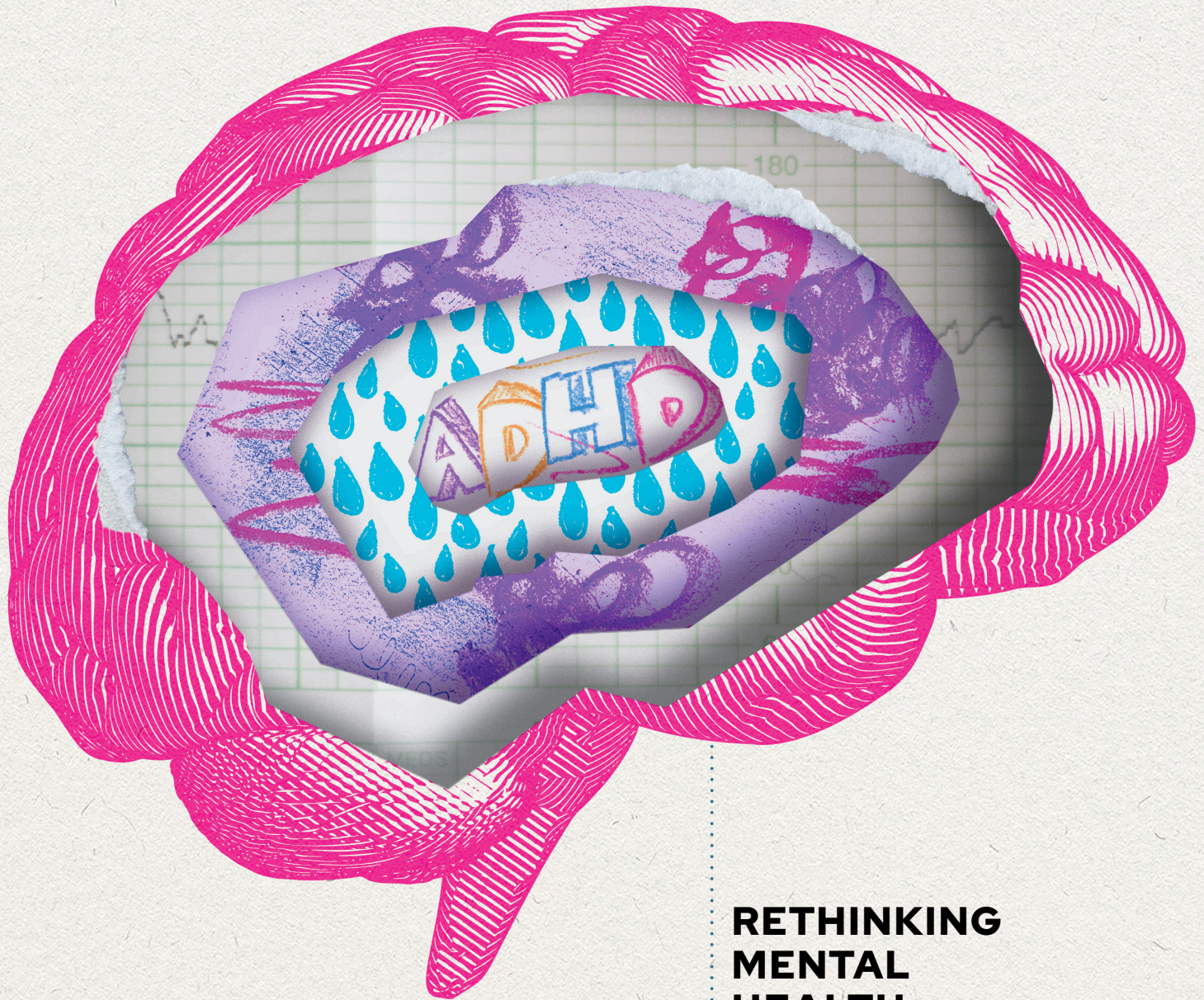


UNIVERSITY OF WISCONSIN-MADISON COLLEGE OF LETTERS & SCIENCE

FALL 2023

# Letters & Science



**RETHINKING  
MENTAL  
HEALTH**

page 18



James Li's research in the Department of Psychology could end reliance on the *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5)*.

PHOTO: PAULIUS MUSTEIKIS





# Contents

## DEPARTMENTS

- 02 #WeAreLS
- 03 From the Dean
- 04 Here & Now
- 06 Asked & Answered  
Graduate student Emily Mather explains how Wisconsin farmland could be used to mitigate climate change.
- 08 Explore & Discover
- |          |                               |
|----------|-------------------------------|
| FACULTY  | It's Electric                 |
| RESEARCH | Oh, Florida!                  |
| STUDENTS | A New Space                   |
| CULTURE  | Rhetorically Speaking         |
| TEACHING | Taking U.S. History to School |
- 16 News & Notes
- 32 Life & Work  
Pulitzer Prize-winning investigative journalist Walt Bogdanich ('75) looks back on his career.
- 34 Give & Transform  
With the mission of rewarding L&S graduates for their achievements, Paul Martin Wolff ('63) and Rhea S. Schwartz generously gift Badgers with a once-in-a-lifetime opportunity to travel the world.
- 36 Sift & Winnow  
College of Letters & Science Dean Eric M. Wilcots shares what makes a liberal arts education so valuable.

## FEATURES

### 18 A Pediatric Prognosis

James Li believes we need to radically rethink the way mental health disorders are diagnosed.

BY AARON R. CONKLIN

### 24 Just One Byte

L&S researchers team up to bring an ethical approach to the thorniest issues in AI and computing.

BY AARON R. CONKLIN

### 28 175 Candles

As UW–Madison celebrates 175 years, we look back at some of the College of Letters & Science's milestone moments.

BY ISABELLA RUDER AND SOPHIA VENTO



PHOTO: BRYCE RICHTER

The Well Red Bucky statue watches fireworks alongside others celebrating UW–Madison's 175th anniversary.



# #WeAreLS



Dean Eric Wilcots delivered the convocation address to a crowd of L&S T-shirt-wearing new students this morning.

X @UWMadisonLS September 5, 2023



Bucky's wearing his L&S shades, what about you?

@UWMadisonLS June 8, 2023



Check out this Van Hise visitor. Shoutout to our friend Ken Fager for capturing this sandhill crane strolling by Van Hise Hall.

@UWMadisonLS August 21, 2023



Listening to our panel of experts discuss the Wisconsin Idea on the live L&S Elevate podcast. It's part of our [RE] Connect weekend event.

@UWMadisonLS September 23, 2023

## CORRECTION

In the Spring issue story "Catching Up with Claire," there was an error. Paul Martin Wolff ('63) and Rhea S. Schwartz are the creators of the Wolff Fellows Program.

## Letters&Science

FALL 2023

### EDITORIAL STAFF

Assistant Dean for Strategic Communications and Advancement: Denise Hickey  
Editor & Content Strategist: Alli Watters  
Staff Writer: Aaron R. Conklin  
Creative Services: Carlin Sood  
Design: Landesberg Design

### EDITORIAL OFFICES

UW-Madison College of Letters & Science  
405 South Hall, 1055 Bascom Mall  
Madison, WI 53706  
info@ls.wisc.edu

To make a gift, please visit:  
supportuw.org/giveto/ls23fall

We welcome your comments and story ideas for future issues: info@ls.wisc.edu

Follow us on Facebook, X, Instagram and LinkedIn @UWMadisonLS

### BOARD OF VISITORS

Joy Amundson  
Herman Baumann III  
Joel Berman  
Michele Boal  
Nancy Borghesi  
Robert Buono, Vice-Chair  
James Chosy  
Donna Wills Colson  
Shoshana Dichter  
Kristi Ebong  
David Hammond  
Robert Harty  
Louis Holland, Jr., Chair  
Prashanth Jayachandran  
William Jordan  
Kay Koplovitz  
Cora Marrett  
Robert McGinnis  
Samir Murty  
Martin Preizler  
Phillip Schemel  
George Shinnars  
Greg Sinaiko  
John Stanoch  
Nancy Sukenik  
Konrad Testwuide IV  
Patricia Donovan Wright



FROM THE DEAN

# Past, Present and Forward



**The College of Letters & Science** is bursting with creativity and curiosity. I see the amazing impact of our world-class faculty and staff and talented students — including our newest, the Class of 2027 — in every course, research project and community initiative. This magazine celebrates our mission to tackle the tough questions, make new discoveries and embrace the pursuit of knowledge for a lifetime.

In these pages, you'll meet a Pulitzer Prize-winning investigative journalist, uncover the history of federal boarding schools for Native American children and learn how Wisconsin's farmland could be put to use mitigating climate change while still supporting crops and animals. You'll hear from me again later in the magazine for our Sift & Winnow essay. I was tasked with pondering the value of a liberal arts education today. Here's a preview: I fiercely believe it's not only important for students, but essential to our society.

Our cover story, "A Pediatric Prognosis," showcases how the remarkable research happening in the College of Letters & Science challenges the status quo. Professor James Li proposes a new method for how mental health disorders should be identified. It's one of the many innovative projects researchers in the Department of Psychology are leading. Li's part of an international consortium working to create change and help patients. That's the power of the Wisconsin Idea at work.

Flip to page 24, and you'll hear from a brilliant group of L&S researchers who are teaming up to debate the ethics of recent advancements in artificial intelligence and computing. They look at how these innovations change power dynamics for businesses and governments, evaluate the state of the attention economy and imagine a future with these tools. Their main message? Proceed with caution.

Plus, UW-Madison is celebrating 175 years! Our feature on page 28 travels back in time to share milestone moments of the College of Letters & Science. Since its formal establishment in 1889, our college has amassed nearly 250,000 L&S alumni — that's almost half of the University's alumni population.

As we blow out the candles and reflect on this significant anniversary, we are reminded of how grateful we are to you. Your continued support allows us to keep up the groundbreaking research that will lead to untold discoveries. Thank you for championing the liberal arts and supporting the College of Letters & Science.

**Eric M. Wilcots**

*Dean and Mary C. Jacoby Professor of Astronomy,  
College of Letters & Science*





In 1964, students Don Stewart and Dennis Thomson work on a satellite weather photograph receiver.

PHOTO: UNIVERSITY OF WISCONSIN-MADISON ARCHIVES

2

**“I didn’t realize what an impact it would have on me. It really makes you look at your life and be introspective about your well-being.”**

STELLA OLSON

Art & Science of Human Flourishing  
course student

## Sky’s the Limit

In 1853, a professor named J.W. Sterling — yes, Sterling Hall’s namesake — began taking meteorological observations on campus from the roof of North Hall. This marked the start of what would become the University’s meteorological program. In 1948, that program became an official department and was renamed the Department of Atmospheric and Oceanic Sciences (AOS) in 1991. AOS celebrated its 75th anniversary on campus in October, convening alumni and current students and faculty.

That history includes a 40-year research partnership with the National Oceanic and Atmospheric Administration (NOAA) and interstellar research with the National Aeronautics and Space

Administration (NASA). Just last year, Professor Michael Morgan was tabbed to become NOAA’s Assistant Secretary of Commerce for Environmental Observation and Prediction. Professors Steve Ackerman and Jonathan Martin (also known as the Weather Guys) have become fixtures on Wisconsin radio and in newspapers, answering community questions about weather-related oddities once a month.

“We have some of the top minds in weather and climate here, addressing issues such as saving lives from extreme weather, solving the climate crisis or making sure we all have healthy air to breathe,” says Department Chair Ankur Desai.

A favorite class available each fall is the Art & Science of Human Flourishing. It’s a collaborative course that helps students develop their own mindfulness toolkit to navigate their first year of college and beyond. And a recent study shows it works. Now, professors and researchers are hoping to find a way to share their findings beyond the classroom and in the community. Read more at [go.wisc.edu/lis-humanflourishing](https://go.wisc.edu/lis-humanflourishing).





Students handed out flags at Bascom Hill to kick off Latinx Heritage Month on campus this year.

PHOTO: BRUCE RICHTER

## Declaring a New Major

**This fall semester** marks the first time that UW–Madison students can pursue a bachelor of arts or bachelor of science degree in the Program in Chican@ and Latin@ Studies (CLS), or ChicLa, as it’s commonly known. The new major is the first of its kind among Wisconsin’s colleges and universities. It was approved earlier this year thanks to student demand and a thriving certificate program. According to department figures, 25 students have registered for the major so far, a number that’s expected to increase in future semesters.

The current 18 class offerings in the CLS program are also expected to cover multiple academic disciplines, including art, education and LGBTQ+ issues. L&S alumna and the academic advising manager for the program, Rachelle Eilers (’09, MS ’11), is thrilled that today’s students will have the opportunity to experience what she didn’t as an undergraduate when UW–Madison offered only five Chicano Studies courses.

“This was a long time coming,” says Eilers, who notes that it took almost three years for the major to become a reality. “And I’m really glad it’s here.”

PHOTO: JEFF MILLER



Bill Cronon

4

## Rewarding Research

### The Undergraduate Research Scholars

(URS) program is celebrating 25 years since its founding. Each year, Scholars in the program are matched with UW–Madison faculty or staff for a yearlong research or creative practice project. In 1996, Professors Bill Cronon and Aaron Brower, along with then–L&S Honors Assistant Dean Maree Elowson, attended a conference at the University of Michigan about its undergraduate research program. “They were really impressed by the mission and success of that program, so they became absolutely determined to establish a similar program here at UW,” URS Director Hannah Bailey explains. And that’s exactly what happened. URS was founded in 1998, and by 1999 they had their first class of undergraduate students. Today, the program supports about 180 students with help from 120 mentors and 20 URS Fellows. “Students learn what research and creative practices look like and how knowledge is built here,” Bailey says. “We’re excited to continue that work into URS’s 25th year.”

5

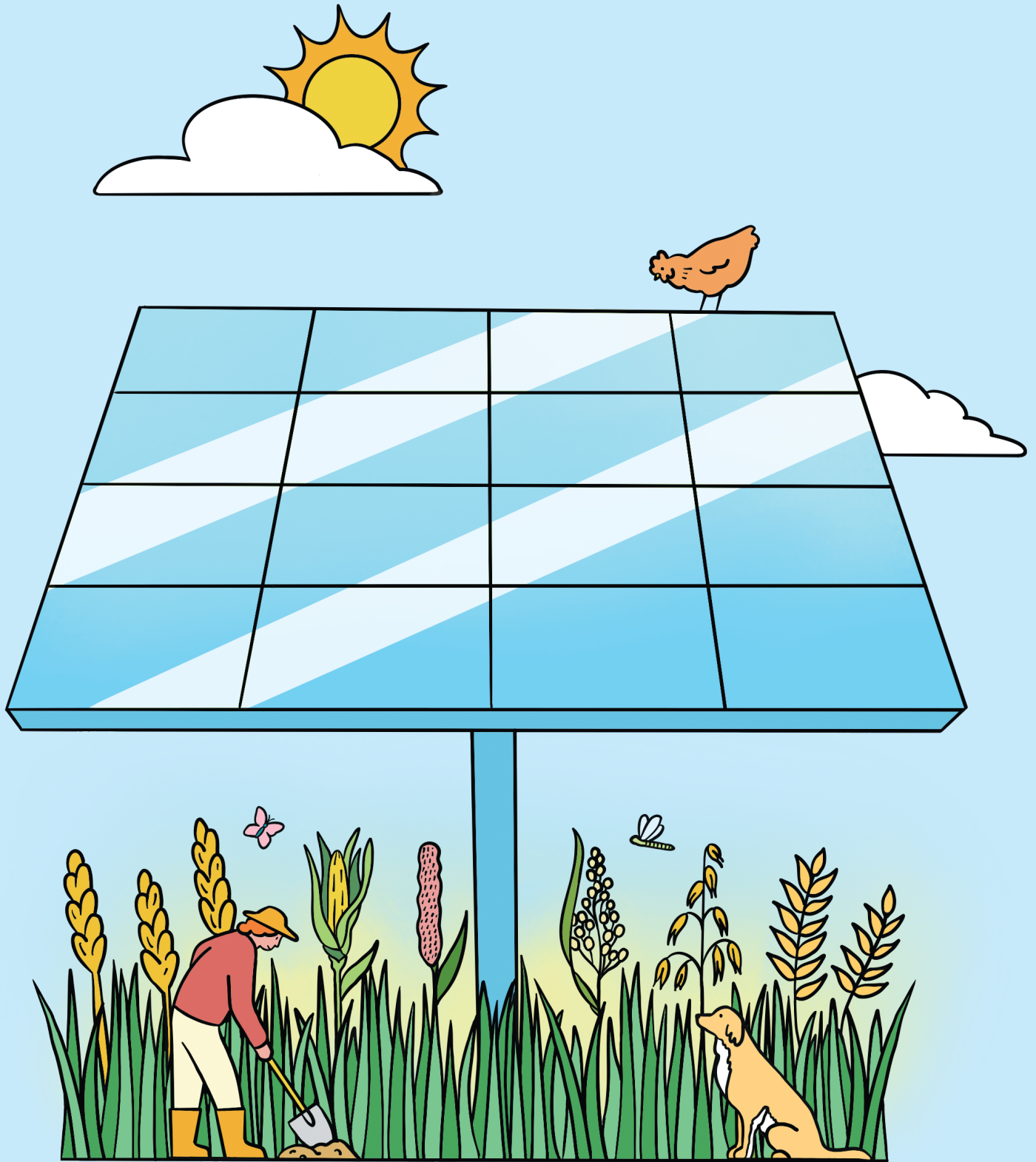
The number of student engagements with alumni mentors in 2022–23 through the College of Letters & Science’s career services program, SuccessWorks.

# 2,172





# Asked&Answered





# Can farmland be used to mitigate climate change?

Graduate student Emily Mather is part of a team looking to maximize agricultural land by making space for solar panels.

BY ISABELLA RUDER

**I**n 2021, Wisconsin reported having 14.2 million acres of farmland. What if all that land could be used to mitigate climate change? Emily Mather, a graduate student in the Department of Atmospheric and Oceanic Sciences, is trying to find the answer. As part of the UW-Madison Agrivoltaics Project, Mather and a team of researchers are positioning solar panels between or above agricultural activities like growing crops or grazing animals. The goal is to increase the productivity of land by harvesting crops and creating renewable energy at the same time.

“The idea of this project is to better understand how we can best use the land in Wisconsin for both energy production and agriculture,” says Mather. “The climate benefit of that is we produce renewable energy, but we are not sacrificing in terms of crop production. We want to prepare Wisconsin and the Midwest for both an energy- and a food-secure future.”

The stakes could be high. Agriculture uses an immense amount of resources and with a growing global population that is expected to reach 9.8 billion by 2050, future sustainability is a serious concern. Faced with possible food shortages and limited resources, experts are looking to

agrivoltaics as a possible solution to maximize the benefits from farmland while cutting down on carbon emissions and preserving groundwater levels. Solar energy production continues to grow as the price of producing it continues to drop. It can also be highly productive at a large scale.

But this project’s goals span more than curbing carbon emissions and producing clean energy. In areas where groundwater has been depleted due to agricultural activity, the group looks to research possible groundwater recharge benefits provided by shade from the solar panels.

Plants lose water in the form of water vapor, and warmer temperatures mean more water loss. Having solar panels that protect crops from harsh sunlight could reduce the amount of water needed to keep them alive and maintain groundwater levels. Irrigation alone is responsible for about 85% of global water consumption, and as the demand for food production increases, so will global water consumption.

Mather and her team received the Research Forward grant from the University and decided to add an agricultural element to solar arrays being built at the UW-Kegonsa Research Campus this fall. This system is more often used in dryland areas but has not been extensively researched in Wisconsin or, more broadly, the Midwest. This project looks to fill in those gaps, so researchers can better understand the impacts and benefits of agrivoltaics in Wisconsin’s climate and soil.

“It’s important to remember that climate change doesn’t have a one-size-fits-all solution,” says Mather. “Different places have different challenges and advantages for different types of renewable energy. This study is important because it’s helping us understand whether agrivoltaics is something that will work in Wisconsin and what benefits we can get from it here.”

Mather saw this project as an opportunity to combine her longtime passions of renewable energy and hands-on field work. Her mechanical engineering background and current pursuit of an advanced degree in atmospheric science bring a unique perspective to a complex issue.

Mather and her team will collect their first crop and energy measurements in fall of 2024, following the first full growing season featuring the solar panel arrays. The Research Forward grant runs through 2025, and Mather is hopeful that the first round of results will inspire further funding.

“There is no silver bullet solution to climate change or energy security issues. We need to exercise all our options in order to get to net zero emissions,” says Mather. “The faster we can reduce our carbon emissions the better. The longer we wait, the more implications we will have related to climate change.” ■





## FACULTY

### It's Electric

Kyoung-Shin Choi harnesses the power of electrochemistry to transform water treatment processes – and potentially much more.

BY AARON R. CONKLIN

**K**young-Shin Choi's approach to science is both simple and straightforward. When she sees an environmental problem, she just wants to fix it. Even when it's not in her direct field of expertise.

The professor of chemistry, who was just inducted into the American Association for the Advancement of Science this year, is uniquely positioned to make good on that drive to improve. Choi's specialty is electrochemistry, a scientific technique that uses electricity generated from sustainable sources to power chemical reactions.

Choi began her work with producing clean fuels (hydrogen) and chemicals using renewable sources like sunlight, water and biomass (plant and wood waste). She turned her attention to water in 2015, and in just a few short years has developed groundbreaking methods for desalinating seawater – potentially providing an important source of freshwater for areas of the world that desperately need it – and reducing the chloride levels in wastewater discharge.





“I wanted to come up with an electrochemical process that can do desalination, where energy, water and ions are managed in a completely different manner,” says Choi, who joined the Department of Chemistry in 2012. “That’s how we can provide a new solution for problems that cannot be solved by conventional technologies and potentially create a unique market.”

Water is typically desalinated through distillation, a process in which the water is boiled away from the salt, or reverse osmosis, in which water is squeezed through a porous membrane that separates out the salt. Both methods remove all matters in water non-selectively.

Choi initially developed a device to desalinate seawater, but then she had another idea. Wisconsin’s hard water and cold weather require the use of salt for water softening and road de-icing. Also, the state’s food industry uses a tremendous amount of salt and generates salty wastewater. All of these can increase chloride levels in municipal wastewater above the safe level determined by the U.S. Environmental Protection Agency.

“The conventional methods cannot be used to remove just chloride to make your wastewater environmentally safe,” says Choi. “So, what if we come up with an electrochemical way to remove just sodium and chloride to the level you want?”

The desalination battery Choi’s team developed is based on the same science that powers your smartphone through its lithium-ion battery. However, instead of using Li-ion storage electrodes, the desalination battery uses one electrode that can store and release sodium ions and another one that can do the same for chloride. Seawater or wastewater can be injected through the device, and sodium and chloride ions are removed by these electrodes.

**“The conventional methods cannot be used to remove just chloride to make your wastewater environmentally safe. So, what if we come up with an electrochemical way to remove just sodium and chloride to the level you want?”**

KYOUNG-SHIN CHOI

“After this process, you are going to end up with water that contains less sodium, less chloride,” she explains. “The removed ions can be recovered as sodium- or chloride-containing useful chemicals by a follow-up process.”

The key to realizing this device was finding an inexpensive material that could electrochemically store and release chloride with a high chloride-removal capacity while being stable in salty water. Choi’s team discovered that bismuth (Bi), whose ion form is a major ingredient in Pepto-Bismol, could handle the task.

Some scientists might have stopped at the discovery point. Choi, a devout believer in the Wisconsin Idea, decided to further develop the concept to make a practical impact.

“Not all new ideas can make a practical impact,” says Choi. “Making something work in real life requires a different type of creativity and considerable efforts for scaling-up and de-risking... We want to build a new concept and we want to have a good atomic-level understanding of what’s going on. But we don’t want to stop there.”

As if the potential to effectively treat seawater and wastewater wasn’t enough, Choi’s electrochemistry method could also hold the key to an even bigger issue: transforming the way we manage phosphate, one of the most important ingredients in fertilizer.

Currently, phosphate is a destructive, double-edged sword. In phosphorous-based fertilizer, it stimulates the growth of nearly every major crop in the world. But its production and disposal create many environmental problems. For example, the conversion of phosphate rock to phosphoric acid (the chemical used to make phosphate-containing fertilizers) using sulfuric acid generates waste that accumulates radioactive elements from phosphate rock.

Choi’s team has developed a new electrochemical process that can remove phosphate from industrial and municipal wastewater and recover it as phosphoric acid without needing additional acid or generating any dangerous byproducts.

Choi is keenly aware that her research has many hurdles to overcome before it’s commercialized. Still, her work continues to turn heads. Earlier this year, she was named the 2023 Samsung Ho-Am Prize Laureate in the category of Chemistry and Life Sciences, an award that also carried a \$228,400 stipend to fuel further research.

“It’s really thinking about the environment and thinking about sustainability,” says Choi. “If we use this electricity to innovate other processes to make it more environmentally benign and clean, then there is a huge opportunity there.” ■





Small, concrete and boxy homes in South Florida were designed to be cost-effective and withstand the region's severe weather.

## RESEARCH

# Oh, Florida!

Why is Florida's unusual architecture the way it is? Anna Andrzejewski turns to the post-World War II era for answers.

BY AARON R. CONKLIN

**T**here's no place in the world like Florida. And from an architectural standpoint at least, that's true. From the state's copious retirement communities, awash with boxy, concrete single-family homes to towering apartments and condominiums that echo the tenements of northeastern cities like New York, Florida has always been, well, a little weird.

Professor of Art History Anna Andrzejewski studies vernacular architecture—the ways in which the buildings we construct reflect the intersectionality of who we are and how we live. She has long been fascinated by how unusual the architecture of Florida's retirement communities is and wanted to understand how it all

happened. It's the subject of her forthcoming book, *Building Paradise: Housing, Leisure, and the Creation of South Florida's Vacation and Retirement Landscape, 1945–1975*.

“You have these large communities like The Villages that are suburbs of a sort, but they aren't attached to a major city,” says Andrzejewski. “They consist of tourists and retirees who are not working, so they don't have the same dependence on a city that suburbs ringing [around] Madison do.”

Andrzejewski wants people to take South Florida's architecture seriously. It's not “just there,” but something that emerged out of specific agendas in a historic moment.

After World War II, concepts like vacation time and pensions were no longer the exclusive province of the elite. Middle and working classes could begin considering a place like Florida for vacation or retirement. Builders were trying to convert the state quickly and cheaply into what would become America's playground.

Back in the 1950s, Florida surveyed older adults who had approached the Florida Tourism Bureau to ask them what kind of housing they preferred. Around 80% wanted single-family houses, which accounts for builders and developers creating so many of them. But even the condominiums and apartment buildings incorporated single-family features, like private enclosed yards and balconies.

“Even though you have different sorts of models besides the concrete, little houses stamped out one by one and these communities, you add hotels along the coastline. They still preserve aspects of this model that were derived from single-family occupancy,” Andrzejewski says.

Many of these concrete homes, constructed to survive storms and hurricanes, were built on wetlands by builders and developers who, at the time, believed they were creating something useful out of nature.

“They thought they were making it beautiful, making it usable,” says Andrzejewski. “They felt they were making it for people to enjoy. They were making a buck, sure, but they were really thinking they were doing something good.” ■





## STUDENTS

# A New Space

A computer science major tries his hand at a physics project through the Letters & Science Summer of Excellence in Research program.

INTERVIEW BY ALLI WATTERS

**M**ost students in the Letters & Science Summer of Excellence in Research (LASER) program don't actually use lasers, but sophomore computer science major Zuheb Mohamed Ibrahim did. He spent his summer in a UW-Madison lab studying black holes and calibrating the equipment that makes research at the South Pole possible. The focus of his research was on neutrinos, the electrically charged particles so small that they can pass easily through other objects. We sat down with him to ask about his experience in the program.

### What was your summer project?

In the IceCube [Neutrino Observatory] lab, it's about neutrino physics. Basically, there are black holes, and in these black holes certain particles come out. IceCube focuses on neutrinos. In the South Pole, we have our lab, which has digital optical modules (DOMs), which are spherical things with sensors, and they're all embedded in the ice. These modules pick up on the flashes of light that these neutrinos emit. So, when these neutrinos come out of the black hole, they emit a flash of light and these modules pick up on that.

### The IceCube Neutrino Observatory is a massive research project. What was your role?

In my research, we made a laser beam, which calibrates these modules. So instead of, for example, the same flashes of light that these neutrinos pick up and emit, we [artificially] make those flashes of light to calibrate the DOMs and see if they're working and picking up on the flashes of light. [We tested] at different levels of intensity and in different directions. We made some hardware that would pick up on the flashes of light to test in the lab. I wrote some scripts that would move a motor that had a laser sitting on top of it. So, the script would move it a certain amount of steps in one direction and a certain amount of steps in another direction, and the board would pick up on how much light, when the light passed through, and graph it.

### What skills did you pick up along the way?

I learned a lot of new skills. I had never worked with any hardware, never soldered, never tested how much velocity of electricity was going through the board — never did anything with the board. I had some experience with scripts, but I had never made my own script from scratch. I'd never basically had my own choice of direction on what to do and where to go with the project. I started off with a clean slate. I was told this is what we were looking for and these are the tools you use — let's see what you can do.

### What would you say to prospective students who are considering this program?

Apply, apply, apply. There's something for you that would pique your interest. Looking at the list of projects, I didn't know which project to join, which project to pick, but once I picked the IceCube neutrino project, it was a great experience. It's probably not something that I would have ever ventured out of my comfort zone to do, being that it was in the physics department and that kind of scared me, but it was a great experience, and I learned a lot from it. ■





CULTURE

## Rhetorically Speaking

Allison Prasch finds important truths in the words of U.S. presidents.

BY AARON R. CONKLIN

**I**n Allison Prasch's rhetoric courses, students journey back in time. The associate professor of communication arts turns off the lights, instructs everyone to close their eyes and plays a recording of former U.S. President Franklin D. Roosevelt's fireside radio chat from February 1942. It's the one he delivered two months after the Japanese attack on Pearl Harbor to explain why the U.S. was at war.

"I don't light a candle, because I don't want to do that in a university building," she jokes, smiling. "But as someone living

in the 21st century, we can use it to try and enter that moment in time."

Learning from these moments is central to teaching and research for Prasch, who studies and parses the words and rhetoric of U.S. presidents. The FDR exercise is based on an oratory that's nearly 80 years old, but it's tied to something much more timeless and critical.

"When presidents speak to us, they are also helping us understand who we are," Prasch says. "As a citizen, if we want to be engaged in our democracy and understand who we are and what matters within the



# “When presidents speak to us, they are also helping us understand who we are.”

ALLISON PRASCH

and moving,” she says. “I knew it had resonance for the contemporary moment — and, as it turns out, that was a central goal for Reagan and his speechwriting team.”

For presidents — and for Prasch — the medium has always been a key part of the message. FDR harnessed radio to make an impact, and former President John F. Kennedy did the same thing with television in the 1960s. Today’s media landscape is far more fragmented, making it more challenging for presidents (and presidential candidates) to have the same rhetorical impact — and for Prasch and her students to mine meaning from their words.

“These speeches get chopped up and taken out of context,” she says. “I think it’s accurate to say that most people will experience the current president in a 10-second news clip played on social media or on the nightly news.”

Given that scenario, Prasch has re-framed her scope of study to include visual messaging elements — things like body language and the elaborate stagecraft that occurs at both State of the Union Addresses and on social media platforms.

“I think we have to ask more precise questions, and look at the bigger landscape,” she argues.

In the case of the State of the Union Address, Prasch is especially fascinated by the tradition, started by Reagan in 1982, of inviting and featuring guests in the House gallery. Modern presidents have continued to use it to display their national priorities. Back in 1982, Reagan used one of his guests — a government employee who jumped into the Potomac River to save victims of a plane crash — to counter the notion of big government with the idea of the “ordinary American hero.” Former President Barack Obama used an empty chair to signify the lives lost to gun violence.

Recent administrations have added additional curveballs to Prasch’s research. Former President George W. Bush, who used a more folksy rhetorical style, helped secure a second presidential term

by uniting the nation in the speech he gave in the wake of the attack on 9/11.

According to Prasch, Obama was skilled rhetorically but also alienated voters who sometimes felt he was lecturing them. By contrast, Prasch notes that former President Donald Trump used a direct style and seemed to relish violating the norms of how presidents have typically communicated to the public. In doing so, Prasch argues, Trump radically redefined how a certain portion of the electorate understands the presidency — through the lens of an individual rather than an institution. She predicts that current President Joe Biden will likely be remembered for his unexpected trip to Ukraine to appear with Ukrainian President Volodymyr Zelenskyy earlier this year.

In fall 2024, Prasch will teach a class she’s creating on the rhetoric of the 2024 election, in which she, along with a group of 80 students, will examine how the words and stagecraft of U.S. presidential candidates contribute to a broader sense of national identity. There are some important historical stakes here, too.

“When I teach students why they should care about the rhetoric of the 2024 presidential election, it’s because I do believe we’re at an inflection point for U.S. politics,” she explains. “Analyzing how candidates speak to the electorate and why they make those rhetorical choices helps us understand their vision for the nation as a whole because, ultimately, the U.S. president’s words have the power to make or break our democratic process and shape who we are and want to be. The choice is up to us.” ■

context of U.S. politics, it’s really significant for us to understand what presidents are saying, because they’re telling us something about ourselves.”

Prasch had always been fascinated by U.S. history — her first grade-school essay was on the White House — but her research path crystallized in high school, where she happened to hear a snippet of the speech then-U.S. President Ronald Reagan delivered on the 40th anniversary of D-Day.

“I remember being captivated by it and wanting to understand why I was captivated by it beyond that it was eloquent



TEACHING

## Taking U.S. History to School

Matthew Villeneuve fleshes out an uncomfortable chapter of U.S. history—one that touches parts of his own family's story.

BY AARON R. CONKLIN

**B**ack in the early 19th century, the U.S. government created a set of federal boarding schools for Native American children. These schools, which removed thousands of children from their families and reservations, weren't strictly designed to educate; in many cases, they were also engines of cultural assimilation, designed to eradicate Native American language and culture.

Matthew Villeneuve didn't attend one of these schools, but his great-grandfather briefly did in 1900, before running away from it. Villeneuve's family belongs to the Turtle Mountain Chippewa Tribe in North Dakota, but he grew up in Washington after the family relocated. His great-grandfather's shrouded history is one of the things that drove Villeneuve to become a teacher, and it drives the research the assistant professor of history and American Indian Studies conducts.

"What we're talking about is a series of institutions designed to sever a Native individual's relationship to their people's collective knowledge," Villeneuve says. "And that's a weird thing for a school to do. That's the question that really animates my work: If that's a school, what kind of school is that?"

In many cases, a dangerous and deadly one.

Historical records and Native oral histories indicate that Native children who attended these boarding schools were forced to cut their hair and change their names. Speaking a Native language was cause for corporal punishment.







Matthew Villeneuve holds up a picture of his family. His great-grandfather, Joseph, is on the left.

PHOTOS: PAULIUS MUSTEIKIS

Food and medicine were often scarce, and the students, who were often crammed together in dormitories, contracted fatal diseases like tuberculosis and typhoid fever.

“All of these factors make the space hostile to health, to say nothing of learning,” says Villeneuve. “Part of my work argues that one of the things that Native people learn is just simply how to survive these institutions.”

Many, however, did not. In 2020, First Nations investigators discovered a mass grave on the site of the Kamloops Indian Residential School, a boarding school for Native American children in British Columbia.

“It was this moment when a lot of people rediscovered that the United States was the one that created the blueprint for these schools, and the United States had its own boarding school system.”

During the 19th and 20th centuries, the United States ran more than 400 such schools, until the last one finally closed in 1982. Villeneuve’s research has focused on 28 off-reservation industrial schools, including two of the dozen schools that once operated in Wisconsin. (One was in Wittenberg; the other is now a Veterans Affairs hospital in Tomah.)

When he teaches his students about this history, Villeneuve cautions that the boarding school experience may have been horrific, but it’s not monolithic.

“We have to pay attention to how the students came out of this,” he notes. “We have records that say, ‘I did OK, and my experience was actually not half bad.’ How do we

square that against the people who literally didn’t survive and cannot speak?”

Villeneuve also points to the 1930s, when the federal government began to try shutting many of the schools down. In some cases, Native communities, who had found ways to make the schools their own, pushed back.

“The history that I study is just one moment in a long history of Native people trying to figure out how to make schools work for them,” he explains.

In 2022, the U.S. Department of the Interior issued an investigative report on the Federal Indian Boarding School Initiative. There are two bills currently in Congress that would establish a truth and reconciliation inquiry, giving historians like Villeneuve the opportunity to access federal records and make full site visits.

“It would change everything,” he says.

Even if the bills pass, Villeneuve knows the picture will never be complete — federal recordkeeping can be haphazard and piecemeal. Still, gaining access to the letters and petitions Native families wrote in their desperate search to find and reunite with their children is important. Some survivors of the boarding schools are still alive, but Villeneuve knows their accounts won’t be available forever.

“If something doesn’t make sense to the present, you have to do the work to reconstruct the past to make it legible,” Villeneuve says. “At the end of the day, this is about Native people reconstituting their own identities as communities and nations.” ■





Monica Turner in the Greater Yellowstone Ecosystem: "It is really hard for people to visualize a landscape that they haven't seen yet and to get people to understand the urgency of how things may change."

## Saving Yellowstone

Wildlife ecologist Monica Turner, a professor and Vilas researcher in the Department of Integrative Biology, has devoted much of her career to studying the Greater Yellowstone Ecosystem and the ways its forests react to, survive and regenerate in the wake of wildfires. In recent years, those wildfires have been more frequent and more severe due to higher temperatures and changes in precipitation levels driven by climate change. A change in the natural fire regime means changes for the landscape, too.

This summer, a team of science communicators from University Communications spent a week with Turner and her students in the park

chronicling their experiences interacting with the landscape and zooming in on the research they're doing to predict what Yellowstone might look like in the future.

"Yellowstone will change, and it's changing at a faster rate than perhaps we had anticipated," says Turner. "The vast forests that we see throughout the landscape, many of those may disappear and be replaced by non-forest vegetation. It is really hard for people to visualize a landscape that they haven't seen yet and to get people to understand the urgency of how things may change."

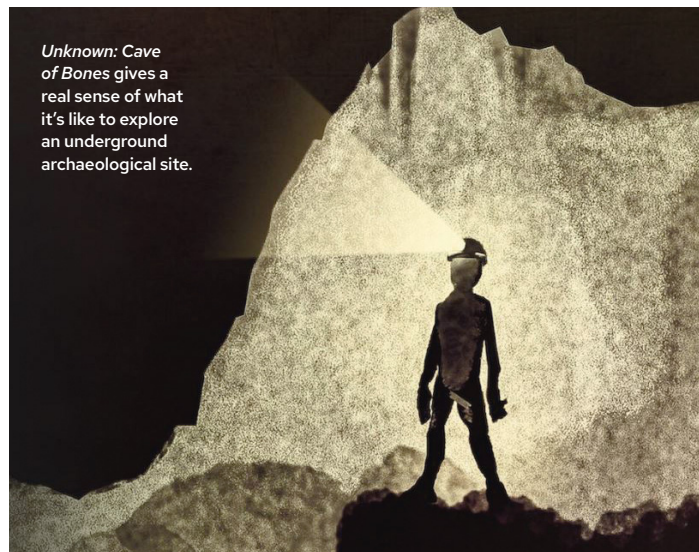
Their multimedia project is a colorful deep dive into what ecological research looks like in the modern era. Check it out at [go.wisc.edu/46wlfp](http://go.wisc.edu/46wlfp).

## Into the Cave of Bones

When a story breaks about a major paleontological discovery, you can bet John Hawks will be involved. Hawks, the Vilas-Borghesi Distinguished Achievement Professor of Anthropology, is one of the world's pre-eminent experts

on the discovery of ancient bones and fossils. He was featured in the Netflix documentary *Unknown: Cave of Bones*, documenting the ancient graveyard in the Rising Star Cave System in South Africa. Hawks and paleoanthropologist Lee Berger

*Unknown: Cave of Bones* gives a real sense of what it's like to explore an underground archaeological site.





first discovered it in 2013.

Recovered bones suggest that the graveyard may have been created by *Homo naledi*, ape-like creatures that pre-dated humans. In the documentary's trailer, Hawks, sporting his distinctive banded fedora, offers commentary on the cave and its contents while Berger leads a crew into its depths. "It's basically a forensic case from 200,000 years ago," Hawks says.

### Not Bluffing

The fresh coast has been seeing higher water levels and faster erosion rates for the last decade. For Lucas Zoet, associate professor with the Department of Geoscience, that's the sign of an urgent need to investigate the erosion processes along Lake Michigan. He's leading a team of researchers who are looking specifically at bluff erosion and sediment movement at two Wisconsin coastal points: Port Washington and Point Beach State Forest, which is near Two Rivers. The first sits on a bluff, and the latter is made up of sand dunes. What makes this research project unique is its holistic approach. Instead of breaking the system up into smaller chunks, researchers are looking at the whole continuous system from what's happening onshore, on the beach and nearshore over the course of multiple years and throughout the four seasons. The long-term hope? To be able to provide guidance on shore protection and bluff stabilization processes to better preserve beaches.

### Aced It

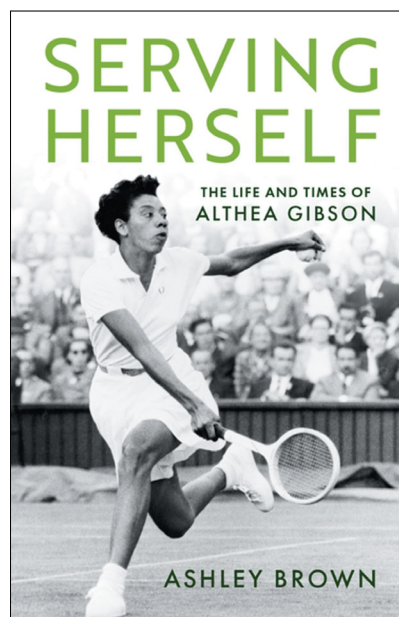
Earlier this year, the *Wall Street Journal* ran a feature listing the top five books about the game of tennis. Ashley Brown's newest effort, *Serving Herself: The Life and Times of Althea Gibson*, made the cut.

Brown, an assistant professor and Allan H. Selig Chair in the History of Sport and Society, chronicles the life and challenges of the legendary tennis star Althea Gibson, who was the first African American athlete to win titles at the French Open, Wimbledon and the U.S. Open. Gibson, a fierce presence both on and off the court, lived through the Jim Crow era, the Cold War and the battle for civil rights. She pushed back against expectations that she should carry the banner for her race and gender, wishing instead to be celebrated as a successful athlete on her own merits. She often achieved this — she appeared on the covers of *Sports Illustrated* and *Time* and had a ticker-tape parade in New York held in her honor — but also struggled to leverage her celebrity and success later in her career, years before tennis stars could command six-figure endorsements and prize purses. Brown's book relies on oral histories and archival work to tell the story of one of the greatest and most self-determined athletes of the 20th century.

### Raising the Bar

An outdated statistic: One in three Black men in the United States will go to prison at some point in their lives (compared

to 1 in 17 white men). That stat comes from a 2003 report, but it's often cited in news coverage and discussions of criminal and social justice issues today. Michael Light, a professor of sociology, says it's time to look at new data. He co-authored a study that shows the risk of incarceration for Black men in the U.S. was cut nearly in half between 1999 and 2019. This startling change reflects an overall incarceration rate drop in every state for every racial, ethnic and gender group (with the one exception being white women). There are still notable inequalities — especially in Wisconsin, where the incarceration rate for Black males is 14 times the white rate — but Light believes it's significant that across the country, things are getting better, not worse. ■



Ashley Brown's look at tennis star Althea Gibson captures her complicated greatness.



Professor of Political Science **Mark Copelovitch** was among 26 individuals to receive the 2023–24 Berlin Prize from the American Academy in Berlin. Copelovitch will spend the academic year in Germany among the other winners, while working on his latest book project, *Dollar Signs: U.S. Financial Dominance and the Future of American Power, Prosperity, and Democracy*.



**Grant Petty**, a professor of atmospheric and oceanic sciences, received a 2024 Special Award from the American Meteorological Society (AMS) Awards and Honors program. Petty was recognized for developing high-quality textbooks for teaching and learning in atmospheric radiation and atmospheric thermodynamics.

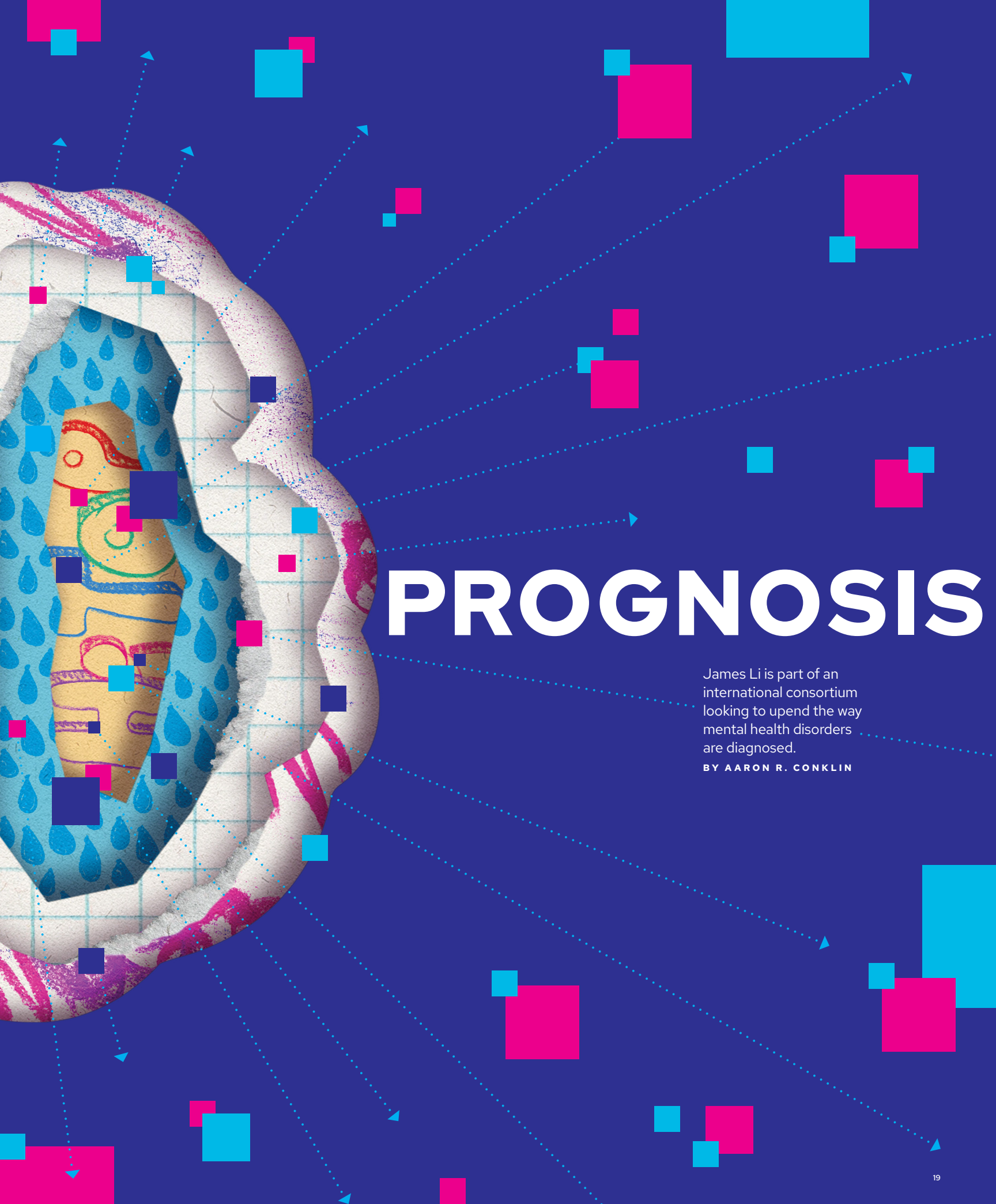


**Lori Lopez**, director of the Asian American Studies Program and a professor of communication arts, was named a 2023–25 Big Ten Academic Alliance (BTAA) Mellon Academic Leadership Program Fellow. She'll spend a year in the BTAA's Academic Leadership Program and a year working in the UW–Madison Office of the Provost.



# A PEDIATRIC





# PROGNOSIS

James Li is part of an international consortium looking to upend the way mental health disorders are diagnosed.

BY AARON R. CONKLIN



# Here's how it typically works.

A parent brings their child to their pediatrician, concerned about a potential mental health condition – maybe it's anxiety, or maybe it's depression. That pediatrician asks the child a set of questions, then assigns a numerical score based on the answers. If the score exceeds a certain threshold, the child is diagnosed with a condition and referred for treatment – maybe it's pills, maybe it's therapy. This process relies on classifications created in a tome called the *Diagnostic and Statistical Manual of Mental Disorders*, a book that has been the dominant paradigm in children's mental health diagnosis since the 1970s and is now on its fifth edition (*DSM-5*). To James Li, this process is, to put it succinctly, "a crock."



“The diagnosis of mental health is in dire need of a paradigm shift, and the way that we’ve been assessing, diagnosing and providing help to people has been really inefficient and not helpful for the clinician nor the patient,” says Li, the A.A. Alexander Associate Professor of Psychology and Psychiatry in the Department of Psychology. “If you want to do good science in mental health, the first thing you want to do is move away from the *DSM* and think about mental health in terms of degrees – a spectrum, instead of ‘you have this’ or ‘you don’t have this.’”

For the past few years, Li has been trying to do just that. In 2020, he became part of a growing nationwide consortium of researchers and medical professionals looking to replace the *DSM-5* with something that’s more data-driven, nuanced and patient-specific. The emerging new model is called the Hierarchical Taxonomy of Psychopathology (HiTOP), and it’s designed to reconceptualize mental health into something more than a system that efficiently places patients into pigeonholes. Li co-chairs the Diversity, Equity, and Inclusion Scientific Workgroup within the consortium, which is focusing on ensuring that HiTOP applies to all populations.

**Most patients are coming in with some combination of a lot of different psychological and mental health traits and behaviors that don’t fit neatly into one treatment category or diagnosis.**



James Li: “If you want to do good science in mental health, the first thing you want to do is think about mental health in terms of degrees – a spectrum, instead of ‘I have ADHD,’ or ‘I have autism.’”

“Most patients don’t come in as garden variety, ‘I have ADHD,’ or ‘I have autism,’ and that’s all you’ve got,” explains Li. “Most patients are coming in with some combination of a lot of different psychological and mental health traits and behaviors that don’t fit neatly into one treatment category or diagnosis.”

Children’s mental health remains a growing and serious issue nationwide. According to the American Psychiatric Association, one in five children struggles with a mental health disorder, 20% of children are receiving help from a mental health care provider and the number of visits to those providers has grown a whopping 300% since 2010. At the same time, the U.S. health care system often struggles to accommodate patients’ mental health needs, creating a situation in which efficiency sometimes ends up trumping nuance and accuracy.

Li’s lab in the Waisman Center and the Department of Psychology focuses its research on neural mechanisms and genetics. It’s not lost on him that these two things are based on science and biological constructs. The *DSM-5* – and by extension the physicians who use it – relies largely on physician observation.

“What ends up happening is that most of these clinicians are just giving a diagnosis for the sake of giving one and then figuring out through some sort of guesswork what the best combination of treatments is,” says Li.



### A Dimensional Approach to Care

HiTOP has the potential to provide a better model. Psychology researchers have long argued that there are five dimensions of an individual's personality ("The Big Five," a designation that includes things like openness, agreeableness and neuroticism). HiTOP is based on a similar principle — that there are also five dimensions of mental health: internalizing, detachment, thought disorder, antagonistic externalizing and disinhibited externalizing. [See sidebar.] To most of us, those terms might seem confusing and scientific, but within the HiTOP model, each of the traits and symptoms of common mental health problems like depression can be mapped to one of those dimensions. Physicians can then use that framework to measure where a patient stands on each one — a dimensional approach that places the patient on a spectrum, rather than putting them into the box of a singular diagnosis.

"What this does is give researchers and clinicians a common language," says Li. "Instead of studying an eating disorder as its own thing, you can study eating pathology as part of the internalizing dimension because that's where it belongs. That's where all the symptoms seem to cluster."

Li notes that in this example, years of research and data have shown that eating disorders are often accompanied by depression and anxiety, a nuance the HiTOP model could capture and highlight. Mapping patients and their symptoms in this way also allows physicians to begin creating norms based on specific patient populations, on gender, age, race and ethnicity, to help hone future diagnoses. The *DSM-5* model doesn't include many of these factors.

"This could be used to guide treatment planning at a more nuanced level," says Li. "Because instead of saying, 'Well, I'm just going to treat the anxiety disorder,' you can also say part of the intervention and the treatment planning should be more tailored to the individual, according to the data that we're getting."

# On the Spectrum

One of the most significant advantages of the HiTOP model is its ability to chart patients and their traits and symptoms to a spectrum that is divided into five mental health dimensions. The key is that patients are rarely mapped to a single dimension but may be scored on all five.

- 01 **SOMATOFORM DIMENSION** encompasses physical symptoms like malaise, head pain, gastrointestinal symptoms and cognitive symptoms. Anxiety and somatic disorders are reflected in this dimension.
- 02 **INTERNALIZING DIMENSION** comprises maladaptive traits of emotionality, liability, anxiousness, separation anxiety and anhedonia, as well as symptoms characteristic of distress, fear and eating problems. Disorders like major depression, generalized anxiety, obsessive-compulsive disorder and social phobias may fit here.
- 03 **THOUGHT DISORDER DIMENSION** comprises maladaptive traits of peculiarity, unusual beliefs, unusual experiences and fantasy proneness, as well as symptom dimensions of disorganization and reality distortion. It reflects conditions such as schizophrenia and bipolar disorder.
- 04 **DETACHMENT DIMENSION** comprises maladaptive traits of emotional detachment, anhedonia, social withdrawal and romantic disinterest, as well as symptom dimensions of avolition and blunted affect. It reflects many personality disorders (e.g., avoidant personality) and schizophrenia-related disorders.
- 05 **EXTERNALIZING DIMENSION** is broken into two related (but still distinct) categories: **DISINHIBITED** and **ANTAGONIZING**. The former reflects traits like impulsivity, disorganization and risk-taking, and the latter reflects traits like manipulativeness, deceitfulness and aggression. Collectively, these dimensions reflect disorders like ADHD, conduct disorder and substance use disorders.



### Changing Hearts and Minds

Shifting mindsets — of physicians, insurance companies and patients — may be the hardest part of championing the new system. Li points to a confluence of factors that have kept each new edition of the *DSM* in place for more than five decades. The first is the need for physicians to provide patients with a diagnosis so that the care can be reimbursed by insurance companies, and the ease with which the *DSM-5* model can often provide it. Li also argues that physicians aren't always sufficiently trained in mental health care.

"Sometimes there is not a strong appreciation for the complexities of mental health beyond what they learned in textbooks," says Li.

The third barrier? Until now, there's never been an acceptable alternative.

"Without an alternative, then what else is there but the status quo?" asks Li.

Li worries that clinicians might struggle without being able to rely on the strict numeric thresholds of the *DSM-5* to provide a single diagnosis. After all, most treatment plans are the result of clinical trials and studies designed to test a medication's effectiveness using patients who meet the *DSM-5*'s criteria for a mental health disorder. For instance, under the *DSM-5*'s criteria, a child meets the clinical definition of ADHD if they meet six of a possible nine symptoms — a very yea-or-nay approach. A child who has only five of those symptoms might not receive an ADHD diagnosis or be included in trials to test a potential treatment.

"If you're a pediatrician who isn't trained in mental health — and these are the people that are on the frontline seeing kids and figuring out whether or not they should treat for something like ADHD — they're not really relying on the science anymore," says Li. "Because if they want to help that kid, they might just decide, let's just put them on a drug like methylphenidate, even if they're very young. And is that the right approach?"

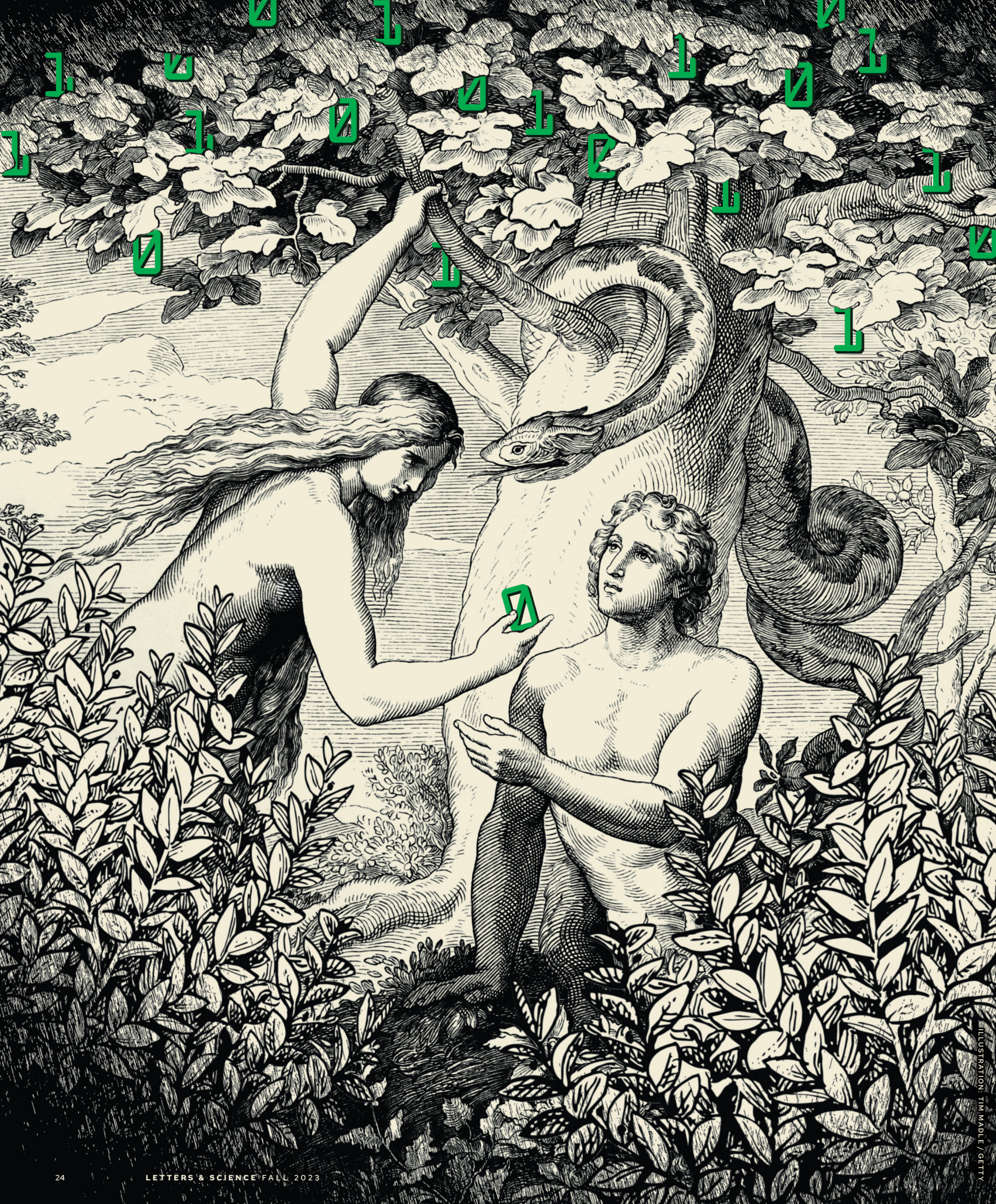


**For as long as I've been in the game, there's never been an alternative to something that we all knew was a problem. I'm really excited to get this into the ethos. Let's try to make sure people know something else exists.**

Li joined the HiTOP consortium three years after it first formed in 2017. Today, there are more than 200 research members worldwide, in addition to a clinical network of physicians who are trying the HiTOP model with their patients. Meanwhile, the research surrounding HiTOP continues to explode, with hundreds of studies around the world (including in Li's own lab) exploring the idea of using a dimensional approach to diagnosing mental health problems. Meanwhile, the American Psychiatric Association, the organization that created and published the *DSM-5*, is beginning to pay closer attention, as are clinicians in Wisconsin. Li recently gave a presentation on HiTOP at the Medical College of Wisconsin in Milwaukee and noted a lot of heads nodding in agreement when he finished speaking. That's the kind of reaction that leaves him energized and hopeful.

"For as long as I've been in the game, there's never been an alternative to something that we all knew was a problem," says Li. "I'm really excited to get this into the ethos. Let's try to make sure people know something else exists." ■







# Just One Byte

L&S researchers are wrangling  
with the thorny ethical  
issues raised by artificial  
intelligence and computing.

BY AARON R. CONKLIN



# E

arlier this year, Annette Zimmermann gave a keynote lecture to a crowd of hundreds at the Artificial Intelligence, Ethics, and Society conference in Montreal, Canada.

In her lecture, she was calling for more caution and well-reasoned debate surrounding AI deployment as industry actors are rushing powerful new AI tools to market.

The topic about which Zimmermann was speaking is notoriously controversial in the AI ethics and tech industry community. Biggest case in point: Last November, developer OpenAI released the generative AI ChatGPT upon the world, throwing everything from academia to graphic design and journalism into confusion and chaos.

Zimmermann, an assistant professor of philosophy whose research camps at the intersection of political and moral philosophy and the philosophy of AI and machine learning, took a more bird's-eye view.

"There are some really interesting, longer-standing democratic problems that arise when a very small group of actors in a society has the ability to unilaterally make deployment decisions, to make widely accessible these really powerful tools," says Zimmermann. "And ordinary citizens and also governments have to catch up with these initial deployment decisions."

Democratizing the deployment of AI technology is just one of the ways professors in the College of Letters & Science are wrestling with big-ticket issues tied to modern computing technology. As part of a 2020 cluster hire, the College of Letters & Science paired researchers from the Department of Philosophy, the Information School and the Department of Computer Sciences. They're collaborating to parse emerging issues with AI, smartphone apps and Big Data.



**"It's important that decision makers who are interacting with AI in any capacity are mindful of the risks of jumping to conclusions about the people who are actually being scored by one of these systems."**

ANNETTE ZIMMERMANN



A large part of Zimmermann's work is concerned with automation bias, which refers to our propensity to place an unduly high level of faith in automated decision-making and scoring systems, even when other sources of information contradict them. Automation bias is closely tied to algorithmic fairness — the notion of ensuring that automated systems don't treat people differently when they merit similar treatment.

Zimmermann has spent a lot of time researching both phenomena in the criminal justice space, especially as it relates to algorithmic recidivism risk scoring tools. Often, such tools — including in a case that was appealed before the Wisconsin Supreme Court in 2016 — were scoring Black defendants as high-risk repeat offenders by algorithms while white defendants were consistently being scored lower.

"It's important that decision makers who are interacting with AI in any capacity are mindful of the risks of jumping to conclusions about the people who are actually being scored by one of these systems," says Zimmermann. "We see this phenomenon that automating a process can replicate existing social inequalities. That's particularly concerning in a domain like criminal justice, one of the core pillars of a functioning democratic society."

Zimmermann debates these issues with her students in class, as well as issues related to the moral status of artificial agents, privacy concerns and questions around whether TikTok should be banned.

"I think people see AI and machine learning as their everyday reality," she says. "And they want to understand their own ethical judgments about that domain better and in a more structured way. That's where philosophy can really help."

## Property Is Power

While Zimmermann is examining democratic theory and the criminal justice system, Assistant Professor of Philosophy James Goodrich, her departmental colleague, has his eye on the massive mountains of data tech giants like Meta and Google have collected from their users — and the property rights that potentially surround it. Personal data, he notes, isn't the same as a physical object like an apple or an automobile. As sole

**"All that data is a source of profit that's also a source of economic power, and economic power translates into political power very quickly."**

**JAMES GOODRICH**

quickly," notes Goodrich, who views these dynamics through the lenses of classical philosophers like David Hume and Immanuel Kant. "It gives them gigantic bargaining power. Some people are going to want access to that data to do things with it. But the only way you can get it is by partnering with these companies. They can set outrageous terms to partner with them, and they can also pick winners and losers in the market in the future."

During the pandemic, for instance, the National Institutes of Health partnered with Meta to study the impacts of vaccine use. Meta gave the government agency access to its data, but it was entirely on Meta's terms. Earlier this year, Professor of Journalism and Mass Communication Mike Wagner was allowed to view Facebook data related to a study of whether changes to the platform's algorithms impacted users' levels of polarization — but Meta determined which internal records were released.

Goodrich finds that kind of control worrisome. One of the things he's studying is whether traditional institutions that manage and regulate concentrations of political power — organizations like the Federal Trade Commission and the Federal Communications Commission — are equipped to handle this new type of power concentration. He's also studying the impacts that come out of the argument that users of popular social media platforms are having their data stolen and/or exploited by the platform owners.

"I think exploitation and theft are best understood in terms of claims about property rights," says Goodrich. "So, we need to know the nature of the property rights involved with data in order to understand those claims."

owners of that data, Goodrich argues, these companies end up accumulating a shocking amount of power.

"All that data is a source of profit that's also a source of economic power, and economic power translates into political power very

### **Tap Now. No, Seriously. Right Now.**

Are you unwittingly trapped by the attention economy? Clinton Castro argues that it's very likely.

Consider: Is the first thing you do each day to lunge for your smartphone, to respond to red-circled notifications that have come in on multiple apps? You may think you're just being polite and interacting with the people in your world, but to Castro, an assistant professor in the Information School, what you're really doing is trading attention for services. You're ceding authorship of your own life.

To Castro, who studies data and information ethics and co-authored the upcoming book *Kantian Ethics and the Attention Economy*, there's a devious strategy at work. The cycle that keeps us engaged in these apps has been carefully designed and executed by the developers. It's designed around the vulnerabilities in our psychology and includes steps like triggering (you got a notification!), unpredictable rewards (I wonder what's in that new text?) and investment (hey, why don't you add a picture to your profile?). It's a cycle that's trying to create and reinforce a habit — and it also raises several interesting ethical questions.

"There's the question of what happens to my basic capacities to direct myself and be the author of my life, when I can be so disrupted or influenced by this thing in my pocket," Castro says. "It's about what that might do to me, how it might condition my obligations to other people and what it does to our ability to work together to respond to important large-scale problems that require sustained attention and widespread cooperation."

Castro likes to illustrate his point by citing a joke he heard comedian Esther Povitsky make about the ongoing impact of the attention economy.

"She's talking about how she wants to read, she wishes she could read, but she can't read," says Castro. "She buys books, she picks up books, she looks at books. And then she blacks out and she's on Instagram. I think that's a very familiar occurrence. It's like someone else is directing you. You're not directing yourself." ■

**"There's the question of what happens to my basic capacities to direct myself and be the author of my life, when I can be so disrupted or influenced by this thing in my pocket."**

**CLINTON CASTRO**





# 175

## Candles

The University of Wisconsin–Madison is celebrating its 175th anniversary. Although the College of Letters & Science was not formally established until 1889, a liberal arts tradition has always guided the Wisconsin Experience and education. Here’s a look at some of the milestone moments in the College’s history.

**BY ISABELLA RUDER  
AND SOPHIA VENTO**

Research assistance  
provided by staff members  
of the UW–Madison Archives

# The 1800s

1

When the first students at UW–Madison started classes in **1849**, they were already experiencing a liberal arts education. Like at Harvard and Yale, the University's early students focused primarily on ancient Latin and Greek.



2

In **1849**, the University's Board of Regents deemed it "expedient and important" to form a "cabinet of natural history." This cabinet is now the Wisconsin State Herbarium led by the Department of Botany.

3

South Hall, which is the current home of the College of Letters & Science, was built in **1855**. It was one of the first dormitories to open on campus—second only to its twin North Hall, which opened in **1851** and now houses the Department of Political Science.

4

In **1856**, UW–Madison offered its first-ever geology class, which was taught by Professor of Chemistry and Natural History Ezra Carr. John Muir (x1863), the man known today as "Father of the National Parks," took one of Carr's classes, noting that Carr's demonstration experiments rarely worked.



5

Astronomy students still marvel at the night sky by looking through the vintage telescope at Washburn Observatory. The observatory was a gift to the University from former Wisconsin Governor Cadwallader Washburn. He made sure the lens was at least as big as a rival telescope at Harvard (15 inches). Construction started in **1878** and was completed in **1881**. The 15.6-inch lens of the telescope put UW–Madison on the map as a research powerhouse.

6

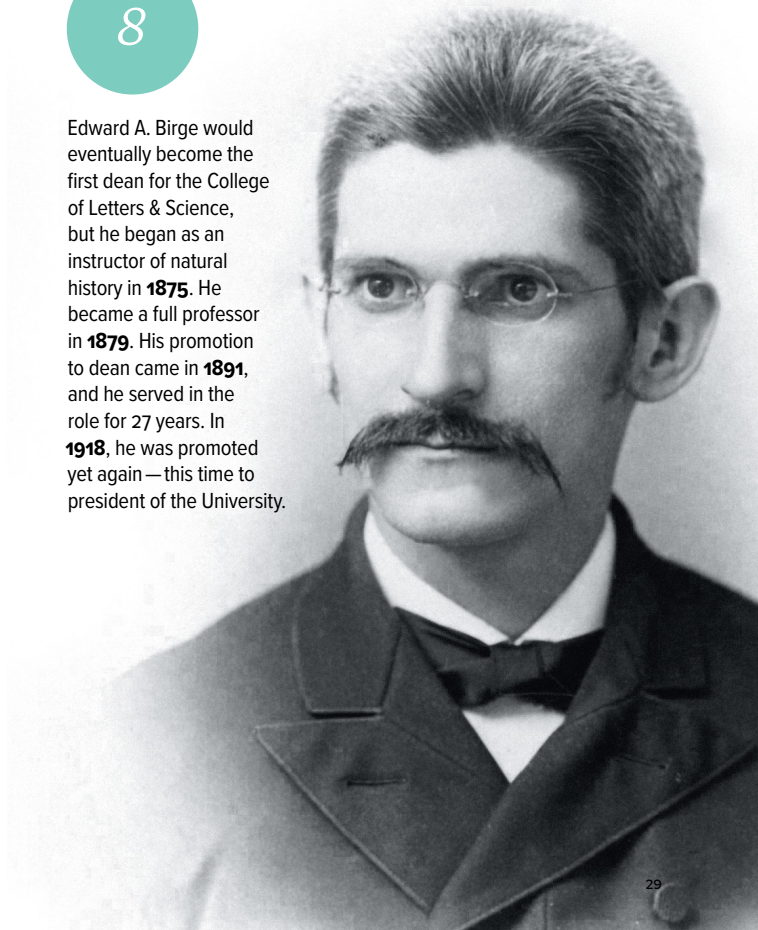
The iconic red brick building that sits at the bottom of Bascom Hill is actually the second Science Hall. The original sandstone-faced wooden structure burned down in **1884**. The current Science Hall was erected in the exact same spot in **1887**, and it was declared a National Historic Landmark in **1993**.

7

The Wisconsin legislature formally established five new colleges in **1889**. These included the colleges of mechanics and engineering, agriculture, law and, of course, the College of Letters & Science.

8

Edward A. Birge would eventually become the first dean for the College of Letters & Science, but he began as an instructor of natural history in **1875**. He became a full professor in **1879**. His promotion to dean came in **1891**, and he served in the role for 27 years. In **1918**, he was promoted yet again—this time to president of the University.





# The 1900s

9

"Law and the Press" was the first journalism class offered at the University. Willard Grosvenor Bleyer was the professor, and he taught 25 students in **1905**. He would later go on to found the Department of Journalism in **1912**. The department was eventually rebranded as the School of Journalism in **1927**, tacking on the "and Mass Communication" in **1970**. Despite the many name changes, the school has always been endearingly nicknamed the "J-School."

11



The German department—now known as the Department of German, Nordic, and Slavic—assisted with military efforts during World War II by teaching enlisted military personnel to understand and speak German beginning in **1943**. Four members of the faculty were assigned to this project full time.

14

In **1957**, Ada Deer became the first member of the Menominee Tribe to graduate from UW–Madison. She graduated with a degree in social work and would go on to serve as director of what is now called the American Indian & Indigenous Studies Program from **2000** to **2007**. She was a fierce advocate for Native American rights. In a *Washington Post* interview, she famously said, "You don't have to collapse just because there's a federal law in your way. Change it!"

15

In **1958**, a group of students petitioned for the University to establish an honors program within the College. It came to fruition in **1960**.

16

The current Hasler Laboratory of Limnology dock on Lake Mendota is the original dock that was there when the building opened in **1963**.

10



UW–Madison's bustling 24-hour College Library is located inside a building called Helen C. White Hall. The name is a tribute to Helen Constance White (Ph.D. 1924), whose lasting legacy at the University started when she joined the staff as an English professor in **1919**. She was possibly the first woman to earn a doctorate in the College of Letters & Science in **1924**, and she continued her trailblazing ways by becoming the first woman to be a full L&S professor in **1936** and the first woman to chair the English department in **1955**. She taught at the University until she died in **1967**. The University honored her legacy by naming the building after her in **1970**.

12

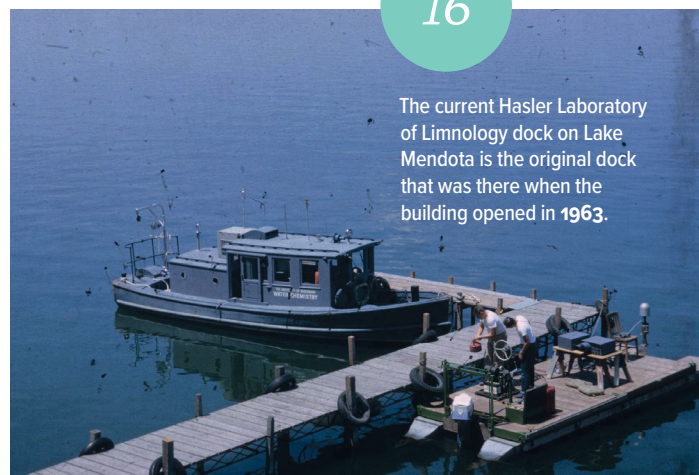
The Department of Social Work is a prime example of the Wisconsin Idea at work. It was established in **1946** by the Board of Regents after widespread interest around the state. A unique feature of the original instruction was that students were required to spend 15–20 hours a week doing supervised field work. The school was renamed as the Sandra Rosenbaum School of Social Work in **2020**.

13

The natural sciences were added to L&S in **1946**, making it a "complete study of liberal arts and science."

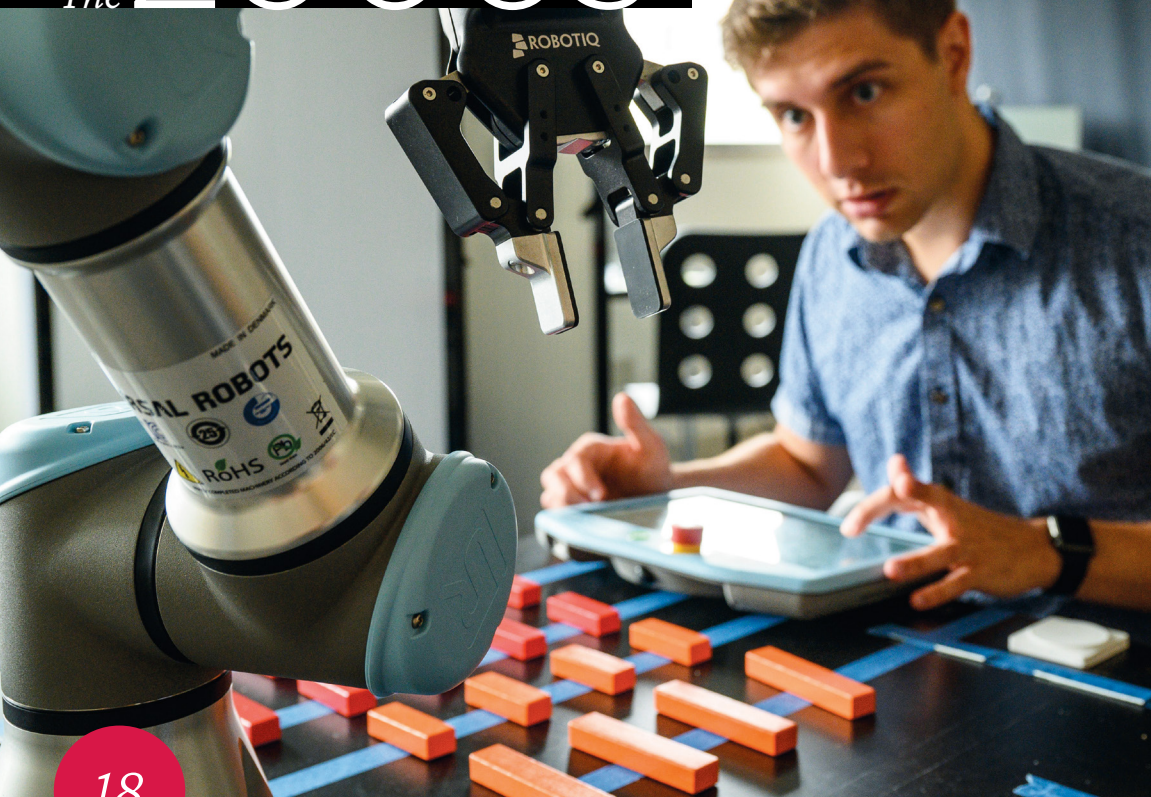
17

Beginning in the fall of **1998**, for the first time all incoming L&S students were required to take a foreign language placement exam for the College's language requirement.





# The 2000s



18

In the last 10 years, the Department of Computer Sciences has grown by 811%. This was a large factor in the creation of the School of Computer, Data & Information Sciences (CDIS) in **2019** that includes the Departments of Computer Sciences, Statistics and the Information School.



20

In **2023**, the Chican@ & Latin@ Studies Program started offering a major. The program is one of many spawned by student activism. Other examples include the Department of African American Studies, the Asian American Studies Program, the Department of Gender & Women's Studies and more.

19

Eric Wilcots joined the faculty of the Department of Astronomy in **1995**. When he became dean of the College in **2020** after serving as interim dean for a year, he identified four critical priorities: to enhance the world-class undergraduate experience; expand research excellence; advance diversity, equity and inclusion efforts; and create state-of-the-art teaching and learning environments.



**This is just the beginning!** Head to [go.wisc.edu/175candles](https://go.wisc.edu/175candles) for more milestone moments and fun facts about the College of Letters & Science and the role it's played in the University of Wisconsin-Madison's 175-year history. ■

## L&S Today

*Five fast facts about the College in its 134th year*

1

Today the College of Letters & Science is the largest unit on campus, graduating nearly 4,800 students each year and teaching 65% of all credit hours offered at UW-Madison.

2

L&S offers 67 undergraduate majors. Four of the top five most popular majors at the University are in L&S—computer sciences, economics, psychology and biology (shared with CALS).

3

There are more than 211,545 L&S alumni as of January 2023. That means the College accounts for 44.4% of UW-Madison alumni.

4

Ten faculty or former students of the College of Letters & Science have received the Nobel Prize.

5

There are four winners of the MacArthur "Genius Grant" with ties to L&S.





## Investigate This

Walt Bogdanich looks back on an award-winning career as an investigative journalist.

BY AARON R. CONKLIN

“It’s something I’m good at. Something that I can see a reaction to, I can see a benefit to,” says Bogdanich of reporting. “If you’re going to work, you want something good to come of it.”

Bogdanich, 72, was brought up reading newspapers but never imagined himself writing for one. That all changed in 1973, when he found himself trying to find a way to attend an anti-Vietnam War conference in Cleveland. His older brother was working at the *Daily Cardinal* and suggested Walt try a different type of pitch: writing an article in exchange for the paper paying his way. The editors flashed a green light.

“I don’t think they got much for their money,” chuckles Bogdanich. “I hope no one ever finds that story because it was quite embarrassing. But it was a step in the right direction.”

The thrill of a byline and the easy access to administrators and influential individuals that came with it were instantly addicting.

“From that point on, I pretty much lived in the newsroom,” he says. “The excitement of it. The camaraderie. For the first time in my life outside of sports, it gave me something to hold on to and inspired me and changed who I am. If I hadn’t gone to Wisconsin, that never would have happened.”

It took some time and a few sidetracks for Bogdanich’s post-college reporting career to take off — a pile of failed

**W**alt Bogdanich (’75) came to UW-Madison to play baseball, not to become a three-time Pulitzer Prize-winning investigative reporter.

But while pitching prowess may have been what first lured Bogdanich from Illinois to Wisconsin, the man who’s worked for news outlets like the *Wall Street Journal*, “60 Minutes” and the *New York Times* over the course of a four-decade career discovered his passion for investigating and writing once he arrived in Madison.

newspaper applications, a job at a steel mill in Gary, Indiana, and a brief stab at starting a weekly paper each added momentum — before he landed a gig as a reporter at a newspaper in Hammond, Indiana.

“That’s where I learned the business,” says Bogdanich. “I was able to sit next to professional people who’ve done this their whole life, who were very, very talented. And I saw how they went about their business and how seriously they took it.”

Bogdanich’s beat was Calumet City, a southern suburb of Chicago rife with corruption and stories to uncover. At the time, Calumet City was struggling with a failing sewer system that was causing flooding in the poorer parts of town. The mayor at the time was touting a plan to reorganize and rebuild it, but when Bogdanich found a way to access and view the plans, he discovered that the new sewers were to be installed in areas where pricey new homes were being built instead of near the people having problems with flooding. The mayor, who accused Bogdanich of engaging in “verbicosity,” was less than thrilled to see the story hit the front page.

In addition to a sizable pile of other major reporting awards, Bogdanich has won the Pulitzer Prize for his reporting on three separate occasions: in 1998 for specialized reporting, in 2005 for national reporting and in 2008 for investigative reporting. The most recent story began with an Associated Press report about people dying in Panama from ingesting poisoned medicine. Intrigued, Bogdanich convinced his editors to send him to Panama, where he discovered that it wasn’t a manufacturing error causing the deaths, but the deliberate use of cheap, counterfeit ingredients, many of which were being sourced from China. Bogdanich’s series, co-reported with a journalist in the *Times*’ Beijing bureau, exposed rampant and deadly problems in the pharmaceutical supply chain.

“If I have one talent that I could point to, I guess it would be an ability to spot

Walt Bogdanich has the distinction of being a multiple Pulitzer Prize-winning reporter — and being the target of the largest libel lawsuit in history.



stories that have resonance, which have larger meaning beyond just one or two bad people doing bad things,” Bogdanich muses. “I like to look at the system and see how that perpetuates these problems.”

In addition to his Pulitzers, Bogdanich holds another notable journalistic distinction: He was once sued for \$10 billion — yes, \$10 billion — as part of the largest libel lawsuit ever leveled against a journalist.

While working for ABC News in 1995, Bogdanich had produced a story that accused Philip Morris Company officials of lying about manipulating levels of the addictive chemical nicotine in their cigarette products. Phillip Morris eventually had to pay more than \$200 million to settle a raft of lawsuits related to their deceit (Bogdanich never paid a penny). Exposing the company’s lies proved a critical inflection point in the growing national anti-smoking movement.

“I can’t imagine how many lives we saved by doing that story,” he notes. “That story got no awards. And yet, that’s the story I’m proudest of.”

The tobacco company piece cemented Bogdanich’s status as an A-list investigative reporter. “60 Minutes” lured him to their staff, where he worked alongside legendary anchor Mike Wallace before joining the *New York Times* in 2001, where

he has remained since. Bogdanich’s wife, Stephanie Saul, is also an investigative reporter with the *Times*. The couple’s oldest son, who also graduated from UW–Madison, is a fiction writer.

“I like to tell the story that my kids really couldn’t catch a break growing up, because they had two parents who were investigative reporters and knew everything they had done that was bad,” he jokes.

Bogdanich’s latest project is his second book, *When McKinsey Comes to Town: The Hidden Influence of the World’s Most Powerful Consulting Firm*, a work he co-authored with *Times* colleague Michael Forsythe. It shares their investigation into consulting firm McKinsey & Company, which they report urged companies to cut staff and skirt safety protocols to boost profits.

The *Times* is a vastly different place now than when Bogdanich first joined it 22 years ago — social media is as impactful as the printed word, there are fewer reporters, and the paper continues to be a flashpoint in the political and culture wars. But health care remains Bogdanich’s sweet spot, the topic that continues to fuel his always-burning investigative fire.

“The whole industry is so opaque, and accountability is so lacking,” he says. “People are angry, and for good reason.” ■





## **Paying It Forward**

Paul Martin Wolff and Rhea S. Schwartz generously gift Badgers with a once-in-a-lifetime opportunity to travel the world.

**BY ALLI WATTERS**

**P**

aul Martin Wolff ('63) and Rhea S. Schwartz didn't have the opportunity to take a gap year after completing their undergraduate degrees at the University of Wisconsin–Madison and Pennsylvania State University, respectively. They went right to law school at Harvard University and Georgetown University. From there, it was straight to the workforce.



“We had debt that we had to pay off,” Schwartz laughs, remembering early post-graduate life. “We would have loved to have been able to take a gap year and do something that enlarged our lives and those of others, but we didn’t have that opportunity,” Wolff adds. “But now we have the opportunity so that others can do what we wish we could have been able to do.”

That’s the idea behind the Wolff Fellows Program, which grants \$45,000 to a graduating senior from UW–Madison’s College of Letters & Science each year. The selected fellows – who have shown outstanding achievements in both academics and community service – are given the freedom to craft an international itinerary without financial burdens.

“We hope that the fellowship will influence them in their lives to be active in their local communities and the greater communities,” Wolff says. “We’re also hoping to create a network of students year after year who can help each other and foster each other’s growth and development,” adds Schwartz, who is the namesake of the similar Schwartz Fellows Program at her alma mater, Penn State.

Their vision for this network came to life earlier this year, when the inaugural students from the Wolff and Schwartz fellowships, which both launched in 2022, met with them for dinner in Washington, D.C. The U.S. capital is where the couple has built their successful law careers and become leaders in the community and where Wolff launched his avocation as an artist.

But before all of this success, the two came from families of modest means. Both Wolff and Schwartz were able to afford college through substantial scholarships and by working jobs on the side and in the summers. Wolff remembers his time on campus at UW–Madison to be “as ideal as possible,” and when he graduated, he knew he wanted to pay it forward.

“My parents said, ‘You’ve gone to Madison almost entirely on scholarship, and as soon as you have any type of job,

you need to put aside some money and send it to Madison,’” Wolff says. “My first gift to Madison was soon after I graduated, and I think it was \$25 or \$50.”

Over the years, as he found success, he was able to give more and more. In 1976, he married Schwartz, who had her own distinguished career and shared his generous spirit.

“The simplest way of putting it is that we’ve both been very lucky. We’re lucky to have each other, and we’re lucky to have the success we’ve both had,” Wolff says. “And when you have the ability, we feel – and I think we learned from both of our parents – an obligation to give back.” ■



## Juliet’s Journey

Meet this year’s Wolff Fellow, Juliet Chang.

In May, Juliet Chang (’23) turned her tassel and celebrated graduating with majors in social welfare and educational studies. By July, she had started her yearlong international adventure. The first stop on her itinerary? France, which is where she was when we caught up with her about her plans for the fellowship. She’ll add French Guiana, Kitchener (Canada), Vietnam, Thailand and Australia to her travel log by the end of the journey. Here’s a look at why she chose these destinations:

**How did you choose the countries you wanted to visit?**

I plan to travel to different countries in the Hmong diaspora to see how different populations live and how that changes, depending on the language they speak in that country, the cultural context of that country – and then comparing that to my experience as someone who is an American.

**So far, what are some of the highlights from your travels?**

I’ve really enjoyed talking to people. It’s very comforting knowing that even if we are strangers, there’s kind of an instant acceptance.... There are places where I can go and have a meal with someone and feel a sense of community even if I’m not necessarily French or from a certain place.

**What makes this fellowship so impactful?**

A lot of people get old, and they wish that they had traveled more when they were younger. When there are programs like the Wolff Fellowship, you’re really enabling a young person to travel and learn about themselves and the world they live in – in a way that they wouldn’t be able to do without you.





# The Value of a Liberal Arts Education

BY ERIC M. WILCOTS



**T**he fundamental strength of the Letters & Science experience is that it's broad and inherently interdisciplinary, characteristics that serve us well in an ever-changing global community. Whether through the humanities, the social sciences, or the biological, physical, computational or mathematical sciences, a liberal arts education prepares our students to understand and appreciate a range of disciplines, to think critically and to communicate well. We ensure that our students understand not just what we know about the world, but how that knowledge is built. At its core, a liberal arts education equips students to carry out the "fearless sifting and winnowing by which alone the truth can be found" well beyond their time at UW.



Eric M. Wilcots is the dean of the College of Letters & Science and the Mary C. Jacoby Professor of Astronomy.

Unfortunately, we are living in a moment when some are questioning the value of a college education. Recent surveys show that public trust of higher education is at an all-time low, and too often, it's the liberal arts that are subject to the most questioning. I know that the education we provide in the College of Letters & Science — a liberal arts education — is a solid foundation upon which our graduates build remarkable careers, become leaders in their communities, and live as informed and thoughtful citizens who make a positive impact on the world.

It is through the liberal arts that we understand what it means to be human. What we choose to write, sing, perform and create reflects the human condition. I would argue that how we understand ourselves as humans is vitally important to how we address many of the grand challenges facing our world today. For example, the impact of our changing climate is a scientific problem, but it's also a social, political and economic concern. Similarly challenging, artificial intelligence presents as a technological advancement, but it also manifests ethical questions.

The challenges and opportunities our students encounter as graduates require broad perspectives, intellectual curiosity and nimble thinking. We have an awesome responsibility to prepare them to be leaders in a complex and increasingly pluralistic society. I recently had the privilege of chatting with former Major League Baseball Commissioner Bud Selig. He co-teaches a course on the history of baseball. He told me about one of the questions he lectures on: How did the MLB decide to resume play after the 9/11 attacks? This unique real-world perspective on decision making is a single, yet poignant, example of the value of a liberal arts education.

Six years ago, we launched SuccessWorks, an innovative approach to career services for L&S students and recent alumni. SuccessWorks is grounded on the principle that each of our more than 67 undergraduate majors prepares students for success after graduation; at their core in their own way, our liberal arts majors prepare students in critical thinking, analytical reasoning, problem solving, oral and written communication and, for many majors, ethical conduct and responsible citizenship. That we prepare students with such a set of foundational skills that are universally applicable is why the liberal arts education is so valuable.

It's for these reasons and more that we are embarking on a new initiative to re-articulate the value of the world-class liberal arts education we provide in the College of Letters & Science. We're also reflecting on our degree requirements to ensure that we are living up to our promise to provide an educational experience that prepares students to be stewards of the Wisconsin Idea.

On, Wisconsin! ■





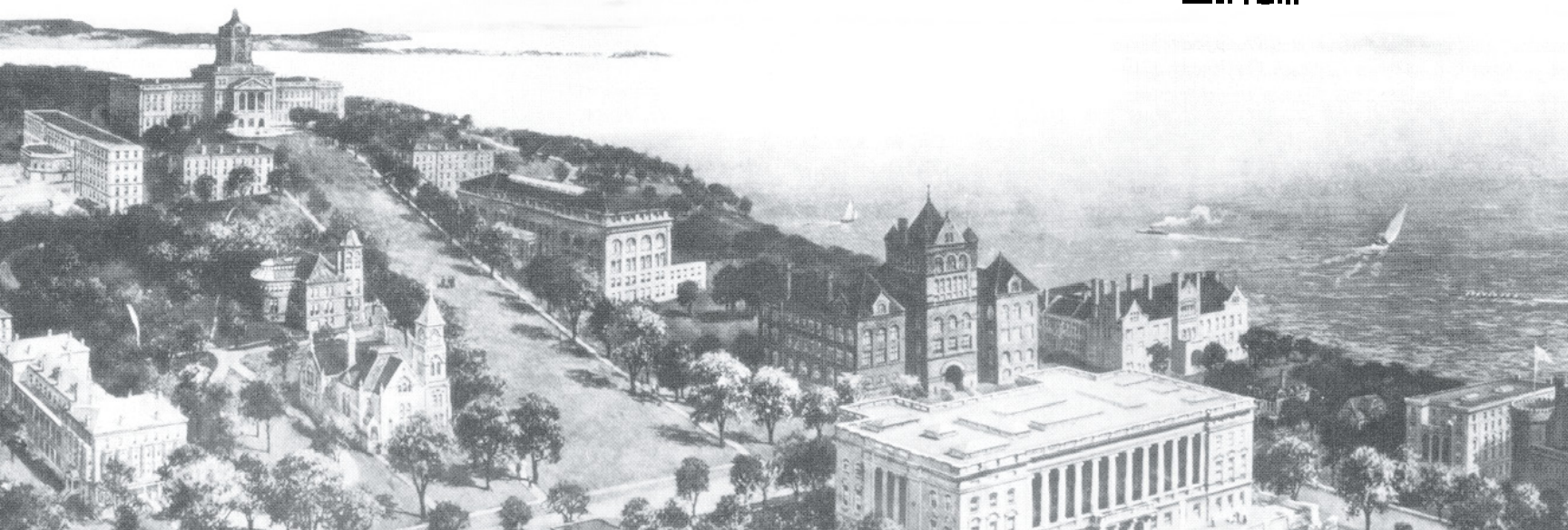
# FACULTY EXCELLENCE. STUDENT INNOVATION. WORLD-CHANGING RESEARCH.

The College of Letters & Science is where **bold** discoveries take place. Our students, faculty and staff push the boundaries of knowledge each and every day, creating the innovations that will shape the next 175 years of this great University.

Your support makes our mission possible.

Gifts to the Letters & Science Annual Fund allow us to retain the nation's top faculty and to recruit the brightest students.

Make your impact today at [supportuw.org/giveto/lsc23fall](https://supportuw.org/giveto/lsc23fall).



Save the Date: Day of the Badger April 16–17, 2024





College of Letters & Science  
UNIVERSITY OF WISCONSIN-MADISON

405 South Hall  
1055 Bascom Mall  
Madison, WI 53706

Nonprofit  
Organization  
U.S. Postage  
**PAID**  
UMS

## Last Word

The *Badger Pride Wall* is especially spectacular at night, when the 80-foot-long artwork is backlit to show shadows of quintessentially UW-Madison symbols. Local artist Nate Koehler created the intricate design, which stands six feet tall at Alumni Park. In the wall, you'll spot a flock of Bascom Hill flamingos, canes being flung into the Camp Randall endzone and, of course, Babcock Ice Cream, among many other Badger symbols. See the full wall and learn the histories of its many symbols at [alumnipark.com](http://alumnipark.com). There's an interactive map that allows you to click on each individual design to learn its story and significance.



PHOTO: TAYLOR WOLFRAM