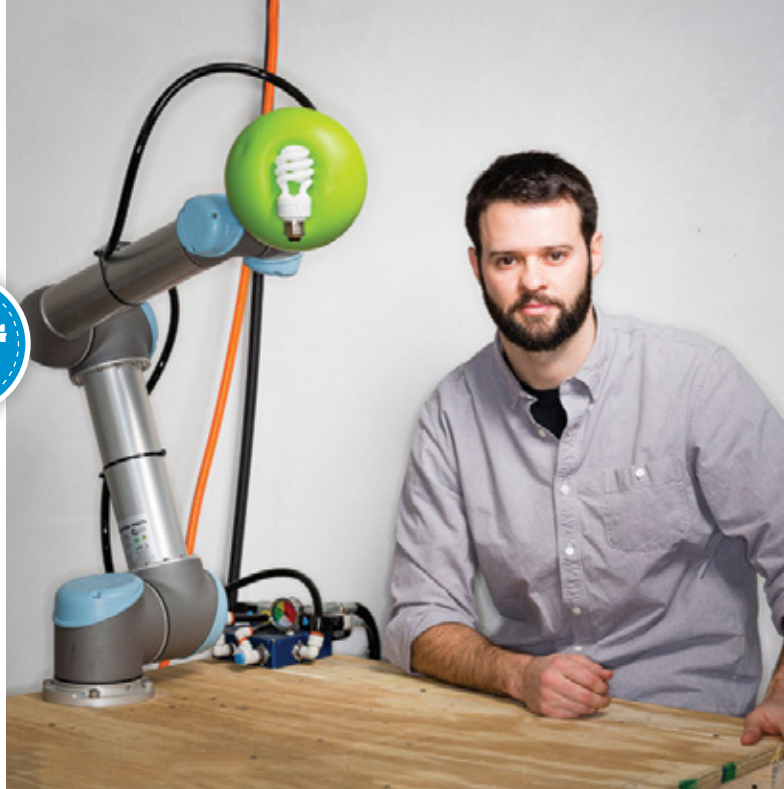


PHOTO: NGSYF

Tell us your stories, young alumni! >> Are you a UB grad age 30 or under? Have a compelling story or accomplishment to share? Send a brief email to youngbulls@buffalo.edu.

Manhattan Meetup

The Big Apple's biggest corporations—and the alumni who help run them—hosted a group of students and recent grads during a four-day "New York City Road Trip" touting the city's job market. Organized by Career Services and alumni staff, the itinerary included intimate chats over coffee, site visits to corporate headquarters and skills workshops hosted by alumni from such blue chip firms as Viacom, Facebook, Bloomberg, Yelp, Priceline and NASDAQ. Students also networked with a room full of NYC recruiters and, at a young alumni panel, picked the brains of recent graduates for insider tips on how to live and work downstate. The main attraction was a Career Conversations event that connected experienced alumni with students and recent graduates of all majors interested in launching their careers, finding internships or connecting with career mentors.

Computer science student Jaideep Bhoosreddy posted some snaps on Instagram.



KEEPSAKES

What did you save? Soccer Letter Jacket

Michael Allan (MLS '79, BS '78) of Olmsted Falls, Ohio, played varsity soccer at UB. He writes: "When I saw the vintage UB decal in your Fall 2015 issue, I was reminded of my trusty letterman's jacket that I received in 1975 for playing soccer. In general, sports were not held in particularly high regard in those days, but I wore it anyway and still do once in a while—just for, you know, kicks."

Share your memories >> Still holding on to a memento from your UB years? Tell us why, and attach a photo, in an email to keepsakes@buffalo.edu.



Class Notes

- » Buying a used car? Be nice
- » Skyping with babies
- » '81: Finegold knows Dali



ANDREW BRAUM, BSME '94

Storm Watcher

In the wake of Hurricane Sandy, one engineer's refusal to stay silent helped turn the tide against fraud

By Mark Norris » In the weeks after Hurricane Sandy struck Long Island in October 2012, engineers were called upon to assess the structural damage to thousands of homes along the South Shore. The reports they filed were to eventually form the basis of insurance payouts to homeowners, as is typically the case after a natural disaster.

But the story of Andrew Braum (BSME '94), an engineer who lives on the South Shore, is anything but typical. About a year after the storm hit, the third-party firm that had hired Braum to complete damage inspections of homes asked him to sign off on the 200-plus reports he had submitted. He insisted on reading them first—and that's when he discovered that most of his reports had been altered in the insurance company's favor.

Under pressure to sign anyway, Braum went

public instead and eventually became the centerpiece of a "60 Minutes" exposé that would ultimately lead to allegations of wide-scale fraud involving numerous insurance companies, their contract engineering firms and FEMA itself.

Was your first reaction to Sandy personal or professional?

It was personal. The day after the storm, we woke up and there was no power. We lost a tree, but we live far enough from the water that we weren't affected by flood. What really hit home for me and my children was when we went down to South Merrick and there were boats all over the place—in the middle of the street and on peoples' lawns. It was around Halloween, so we gathered candy and clothing from

CONTINUED

JOHN EMERSON

people on our block, went down to the fire department, which had become a shelter, and put little packages for the kids on their cots.

At what point did your involvement become professional?

Within two weeks, I was contacted by a third-party engineering firm to inspect homes and write reports. I went to more than 200 homes and basically worked from sunrise to sunset, seven days a week.

When did you realize your reports had been altered?

The work had petered out by March [2013]. All of a sudden, in September or October, I was contacted by the engineering firm that had hired me. They asked me to sign a document that said I had read all of my final reports and that they were my final reports. I said, "I can't do that. I need to read them all." There were something like 16,000 pages that I had to compare from one to the other.

Were you concerned about going public with what you discovered?

I didn't second-guess it at all. I hadn't authorized any changes. I had made amendments, supplemental reports—I'm entitled to do that—but I couldn't just change a report. After I refused to sign the documents, I never heard from that company again.

How have things changed for you after "60 Minutes"?

After the piece aired, FEMA allowed 142,000 Sandy claims to be reopened—a process that is still ongoing. I'm involved in many different capacities—working directly with homeowners or with their law firms, doing pro bono work with disaster clinics. In the past week, I was involved in two cases where I represented the homeowner; I was on the phone with FEMA discussing the differences in my findings versus their engineer's findings, and trying to get the homeowners the money they deserved. A lot of homeowners are not aware of their rights, they're afraid of losing money, or they just don't want to deal with it anymore.

Where do you plan to go from here?

I'm working with different parts of the government now to become an adviser, writing reports and documents that will shed some light on things I've found on the front lines. I plan to do more public speaking and creating public awareness about the importance of engineering ethics in relation to natural disasters. **B**

CLASS NOTES BY DECADE

Person to Person

50

Dolores (Jarecke) Hinckley, BS 1952, is working as a mediator in Rochester, N.Y., specializing in divorce mediation. She lives in Pittsford, N.Y.

60

David Schoales, BA 1969, was elected to represent the Windham County Region on the board of the Vermont School Boards Association. He resides in Brattleboro, Vt.

70

Kenneth Ettinger, BA 1974, was selected as a Top Doc for 2016 by Portland Monthly, the fifth time he has received that honor. He lives in Portland, Ore.

Christopher Greene, MBA 1975 & JD 1974, a partner at Barclay Damon LLP, was named chair of the Erie County Bar Foundation's 2015 annual campaign. He resides in Buffalo, N.Y.

Lawrence Katz, BA 1975, joined Hirschler Fleischer as a partner. Katz will lead the firm's bankruptcy and creditors' rights practice. He lives in Springfield, Va.

Marc Shapiro, BS 1978, joined e-commerce company iHerb as vice president of human resources. He resides in Temecula, Calif.

80

Arthur Finegold, MS 1981 & BA 1972, was honored as the Salvador Dali Museum's 2015 Volunteer of the Year at its annual volunteer appreciation event. Finegold has been a docent at the museum since 2011 and regularly provides public, private, specialty and school tours. He lives in St. Petersburg, Fla.

Jonathan Cox, BA 1984, an associate at Cohen & Lombardo Attorneys, was named a super lawyer in personal injury defense for Upstate New York by Super Lawyers magazine. He resides in Buffalo, N.Y.

David Evans, MBA 1984, accepted a position with MB Financial Bank as a senior loan officer. He lives in Hamburg, N.Y.

Shane Farolino, BA 1985, a partner at Roetzel & Andress, was named a 2016 Ohio Super Lawyer in the field of environmental law by Super Lawyers magazine. He resides in Canton, Ohio.

Daniel Southwick, BS 1986, joined Dewberry, a professional services firm, as senior vice president. He lives in Apex, N.C.

Mary Chapin, BA 1989, was named vice president and chief legal officer of the National Student Clearinghouse, a provider of higher education verifications and electronic education record exchanges. She resides in Herndon, Va.

90

Ricardo Herrera, MSW 1992, is executive director of the Buffalo Federation of Neighborhood Centers Inc. He lives in Buffalo, N.Y.

Michael Fallacaro, DNS 1993 & MS 1984, was chosen as a 2015 fellow of the American Academy of Nursing. Fallacaro is a tenured professor and chair of the department of nurse anesthesia at the School of Allied Health Professions at Virginia Commonwealth University. He resides in Richmond, Va.

Michelle (Betha) Webb, BS 1996, was appointed director of the occupational therapy assistant program at South University in High Point, N.C. She lives in Cornelius, N.C.



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Share your news, photos and stories on [UB Connect](#), the online community for alumni. Or, follow us: [facebook.com/buffalolumni](#) or [@ubalumni](#) on Twitter.



DID YOU KNOW? The ice bikes at Canalside on Buffalo's waterfront were invented by UB alumna

Lisa Florczak (BS '89).

Michael Waskiewicz, BA 1998, joined Burr & Forman as a partner and member of the firm's creditors' rights and bankruptcy practices. He resides in St. Johns, Fla.



Victoria Jayes, BS 2003, joined The Martin Group as a senior brand manager. She lives in Buffalo, N.Y.

Christopher Kicinski, BS 2003, a certified public accountant and certified financial planner, was named partner at Sandhill Investment Management. He resides in Clarence Center, N.Y.

Michelle O'Bar, MSW 2003, joined Novant Health Bariatric Solutions as a therapist. She lives in Greenville, N.C.

Laura Cooley, BS 2004, joined Brock Schechter & Polakoff LLP as a financial adviser. Cooley previously managed her own practices in Vermont and New York. She resides in West Seneca, N.Y.

Richard Filipink, PhD 2004, MA 1996 & BA 1992, was promoted to professor of history at Western Illinois University. He lives in Macomb, Ill.

James Youngs, BA 2004, was promoted to partner at Hancock Estabrook LLP. Youngs is a member of the firm's litigation practice. He resides in Syracuse, N.Y.

Rachel Lerner, EdM 2005 & BA 2003, was named dean of student life and conduct at Bergen Community College. She lives in Pearl River, N.Y.

Christopher Poole, JD 2005, was recognized as a rising star for Upstate New York by Super Lawyers magazine. Poole is an associate at Cohen & Lombardo Attorneys. He resides in Buffalo, N.Y.

CONTINUED

TOP FIVE WITH

Joseph Neiman, BS '08

CEO, ACV Auctions

After working both sides of auto sales—at his own used-car dealership in Albany and then as a manager at a new-car dealership in Buffalo—Joseph Neiman had a revelation.

“Used-car dealers want to buy inventory to replenish vehicles sold. New-car dealers want to sell off customer trade-ins. And consumers want to know what

their old car is really worth. If we can create a tool and a marketplace in real time, there's a great opportunity here.”

That opportunity became ACV Auctions, an app that allows dealers to buy and sell used cars through 20-minute live, mobile auctions—an innovation so transformative that it garnered the \$1 million grand prize for Neiman and his team in last year's 43North competition. In addition to eliminating the significant travel, transport and staffing requirements of physical car auctions, the app tells dealers and customers exactly how much a used car is worth—meaning no more guesswork on how to price trade-ins.

ACV Auctions is bringing a level of transparency to the wholesale used-car market that it's never seen before. But the app, launched in 2015, is still young. Until it takes off on a larger scale, we thought we'd ask Neiman for some pointers on how to buy a used car off the lot without losing your shirt.

Top five ways not to get ripped off buying a used car



1. Get the facts

Make sure the dealer shows you a Carfax report. While it's not the word of God, it's a good guide.

2. Be cool

If you're impulsive, a dealer will realize it—slow down a little. Take the time to check out all your options, and never let a

dealer know you're in a hurry even if you are.

3. Make sure the tires are new

This means either the person who traded it in took good care of the car or the dealer put on new tires. Either way, new tires increase the value by at least \$400. And as a general rule, always ask the dealer what they did to

recondition the car when they bought it.

4. Do a thorough check, down to the smallest detail

Make sure the sunroof opens and closes, the locks work, the trunk opens—inspect every switch and dial. Because once you're off the lot, that's it. You're stuck with it.

5. Be a nice customer

Everyone wants to “win” when negotiating with a car dealer, but buying a car isn't a zero sum game. You'll get a lot further if you're a decent person to do business with. Be courteous, respectful and remember: Car salesmen are people, too.



JOHN DYKES

Michelle Rainka, PharmD 2005, received the Stephen Kelly Award for Professionals on the Move from the National Multiple Sclerosis Society Upstate New York Chapter at its annual Champions on the Move luncheon. Rainka is a clinical pharmacist at DENT Neurological Institute. She lives in Williamsville, N.Y.

Robert Whitaker, JD 2005, a partner at Hancock Estabrook LLP, was selected as a rising star for Upstate New York by Super Lawyers magazine. He resides in Camillus, N.Y.

Lekisha Griffin, PharmD 2006, opened New Clinton Pharmacy, an independent pharmacy located in Rochester, N.Y. She lives in Pittsford, N.Y.

John Godwin, JD 2007 & BA 2004, was elected partner at Hodgson Russ. He resides in Buffalo, N.Y.

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Kellie Barbato, MLS 2011, joined Roberts Wesleyan College as an outreach librarian. She lives in Rochester, N.Y.

Cameron Bernard, BS 2011, joined Bousquet Holstein PLLC as an associate attorney. Bernard previously served as a law student associate at the firm. He resides in Liverpool, N.Y.

Bianca (Acevedo) Shaw, MUP 2012, accepted a fellowship position with UB RENEW (Research and Education in eNergy, Environment and Water) as a senior research support specialist. She lives in Buffalo, N.Y.

Karrie HusVar, MSW 2013, is a counselor with Williamson County Adult Probation. She resides in Round Rock, Texas.

Brian Wilson, CAS 2013, EdM 2012 & BA 2011, joined the Lockport City School District as a school counselor. He lives in Lockport, N.Y.

Jennifer Ball, EMBA 2014, was appointed chief financial officer of Aspire WNY. She resides in Tonawanda, N.Y.

Emily Butler, BFA 2014, joined The Martin Group as a front-end Web developer. She lives in Buffalo, N.Y.

Mark Kline, PhD 2014, a co-founder of X-Therma Inc., received the Patrick Soon-Shiong Innovation Award, presented by the Los Angeles Business Journal, on behalf of the company. He resides in El Cerrito, Calif.

Michael Redfern, EMBA 2014 & EdM 2003, accepted a position as associate dean and chief operating officer of the UB School of Public Health and Health Professions. He lives in Grand Island, N.Y.

Xiaoxi Wei, PhD 2014, a co-founder of X-Therma Inc., received a Patrick Soon-Shiong Innovation Award, presented by the Los Angeles Business Journal, on behalf of the company. She resides in El Cerrito, Calif.

Paula Cummings, MSW 2015, joined Hillside Children's Center as a transition coordinator, working with adolescents in residential treatment. She lives in Rochester, N.Y.

Elizabeth Lakota, PharmD 2015 & MS 2015, took second place at the 2015 International Polymyxin Combinations Conference. She resides in Schenectady, N.Y.

Brigid Purcell, MS 2015 & BS 2014, joined Brock, Schechter & Polakoff LLP as an accountant. She lives in Williamsville, N.Y.

HOW-TO WITH

Gail Orffeo, BS '90

Owner/founder, Face Fun

Gail Orffeo of Orchard Park, N.Y., spends much of her time helping businesses and individuals navigate employment-related issues through her company, Human Resources Simplified. Recently, however, she's been applying her personnel skills to a different audience: little kids.

Frustrated at her inability to hold her 6-month-old granddaughter's attention while video chatting, Orffeo created a set of tools to improve the interaction—and then, realizing others likely face the same challenge, packaged them for sale on the Internet. Face Fun kits include a puppet and other attention-getting toys, as well as Story Sticks: double-sided paddles with short stories written by Orffeo on one side (in English or Spanish) and illustrations on the other. Story Sticks make it easier to read while holding your smartphone, since there are no pages to turn. The company also sells Learning Sticks to teach youngsters numbers, letters, colors and shapes.

Orffeo hopes the kits will help keep families connected—not only grandparents, but also parents who live far from home, like military personnel. “I think as a society we need to grow and enforce family values,” she says. “Because that's where a lot of problems are coming from today.”

We asked Orffeo for advice on video chatting with a wee one.

How to Skype with a youngster:

Choose the right time of day

Like adults, children have ups and downs throughout the day. Some are at their best after a nap, others in that golden hour between bath time and bed.

Pick a quiet area and stay focused

Kids are easily distracted. Give your full attention to them and they're more likely to give theirs to you.

Lights, camera...toys!

Get stuffed animals, musical instruments and small toys with flashing lights ready before your video chat. If your chatting partner is verbal, you can be a little more interactive with your props. “Where's the dog's nose? Now, where's your nose?”

Ask the right questions

If you ask a child, “How was school today?” you'll likely get a one-word answer. A more specific question—like “What was your favorite thing that you did at school today?”—helps create a conversation.

Don't expect a marathon phone call

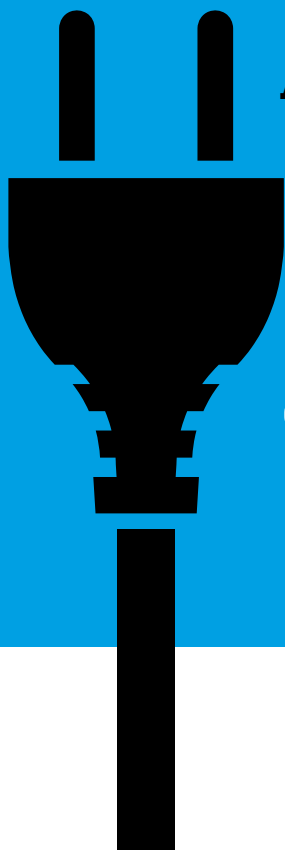
Although it depends on the individual, a video chat with a preschooler should last about five minutes. If you push it much longer, the child may get restless—and may not want to do it again. Try to make each call a fun, positive experience.



JOYCE HESSELBERTH



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Members of the Salt and Peppers strike a pose in their U of B uniforms.

UB YESTERDAY

1948 The Salt and Peppers

» Check out the entire 1948 yearbook at www.buffalo.edu/atbuffalo.

“Salt and Peppers were ‘Spicy-er’ than ever this year”—at least according to their open letter to the student body in the 1948 *Buffalonian* yearbook. The coed pep squad was formed in the mid-1940s and lasted through the mid-’50s.

During its short but energetic tenure, the group of spunky students cheered year-round for the Bulls. Buffalo winters didn’t faze them—they “came prepared...with slacks, mittens and all.” Other memories shared in the yearbook included a trip to Alfred, N.Y., “with the jug of cider that everybody thought wasn’t cider—but it was,” a conga chain that ran the length of a UB parking lot, and “Mouse n’ Murph’s party after the last game.”

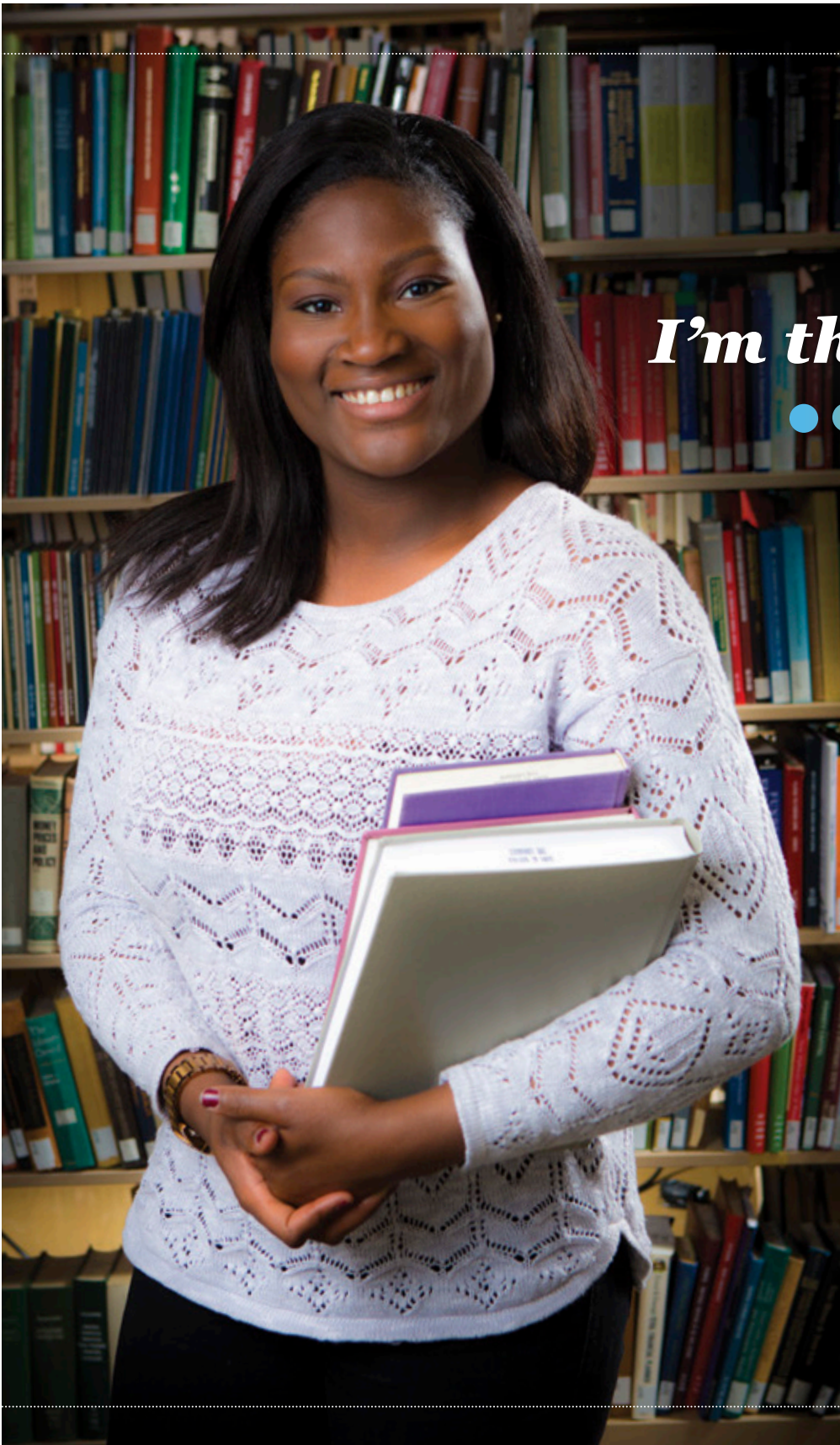
The Salt and Peppers also promoted their high-energy school spirit at various events on campus, such as Homecoming and Business Administration Day—an evening of fun and dancing sponsored by the School of Business Administration (now the School of Management), with admission set at 50 cents.

The last lines on their yearbook page perfectly capture their go-team attitude:

*Signing off, we must go
It’s still B-U-F-F-A-L-O!*

Lions, clowns and strongmen marched through the circus-themed 1948 yearbook.





I'm thankful.



Destiny Johnson

became the first member of her family to attend college thanks to her UB scholarship. As an underclassman, she took five upper-level classes (only two were required). After taking one in history, she promptly chose to major in that department so she could study African American history in the United States. Her dream job? To direct the new Smithsonian National Museum of African American History and Culture. "I decided this is what I want to do with my life. I'm going to do what I love," said Johnson.

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LAST LOOK

Skiing Mount Kunz Covering more than 1,100 acres, the North Campus offers plenty of places to cross-country ski. But if you're a freestyler, you need to take matters into your own hands. That's what Brendon Lutnick, Mike Kelly and Liam McDonald did when they built their own ski jumps near the Walter Kunz Stadium. Using an avalanche shovel and buckets of water to firm up the fresh snow, the trio created a sizeable take-off—then let it rip. Pictured here is Lutnick, mid-jump.