WHEN SMART MACHINES ARE BIASED

Olga Russakovsky is working to change that
That moment you finally get to go through the gates and see the next horizon.

UNFORGETTABLE PRINCETON

Your support makes it possible.

This year’s Annual Giving campaign ends on June 30, 2018. To contribute by credit card, or for more information please call the gift line at 800-258-5421 (outside the US, 609-258-3373), or visit www.princeton.edu/ag.
An editorially independent magazine by alumni for alumni since 1900

On the cover: Photograph by Peter Murphy

Bias and Artificial Intelligence
Olga Russakovsky draws on personal experience and technical expertise to help make artificial intelligence smarter.

By Bennett McIntosh '16

Born Digital
With the decline of paper records, the staff at Mudd Library is ensuring that digital records will be accessible for generations to come.

By Brett Tomlinson

Reunions Photos
Revisit the P-rade and other scenes from the most colorful weekend on campus in our online slide show featuring all of this year’s major-reunion classes.

Istanbul on Edge
Stephen Wood '15 reflects on his undergraduate travels to Turkey during a time of growing unrest.

Next in Line
Rev. William Henry Green reshaped Princeton history in 1868 by declining the presidency.

Princeton Books
Subscribe to our monthly newsletter about alumni and faculty authors.
Higher Education: Risk and Resilience

On April 20, I welcomed 20 faculty members from institutions around the globe who gathered at Princeton’s University Center for Human Values to attend an international colloquium on “Universities at Risk.” In my introductory remarks, I commented on some of the challenges facing universities today. I thought that my observations might interest alumni as well as the participants.—C.L.E.

We live in tumultuous times, and, as is often the case, colleges and universities are among the focal points of controversy. In the United States and abroad, higher education faces pressures related to, among other factors, economic inequality, globalization, technological change, demographic diversity, and immigration. The roles of science, learning, truth, academic freedom, and the freedom of speech are being contested.

In response, some have recommended that universities implement reforms tailored to appease critics or conduct publicity campaigns to change their minds. I was at a meeting earlier this week where a pollster suggested that we should rethink our use of the term “liberal arts education” because neither the word “liberal” nor the word “arts” were positive brands in today’s climate. I am not certain whether he was serious. I am certain that he was wrong, not about his “brand analysis”—though he might be wrong even about that—but about the prescription.

Those of us in colleges and universities need to know who we are and what we stand for, and we need to stick to our principles, whatever our poll numbers. We should pursue our mission steadfastly and tell our story as clearly as we can—even if portions of that mission are unpopular or controversial. We must maintain the commitment to fearless truth-seeking that lies at the heart of our mission, and we must defend the principles of academic freedom that are essential to our work.

Knowing who we are and what we stand for means taking criticism seriously and using it to improve how we pursue our mission. I agree, for example, with those who say that American colleges and universities could pursue our truth-seeking mission more effectively if conservative views were better represented on our campuses. I disagree strongly, however, with those who make the quite different claim that we should add particular voices to our campuses for the sake of sheer “balance” or to appease political critics. Universities are committed to truth-seeking debate, which is not the same thing as mirroring the balance of opinion in the country or the world.

As we stand for the ideals that define our institutions, we must remember that today’s challenges are by no means unprecedented. Indeed, a gathering entitled “Universities at Risk” might well begin by recognizing that higher education is inevitably and by design a risky business. Precisely because we seek to pursue truth rather than to mirror societal norms, we will often be focal points of dissent. And, likewise, precisely because we aim at long-term truths in a way that is unusual in the larger society, colleges and universities depend upon institutional mechanisms such as life tenure, perpetual endowments, and academic freedom that themselves will seem unusual or even strange by comparison to the organizational elements used elsewhere in society.

Academic values can and will sometimes be threatening to those in power, because scholarly inquiry is not and should not be beholden to any national political agenda. The same might be said of other fact-driven institutions, including journalism and the courts. But it is precisely this independence, and this commitment to engaging with all intellectual viewpoints, that make higher education and other critical institutions so valuable in free and democratic societies.

We must take current challenges seriously, but we should also take heart in the record of resilience that great universities have demonstrated. On days when I am feeling gloomy about political tempests and tweets, I remind myself that over nearly a millennium of operation, Oxford University and the University of Cambridge have weathered heavy storms but are today as vibrant and vital as ever. We should take heart, too, from the fact that in this country and elsewhere, we have many friends who recognize that when societies are strong enough to tolerate the long-term, dissonant perspective of free and thriving universities, they benefit tremendously from the learning that results. It is worth noting, for example, that with bi-partisan support from Republican and Democratic legislators, this year’s American budget bill significantly increased sponsored research funding and repudiated the executive branch’s proposal to eliminate allocations for the National Endowments for the Humanities and for the Arts.

Let me close by once again welcoming you to Princeton University, by thanking you for your own commitment to the ideals of scholarship and education, and by wishing you well as you take up questions that matter not only to those of us in the academy but to human rights, to the world’s prosperity, and to the free and democratic societies that we so cherish.

We must maintain the commitment to fearless truth-seeking that lies at the heart of our mission, and we must defend the principles of academic freedom that are essential to our work.”

SUCCESS AT THE BAT
I read with interest how members of the current Princeton nine have used “physics” in an attempt to increase their batting averages and run production (Sports, April 11). I realize we’re Princeton and at times compelled to promote our intellectual prowess and complicated approaches to even the simplest of issues. In this case, however, the young men could simply have studied the work of Ted Williams — not a physicist, but one of the all-time great hitters, still studied by major leaguers.

Williams’ *The Science of Hitting* was published in 1971, but he was practicing its principles some 30 years prior to that and remains the last player to have hit .400 or better. Williams deduced (without a protractor) that the swing plane of the hitter should match the plane of the pitched ball. As the overhand pitch is coming on a slightly downward path, the proper swing plane should be slightly upward (perhaps an angle of 10 to 20 degrees, as the young men “discovered”?), putting the head of the bat on the same plane with a greater chance of solid impact, even if your timing is slightly off.

Discussing, or worse, thinking about “launch-angle degrees” among players makes it more difficult than necessary — and will also lead to more pop-ups, whiffs, and topped ground balls. Keep it simple, boys. Hitting is a science, but it’s not rocket science, and the principles of success are not new: Be on time, with a slightly upward swing plane, and sit on the fastball. Go Tigers.

Jim Starnes ’81
Richmond, Va.

SURVIVING DEPRESSION
I want to thank Cameron Stout ’80 for his forthright and moving description of his surviving depression (Princetonians, May 16). Having recently retired from a 40-plus-year career in psychiatry, I can attest to the positive changes in our public perception and understanding of the ubiquitous nature of mental-health issues, especially depression. Personal stories like his move this critical health conversation forward.

David F. McMahon ’71
Warren, Vt.

REGIONAL-PLANNING SUPPORT
In his letter to the editor (Inbox, March 21), John Hart ’70 observes that a new campus across Lake Carnegie will further fuse the University into the “enveloping urban mass,” but he misses a reference to regional planning.

Yet in the 1970s, accompanying the development of Princeton Forrestal Center, the University became a leader in regional planning. To foster collaboration among civic, business, and governmental interests, the University led in founding the nonprofit Middlesex Somerset Mercer Regional Council (MSM). Results of the council’s work include striking successes and persistent challenges. MSM focused early on the disparity between job growth and affordable housing — and the traffic congestion that ensued. The persistence of these conditions still undercuts our quality of life.

On the positive side, land preservation ranks as a major achievement. Parks, farms, and conservation areas in the environs of Princeton may now approach 30 to 40 percent of the total land area. Many civic and governmental entities collaborated in preserving open space, and the University’s representation was significant.

After the high-water mark of regional planning and “smart growth” in the 1980s and 1990s, there have been several regional forums along the “Route One Corridor,” but their work has yet to show results commensurate with the...
need. Home rule still too frequently trumps regional planning. As the University expands, we’ll see if its commitment to regional planning can be carried forward to meet the growing need for smart growth.

Samuel M. Hamill Jr. ’60 *91
Director, MSM Regional Council, 1976–90
Princeton, N.J.

MORE OZNOTTERY
I am certainly one to defer to my classmates Paul Kolodner in technical matters, but an error must have slipped into his April 25 letter in Inbox. In the context of some continuing Oznottery (“The Oznot Project,” feature, March 21), he mentions that he and his roommates reasoned that “the null set is an element of all other sets.” He doubtless meant that the null set is a subset of all other sets. I shouldn’t have mentioned the point except for my fear that current undergraduates might be looking at the letters column and basing their subsequent beliefs in set theory on what a sage alumnus had to say. Thomas Drucker ’75

Whitewater, Wis.

Letters about the Oznot story reminded me again that for decades, my father’s Class of 1917 had news of an exceptionally romantic, adventurous classmate from exotic corners of the globe: Bert Hormone. Are there any other descendants of those unique seniors, who graduated early to train and become soldiers, who remember tales of Bert’s derring-do? He sadly never managed to come to the “war babies” reunions, disappeared a score of years ago, and presumably died with his creator.

Leila Poullada k’1917
Saint Paul, Minn.

TIME FOR A NEW MOVEMENT
“Grappling With History” (On the Campus, Jan. 10) makes us Princetonians to be co-agents with our newly vocal “sisters.” Let’s call our effort “Men for Women.” Contact me at ronnaymark@gmail.com, and we can get it started. I have no preconceived agenda or tactics. Let’s figure it out and be a vocal, proud, and important part of a long-overdue, and now rapidly growing, social movement.

Ron Naymark ’67
Saratoga, Calif.

WE’D LIKE TO HEAR FROM YOU
Email: paw@princeton.edu
Mail: PAW, 194 Nassau St., Suite 38, Princeton, NJ 08542
PAW Online: Comment on a story at paw.princeton.edu
Phone: 609-258-4885
Fax: 609-258-2247

Letters should not exceed 250 words and may be edited for length, accuracy, clarity, and civility. Due to space limitations, we are unable to publish all letters received in the print magazine. Letters, articles, photos, and comments submitted to PAW may be published in print, electronic, or other forms.
On the Campus

Members of the women’s swimming and diving team gathered in Prospect Garden before the team banquet in early May. Photograph by Ricardo Barros.
A Time to Reassess
Advisory group urges revisions in handling sexual-harassment cases

I n the wake of a campus discussion about Princeton’s procedures in handling sexual-misconduct cases, a University committee has called for a number of changes.

“The campus conversation has in part come about as all of society has been focused on the #MeToo movement, and attention to this issue is what we want,” Vice Provost Michele Minter said. “We have to do everything that we can to prevent [sexual harassment] on this campus, and this is one of the steps that should help us do that.”

Minter is co-chair of the faculty-student advisory committee on sexual misconduct, which released its report May 10. The focus was on sexual-harassment cases between student complainants and faculty respondents, and the committee suggested ways to make Title IX investigation proceedings and penalties more transparent and to provide complainants with more information throughout the process.

“Princeton’s environment resembles national trends regarding sexual harassment, and ... these outcomes are unacceptably undermining the well-being of our community,” the report said.

The committee suggested ways to make Title IX investigation proceedings and penalties more transparent and to provide complainants with more information throughout the process.

Recommendations include:
• Require the dean of the faculty to consult with other senior administrators in determining the penalty in cases involving faculty members.
• Clarify the University’s policy regarding recusal by those investigating Title IX cases when conflicts of interest arise.
• Consider broadening the grounds for student appeal in a case involving a faculty member.
• Consider sharing the full scope of penalties with complainants.
• Add more details to the University’s annual report that provides general descriptions of sexual-misconduct cases and penalties.
• Strengthen the vetting process with regard to issues of sexual misconduct for potential hires.

The committee said it found that a professor’s grant funding and seniority are not taken into account in determining penalties for misconduct. It also said the range of penalties for disciplinary action against faculty members is now accessible online.

The report recommended clarifying Princeton’s policy regarding romantic or sexual relationships between individuals of different University status. Some members of the Princeton community asked that the policy — which prohibits sexual relationships between students and any University employee directly instructing or supervising them — be amended to prohibit any romantic relationship involving a power differential, but the committee decided against it.

“We understand that power differentials can be complicating, but we were not comfortable with the idea of telling individuals in our community that their chosen relationships are unwelcome or not consensual,” Minter said.

Last November, students and faculty members called on Princeton to reassess its sexual-misconduct policies after penalties for an electrical engineering professor found responsible for sexual harassment of a graduate-student advisee were widely deemed insufficient.

Third-year graduate student Abby Novick, who had authored a document with proposed changes to the University’s sex-misconduct policies, said she thought the committee’s report could be more detailed. “As someone who has spent months working on this issue ... I have no idea what would happen if I reported my adviser for sexual misconduct,” she said.

Minter acknowledged that the report would not please everyone.

“We did a lot of thinking about ways to enhance what we believe is a system that already works well, since we always want to get better,” she said. “It’s really important to get [things] right, and we appreciate when community members raise questions. A little healthy pressure is not a bad thing.”

Minter said that the report has been sent to President Eisgruber ’83 and Provost Deborah Prentice, who will decide what actions to take. By A.W.
Students in Professor John McPhee ’53’s “Creative Non-Fiction” course met with artist and architect Maya Lin as she visited campus to view her landscape work in progress near the Lewis Arts complex. Allie Spensley ’20 reports on the visit.

Her rain boots planted on furrows of mud, surrounded by architects, traffic cones, and 16 sophomores holding notebooks, Maya Lin is in her element. An internationally renowned designer, architect, and sculptor, Lin is on Princeton’s campus to create an outdoor installation between the Lewis Arts complex, New South, and Baker Rink. She is also taking time to speak to John McPhee’s journalism class about the piece and her work in general.

On a Wednesday morning in early April, our meeting begins with a rapid-fire tour of what will eventually become an elegant landscape piece, but currently resembles the chaos of a strip-mall construction zone. A Caterpillar bulldozer stands by the fence; raw red wires emerge haphazardly from an upright metal pole. Strips of pink and orange tape demarcate the edges of the earthwork’s sloping structure, while wooden stakes represent the future placement of magnolia trees.

Lin has spent the day bouncing from the enclosed site to several different aerial views from the top floors of nearby buildings. The bulldozer is her chisel, the team on the ground coming together to help her shape reality according to the two- and three-dimensional models she has prepared.

These models depict a kind of serpentine hill, a tree-studded undulation of the earth that bridges the vertical distance between a nearby road and the Lewis Arts tower. The practical aim is to provide a space for recreation, outdoor classes, and performances; the artistic goal is to make the installation inseparable from the landscape itself. Sand and dirt and grass are shaped into “one continuous drawn line,” shaded by the magnolias that “soldier” past. The result is an elevation of this stray piece of land into a work of art that calls to be interacted with and experienced. “Spaces that are what I would call overlooked are of great interest to me,” Lin says.

In the fall, the larger installation will be accompanied by a second work: a water table based on Einstein’s concept of a black hole. Jet Mist granite, a dark stone swirled with nebulous patterns, will form a funnel placed on top of a boulder. Lin has said that she makes art for “the child in all of us,” and the energy she carries with her is almost childlike in its relentlessness. She is quick to laugh and move, striding through the installation site while keeping up an almost constant stream of narration. Our group heads to a classroom on the sixth floor of the arts tower to continue our conversation.

From this vantage point, the site’s wooden stakes seem precariously thin, the pink tape like a bright vein running through the sand. You have to wonder how Lin can look at the clump of dirt below and determine minute changes to the future earthwork’s structure. Perhaps this can be attributed to an innate artistic ability. Lin, after all, designed the world-famous Vietnam Veterans Memorial in Washington, D.C., while still an undergraduate at Yale. Ever since, she has shown an uncanny ability.
to design structures that tap into deep emotional undercurrents. In some of her pieces, like the Civil Rights Memorial in Montgomery, Ala., the creation of this effect stems from months or even years of research and reading. As opposed to her architecture, in her artwork — including the installation at Princeton — Lin does not use background research to shape her design. Despite their differences, however, almost all of her work is drawn from the same artistic vein: an intense fascination with the natural environment.

Lin grew up in Athens, Ohio, in a house on the edge of the woods. The close presence of nature was a constant, almost tangible feeling. As a nascent environmentalist in middle school, Lin could be found in the Kroger's parking lot brandishing protest signs to Save the Whales and Ban Steel Traps. Her ethnic identity, too, has had a formative influence on her work; she grew up as the child of Chinese immigrants in an almost all-white town. Looking back on her career so far, Lin sees Asian influences in the meditative and educational aesthetic of her work. Within this dual nature of her identity, she has learned to thrive in the in-between: where sculpture meets architecture, where left-brain creativity meets right-brain rationality, where science meets art.

Throughout our conversation, Lin speaks about art — her own and others’ — casually eloquent terms. To describe her series of earthworks, which includes the Princeton installment, Lin uses words like “fluidity” and “dynamism” and “motion.” These pieces are less a reimagining of the existing landscape than an extension of it. They are characterized by their capacity for human interaction — they are meant to be touched, walked on, experienced. Shadowed by the arts tower, a loudly man-made building of pale concrete and stone, Lin’s creation will be “a quiet ordering of the natural world.”

When you visit the site, you will start at the bottom and follow a curve of earth as oddly inevitable as the plot of a dream, until you are standing at the top of the hill and looking down, suddenly aware that your entire perspective has changed without you even realizing it.◆

HOPING FOR A BREAKTHROUGH
Rally for Imprisoned Grad Student

About 100 students, faculty, and elected officials held a candlelight vigil in front of Frist Campus Center May 11 to show continued support for Xiyue Wang, a Princeton graduate student who has been detained in Iran on espionage charges since August 2016.

“We miss him, we care for him, and we want him to come home,” said Sarah-Jane Leslie ’07, dean of the Graduate School. She said efforts by University officials to secure his release and support his family “will not cease until he is home.” Wang, a Ph.D. student in history, was arrested in Iran while doing research for his dissertation. In April 2017 he was sentenced to 10 years in prison.

Wang’s wife, Hua Qu, appealed to President Donald Trump for his assistance. “This week, we witnessed three former hostages in North Korea returning to their homeland. I really hope that President Trump can achieve a similar breakthrough in my husband’s situation,” she said. Rep. Christopher Smith, R-N.J., urged the group not to lose hope: “When we make it a priority in our diplomacy, when we prudently and in a solemn fashion use sanctions in a way that’s most likely to achieve a positive outcome, we can see the release of prisoners who are being unjustly incarcerated.” ◆ By Ezra Austin ’19

STELLA ’58, UNBOUND AND ON DISPLAY

“Had Gadys,” a group of Italian folktales, Moby-Dick, and The Dictionary of Imaginary Places. The exhibition, which runs through Sept. 23, shows the impact of the works on Stella’s style and on contemporary printmaking.◆
The University is commissioning portraits of eight alumni and former administrators to reflect the diversity of the Princeton community: former Sen. Bill Bradley ’65; Denny Chin ’75, the first Asian American appointed a U.S. district judge outside California and Hawaii; cell biologist and National Medal of Science winner Elaine Fuchs ’77; Robert J. Rivers ’53, one of Princeton’s first black students and a retired professor of clinical surgery; Sonia Sotomayor ’76, the Supreme Court’s first Hispanic justice; computer science pioneer Alan Turing ’38, an icon in the history of LGBT rights; Carl A. Fields, a Princeton official who was the first black dean in the Ivy League; and Ruth Simmons, a Princeton administrator who became the first woman president of Brown University and the first black president of an Ivy League school. The University said the portraits will recognize individuals who “have been pre-eminent in a particular field, have excelled in the nation’s service and the service of humanity, or have made a significant contribution to the culture of Princeton.”

A gift from Sumir Chadha ’93 has enabled the creation of the M.S. CHADHA CENTER FOR GLOBAL INDIA, which will explore contemporary India and its economy, politics, and culture. The center is named for Chadha’s grandfather, who served as the director general of health services for India. Chadha is the co-founder and managing director of WestBridge Capital Partners, an investment firm focused on India.

Gifts from six other alumni also will support the study of India and its impact on the world, including a professorship and a global seminar. “India is a key to the world of tomorrow — precisely what we’re educating our students for,” said history professor Stephen Kotkin, the director of the Princeton Institute for International and Regional Studies (PIIRS).

STEFEN COWLEY ’85, a theoretical physicist with international experience in plasma physics and fusion science, will become director of the Princeton Plasma Physics Lab (PPPL) July 1. Cowley was a staff scientist at PPPL from 1987 to 1993 and also taught at the University. He was a UCLA faculty member from 1993 to 2008 before leading the fusion-research program for the United Kingdom from 2008 to 2016. Most recently, he has been president of Corpus Christi College and professor of physics at Oxford University. President Eisgruber ’83 praised Cowley as “a spectacularly good physicist and a proven leader of large-scale scientific projects.”

Four faculty members are among 173 recipients of Guggenheim Fellowships to pursue scholarly and creative projects in the arts. They are: classics professor BROOKE HOLMES, whose research focuses on ancient medicine and life science, Greek literature, and ancient philosophy; MARTIN KERN, professor of East Asian studies, for his project “Performance, Memory, and Authorship in Ancient China: The Formation of the Poetic Tradition”; history professor EKATERINA PRAVILOVA, for her project “Political Money: A History of the Russian Ruble, 1768-1917”; and MONICA YOUN ’93, lecturer in creative writing, who has written three books of poetry.

More than 100 students took part in the PRINCETON ECOTRACKER challenge held in April, making small lifestyle changes to be more ecologically friendly such as washing their clothes with cold water or eating more vegetarian meals. Using an app developed by Amber Lin ’19 for an engineering course, the students earned points that could be redeemed for gift cards at eco-friendly businesses. The goal, Lin said, is to lower barriers — such as concerns about cost or convenience — to acting sustainably, and she hopes to expand the app for her senior thesis.

---

Our members return each year as faithfully as the tides.

Now you too are invited for a rare visit to our legendary private club through the pages of Living magazine.

Visit OceanReefClubMagazine.com to request your complimentary copy or call 305.367.5921 to inquire about the possibilities of a guest stay.

---

IN SHORT

The University is commissioning portraits of eight alumni and former administrators to reflect the diversity of the Princeton community: former Sen. Bill Bradley ’65; Denny Chin ’75, the first Asian American appointed a U.S. district judge outside California and Hawaii; cell biologist and National Medal of Science winner Elaine Fuchs ’77; Robert J. Rivers ’53, one of Princeton’s first black students and a retired professor of clinical surgery; Sonia Sotomayor ’76, the Supreme Court’s first Hispanic justice; computer science pioneer Alan Turing ’38, an icon in the history of LGBT rights; Carl A. Fields, a Princeton official who was the first black dean in the Ivy League; and Ruth Simmons, a Princeton administrator who became the first woman president of Brown University and the first black president of an Ivy League school.

The University said the portraits will recognize individuals who “have been pre-eminent in a particular field, have excelled in the nation’s service and the service of humanity, or have made a significant contribution to the culture of Princeton.”

A gift from Sumir Chadha ’93 has enabled the creation of the M.S. CHADHA CENTER FOR GLOBAL INDIA, which will explore contemporary India and its economy, politics, and culture. The center is named for Chadha’s grandfather, who served as the director general of health services for India. Chadha is the co-founder and managing director of WestBridge Capital Partners, an investment firm focused on India.

Gifts from six other alumni also will support the study of India and its impact on the world, including a professorship and a global seminar. “India is a key to the world of tomorrow — precisely what we’re educating our students for,” said history professor Stephen Kotkin, the director of the Princeton Institute for International and Regional Studies (PIIRS).
A Day With ...
Manuel Gomez Castaño ’20: Balancing studies and a plateful of dining-hall tasks

Manuel Gomez Castaño ’20 is a student coordinator for Campus Dining, managing 50 to 60 students who work in the Butler and Wilson College dining hall. We caught up with the politics concentrator on Monday of the last week of classes.

Waking up I woke up around 8 a.m. and walked over to the Butler/Wilson dining hall. I listen to a sports-debate show, Undisputed, every morning as I’m getting ready and eating breakfast.

ART 103 My first class, “Arts of the Americas,” was in the McCormick lecture hall. The class is focused on Native American art from North America, Central America, and South America, so the professor goes back and forth between regions to show different cultures and different artworks that they had during the time. The class fulfills the epistemology and cognition distribution requirement, which is hard to fulfill.

ENV 200 My second lecture was in Peyton Hall. It’s called “The Environmental Nexus,” and it analyzes climate change through the nexus of four different environmental problems: biodiversity, water, food, and climate.

Personal time After lunch, between 1 and 4, I had some personal time. I walked through the football stadium and some of the trails that are around that portion of campus, and then I met a friend of mine and we went to the graduate lounge of the politics department and did homework for a bit.

Studying politics I’m taking a class on civil war in Latin America. For my research paper, I’m focusing on Colombia and the role that cocaine production has in prolonging civil war. This is a personal interest because I was born in Colombia. The reason why I wanted to become a politics major has to do with my love for politics, and my desire to learn more about how to reach out to people through institutions and governance and make a difference in the pockets of society that need help most.

Work I went back to the Butler/Wilson dining hall at 4:30. I got a plate of food to eat and sat with the other workers, talking and eating. I’m a co-coordinator for the dining hall, which is the highest position. We employ the other students, pay them, determine schedules and promotions, and we have to be in contact with the people who run the dining hall — all the administrative stuff. When we work in the dining hall for a shift, we work as managers, overseeing the entire shift for the duration of dinner. The coordinator is kind of always working, but I work official shifts Monday, Saturday, and Sunday.

Dinner schedule There are two sections of a dinner shift: first dinner from 4:30 to 7:30, and second dinner from 7:30 to 9. The first portion, we’re in charge of the salad bar and the hot-foods bar, making sure that all the food is well stocked. We have to be in constant communication with the chefs. The second portion is a bit more hectic. We still manage the salad and hot food, but we’re also closing down every section, putting the food in the fridge, cleaning everything. Everybody’s just running around trying to get everything done.

Managing time Working a full-time job and being a full-time student is not easy. Working a full-time job and being a full-time student is not easy. I wouldn’t say I have to give anything up; I just think that it has more to do with good time management and trying to be as efficient as possible. Edited and condensed by Anna Mazarakis ’16
Princeton BOOKSHELF

2018 Summer Guide to Princeton Authors

Why 40%-80% of Chronic Pain Patients Are Misdiagnosed and How to Correct That
Nelson Hendler, MD, MS, '66 P'98, former Asst. Prof. of Neurosurgery Johns Hopkins Univ. School of Medicine, Past President American Academy of Pain Management

A History of Charitable Gift Planning
Ronald A. Brown '72
Provides "intriguing insights" that are "likely to come as a revelation ... delivers a succinct helping of historical illumination."
— Kirkus Reviews

Magnificent Houses in Twentieth Century European Literature
Hugo G. Walter '81
This book is a collection of imaginative essays that explore the theme of magnificent and aesthetically interesting houses in twentieth century European literature. (Peter Lang)

Purchase these books from the publisher or wherever books are sold.
<table>
<thead>
<tr>
<th>Title</th>
<th>Author(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Democracy for Realists: Why Elections Do Not Produce Responsive Government</td>
<td>Christopher H. Achen &amp; Larry M. Bartels</td>
</tr>
<tr>
<td>Summing It Up: From One Plus One to Modern Number Theory</td>
<td>Avner Ash &amp; Robert Gross</td>
</tr>
<tr>
<td>Money Talks: Explaining How Money Really Works</td>
<td>Edited by Nina Bandelj, Frederick F. Wherry &amp; Viviana A. Zelizer</td>
</tr>
<tr>
<td>Small Wars, Big Data: The Information Revolution in Modern Conflict</td>
<td>Eli Berman, Joseph H. Felter &amp; Jacob N. Shapiro</td>
</tr>
<tr>
<td>Ever the Leader: Selected Writings, 1995–2016</td>
<td>William G. Bowen</td>
</tr>
<tr>
<td>The Euro and the Battle of Ideas</td>
<td>Markus K. Brunnermeier, Harold James &amp; Jean-Pierre Landau</td>
</tr>
<tr>
<td>The Case against Education: Why the Education System Is a Waste of Time and Money</td>
<td>Bryan Caplan</td>
</tr>
<tr>
<td>Greek Art and Aesthetics in the Fourth Century B.C.</td>
<td>William A. P. Childs</td>
</tr>
<tr>
<td>Around Chigusa: Tea and the Arts of Sixteenth-Century Japan</td>
<td>Edited by Dora C. Y. Ching, Louise Allison Cort &amp; Andrew M. Watsky</td>
</tr>
<tr>
<td>Dilemmas of Inclusion: Muslims in European Politics</td>
<td>Rafaella M. Dancygier</td>
</tr>
<tr>
<td>Cézanne Portraits</td>
<td>John Elderfield</td>
</tr>
<tr>
<td>The Dancing Lares and the Serpent in the Garden</td>
<td>Harriet I. Flower</td>
</tr>
<tr>
<td>The Cosmic Web: Mysterious Architecture of the Universe</td>
<td>J. Richard Gott</td>
</tr>
<tr>
<td>Mariposas Nocturnas: Moths of Central and South America, A Study in Beauty and Diversity</td>
<td>Emmet Gowin</td>
</tr>
<tr>
<td>The Little Book of Black Holes</td>
<td>Steven S. Gubser &amp; Frans Pretorius</td>
</tr>
<tr>
<td>Scale and the Incas</td>
<td>Andrew James Hamilton</td>
</tr>
<tr>
<td>Designing San Francisco: Art, Land, and Urban Renewal in the City by the Bay</td>
<td>Alison Isenberg</td>
</tr>
<tr>
<td>Peace and Penance in Late Medieval Italy</td>
<td>Katherine Ludwig Jansen</td>
</tr>
<tr>
<td>The Papers of Thomas Jefferson, Volume 43</td>
<td>Thomas Jefferson Edited by James P. McClure</td>
</tr>
</tbody>
</table>
Princeton’s Finest

Featuring books by Princeton alumni and faculty

**Utopias of One**
Joshua Kotin

**Coming of Age in Medieval Egypt**
Female Adolescence, Jewish Law, and Ordinary Culture
Eve Krakowski

**What Makes a Terrorist**
Economics and the Roots of Terrorism
10th Anniversary Edition
Alan B. Krueger

**Hamlet and the Vision of Darkness**
Rhodri Lewis

**“Keep the Damned Women Out”**
The Struggle for Coeducation
Nancy Weiss Malkiel

**Bible Culture and Authority in the Early United States**
Seth Perry

**Genetics in the Madhouse**
The Unknown History of Human Heredity
Theodore M. Porter

**Radical Markets**
Uprooting Capitalism and Democracy for a Just Society
Eric A. Posner & E. Glen Weyl

**American Prophets**
Seven Religious Radicals and Their Struggle for Social and Political Justice
Albert J. Raboteau

**The Corruption Cure**
How Citizens and Leaders Can Combat Graft
Robert I. Rotberg

**Tact**
Aesthetic Liberalism and the Essay Form in Nineteenth-Century Britain
David Russell

**Bit by Bit**
Social Research in the Digital Age
Matthew J. Salganik

**Midlife**
A Philosophical Guide
Kieran Setiya

**Welcome to the Universe**
The Problem Book
Neil deGrasse Tyson, Michael A. Strauss & J. Richard Gott

**Speak Freely**
Why Universities Must Defend Free Speech
Keith E. Whittington

**American Misfits and the Making of Middle-Class Respectability**
Robert Wuthnow

**The Left Behind**
Decline and Rage in Rural America
Robert Wuthnow

**Islam in Pakistan**
A History
Muhammad Qasim Zaman

**The Presidency of Barack Obama**
A First Historical Assessment
Edited by Julian E. Zelizer

**On Gravity**
A Brief Tour of a Weighty Subject
A. Zee

**The Corruption Cure**
How Citizens and Leaders Can Combat Graft
Robert I. Rotberg

**Tact**
Aesthetic Liberalism and the Essay Form in Nineteenth-Century Britain
David Russell

**“Keep the Damned Women Out”**
The Struggle for Coeducation
Nancy Weiss Malkiel

**Bible Culture and Authority in the Early United States**
Seth Perry

**Genetics in the Madhouse**
The Unknown History of Human Heredity
Theodore M. Porter

**Welcome to the Universe**
The Problem Book
Neil deGrasse Tyson, Michael A. Strauss & J. Richard Gott

The Princeton University faculty and alumni included here have been published by Princeton University Press in the past twelve months.

Purchase these books from the publisher or wherever books are sold.
CLASS CLOSE-UP: RISING WATERS
Motivated by climate change, students seek social impact in video games

Teacher: Guest artist Matt Parker, a game designer and new-media artist.

Focus: The Princeton Atelier class divided into five teams assigned to create their own interactive video games about climate change, using techniques such as 3D modeling, illustration, coding, narrative writing, and sound design. Storylines ranged from a gondolier traversing the water-filled streets in a futuristic New York City to living day-to-day in a post-apocalyptic setting caused by climate change. “The idea is to attempt to put people in a situation where climate change has real impact, and then have it inform their lives now,” Parker said.

Guest speakers included New York Times climate-desk reporter Livia Albeck-Ripka, who spoke about how to humanize climate change, and game designers who described their methods and how to create games to support social change.

On the syllabus: Students played four games to help inform their game-designing:

- *This War of Mine*, inspired by the siege of Sarajevo during the Bosnian war, in which players control a group of civilian survivors in a makeshift shelter.
- *That Dragon, Cancer*, created by a man whose year-old son lived for four years after he was diagnosed with terminal cancer. The game is designed to have the player experience the high and low moments of that period.
- *Gone Home*, in which the player takes the role of a 21-year-old woman who returns from overseas to her family’s home and discovers that the house is deserted.
- *Papers, Please*, a puzzle video game in which the player takes the role of a border-crossing immigration officer in a fictional dystopian Eastern Bloc country.

Student perspective: “There were intense wildfires back in December in California — this is slowly becoming real,” said Robert Liu ’20, a member of the team that designed “Fireline 2028,” in which players try to stop fires from spreading in California years from now. Liu, a volunteer with the Princeton Fire Department, said he was inspired by a documentary about California firefighters. “This combination of climate change and human land management is … creating very complicated and dangerous situations for the wildland firefighters,” he said.

Key takeaway: Parker hopes at least one of the games will be funded and developed for commercial release to “have as broad of an impact as possible.” ◆ By A.W.
A World of Talent

With an international roster featuring 13 from the U.K., Tigers excel on the water

At age 13, David Bewicke-Copley '20 would jump into an old single shell and paddle up the Thames River at a leisurely pace to fulfill a mandatory sport requirement at school. Tim Livingstone ’18 dabbled in rowing for a few months at age 14 before picking it up seriously a few years later when he discovered he had a knack for the indoor rowing machine. Chris Lawrie ’20 began rowing after suffering a knee injury while playing cricket at age 12. And Tom George ’18 first rowed at 15, when he was looking for an activity to keep him fit for rugby.

All four have contributed to the men’s heavyweight varsity eight this year as part of an exceptional talent pipeline from the United Kingdom.

“There’s a lot of interest in coming to the United States because they’re excited to row at a very high level in college, and it is also tied very close to a great academic experience,” said head coach Greg Hughes ’96.

On a men’s heavyweight roster with more than 50 athletes, international students have a notable presence: England leads the way with 13 rowers, and others on the team have come from Germany, Canada, Puerto Rico, Brazil, Australia, India, New Zealand, and South Africa.

At the Eastern Sprints May 13, Princeton won four medals, including gold in the second-varsity eight, and placed second in overall team points behind Yale. The Tigers were slated to finish their season June 1–3 at the IRA Regatta on Mercer Lake in West Windsor.

Princeton is finding the “full package” when looking at international recruits, Hughes said. “They’re not just talented rowers; they’re also great students. Both those things have been developed, and that’s the attraction.”

Livingstone had already applied to read philosophy at several U.K.

continues on page 16
continued from page 15

universities when he met with U.S. coaches at the end of his junior year in high school. “The opportunity to literally and literarily broaden my horizons was too large to pass up,” he said.

While on his official recruiting visit, Bewicke-Copley was struck by how engaged Princeton athletes were in every aspect of their collegiate careers. “The guys were performing at the highest standard on the water, but then also performing to an equivalent standard in the classroom and holding each other to that standard,” he said.

Bewicke-Copley and Lawrie said they were attracted to the liberal-arts system at Princeton, which gives students more time to decide on an area of study than in the U.K. On the water, some things were different as well.

Lawrie pointed out differences in the language used on the water — in the U.S., coxswains say “weigh enough” to direct rowers to stop rowing, whereas British coxswains say “easy there” — as well as in the more professional coach-athlete relationship in the U.S.

Accustomed to lower-intensity sessions back home, Bewicke-Copley was rather shocked at first by the noise and hype that accompanies the “snap-the-oar-in-half”-type training sessions that make up a larger portion of the training at Princeton.

But regardless of where the athletes come from, Hughes said, “the common goal is to get better, to move forward, and move up in their rowing careers.”

— Head coach Greg Hughes ’96

The common goal is to get better, to move forward, and move up in their rowing careers.

By Sophia Cai ’21

Vial of 1/6 oz. added to 2-4 oz. of your fragrance, worn daily lasts 4-6 months, or use it straight.

Athena 10X™ For Men $99.50
10:13™ For Women $98.50
Cosmetics Free U.S. Shipping

Peggy (NY) “I am 53 years old and since I started using Athena 10:13, I have begun to date frequently and currently have 2 attractive men so interested in me! It is amazing!”

Jesse (RI) “I am a medical examiner and have reviewed various products. Yours is the only one that has real science behind it and I like 10X a lot... I have been successful on a level I never achieved before.”

Not in stores 610-827-2200 Athenainstitute.com

INCREASE AFFECTION PROVEN EFFECTIVE IN 3 DOUBLE-BLIND STUDIES

PGHC02290
PGHC02291
PGHC02292

AN EXCITING 2018-19 SEASON IS TAKING SHAPE WITH MORE THAN 100 THEATER AND DANCE PERFORMANCES, EXHIBITIONS, READINGS, FILM SCREENINGS AND LECTURES BEING PLANNED.

For a weekly email on upcoming events, sign up at arts.princeton.edu

WOMEN’S OPEN CREW
Princeton Wins Third Straight Ivy Gold

The Princeton women’s open varsity eight took an early lead against top challenger Yale and held on to win by nearly three seconds at the Ivy League Championships on the Cooper River in Pennsauken, N.J., May 13. Led by first-team All-Ivy honorees Claire Collins ’19, Emily Kalifelz ’19, Melissa Curtis ’18, and coxswain Kate Elfers ’18, the Tigers earned the league’s top prize for the third consecutive year. They were slated to return to the NCAA Championships May 25–27.

The open crew championship was the 11th and final Ivy title by a Princeton team in 2017–18, capping an eventful spring that saw women’s golf, women’s tennis, women’s lacrosse, and men’s track and field earn first-place finishes as well. Princeton teams have won 11 or more Ivy championships in each of the last four academic years.◆
There was no library that novelist Yiyun Li was permitted to visit as a young child. She was raised in Beijing during the final years of the Mao regime, and the government tightly controlled what books were available to the public. It wasn’t until middle school that she finally gained access to a small library — and quickly devoured everything. “I had a hunger for so long, and all of a sudden I had all these books,” says Li, who became a professor of creative writing at Princeton in 2017.

Books transformed her life — carrying her from a budding career in science to one as a flourishing novelist — and eventually helped save her life when she was suffering from suicidal depression. In Li’s latest work, a memoir titled Dear Friend, from My Life I Write to You in Your Life (Random House), readers experience, between glimpses of her time in China and as an immigrant in the United States, the reaffirming power of books.

Li decided at age 10 that she wanted to live in the United States, and the way to get here was to excel academically. After a compulsory year in the People’s Liberation Army — during which she often carried a copy of James Joyce’s Dubliners — she completed college at Peking University and enrolled at the University of Iowa for graduate work in immunology. Once there, she grew intrigued by the university’s writing program, considered the best in the nation. “Someone said, ‘Everyone in town is writing a novel,’ and I thought, ‘How interesting. I should try that, too,’” she says.

Though her written English was still unpolished, she was accepted into the writing program and earned an M.F.A. after finishing a master’s degree in science. Often writing from midnight to 4 a.m. while working in a lab during the day, Li completed a short-story collection, A Thousand Years of Good Prayers (Random House). The book’s 10 stories, set in China and among Chinese Americans in the United States, explore the effects of Communism and the role of fate in the lives of a wide variety of characters, from a recluse who counts the grains of rice on his chopsticks to a boy who so resembles Chairman Mao that he is chosen as a Mao impersonator. The collection won the PEN/Hemingway Award and several other prizes.
Life of the Mind

“Bad things happen — wars, plagues, parents abandoning their children, the heartless preying on those with hearts — and no one, not a human or a god, will intervene.”
— From Kinder Than Solitude by Yiyun Li

Her 2009 novel, The Vagrants, is set in a Chinese provincial town named Muddy River where a brutal public execution of a counterrevolutionary takes place. In 2010, Li was chosen for The New Yorker’s list of best young writers and was awarded a MacArthur Foundation “genius” fellowship, which cited her “intimate and elegantly constructed portraits of people largely ignored by history — Chinese nationals as well as expatriates in the United States.”

Three friends are haunted by their childhood in China — and the mysterious poisoning of one of their playmates — in the novel Kinder Than Solitude (Random House), published in 2015. One passage lays out the novel’s disquieting theme: “Bad things happen — wars, plagues, parents abandoning their children, the heartless preying on those with hearts — and no one, not a human or a god, will intervene.”

I Write to You in Your Life, Li’s first book of nonfiction, interweaves reflections on the struggle with depression that landed her in the hospital with an homage to Elizabeth Bishop and say, “We are solitary travelers, having crossed paths in the land of stories.” ◆ By Jennifer Altmann

IN SHORT

We all know that some bacteria are good, and now a new bacterium that may be able to aid in environmental cleanup has been discovered. Civil engineering professor Peter Jaffe and research scholar Shan Huang have discovered a FRIENDLY MICROBE, which they dubbed A6, that can break down ammonium — a component of sewage and fertilizer runoff — removing it from wastewater before it is flushed into waterways. As reported in PLoS One in April, A6 has the ability to work in anaerobic environments, making it potentially cheaper than oxygen-dependent methods of sewage treatment.

We often think of countries clashing in terms of warfare, but politics and international affairs professor Melissa Lee contends that nations most often weaken their rivals more subtly. A perfect example, she says in a paper published in International Organization in April, is Russia’s undermining of Ukraine in recent years through fomenting internal dissent and government dysfunction. Examining 78 countries over the past 50 years, Lee found that such “HOSTILE NEIGHBORS” are quite common and recommends that diplomats planning statecraft consider the subtle forms of manipulation countries use across borders.

Smart kids might not always top the human popularity pyramid, but nerds can get their revenge in the animal kingdom. A study by ecology professor Daniel Rubenstein, neuroscience professor Asif Ghazanfar, and Ipek Kulahci ’14 has found that CLEVER LEMURS are more popular than their witless peers. In an experiment involving a grape inside a clear box, the first lemur to devise how to access the fruit through a drawer was revered by other lemurs, who lavished grooming and other attention on the primate Einstein. The study, published in Current Biology in April, is the first to show a connection between intelligence and social standing in animals.

Physicians worldwide have called for limits on antibiotics to help slow the development of ANTIBIOTIC-RESISTANT BACTERIA. Instead, a new report by scientists including some from the Princeton Environmental Institute (PEI) has found that antibiotics prescriptions increased globally by nearly 40 percent from 2000 to 2015. The study, which included PEI senior research scholar Ramanan Laxminarayan, Professor Simon Levin, and Eili Klein ’12, calls for more government regulation, particularly in developing countries.

A new study led by ecology professor Andrea Graham has found that MICE LIVING IN THE LAB have at least one advantage over their country cousins: They develop fewer parasitic worms. Published in PLoS Biology in March, the experiment compared indoor mice to those raised in a special outdoor facility, finding the latter were exposed to bacteria that exacerbated growth of worms in their gut. The findings question the accuracy of mice-based studies in sterile labs, and ask how they might be different if done in more open, real-world environments. ◆ By Michael Blanding
FACULTY BOOK: RICK BARTON

Why America Stumbles in Making Peace

During the quarter century that Rick Barton served as a diplomat and senior official for the United Nations and the United States, he worked on more than 40 conflicts around the world. In his new book, Peace Works: America’s Unifying Role in a Turbulent World (Rowman & Littlefield), the Woodrow Wilson School lecturer explains why America has stumbled so often in its efforts to make the world more peaceful.

Barton analyzes U.S. interventions from the Balkan Wars to the conflict in Syria and finds that our record “suggests that we do not know how to help. This has been true for decades, in both Republican and Democratic administrations.” What Americans must do, he says, is engage with local people and organizations and provide backing for the projects and issues about which they are enthusiastic rather than imposing our ideas. “You don’t have to have a solution, but you do have to make sure you really hear people,” he says. “America should think of itself as a venture capitalist, not a pension manager: Provide seed funding and accept longer odds, with the possibility of greater rewards.”

Peace Works brings together history, personal stories, and policy insights to analyze missed opportunities and advise on future strategies, drawing on Barton’s experiences at the U.N., where he worked on human rights, peace building, and development as deputy high commissioner of its refugee agency and U.S. ambassador to its economic and social council.

The U.S. is an indispensable player in addressing conflicts in other regions, and selective interventions also help our country, he says. “It’s clear our own well-being thrives when the world is at peace. And events like cyberwars confirm that it’s a much more intimate world than we would like to acknowledge.” If we fail to provide effective assistance, he writes, “we allow threats to grow and thus we become more vulnerable, to say nothing of the suffering we abet from the sidelines.”

He begins and ends the book with an examination of Syria, where he spent time while he was assistant secretary of state for conflict and stabilization operations during the Obama administration. He believes the United States could have helped the opposition defeat the Assad regime not by taking out a dictator — “something that is always harder than it looks,” Barton writes — but by giving “the opposition a fighting chance to make it on their own.” But “the enormity of the conflict in Syria overmatched everything America and its allies were willing to do.”

His career choice was inspired by his parents, lifelong diplomats, who raised their children while representing the United States in Argentina, the Dominican Republic, Bolivia, Spain, Uruguay, and Mexico. In Madrid, Barton attended an elementary school where he and his siblings were the only Americans. “Our Spanish friends admired our country and the role it played in the world,” says Barton, recalling how their attitude taught him to recognize that America’s importance “comes with an immense sense of humility.”

NEW RELEASES

Countering warfare waged by smaller groups committing terrorist attacks can be better strategized and won with less harm to locals, according to Small Wars, Big Data (Princeton University Press). The authors, including politics professor Jacob Shapiro, use data to argue for approaches such as suppressing rebel activity and analyzing the links between aid and violence.

Hendrik Hartog, a professor of history, details the legal landscape around slavery in the antebellum North through an obscure 1840 legal case involving the question of whether a New Jersey woman named Minna was indeed free. The Trouble with Minna (University of North Carolina Press) reveals a liminal legal space in mid-19th century New Jersey where slavery was usually but not always legal.

History professor emeritus John M. Murrin’s most influential essays on the American Revolution, the Constitution, and early America have been gathered in Rethinking America: From Empire to Republic (Oxford University Press). The collection ponders fundamental questions about American identity and how the American Revolution informed the nation it produced.
“Is This an Umbrella or a Strawberry?”

Posed to the undergraduates filling the lecture hall in the computer science building, the question topping assistant professor Olga Russakovsky’s lecture slide is laughably simple — but the question isn’t for the humans in the room. The class is COS 429, “Computer Vision,” and the question is being asked of a computer.

For computers — and the scientists and engineers working to make them see the world — the task of telling fruit from rain gear is beyond merely difficult. It has taken decades for researchers to bring tasks that previously were the domain only of living brains — things like speech recognition, visual perception, and complex decision-making — within reach of computers. These and other applications of artificial intelligence (AI) promise to remake our world, from medicine and transportation to security and criminal justice.

Such rapid advances come thanks to machine learning, a wide variety of methods that computers use to “learn” and apply knowledge that isn’t directly programmed into them. Rather than giving the computer a system of explicit rules — umbrellas are this shape when open and that shape when closed; strawberries are these shades of red — machine-learning systems learn from “experiences,” like observing a collection of example images, discovering new rules, and making associations on the fly.

By figuring out the rules for themselves, learning machines can make inferences and decisions more quickly and accurately than humans. When Sebastian Thrun, a researcher at Google X, wanted to teach computers to recognize melanoma — skin cancer — for example, he didn’t try to program in the rules about size, shape, and color that medical students learn. Instead, he gave the machine-learning system a “training set” of 130,000 images of skin lesions that had already been classified by dermatologists, and let the machine learn its own rules. When put to the test, Thrun’s program outperformed the doctors.

Machine learning even offers insights when nobody knows the rules: Princeton professor Olga Troyanskaya, at the Lewis-Sigler Institute for Integrative Genomics, recently used a machine-learning system to create a list of genes likely to be associated with autism. The system was given no rules for how autism genes should look or act — just a map of genetic interactions in the brain, and a list of genes that were already implicated in autism and other disorders. The list Troyanskaya’s machine generated gives autism researchers a new set of genes to study.

Machine learning already plays a large role in human society, from social media to fraud detection, and researchers expect its role to continue expanding in the next few years. But just as people make decisions based on misperceptions, prejudice, and faulty information, the vast quantities of data that “teach” machine-learning systems can be messy, full of gaps and human biases. Machines are no better than the data they learn from.

This is Where Russakovsky Comes In. Russakovsky, who joined Princeton’s faculty last summer, is among the country’s leading young scholars of computer vision — the computer science field that deals with enabling computers to “see” and process images as human vision does. She was named to MIT Technology Review’s 2017 list of “35 Innovators Under 35” and is relentlessly optimistic about the ways AI will improve the human condition.

Russakovsky seeks to advance what she calls “humanistic AI, or AI for
Can Artificial Intelligence Be Less Biased Than We Are?

BY BENNETT MCINTOSH '16

Olga Russakovsky
was affected by another human flaw: prejudice. In 2015, Google computer vision. The ImageNet pictures are now a widely used standard in images of thousands of objects, which they called ImageNet. Russakovsky and her colleagues built a collection of millions to outsource, meaning computer systems could learn from other categories of objects if the answer was “no.” This made the process of labeling images much faster and possible to classify the relevant object in the front.

But machine learning isn’t just about the machines, says Russakovsky. The systems are inextricable from the humans who design, train, and use them. Rather than thinking just about the computerized eye, she sees her role as building “collaborative human-machine object-detection systems.”

Take the training sets that many AI systems depend on — full of example objects, faces, or human actions that the machine is trying to learn about. For computer vision, these sets are usually manually labeled, which means tedious work sorting through tens of thousands of images and checking each one for hundreds of different objects. For large-scale data sets, whose labeling is often done by overworked students, the process becomes time-consuming and expensive. Worse, since bored humans labeling images make mistakes, the labels are not always accurate.

Working with Li and then-Stanford postdoc Jia Deng ’12, Russakovsky pioneered a way to ease the burden on human annotators by asking fewer and more general questions about the images. Instead of asking individually whether there were any chairs, desks, tables, ottomans, or hat racks, the system would ask if there was any furniture — and move on to other categories of objects if the answer was “no.” This made the process of labeling images much faster and possible to outsource, meaning computer systems could learn from more data. Using this strategy and other enhanced techniques, Russakovsky and her colleagues built a collection of millions of images of thousands of objects, which they called ImageNet. The ImageNet pictures are now a widely used standard in computer vision.

Other researchers, meanwhile, were uncovering how AI was affected by another human flaw: prejudice. In 2015, Google found itself at the center of a cultural maelstrom after its new photo application labeled a selfie taken by a black couple as “gorillas.” (The problem was corrected within hours.) At the time, just 2 percent of Google employees were African American, and some experts said having a more inclusive team likely would have ensured that the application was trained to recognize the full diversity of human faces. “Our own human bias informs what questions we ask about AI,” says Russakovsky.

In the spring of 2017, a team of Princeton researchers showed one way that bias in human data can directly create bias in machine-learning systems. In a paper published in Science, assistant professor Arvind Narayanan, visiting professor Joanna Bryson, and postdoc Aylin Caliskan showed that common machine-learning programs trained with ordinary human language can pick up the cultural biases in that language — including blatantly discriminatory views on race and gender. Ask the programs to fill in the blank “Man is to doctor as woman is to...?” and they respond, “nurse.”

Other scholars have shown that a widely used image collection supported by Microsoft and Facebook linked pictures of activities such as shopping and washing to women and images of coaching and shooting to men. Machine-learning programs that were trained on those images, researchers found, learned those associations.

Narayanan compares the way computer systems perpetuate stereotypes to the way the media do. Think about any piece of art or entertainment with a character who’s identifiably a woman, or black, or old. “The media tries to mirror the world to get a feeling of authenticity, but in mirroring the world it’s also perpetuating those stereotypes,” says Narayanan. It’s the same with computers — and, as researchers have found, stereotypes can lead to insidious errors.

As AI’s impact on people’s lives grows, such errors will become more relevant and concerning. In May, Facebook announced that it was developing software called “Fairness Flow” to look for bias in the AI systems that prioritize news stories and filter offensive content — recognizing that these algorithms affect how nearly 2 billion people see the world around them. And AI is having increasing influence on our offline world, as well. “There’s a bunch of interesting questions around uses of AI and machine learning in the criminal-justice system,” says Professor Ed Felten, director of Princeton’s Center for Information Technology Policy, who cites controversial risk-assessment algorithms used by some states in making sentencing and probation decisions.

While workforce diversity helps address the problem, Russakovsky and Narayanan recognize that it’s not sufficient. In February, they received a grant from the School of Engineering and Applied Science to develop best practices for finding and correcting bias in machine-vision systems, combining Russakovsky’s technical specialty with Narayanan’s experience in studying digital privacy and prejudice. A first step for the professors is to measure the cultural bias in the standard data sets that many researchers rely on to train their systems. From there, they will move to the question of how to build data sets and algorithms without that bias. “We can ask how to mitigate bias; we can ask how to have human oversight over these systems,” says Narayanan. “Does a visual corpus even represent the world? Can you create a more representative corpus?”

“OUR OWN HUMAN BIAS INFORMS WHAT QUESTIONS WE ASK ABOUT AI.”

— OLGA RUSSAKOVSKY, ASSISTANT PROFESSOR, COMPUTER SCIENCE
The project is in its infancy, but Russakovsky is confident that such bias can be measured and migrated in machines, ultimately allowing the machines to be better, and fairer, than humans. “It’s very difficult to reveal bias in humans, [and] very difficult to convince humans that they are biased. Human bias is the result of years of cultural exposure and is extremely difficult to undo for all sorts of reasons,” she says.

Russakovsky approaches the bias problem not only from a technical perspective, but also from a personal one. As a woman in a male-dominated field, Russakovsky has had firsthand experience with bias. She describes her first years as a Stanford graduate student — before joining Li’s lab — as alienating. The only female Ph.D. student in that first lab, she says she was doubted by colleagues and plagued by “imposter syndrome” — the false sense that others were qualified but she was not.

Four years into her Ph.D., on the brink of quitting computer science, she moved to Li’s AI lab and found a mentor and role model. Her confidence grew, and she began looking for ways to help herself and other women, helping to start a workshop for women working in computer vision. Near the end of her time at Stanford, looking for a way to pay forward the mentorship she had received, Russakovsky floated to Li the idea of creating a camp to teach girls — particularly lower-income and minority students — about designing AI systems for the social good.

Together, in 2015 the two women launched a two-week summer camp for rising high-school sophomores, coaching the girls to develop AI programs to solve human problems. They called the camp SAILORS: Stanford Artificial Intelligence Laboratory OutReach Summer, and in a survey afterward, about 90 percent of campers said they felt like they had a mentor or role model in computer science.

In 2017, the camp — now known as AI4ALL — expanded to the University of California, Berkeley. This summer, programs will take place at four more schools, including Princeton. The Stanford program is all girls, the Berkeley program is aimed at low-income students, and the Princeton program has encouraged applications from underrepresented communities: black, Latino, and Native American students. Princeton’s program will focus on the intersection between AI and policy, touching on issues directly relevant to the marginalized communities its students come from.

Felten, the co-director of the Princeton camp, hopes that solving problems like these will inspire the students to design AI systems that don’t perpetuate bias and that address social problems. “You’re looking at things that connect to their lives, and what’s happening in their communities,” he says. He hopes the camp will get students to think about the effects of AI on realms like education and economic equality: “That kind of synergy between the technical stuff ... and the policy stuff will be, I think, one of the signs that we’re succeeding,” he says.

Zoe Ashwood, a Princeton Ph.D. student who will be one of the program’s instructors, says she was inspired to sign on after visiting last year’s camp at Stanford and seeing the students’ work: One team had developed a tool using machine learning to turn tweets after a natural disaster into useful information for first responders; another designed a machine-vision system that could tell if doctors were sanitizing their hands before entering hospital rooms.

For Russakovsky, every success by AI4ALL’s alumni is proof that diverse teams can build more reliable and “more humane” AI based on less biased data, applied to a wider range of problems, and implemented in more useful ways. “Forget political correctness,” she says, “diversity brings better outcomes. When people believe this, we’ve won the battle.”

Bennett McIntosh ’16 is a science writer based in Somerville, Mass.
The artifacts of activism at Princeton come in many forms: membership cards for the Veterans of Future Wars, a satirical student group that made national headlines in 1936; audio cassettes from WPRB’s coverage of a campus meeting at Jadwin Gym during the May 1970 strike that followed the U.S. invasion of Cambodia; and scores of photos, mostly black-and-white, from public demonstrations such as the 1978 occupation of Nassau Hall, when students protested University investments in companies doing business in apartheid-era South Africa.

During the 2015 Nassau Hall sit-in — the protest that sparked a re-examination of Woodrow Wilson 1879’s legacy and a broader discussion of diversity and inclusion at Princeton — archivists knew they would need to take a different approach, one not dependent on file boxes.

“As it was happening, we said, ‘This is certainly something we want to capture,’” says University Archivist Daniel Linke. “We’re no longer in a paper-based environment, especially with students. So the question was: How do we capture this moment?”

Two weeks after the sit-in began, Jarrett Drake, then the digital archivist at the Mudd Manuscript Library, announced the start of ASAP: Archiving Student Activism at Princeton, a proactive effort to collect artifacts from the demonstrations and the broader range of advocacy on campus. The archival record was destined to be digital: Explore the University Archives online today and you can find, for example, the Princeton Black Justice League’s Medium.com post, “An Open Letter On Free Speech, Our Demands, and Civil Disruption,” or its Change.org petition, signed by more than 1,000 supporters (both included in the Black Justice League records). You can also read a timeline of the 33-hour sit-in on the University Press Club’s Twitter feed, with updates filed from inside President Eisgruber ’83’s office (part of the Princeton University Publications Collection).

While digital archiving was nothing new for Linke and his colleagues at Mudd, the exercise of capturing recent history and preserving it in its “born-digital” formats proved fruitful, eventually inspiring the addition of a staff position devoted to archiving student life. Valencia Johnson, who started in the role in early March, has spent much of the last two months on outreach, meeting with the departments that interact with students and encouraging student organizations to maintain and preserve their records. In speaking with students, she stresses that Mudd is not merely a place to find research materials, but also a place to give them. Making a donation to the archives can be as simple as sharing a link to your student organization’s Google Drive folder.

“You learn so much outside the classroom — you’re building relationships, you’re being challenged on your opinions, you’re growing as a person,” Johnson says. “University archives are beginning to do a better job of making sure that we’re capturing that life outside of academia.”

Digital accessions — photos, videos, documents, emails, websites, class-reunion books on DVD — are rapidly expanding Mudd’s virtual shelves, and not just in the realm of student life. In the University archives and public-policy papers, about 120 collections include born-digital materials, taking up about 3 terabytes of storage (a modest footprint by archival standards).

Why has student life become a priority? For archivists, it is important to capture these records before they disappear. “Because it’s so easy to create content in the digital age, people often don’t think about it as something to preserve,” says Annalise Berdini, Mudd’s digital archivist. “They don’t think about it as something that’s a form of record.”

In a more paper-based era, Linke adds, alumni might keep a box of clippings or files in their basement and eventually...
donate it to the archives 20 or 30 years after they graduate. But the future of electronic records seems less certain. “Thirty years from now, will any of the student organizations have the equivalent of the box in the basement?” Linke asks. “Will they still have their same Gmail account? Will Gmail exist?”

Working with students helps the archivists, according to Alexis Antracoli, the assistant university archivist for technical services, because students tend to be in tune with digital trends. That keeps archivists thinking about the challenges to come.

Like many of her colleagues at Mudd, Antracoli was a historian before she became an archivist. When she started working in archives, she envisioned processing early American manuscripts. Instead, she immersed herself in electronic-records projects and found a niche on the digital side.

Antracoli became enamored with the benefits that digital archives would have for researchers, particularly those who aren’t scholars or historians with the means to travel to wherever a collection resides. “I’m really passionate about the idea that archives are for everyone, whether you’re doing genealogy or a high school research project or the history of your community,” she says. “I want our materials to be as widely accessible to people as possible, in ways that are meaningful for them.”

Digital collections lend themselves to that “multiplicity of uses,” says Linke, who notes that the digital age has reshaped some of Mudd’s traditional accessions, particularly those that come from University offices.

The records of past deans rely heavily on correspondence, which has moved from filing cabinets to email folders. In the long term, the digital files could be helpful because they’d allow for big-data text analyses on large collections of email, Linke says. On the acquisition side, however, dealing with the volume of email requires sorting and culling. When Valerie Smith left her post as Princeton’s dean of the College to become the president of Swarthmore College, she had nearly 100,000 messages in her email account. Linke and Drake worked with Smith’s office to narrow the list of correspondents and identify messages that contained important keywords in the subject lines. Their work yielded just over 20,000 emails — about 5,000 sent and 15,000 received — that will be preserved in the University Archives.

Linke does not advise administrators about email preservation in advance, but the University’s records-management principles encourage retaining “records with potential historical value to the University.”

As offices have gone digital, so have student records. When an undergraduate class passes through FitzRandolph Gate each June, the academic files of the new grads are sent to be stored at Mudd. One class used to fill about 40 boxes of paper. But the Class of 2017 version arrived in a significantly smaller package: a single encrypted hard drive, filled with PDF documents.

For the average computer user, this all sounds blissfully simple. Drag-and-drop archiving — how hard could it be? But archivists have to consider users far into the future. An email created in Outlook, Microsoft’s proprietary format, may not be readable in 40 years, when a retired dean’s files are opened to researchers. Archivists prefer formats that can be read by multiple programs, such as PDFs and JPEGs. But if you convert each message to a PDF, you also need to include PDFs of the message’s attachments. And the act of opening that attachment to convert it could inadvertently change metadata (the date it was last revised, for example) that future researchers might find valuable.

In a way, paper was easier: You don’t need the right application to open a letter.

To deal with this digital challenge, Princeton archivists rely on FRED — a Forensic Recovery of Evidence Device — a tool developed for the law-enforcement community to preserve files used in investigations. The FRED looks like a large computer stack, with a quantity and variety of input jacks so expansive that one can hardly imagine using half of them. When archivists connect the source media — a hard drive, for example — to the FRED, it creates bit-for-bit copies of the files without altering their metadata. That becomes the master preservation copy, should anything happen to the file when it’s processed or stored. Archivists use the computer to scan for personally identifiable information, such as Social Security numbers, so that they can be redacted from publicly accessible files. The FRED also generates “checksum” records, a sort of digital fingerprint that can be used later to detect when a file is corrupted (or in a courtroom setting, to certify that a file hasn’t been tampered with).

In addition to its use at the University Archives, the FRED has proven helpful in the library’s Manuscripts Division, headed by longtime curator Don Skemer. When archivists were

When archivists were processing the papers of Nobel laureate Toni Morrison, they came across floppy disks that contained some of her drafts, including versions of her 1987 novel, Beloved.
processing the papers of Nobel laureate Toni Morrison, they came across floppy disks that contained some of her drafts, including versions of her 1987 novel, *Beloved*.

Extracting the files did not yield much new material, Skemer says, because Morrison’s papers already included publisher’s proofs from that time. (Visitors to the collection are more interested in the author’s decidedly analog early drafts, written on yellow legal pads.) But the exercise did help to define a process for handling legacy-media materials, which archivists can now apply in other collections, including the papers of Argentine author and former Princeton professor Ricardo Piglia and American poet Alicia Ostriker. Skemer sees digital processing as a selling point for the Princeton libraries: “We can deal with your old media, even if you can’t.”

Extracting and reading documents from a 5 1/4-inch floppy disk may be old hat now, but there are other challenges related to digital files. For example, there’s the threat of bit-rot, or data-rot — the electric charge in one bit flips, and a file on a user-generated CD or DVD suddenly becomes corrupted. You might think those family photos are safe forever on a memory card, but without monitoring and backing up files, “all of it degrades eventually,” says digital archivist Berdini. “That’s the biggest misconception people have about digital content.”

Princeton has processes in place to create and store copies and backups on more stable media. But that’s just for the files donated to its collections. What about content that’s online, on the hundreds of websites for University departments and organizations? Since 2015, archivists have been using Archive-It, a service developed by the Internet Archive, to preserve periodic copies of Princeton websites and social-media feeds. There are 130 sites currently included.

Princeton’s senior-thesis catalog also resides online now, with theses from the Class of 2013 forward available to on-campus users in PDF form. Linke said that when the University decided to store theses electronically, he expected to see an increase in the use of theses for student research, but even he was surprised by the magnitude — an eight-fold jump, from about 1,000 paper theses viewed in the year before the switch to just shy of 9,000 downloads in the third year after. That number continues to grow, with about 16,000 downloads, across all departments, in 2016–17. “We collect theses for the pedagogical use of students — it serves the educational purpose of Princeton’s hallmark academic requirement,” Linke says. “We’re better able to serve the student body, which isn’t necessarily going to come to Mudd Monday to Friday, 9 to 5. They can [read theses] at any time convenient to them.”

Princeton graduate dissertations dating back to 2004 are available digitally, and some dissertations that were archived on microfilm have been digitized as well, by a third-party dissertation database.

Digital collections can be processed quickly in many cases. New additions at Mudd include the Princeton Lesbian, Gay, Bisexual, Transgender, Queer/Questioning, Intersex, Asexual (LGBTQIA) Oral History Project, a series of transcripts and audio files recorded last summer. The first 15 interviews went online in October, and another 15 were published in March.
Born-digital content provides updates for one of the University Archives’ most popular online collections, the digitized version of *The Daily Princetonian* (available at theprince.princeton.edu). Editors send PDF versions of the newspaper’s published editions, to be added to a scanned database that dates back to 1876.

The Daily Princetonian project has led some Mudd enthusiasts to look for a future when all collections are available online, but Linke is skeptical of that notion. “Not in my tenure,” he says. To date, about 2 million documents have been digitized — from a corpus of about 200 million.

Beyond the sheer bulk of material in storage, there is the question of how best to regulate access, which is a work in progress. “Electronic records are so easily shared, but you want to be able to share things according to various parameters,” Linke says. Some files may be protected by copyright, such as the Manuscript Division’s digitized audio interviews featuring some of Latin America’s most celebrated contemporary authors; others contain information that archivists would not want to freely share online for fear of data-mining — the shelves of class-reunion books come to mind.

The shift to digital also raises a nostalgic question: Is something lost when you’re no longer able to hold a physical document, to see the impressions made by the typewriter or the marginalia scrawled in red ink?

Linke points to a recent born-digital collection that he accepted for Mudd’s public-policy holdings: the papers of economics and public affairs professor Alan Krueger, a former chairman of the White House Council of Economic Advisers under President Barack Obama. While reviewing the files, which will remain closed until the Obama administration’s records are made public, Linke came across a folder labeled “POTUS” and discovered sets of PowerPoint slides from Krueger’s presidential briefings. He paged through, imagining the context in which they were first shared.

“It may have been electronic,” Linke says, “but this is what the president saw. That’s kind of cool. So there’s still a kind of ‘gee whiz’ moment when you’re dealing with records that have historical import.”

---

**“Thirty years from now, will any of the student organizations have the equivalent of the box in the basement?”**

— Daniel Linke, University archivist

---

**Your Very Own Archive**

Archivists Alexis Antracoli, Annalise Berdini, and Valencia Johnson share their tips for personal archiving in the digital age.

Create **MEANINGFUL FILE NAMES** and store files in folders with meaningful titles. This is especially true for photos: Automatically generated filenames, such as DSC1063.jpg, won’t be useful to people in the future who want to understand what you’ve preserved. A “Read Me” text file that explains your file names and organization system may be helpful as well.

Consider migrating older file formats to sustainable **OPEN-SOURCE VERSIONS**, such as PDF for text, or uncompressed TIFF or JPEG for digital photos. For more information, see the Library of Congress’ Sustainable Digital Formats website, www.loc.gov/preservation/digital/formats/.

Capture a copy of your website or blog for free by using the **INTERNET ARCHIVE**. Visit the Wayback Machine (archive.org/web/) and use the “Save Page” feature.

Store at least one **BACKUP COPY** of your files, separate from your active files, and update it regularly (twice a year, or more if you create a lot of photos and videos). Hard drives, CDs, and DVDs can fail or degrade. Cloud services such as Google Drive and Dropbox are good options, but be sure you are able to easily pull out a copy of your data at any time.

Don’t use **SOCIAL-MEDIA SITES** as your primary photo archives. If your only copy of an image is on Facebook, you will lose image quality when you retrieve it.

Move your files off old, **PASSWORD-PROTECTED HARD DRIVES** sooner rather than later. Passwords are easy to forget, and you want to ensure access to important family pictures and documents.

---

Brett Tomlinson is PAW’s digital editor.
RECKONING WITH HISTORY: No memorial existed for the 1947 partition of India and Pakistan, one of history’s largest human migrations. Mallika Ahluwalia ’05, a New Delhi native, envisioned a museum, and today she is CEO and curator of the year-old Partition Museum in Amritsar, India. Ahluwalia often interviews aging survivors of the migration, which took approximately 2 million lives. Survivors “say a burden is lifting off of them that finally there is a space that acknowledges what they went through,” she says. READ MORE about Ahluwalia at paw.princeton.edu/tiger-of-the-week.
Yolanda Pierce ’94 was appointed last summer as the first female dean of the Howard University School of Divinity. Pierce takes the helm at a time when Americans are less likely to identify as being affiliated with a particular religion than in years past, the country is divided by religious and racial conflicts, and women continue to be underrepresented among the clergy.

Pierce is used to breaking the mold. She enrolled at Princeton at the age of 16 and was the first in her family to graduate from college. She studied under Cornel West ’80 and then earned her master’s and Ph.D. degrees from Cornell. After that, she served as associate professor at Princeton Theological Seminary, where her research focused on race, religion, and literature.

Pierce spoke with PAW about her work and the challenges facing her theology and future clergy.

Q&A: YOLANDA PIERCE ’94

RETHINKING THEOLOGY IN AN AGE OF INCREASING DOUBT

You are the first woman to serve as dean in the school’s 150 years. How does your gender inform your work?

The fact that in 2017 I became the first woman in this role is a compliment and an indictment. I think gender, particularly in religious spaces, is a really, really complicated issue. People have different beliefs, perspectives, and theologies. All I know is I am deeply indebted to the men and women who came before me and opened up spaces for women to serve.

Enrollment at many seminaries has declined, as have the number of Americans who identify with a particular religion. What is driving that?

Churches are in decline — fewer and fewer people are members of churches, so fewer pastors are needed. And fewer people think about a religious vocation as a viable career choice, so the enrollment numbers are declining. I think the question for those of us in theological education is: How do we reinvent ourselves?

What will it look like?

[Partly] we will become less focused on the American context. There are areas in Asia, Africa, South America where there has been an explosion of participants in various religious traditions. The only way we have often talked about religion is, “What are American Christians doing?” That’s no longer a question we can ask unless we are also willing to ask, “What are Christians in Ghana doing?”

We also have to think more comprehensively about the study of religion not just being about belief and theology. Some people don’t necessarily have beliefs, but they still perform rituals of faith. You can be an atheist but you are Jewish and you practice certain behaviors. How do you classify that? How do you minister to people who find themselves without a belief system and yet have religious practices precious to them? We have got to be much more global, and we have got to be much more open to the shape that religious belief takes.

Did your own faith change or become molded by a theological education?

My journey is very similar to my students’. Any higher education is meant to challenge you, and so my faith was challenged and tested. You learn things, and you have doubts and unbelief. And you’re like, “I’m not sure what I believe anymore.” I think that is the healthiest and most important process that any person of faith can go through. Faith is that process of asking the tough questions, demanding answers for the tough questions, living with doubt, but being willing to make the journey.

“I think the question for those of us in theological education is: How do we reinvent ourselves?”

— Yolanda Pierce ’94

Interview conducted and condensed by Naomi Nix ’10
RAJA KRISHNAMOORTHI ’95 AND MIKE GALLAGHER ’06
FROM ACROSS THE AISLE, A CAUCUS ON JOBS IS BORN

Raja Krishnamoorthi ’95 and Mike Gallagher ’06 never crossed paths at Princeton alumni events, but when they met at a congressional orientation session after winning House seats in 2016, the two thought they might have something in common beyond their alma mater — a concern for middle-class jobs.

Krishnamoorthi, a Democrat from the western suburbs of Chicago, and Gallagher, a Republican representing a district that includes Green Bay, Wis., formed a congressional caucus to improve the economic outlook for the middle class.

Coming from the Midwest, a region beset by a sagging manufacturing sector and uneven economic and wage growth, helped to unite them across partisan divisions.

The two lawmakers’ wonkishness can be traced back at least as far as the Woodrow Wilson School, where Gallagher earned his degree and Krishnamoorthi earned a certificate. Krishnamoorthi became a lawyer and served as an early staffer to a then little-known House candidate, Barack Obama. Gallagher was a Marine Corps reservist and intelligence specialist who served in Iraq.

In early 2017, they established the 12-person bipartisan Middle-Class Jobs Caucus to delve into issues such as changes in the labor force and technology policy. “People feel their expenses going up, but their pay is flatlining,” Krishnamoorthi says. “How do we help these folks who are working hard and want to retire with dignity?”

Collectively, the two lawmakers organize monthly meetings for members of Congress and their staffs. This year, meetings on artificial intelligence and Bitcoin’s impact on the job market were standing-room only. Other sessions have addressed the manufacturing economy and health-care policy. Gallagher and Krishnamoorthi take pains to invite speakers from a cross-section of ideological perspectives.

Their efforts have helped produce two bills, one of which has passed the House. The Strengthening Career and Technical Education for the 21st Century Act (H.R. 2353) passed on a bipartisan voice vote and awaits action in the Senate. “Four-year colleges may not be for everyone, but a postsecondary education has to be,” Krishnamoorthi says. “There are 6 million unfilled jobs because employers can’t locate the skills and knowledge they need.”

They also co-sponsored the AI Jobs Act of 2018 (H.R. 4829), another bipartisan bill that would commission a Labor Department study of the benefits and drawbacks of artificial intelligence on the nation’s workforce. It has not been voted on yet.

“There’s no silver bullet for increasing labor-force mobility and participation,” Gallagher says. The downward impact of automation on jobs “is only going to increase with artificial intelligence,” he adds.

They say at least some of the credit for the Middle-Class Jobs Caucus goes to their shared academic experience. “Princeton and the Wilson School did a great job of getting us to think critically,” Krishnamoorthi says. “I remember distinctly that the professors got us to ask questions as much as forming our opinions.”

By Louis Jacobson ’92
CATCH UP: Past Class Notes, grouped by class at paw.princeton.edu/class-notes
MEMORIALS

PAW posts a list of recent alumni deaths at paw.princeton.edu. Go to Reader Services on PAW’s home page and click on the link “Recent Alumni Deaths.” The list is updated with each new issue.

THE CLASS OF 1940

Rollin D. Osgood Jr. ’40
Rolls — also known as Rollie — died Jan. 18, 2018, at the age of 99 in Birmingham, Ala., where he was born.

He prepared for college at Ramsay Technical High School and initially attended Birmingham-Southern College, transferring to Princeton in 1937. At Princeton he majored in economics, played varsity tennis, and took his meals at Tower Club. His senior-year roommates were Pittenger, Bennett, Kobilak, and Harkness.

Following Princeton, Rolls spent six months with Bankers Trust in New York before being drafted into the Army, where he served as an officer in the Pacific theater at Eighth Army Headquarters. Returning to his native Birmingham after the war, he joined the just-formed Southern Research Institute, where he spent his entire career, retiring in 1980. In retirement Rolls golfed, studied French and traveled in France, and served on several charitable boards.

Predeceased by his wife, Allen, he is survived by his son, Rollin III of Birmingham.

Fred D. Sutphen ’42
Fred died Jan. 30, 2018, in Camarillo, Calif. He was born Feb. 3, 1920, in Niagara Falls, N.Y. He graduated from Princeton with honors in psychology. He enlisted in the Army upon graduation and served stateside for more than two years.

Fred had two business careers — one in sales and sales management in the textile industry with Deering, Milliken, and then Spring Mills; and a second, after moving to Santa Barbara, Calif., in 1960, in real-estate sales with Pitts and Bachmann until he retired in 1996. Fred was a longtime member of La Cumbre Country Club and, after retirement, a volunteer driver for the American Cancer Society and Cancer Center.

Fred’s wife, Jane, predeceased him. He is survived by two children, two grandchildren, and three great-grandchildren.

THE CLASS OF 1942

Samuel A. Schreiner Jr. ’42
Sam died Jan. 14, 2018, at his home. He was born June 6, 1921, in Mt. Lebanon, Pa., a suburb of his father. He attended Mt. Lebanon schools and entered Princeton in 1938. He majored in the School of Public and International Affairs, graduated summa cum laude, and was elected to Phi Beta Kappa.

Sam joined the Army a day after Pearl Harbor and was off to China soon after as an aide to Gen. William Donovan in Chungking. He was awarded the Bronze Star for his service. He married Doris Ann Moon in 1945 and began his career as a reporter for the Pittsburgh Sun-Telegraph. In 1952 they moved to Darien, Conn., where they lived for the next 60 years. In 1945 he joined the staff of Reader’s Digest, where he became senior editor. After leaving Reader’s Digest he worked for The New York Times and published his first novel, Thine Is the Glory. Many novels, nonfiction works, and biographies followed over the next 30 years.

Doris died in 2012. The couple are survived by two daughters and a grandson.

THE CLASS OF 1943

Francis H. Bohlen III ’43
Frank died Dec. 15, 2017, in Gladwyne, Pa. He left Princeton early to serve as a lieutenant in the Navy Air Corps, earning the Air Medal and the Presidential Unit Citation. Upon discharge he completed his undergraduate work at Tulane and went on to earn a law degree from Tulane School of Law. He began his career in New Orleans. Moving on he joined Stroud & Co. in Philadelphia and then went to work for RCA in Camden, N.J., where he became division manager of the industrial electronic-products division.

Frank retired to Easton, Md., where he enjoyed sailing and wine-making.

He was predeceased by his wife, Sarah R. Villere. He is survived by his son, Robert; his daughter, Sidney Bohlen Spahr; five grandchildren; and four great-grandchildren.

THE CLASS OF 1944

Daniel M. Kelly ’46
Dan died Nov. 16, 2017. He devoted his life to helping the Crow Indians in Montana.

Born in New Jersey, he attended Mercersburg Academy and Princeton, and went on to acquire advanced degrees in business, engineering, and law at Cornell, George Washington, and Harvard.

Dan worked for the CIA for many years, volunteered for the Episcopal Diocese of Virginia and for Goodwin House, a retirement community, and received the Alexandria Red Cross award. Later Dan became interested in the fate of the Crow Indians in Montana.

As a consequence he set up the Center Pole, a foundation to improve the lives of Crow Indians on their Montana reservation. He joined with a grassroots local leader, Peggy Buffalo, to upgrade the state of their reservation to the point where about 500 of the children were able to attend American colleges over the years.

Dan loved his family, his work, and his life. Over the years Dan opened his home in Virginia to families from many countries. He was a visionary, a man of many talents, and a credit to our ’46 Princeton class.

Dan is survived by two children and several grandchildren.

THE CLASS OF 1946

James W. Quiggle III ’46
Jim died peacefully Oct. 31, 2017, at Maplewood, a retirement home in Bethesda, Md. He was 93.

He came to us from St. Albans School in Washington. During World War II Jim joined the Army. His unit landed at Marseille and fought its way north to the Vosges Mountains. Jim was wounded there, for which he was awarded the Bronze Star and the Purple Heart.

Jim returned to Princeton and graduated in 1948. Following graduation, Jim went to the University of Virginia Law School, where he met fellow student Sally Crew, who had just graduated from Vassar. After completing law school, Jim married Sally, and they had two sons, James and Thomas.

Tragically, Sally died in a house fire. Jim married a widow, Jackie Pendleton. Jackie died in 2011. Jim is survived by his two sons. He will be long remembered by the Class of ’46.

THE CLASS OF 1947

Harry S. Binakonsky ’47

After high school he enlisted in the Navy and was sent to the V-12 program at Princeton, where his future career was focused on medicine. He had the wonderful fate of sitting next to Albert
Einstein at a Passover Seder while at Princeton. After graduation he attended the University of Pittsburgh to study medicine, where on a blind date he met Jeannie. They were married in 1948 and had two children. After an ideal marriage, she died in 2009. After earning a medical degree, Binny served in the Korean War. He returned to Pittsburgh and founded the Penn Group Health Plan, one of the region’s first HMOs. By the late 1990s the group had access to 100 physicians and seven regional offices. His many associates in the group gave Binny high praise for his leadership and creativity in the success of the endeavor.

Twenty years after its founding, the Penn Group lost its largest customer base, and Binny found the time to travel with Jeannie, spend winters in Longboat Key, Fla., and satisfy his love of art by making drawings and taking photographs. The class remembers the contributions of this physician with thanks to his surviving daughter and seven grandchildren.

David F. Gebhard ’47 *49
Dave died Jan. 20, 2018, in Mystic, Conn. At Princeton he majored in aeronautical engineering and was a member of Dial Lodge. A private pilot since his college days, Dave flew a Piper J-3 and a Cessna 152 as a hobby for most of his life. His business career was at Grumman, and he retired in 1991. In 1985 he was designated by Grumman as Inventor of the Year. He worked on landing issues for carrier planes and had a leading role in designing the landing features of the early spacecraft. Winter frequently found Dave and his wife, Shirley, snorkeling in St. John in the U.S. Virgin Islands. Upon retirement, they moved to Mystic, Conn., where they could continue their love of cruising and sailing. Their three children lived nearby, so they were able to watch their four grandchildren grow.

The class sends its fond memories of this productive and avidly contributing classmate to Shirley and the children.

Kenneth R. Meyer ’47
Ken died Nov. 8, 2017, in Dearborn, Mich. He was born in Flushing, N.Y., Dec. 17, 1925. After starting at Princeton in 1943, Ken found himself with the 28th Army division in northern France. He returned to Princeton with a Bronze Star and graduated in 1948. He went to medical school at the University of Pennsylvania and did his residency at Henry Ford Hospital in Detroit. He met Julia on a Friday the 13th in 1946 and said, “It was the luckiest day of my life.” They married Aug. 19, 1951, and moved to Detroit when he started his residency.

Ken contributed to the field of medicine for more than 60 years. He served as a pathologist at Oakwood Hospital in Dearborn, where they lived. He retired officially after 29 years, but continued another 40 years as a volunteer on the hospital tumor board and acted as teacher to many of his colleagues. A modest man, he valued listening, learning, outdoor activity, classical music, art, nature, and family. He was an active man all his life. He walked regularly, backpacked, and continued yoga until age 90. He regularly played tennis at the Dearborn Racquet Club. For four years he was library coordinator at the Oakwood Common Retirement Community.

His wife, Julia Kathryn, preceded him in death. The class sends its memories of this outstanding contributor to the health of greater Dearborn to his sons Eric and Kurt and their five children.

Thomas R. Pellett ’47
Tom died May 11, 2016, at the Sun Health Care Center in Sun City, Ariz. He was born Dec. 2, 1925, in Hamburg, N.J. After high school he joined the Navy as an aviation cadet. Entering Princeton after the war ended, he graduated in 1947 with a degree in mechanical engineering, then went on to the Wharton School for a master’s degree in institutional management.

While in Philadelphia he met Anne Iffert on a blind date. They married in 1950, and along the way to his successful business career, Anne gave birth to their two daughters and a son. Anne predeceased him.

Tom’s business career started at Lehman Brothers in New York City. Soon a Lehman client, Red Owl Stores, offered him the position of assistant treasurer in the upper Midwest, where Tom and Anne enjoyed the quieter life, together with its myriad outdoor activities. In 1968 the family moved to St. Louis, where Tom accepted the position of treasurer, and later as executive vice president and CFO at Pet Inc., from which he retired in 1990. They then bought a second home in Sun City West, Ariz., in 1995, and moved there permanently in 2006.

Tom and Anne were able to travel together frequently with their children and grandchildren for many years — to most of the 50 states, plus Canada. He kept busy with the stock market, golf, pheasant hunting, and working toward his pilot’s license.

The class sends its remembrance of this contributing and giving classmate to his three children and their families.

The class extends its condolences to Shirley and the children.

John C. Stiles ’48
John grew up in Summit, N.J., and graduated in 1950 with a degree in physics after spending time away from campus for Army service. His career as a research scientist was in aeronautics research and development. He made significant contributions to the design and development of aeronautical guidance systems and held 35 patents while on staff at Bendix, Litton, and other companies in California.

Virginia Taggart and John were married in 1949. They had five children: Janet, Susan, Judy, Bill, and Bob. The family lived in New Jersey and in Thousand Oaks, Calif. After Virginia’s death in 1992 and in retirement, John moved back east to Maryland. In addition to his lifelong interest in science, he built a custom home, was a glider pilot, traveled abroad, and played competitive bridge.

In 1996 he met Nancy Wilcox; they were devoted companions until her death in 2014. John died at home March 8, 2018, in Forest Hill, Md. He was 91. He is survived by his children, grandchildren, and great-grandchildren.

The class extends its condolences to Nancy and the Stiles family.

THE CLASS OF 1948
Arthur R. Albrecht ’48
Arthur was born June 9, 1927, in New York City. At Princeton he was a history major and valedictorian of our class. He then graduated from Yale Law School, and as a Fulbright scholar earned a doctorate in international law at Cambridge University.

During his 70-year legal career in San Francisco and internationally, he was a senior partner and principal in two law firms, the first for 30 years and the second for 20. As a well-known and sought-after litigator, he represented his own clients and sometimes made court appearances for clients of other members of his firms. These court cases and other actions at law included litigation and other representation on matters such as securities and fiduciary relations, class actions, mergers and acquisitions, takeovers, and foreign corrupt practices. As assistant to the United States member of the United Nations Maritime Commission, he helped to write the International Law of the Sea.

He was the longtime president of the Lombard Improvement Association in the San Francisco neighborhood that he lived in for more than 40 years.

Arthur had many close and lifelong friends — members of our Class of 48 and others — but no surviving relatives. He died peacefully Feb. 22, 2018, in his home on Lombard Street.

THE CLASS OF 1949
John W. Moffly IV ’49
Jack died peacefully March 11, 2018, in Greenwich Hospital in Connecticut.

In Philadelphia, he attended Chestnut Hill Academy, then Andover, and graduated early to enlist in the Army Air Force. After the war he returned to Princeton, where he joined Cap and Gown and
was commodore of the Princeton Yacht Club, which gave him the rare privilege of having tea with Einstein, who was determined to sail on Lake Carnegie. He graduated from the Woodrow Wilson School and loved returning for reunions.

Jack was in advertising sales for Time for 30 years before taking early retirement in 1986 to focus on his favorite hobby, sailing. He served on many boards — often as chairman — including the Princeton Yacht Club. After alumni events, he’d typically settle in St. Louis at the home of his Aunt Nettie to spend time playing cards with his sisters, and mull over a design for his next sailboat.

A seasoned sailor, he competed in many regattas, ranging from Long Island Sound to the LeMans of the Open Class. The 1951 class was a close-knit group, and Jack’s yachting achievements brought his classmates together for fun and camaraderie. He shared his interest in sailing with his two sons, as well as his three grandchildren, four great-grandchildren, and nine great-grandchildren, some of whom he hoped might go to Princeton.

**THE CLASS OF 1950**

**Allan A. Ryysylainen ’50**

Allan died Jan. 29, 2018, in St. Marys, Ga. He was a World War II veteran and one of our oldest classmates, having been born in New York City in 1924. After graduating from Killingly (Conn.) High School, he entered the Navy in 1942, serving until 1946, when he was discharged as a lieutenant, junior grade. At Princeton he was a member of Terrace and earned honors in civil engineering.

Most of his 50-year career was in the construction industry as a general contractor in the Capital District of New York State. In later years before retiring, he was a consultant to bonding companies. In 2006 he moved from his Saratoga Springs, N.Y., home, where he had long performed community volunteer work, to St. Marys.

Allan was predeceased by his sons, Lloyd and John. He is survived by his wife, Sande; daughter Allison; and three grandchildren.

**THE CLASS OF 1951**

**Peter Hamilton Bunce ’51**

Peter was born Nov. 7, 1929, in Palmetron, Pa., to E.H. and Elizabeth Wooster Bunce. He prepared at The Hill School. At Princeton he majored in economics, was a member of Tower Club and Triangle, and was on the Tiger editorial staff. He roomed with Bob Cohill, Frederic Ingram, and Bob Ix. He joined the Air Force and spent three years as a combat intelligence officer, after which he settled in St. Louis at the suggestion of his friend and classmate Jeff Arrick. Peter and Gail Goessling were married in 1954. He founded the Bunce Corp. and was for years involved in civic activities, including the Repertory Theatre, Grace Hill Settlement House, Grand Center, Jazz at the Bistro, Circus Flora, and board president of Monmouth College in Illinois.

Peter died April 13, 2017. He is survived by Gail; their children, Cristen Barnes and Mark Bunce; five grandchildren; four great-grandchildren; and his twin sister, Peggy Munro.

**THE CLASS OF 1952**

**Norman Gilbert ’52**


Norm joined the class after finishing at A.B. Davis High School in Mt. Vernon, N.Y., where he belonged to the U.S. Naval Militia. At Princeton he majored in mechanical engineering, belonged to the Christian Science Organization, the Westchester Club, A.S.M.E., and the Outing Club. He roomed with John Hayes.

Norm earned a master’s degree in mechanical engineering at Columbia in 1954. He then served for three years in Army counterintelligence in Germany. Norm worked at the Norton Co. from 1957 until 1961, when he joined the Budd Co. and became manager of international sales and licensing — especially in Europe, Latin America, and the Far East — until he retired in 1995.

His son John said his dad was “a loving father, husband, grandfather, and friend to all, with a great lust for life.”

The class sends its best to Norm’s family, along with appreciation for his service to our country.

**THE CLASS OF 1953**

**William C. Lewis Jr. ’53**

Bill died Feb. 25, 2018, in Rochester, N.Y., where he was born.

He attended West High School before coming to Princeton. He majored in the Woodrow Wilson School of Public and International Affairs and wrote his thesis on “The American Press in the 1932 Election.” After graduating, he served as an officer in the Navy and was stationed in Japan before earning an MBA from Harvard Business School. He then joined Cabot Corp. and moved to England as managing director of Cabot’s English subsidiary. Later he transitioned to second career in investment management and lived in the Seattle area and in Cambridge, Mass., before returning to Rochester.

Never married, Bill is survived by his sisters and many nieces, nephews, and friends.

**THE CLASS OF 1954**

**Anson Wright Elliott ’57**

Wright died March 30, 2018. At Princeton he majored in history and ate at Cap and Gown. His senior-year roommates were Carter Conner, Murphy, and Rahr. After Princeton he earned degrees from LSU and Cornell, and served honorably as a captain in the Marines.

Wright was married to the love of his life, Jane Rader, for almost 45 years. Together, they raised three sons and loved to travel, entertain, golf, and enjoy good food and wine. Jane died in 2004.

They settled in Bronxville, N.Y., where Wright served on the Reformed Church Consistory and the Bronxville Board of Education. Wright enjoyed a distinguished 25-year career with Chase Bank, where he was an executive vice president.

His commitment to service was evident in time spent on the boards of directors of the New York Botanical Garden, South Street Seaport, Union Theological Seminary, Police Athletic League, and the Counseling Center.

After retiring, Wright divided his time between Bronxville and St. Michaels, Md., where he discovered his love for crabbing, kayaking, and watching sunsets with family, dogs, and dear friends.

In 2005, Wright married Patsy Fleming, and when she died he spent his last years and special times with good friend Nancy Loiacono. A man of grace, integrity, and style, Wright is survived by his sons Michael, Steve, and Dave; seven grandchildren; and one great-granddaughter.

**THE CLASS OF 1955**

**James N. Adler ’58**

Jim died Feb. 8, 2018, in Los Angeles after a long battle with multiple myeloma.
At Princeton he was in the engineering school and specialized in basic engineering. He ate at Key and Seal and his senior-year roommates were Aveson, Holcomb, and Motes. After Princeton, Jim earned a law degree from the University of Michigan. He clerked for two Supreme Court justices (Whittaker and Chief Justice Warren) before moving to the Department of Commerce, where he worked on the War on Poverty.

Jim then moved to Los Angeles, where he began a nationally prominent career in labor and employment law. He was a partner at Munger, Tolles & Olson and later at Irell & Manella. He served in private practice, specializing in employment law. He was a partner at Munger, Tolles & Olson and later at Irell & Manella. He then moved to Los Angeles, where he practiced law.

Jim served as an officer in many organizations and founded the board of the Congressional Office of Compliance. He served for more than 40 years on the Los Angeles County Commission for Public Social Services. His great nonprofit passions were Bet Tzedek Legal Services and the PLATO Society of Los Angeles, a lifelong-organization.

He is survived by his wife of 50 years, Sara; his sons, Michael, Philip, and Matthew; and grandchildren Bernhardt, Daniel, Jacob, Stella, and Isaac. The class extends its condolences to them all.

**THE CLASS OF 1960**

Joseph W. Gillespie ’60

Joe died May 10, 2017, in Newport Beach, Calif. He was born in New York City in 1945. Joe was a member of the Class of 1960 and majored in economics. He was a member of the University Cottage Club and the Chapel Choir. He roomed with Alan Strassman and Dan Woolley.

After Princeton, Joe did not contribute to our several reunion books, so his postgraduate career is unclear. He moved to the Bay Area of California and later migrated to Newport Beach, where he is survived by his wife, Diane, to whom we offer our sympathies.

Edward Roberts III ’60

In our 50th-reunion book, Ted wrote somewhat dismissively of his achievements. The facts argue otherwise. He came to Princeton from Ridgewood (N.J.) High School with the Class of 1955, but left after two years and joined the Navy. He became an officer and carrier pilot, serving four years. He returned to Princeton for his junior and senior years, dined at Cottage Club, and graduated summa cum laude in art history.

After Harvard Law School, Ted joined Kelly, Drey & Warren in New York City, where he spent his career. He worked in corporate trusts in New York and partly in San Francisco and spent a term as managing partner of the firm. After retirement, Ted claimed his principal pursuit was writing crank letters decrying the decline of practically everything. He excelled the Metropolitan Opera, to which he was devoted and for whose great improvement over his years in New York he was grateful. A bachelor and — according to his family — a rather private person, Ted enjoyed a circle of close friends and the urban pleasures of New York City.

He died Feb. 10, 2018, and is survived by his brother, nieces, and nephew.

**THE CLASS OF 1961**

Reed A. Bryan III ’61

Skip died Dec. 8, 2017, in his native Fort Lauderdale, Fla.

He came to Princeton from Fort Lauderdale High School. At Princeton he majored in English, ate at Cannon, and sang in the Chapel Choir and the Glee Club.

After Princeton, Skipper earned a law degree at the University of Florida, where he was editor of the Law Review. After law school he joined McCune Haissen Crum Ferris and Gardner in Fort Lauderdale, ultimately becoming a partner. Admission to the U.S. Supreme Court bar came in 1969, and then private practice.

He was the grandson and great-grandson of some of Fort Lauderdale’s earliest pioneers, going back to the time of Henry Flagler. Following his family’s long history of service to and involvement in the community, he served on numerous charitable, civic, and other organizations. He served as president of the Fort Lauderdale Symphony Orchestra and St. Mark’s School and was on the board of governors of the Opera Guild and the Fort Lauderdale Historical Society. Skip was also commodore of the Fort Lauderdale Yacht Club.

He is survived by his wife of 42 years, Susan; daughter Elizabeth; sons Reed IV, Christopher ’01, and Jamie; and four grandchildren.

Scott H.M. Driscoll ’61


Born in Chicago, he came to us from Exeter. At Princeton he majored in English. He took his meals at Cottage and was in Triangle, the Chapel Choir, and the Glee Club. He roomed with Toby Rankin, Tom Garrett, George Barker, Bill H. Miller, Paul Sanger, Tal Mack, Rick Burt, and Eddie Brown.

Following a master’s degree in art history at Penn, he earned a medical degree at Northwestern and embarked on a career in cardiovascular radiology in California; absent an obituary or advice from his family, we know little beyond that. His favorite activities were yacht racing and ski mountaineering.

Scott was predeceased by his wife, Dee Dee. He is survived by sons Christopher and Hugh and their families.

David Hill Peterson ’61

Pete died unexpectedly Jan. 1, 2018, in Denver, Colo., at age 77, after a fun-filled family gathering on New Year’s Day.

Born in Trenton, he was the grandson, son, brother, and nephew of Princetonians (1904, ’34, ’65, and ’38 respectively), and was proud that his family majored the Hopewell area. Dave came to Princeton from the Taft School. At Princeton he majored in politics, played varsity hockey, and took his meals at Charter Club. His senior-year roommates were Bob Haines and Peter Thauer.

Entering naval aviation after college, David went to flight school in Pensacola, Fla., and flew the aircraft carriers Saratoga, Forrestal, and Lexington. Upon returning to civilian life, he flew for Pan American until 1989, and then joined Delta. In 1995 Pete retired as a captain following the diagnosis of Parkinson’s. Dave was a brilliant, gentle, and humorous man who endured 26 years of Parkinson’s disease without complaint. He was a great golfer, fisherman, and sailor.

He is survived by his wife of 54 years, Lynn; loving and devoted children Suzanne, Noel, and David Jr.; grandchildren Madelynn, Collin, Elizabeth, David III, Eliza, and Bronwyn; and four great-grandchildren.

**THE CLASS OF 1962**

Allen W. Feehan ’62

Allen died Aug. 18, 2017. He came to us from Spring Valley (N.Y.) High School, where he was the salutatorian of his class.

At Princeton he majored in the Woodrow Wilson School. He was a member of the French Club, Yacht Club, Orange Key, and the Woodrow Wilson Society.

Following graduation he received a law degree from Stanford and served in the Navy from 1964 to 1967. He then worked for the United States government from 1967 to 1974 and spent four years at the American Embassy in Bangkok, Thailand.

In our 25th-reunion book he reported that he was the director of marketing for the Cams Group, station in London. The Cams Group was involved in structured financing, project organization, and international development. That essay indicated that his family consisted of his wife, Somja; and two daughters, Lisa and Kathryn. Since that time we have received only updates that his address remained in London.
The class extends its sympathy to his family and friends.

Roy T. Young ’82
He entered Princeton after his junior year at Summit (N.J.) High School. During his freshman year he was an announcer for WPBR and a photographer for The Daily Princetonian. For the next three years he was active in Triangle. He majored in philosophy.

Following graduation he served in the Navy from 1962 to 1964 and then attended Rutgers, earning a law degree in 1966. Roy practiced transnational corporate law for 25 years. Becoming disenchanted with the practice of law, he earned a master’s degree in social work from Hunter College and became a psychotherapist. A recovering alcoholic, clean and sober for decades, he worked with members of the LGBTQ community involved in Alcoholics Anonymous, helping many lost adults become successful and productive professionals.

He is survived by two younger sisters, Susan Young Breed and Barbara Young Arner; nieces Heather R. Breed and Lara Breed Johnson; and nephew Ian Traywick Young. The class extends its condolences to them all.

THE CLASS OF 1963
Wynant D. Vanderpoel III ’63
Wynant died Feb. 19, 2018, at home in Palm Beach, Fla., after a lengthy struggle with cancer. A businessman and an eager athlete, he also lived in New York City and Keene Valley, N.Y., where his family roots go back centuries.

Born in Orange, N.J., Wynant went to St. Paul’s School, where for many years he held the half-mile record in track. He had to take a medical leave from Princeton for two years, entered our class as a sophomore, studied European civilization, and joined by Club. In 1968 he formed a design and communications firm that expanded into management consulting. In 1990 he became president of Lakeville Specialty Produce Co. in Washingtonville, Pa., a leading hydroponic grower of mache, a European salad green. The many not-for-profits he served included the Center for Inter-American Relations and the Frick Collection. He was an artist and an avid skier, tennis player, and golfer who took on every Adirondack course. In 2010 he published a novel, Enigma, the Grand Inquisitor Redux: A Literary Fable. On the occasion of our 25th reunion, Wynant reminded us, esto quod autes (you are what you dare).

The class sends its sympathies to his wife, Barrie; and sister, Madeleine Findlay.

THE CLASS OF 1968
Marc M. Pelen ’68 ’73

A French national, he was born Dec. 15, 1942, in Washington, D.C. He attended Phillips Exeter Academy, where he played tennis, piano, and organ. At Princeton, Marc majored in English, played tennis, was a University organist, and ate independently. He earned a bachelor’s, master’s, and doctoral degree at Princeton.

After completing his Ph.D., Marc was hired to introduce English courses at the American College in Paris, and was a professor of comparative literature at that institution for more than three decades. His courses covered all periods from antiquity to the contemporary. He contributed numerous articles to the Chaucer Review; published Latin Poetic Irony in the Roman de la Rose in 1987; and was working on a monograph on Aristotle when his health began to fail.

To his friends, colleagues, and former students, the class extends its deepest sympathies.

THE CLASS OF 1971
William James ’71
Bill died May 4, 2016, after a lengthy battle with Alzheimer’s disease.

Bill grew up in West Palm Beach, Fla., and entered Princeton from Lake Worth High School as a National Merit Scholar. He majored in economics and roomed with Ackerman, Robson, Tiryak, Emery, and Sonenshein in Wilson College.

He is remembered for his infectious enthusiasm, his love of Florida, his willingness to share and discuss ideas, and the speedy driving of his green VW Beetle around campus and on frequent trips to Florida. In 1986, he married Cindy Taylor.

Bill did his graduate studies at Florida State University. He stayed in Tallahassee to work for the state of Florida for more than 32 years as an economist, investment officer, and chief operating officer of the Florida State Board of Administration. He retired from his state service in 2005.

Bill enjoyed traveling the world with Cindy, classic rock music, bowling, golf, hiking, white-water rafting, FSU sports, and his beloved dachshund, Nikita.

The class extends its condolences to Cindy, daughters Kari Ferguson and Kimberley Wilks, regarded as the father of mathematical statistics at Princeton.

THE CLASS OF 1974
John S. Myers ’74
John died Feb. 4, 2018, at his home in Gerton, N.C., after a battle with amyotrophic lateral sclerosis. He was born March 28, 1951, in Middletown, Ohio, to Ruthmel and Patricia Myers. He graduated from Middletown High School.

At Princeton, he majored in anthropology, and he earned a master’s degree in psychology from Rutgers. His career was unusually textured, ranging from work as a biofeedback therapist, to working on Wall Street, to a stint at Bell Labs. He later became a skilled massage therapist.

His lifelong passion was rock climbing, which he pursued throughout the United States and Europe. John became a strong advocate for the environment and was active in the Trust for Public Land, the New York/New Jersey Trail Conference, and the Access Fund for much of his adult life.

He moved to North Carolina, where he reconnecting with Jane Lawson, his best friend from high school. They were married in 2004, and John devoted his later life to creating the Hickory Nut Forest Eco-Community and Laughing Waters Retreat Center. Conserving Carolina recently honored John for donating 73 acres of his land to a conservation easement.

He is survived by his wife, Jane; stepson Jack Wedthoff; sister Kathy Patten; one niece; and one nephew.

GRADUATE ALUMNI
David L. Wallace ’53
David Wallace, professor emeritus of statistics at the University of Chicago, died Oct. 9, 2017, from the effects of Alzheimer’s disease. He was 88.

Wallace graduated from the Carnegie Institute of Technology in 1948 and earned a master’s degree there in 1949. He then earned a Ph.D. in mathematics from Princeton in 1953 and joined the statistics faculty at the University of Chicago in 1954, after a year at MIT.

At Chicago, he served as department counselor and chair, and supervised many Ph.D. dissertations. He also was the acting director of the biological computation center for a year, and served on university and laboratory school committees until he retired in 1995. He was an editor of professional journals. He also had been a visiting associate professor at Princeton.

Wallace was involved in the early use of computers in predicting election results. With Frederick Mosteller ’46, he wrote Inference and Disputed Authorship: The Federalist. Among his honors, Wallace received the American Statistical Association’s memorial award named for the eminent Samuel S. Wilks, regarded as the father of mathematical statistics at Princeton.

Wallace is survived by his wife of 62 years, Anna Mary; two children; and three granddaughters.

Graduate memorials are prepared by the APGA.

This issue contains undergraduate memorials for David F. Gebhard ’47 ’49 and Marc M. Pelen ’68 ’73.

MEMORIALS / PRINCETONIANS
**For Rent**

**Europe**

**Rome:** Bright, elegant apartment. Marvelous beamed ceilings. Antiques. Walk to Spanish Steps, Trevi Fountain. 609-683-3813, gami@comcast.net

**Paris, Left Bank:** Elegant apartment off Seine in 6th. Short walk to Louvre, Notre Dame. 609-924-7520, gami@comcast.net

**Paris, Marais:** Elegant, 2 bedroom, 2 bath apartment, vibrant Pompidou museum/ sidewalk café quarter on 13c pedestrian street, full kitchen, w/d, AC. desaix@verizon.net, 212-473-9472.

**France, Paris-Marais:** Exquisite, sunny, quiet one-bedroom apartment behind Place des Vosges. King-size bed, living/dining room, six chairs, full kitchen, washer, dryer, weekly maid service, WiFi, $1350 weekly. maxj@gwu.edu

**Ile St-Louis:** Elegant, spacious, top floor, skylighted apartment, gorgeous views overlooking the Seine, 2 bedrooms sleep 4. 2 baths, elevator, well-appointed, full kitchen, overlooking the Seine, 2 bedrooms sleep 4. Balcony. View Eiffel Tower. www.parisgrenelle.com, 207-752-0285.


**Paris:** Neighbors: Louvre Musée, Opéra, Place Vendôme (Ritz). Studio sleeps 2. Former Naval attaché’s apartment. $120/night + €85 cleaning fee. apower7@icloud.com, 831-521-7155, w’49.


**France**

**For Sale**

**England, Cotswolds:** 3BR stone cottage, quiet country village near Broadway and Stratford-upon-Avon. Information: www.pottersfarmcottage.com, availability: pottersfarmcottage@msn.com


**Paris:** Neighbors: Louvre Musée, Opéra, Place Vendôme (Ritz). Studio sleeps 2. Former Naval attaché’s apartment. $120/night + €85 cleaning fee. apower7@icloud.com, 831-521-7155, w’49.


**Italy/Todi:** Luxurious 8BR, 7.5BA villa, amazing views, infinity pool, grapes, vegetable garden, housekeeper, A/C, Wi-Fi. Discount — Princetonians. Photos/prices/availability: 914-320-2865. MarilynGasparrini@aol.com, p’11.

**Paris, Tuileries Gardens:** Spectacular, 2 bedroom, 2 bath apartment, just off Madeleine. Quiet, charming, superbe. 5BR, 5BA, all modcons. Indoor outdoor pools, superb garden. Full-time staff including cook, additional services upon request. Dickinson.x.miller@ampf.com, ’75.

**Ile St-Louis:** Elegant, spacious, top floor, skylighted apartment, gorgeous views overlooking the Seine, 2 bedrooms sleep 4. 2 baths, elevator, well-appointed, full kitchen, overlooking the Seine, 2 bedrooms sleep 4. Balcony. View Eiffel Tower. www.parisgrenelle.com, 207-752-0285.


**North Africa**

**Stunning, luxurious Marrakech Villa, 5BR, 5BA, all modcons. Indoor outdoor pools, superb garden. Full-time staff including cook, additional services upon request. www.villasriraz.com, p’01.**

**Caribbean**

**Bahamas, Eleuthera:** Beachfront villa, 4BR, 5BA, swim, snorkel, fish. www.heronhill.net

**United States North East**

**Northeast Kingdom of Vermont:** Charming. Reasonable rates. www.mainevacationrentalsonline.com/5732/ the-cove.htm or mcdalett@gmail.com. ’78.


**United States West**

**Big Sky Montana:** Charming 4 BR log home on 10 acres beautifully furnished, spectacular views, Big Sky sunsets, skiing, hiking, fishing and golfing within 5 minutes. Close to Yellowstone National Park and Bozeman. Enjoyment all 4 seasons. 610-235-3286, janegriffith655@gmail.com, s’67.

**Park City/Deer Valley, Utah:** 3 BR ski-out condominium in Upper Deer Valley. Newly remodeled, hot tub, beautiful views, available all seasons. Reasonable rates. 937-825-4137 or pkholodzik@aol.com, p’12.

**Hollywood Hills**

**Luxury architectural home overlooking Laurel Canyon. Minutes from the Sunset Strip and central to everything Los Angeles offers. www.theboxhouse.com, stay@theboxhouse.com, 312-983-2269, s’89.**
Tours/Expeditions


Expert-led cultural tours: archaeology/food/walking in Britain, Croatia, Greece, Ireland, Italy and Turkey. Gulet cruises and charters. www.petersommer.com

Princeton Alum Winery: Kingston Family (’92, ’87, ’62, ’60) invites you to our award-winning boutique winery in Casablanca, Chile. princeton@kingstonvineyards.com

Real Estate for Sale
Isle au Haut, Maine: 23 wooded acres with 700 ft. shoreline frontage and additional 140 acres to Mt. Champlain. Unparalleled views. William Landers ’55, srednal.rl.43@gmail.com, 617-497-0957.

Olympic Peninsula: Family compound, 640 ft. waterfront, prime mountain views, 9 acres uplands, 10 acres private deeded tidelands, reasonable commute to Seattle. 800-871-3077, princeton@kingstonvineyards.com


Residential Loans
Licensed Residential Loan Specialist: For all your mortgage needs in NJ, PA, and FL contact Ambika Singh ’15 (NMLS 1541005). Montgomery Mortgage Solutions (NMLS 19111) is family owned and operated for over 15 years. Discount for Princeton affiliates. 908-359-2410, www.montmtg.com, Ambika@montmtg.com

Investment Opportunities
Investment Opportunities in 10-160 acre luxury residential development. CherokeeScholar@comcast.net, sundanceworks.us, ’68.

Educational Services
College and Graduate School Consultant. Allison Baer, Ph.D. (Princeton ’96, Columbia ’03) guides students through the admissions process. Over 90% of her students are accepted to one or more of their top schools! Call 212-874-2424 or visit www.allisonbaerconsulting.com today.

Editorial Services
Lived an amazing life? Write your memoir with a New York Times No. 1 best-selling author and Pulitzer Prize winner. It’s cheaper than an S-class Mercedes, and lasts longer. LiberNomine@gmail.com

Tell your story! You’ve had amazing experiences – let’s get them down on paper. Seasoned husband-and-wife team will research, conduct interviews and write your story for a treasured personal or family chronicle. Contact Jean Zimmerman ’79, wetellyourstory@earthlink.net

Persons
Happy Ivy lady seeks free-thinking sapiophile for cozy domesticity & global adventure. sweetivylady@outlook.com

Positions Available
Executive Assistant. New York — Highly intelligent, resourceful individual with exceptional communication skills and organizational ability needed to support a busy executive. Primary responsibilities include coordinating a complex schedule, assisting with travel, and providing general office help in a fast-paced, dynamic environment. An active approach to problem-solving is essential. Prior experience assisting a high-level executive a plus. We offer a casual atmosphere in a beautiful space, working as part of an extraordinary group of gifted, interesting individuals. This is a full-time position with excellent compensation and benefits, as well as significant upside potential and management possibilities. Please email your resume and cover letter to hlparecruit@gmail.com. Please note that, due to the high number of responses, we will unfortunately be unable to reply to every inquiry.

Part-time Family Assistant; Housing Included (New York City): Part-time position with outstanding compensation (including rent-free housing in a separate apartment available for academically accomplished, responsible, extraordinarily organized individual to serve as a family assistant to a busy Manhattan family. The role will involve various activities including coordinating a complex family schedule, administrative support, research projects, light cleaning and meal prep (the family has a housekeeper that handles the bulk of these responsibilities), and pet care for a hypoallergenic dog. Consideration can be given to candidates who are legally authorized to work in the United States. Highly attractive compensation (on a pre-tax, fully legal basis), three weeks of paid vacation, no charge will be made for rent, and health insurance will be provided. This is a year-round position for which we would ask a minimum two-year commitment. If interested, please submit cover letter and resume to namynmons@gmail.com

Hire a tiger! Place your ad here to reach talented fellow alumni for positions at your organization. Contact: cfinnega@princeton.edu

CLASSIFIEDS: Link to advertisers’ websites at paw.princeton.edu
That Was Then: June 1936

Benny Goodman and his band, shown here in Chicago, brought swing to Princeton’s senior prom in June 1936. Below The Class of 1935 enjoyed swing music at their first reunion.

Princeton Brings the Swing

John S. Weeren

Musical royalty in the person of Benny Goodman — hailed by The Daily Princetonian as the “King of Swing, Sultan of Syncopation and Rajah of Rhythm” — gave the Class of 1936 a spirited sendoff at Princeton’s senior prom June 15. The clarinetist and bandleader who, in 1938, would bring jazz to Carnegie Hall was a giant of the big band era and was instrumental in making swing a national sensation.

Young Princetonians were quick to succumb to what Goodman called “free speech in music,” and in the winter of 1936, the Prince observed that “the rage for swing music is sweeping the country and the staid Princeton atmosphere vibrates to the giddy rhythms of Benny Goodman and the rest of the bands.” That June, Reunions felt swing’s liberating influence. According to a report on the Class of 1935’s “Thirsty Firsty,” the “swing band was tremendously popular and will be in evidence again next year.”

Goodman’s 14-member band included jazz greats such as Gene Krupa, the “dynamic parchment pounder who,” the Prince declared, “is acknowledged the greatest rhythm percussionist in the world”; trumpeter Bunny Berigan; and pianist Jess Stacy. But it was vocalist Helen Ward, described by The New York Times as “essential to the Goodman band’s early success,” who was the most enchanting of the night’s performers. She did herself no harm by flattering her hosts. “Out West,” she told a star-struck Prince reporter, “the boys dance so ungracefully, hopping around and not being a bit smooth,” adding that “men here are so much more sophisticated and suave.”

Ward also captured the je ne sais quoi of swing: “I really don’t know just why I like swing music, except that it stirs me up and appeals to me more than any other kind of jazz. It just makes me sing.” The formally attired couples who danced beneath illuminated crystal balls in Princeton’s gym from 11 p.m. to 4 a.m. expressed enthusiastic agreement with their feet. ♦

John S. Weeren is founding director of Princeton Writes and a former assistant University archivist.

LISTEN to a Triangle Club Jazz Band tune from the ’40s at paw.princeton.edu
At Princeton Windrows, you'll find independent living that gives you more flexibility, more choices, and more control of your assets, financial future and healthcare. You'll also find familiar faces, as many of your fellow alumni are experiencing the joys of living at Princeton Windrows. Offering you all the benefits of home ownership without the burdens, this elegant community provides a wealth of amenities and services. Our 35-acre campus is located four miles from downtown Princeton and central to the cultural riches of New York City and Philadelphia.

To learn more, visit princetonwindrows.com or call 609-520-3700 today.
Father’s Day Gift Ideas

Shop now at www.pustore.com