

THiNK

MAGAZINE

COLLEGE OF LIBERAL ARTS | Fall 2018

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WILLAM FORSTCHEN

MA 1991, PhD 1994, History

William Forstchen had taught in secondary education for a decade and had already published seven novels by the time he decided to pursue a master's degree and PhD at Purdue. He credits many generous faculty members — including Spanish teacher David Flory, who attended the Distinguished Alumni Awards banquet — for helping him overcome crippling dyslexia and satisfy the foreign language requirement necessary to complete his PhD

After completing that coursework, Forstchen went on to become a noted public speaker and *New York Times* best-selling novelist, with works that include *One Second After*, currently in development as a television series. He has also spent the last 24 years as a faculty member at Montreat College, where he is a full professor of history and faculty fellow.

Had it not been for faculty members like Flory who took an interest in his success, Forstchen doubts that he could have completed his academic requirements. Their willingness to do so, he said, is what makes the Purdue community special. "Purdue is not about buildings," Forstchen said. "Purdue is about people."



RODNEY HERO

MA 1976, PhD 1980, Political Science

Rodney Hero has expanded upon the educational foundation he received while studying at Purdue from 1975 to 1980 with wider-ranging research into racial issues in American politics.

The first Latino to be elected president of the American Political Science Association, Hero currently holds the Raul Yzaguirre Chair in the School of Politics and Global Studies at Arizona State University. His work as the director of Arizona State's Center for Latina/os and American Politics Research focuses on American democracy as viewed through the lens of racial politics.

"When I was here, we had some wonderful professors, but it's interesting that at that time, the study of race and ethnicity, particularly about penal politics in American political science, was virtually unknown," Hero said. "Over time, I really felt like I had to build on the foundation that those professors had provided very well, but then to expand and to explore new questions."

As a political science professor, Hero has been a faculty member at Colorado, Notre Dame, and Cal-Berkeley, in addition to a one-year stint as a visiting research scholar at Princeton.



KAREN SICILIANO

BA 1983, Communication

Although she was Purdue's first female Purdue Student Government president, spent nearly 20 years working on Wall Street, and now manages a successful family business, Karen Siciliano believes that her failures have been her most important life lessons.

"I think far too often, successful people and type A personalities and high-achieving students put a lot of pressure on themselves to never fail. I will say that it is as important a part of life as succeeding is," Siciliano said. "And when you do, because you will, the first question you should ask yourself is, 'What is this here to teach me?' If you can gain those lessons, then you come out of it a better person for having experienced it."

In an 18-year career in the finance industry, Siciliano became vice president at JP Morgan and Chase Manhattan Bank before returning home to New Jersey to take over a business her grandfather started more than 80 years ago, Siciliano Landscape Company. Siciliano has helped the business quadruple in size while specializing in commercial and landscape architecture in design, installation, and maintenance.

Photos on facing page, top to bottom: Outstanding Senior Award winners Claire Lee (economics), left, and Bridget Curry (anthropology), center, chat with guests at the 2018 Alumni Awards Banquet at the Shively Club at Ross-Ade Stadium. The 2018 Distinguished Alumni pose with David A. Reingold, Justin S. Morrill Dean of Liberal Arts. Distinguished Alumnus Karen Siciliano addresses the audience while accepting her award. Christopher Yeomans, Head of Philosophy, chats with Dean Reingold prior to the awards banquet. Distinguished Alumnus William Forstchen gives a moving acceptance speech, thanking former Spanish professor David Flory, who attended the ceremony. Dorsey Armstrong, Head of English, presents her department's Outstanding Senior Award to Katelyn O'Farrell. Distinguished Alumnus Rodney Hero delivers his acceptance speech. (Photos by Trevor Mahlmann and Tom Crockett)

Visit www.cla.purdue.edu/alumni/awards for more information about the 2018 Distinguished Alumni.



A group of 14 Purdue students visited Hungary, Slovakia, and Germany this summer with the "Human Rights on the Move" study abroad trip. At left, graduate student Sophie Wu looks out from Devin Castle in Bratislava, which formerly sat upon the Iron Curtain separating Eastern and Western Europe. At top, students meet with People in Peril NGO director Branislav Tichý in Bratislava. At center, the group poses together in Szentendre (Saint Andrew), Hungary, an artists' hamlet close to Budapest. At bottom, the group gathers in front of the Law School of the Eötvös Loránd University (Tudományegyetem) (ELTE). [Read more about Human Rights on the Move in a feature story about the trip at cla.purdue.edu/think.](http://cla.purdue.edu/think)

Photos courtesy of Human Rights Program at Purdue



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MORE AT CLA.PURDUE.EDU/THINK

Bobby Chastain's Film and Video Studies students get first-hand pointers from program alums working in the production field.

"Human Rights on the Move" summer trip gives students a glimpse of international attitudes toward immigration.

Cover: Cover illustration by Jarrod Hurt. Cover images by Mary Phoenix (globe), Luc Viatour (Vitruvian Man) and from pixabay.com (rocket and artificial intelligence). "Giant Leaps" theme icons by Maxim Basinski, Vaadin, and Freepik (available at flaticon.com). **Page 4:** Photo by Lori Sparger. **Pages 5 and 34:** Neil Armstrong photos courtesy of NASA. **Page 10:** Illustration by Jarrod Hurt using wordart.com/create. **Page 15:** Illustration by Alejandro Zorrilal Cruz. **Page 17:** Photo by Eduard Harkonen (istockphoto.com/portfolio/eduardharkonen). **Page 18:** Photo by John Moeses Bauan (unsplash.com/@johnmoeses). **Page 22:** 1923 University Hall photo courtesy of Purdue University Libraries, Karnes Archives and Special Collections. 2018 photo by John Ganser. **Page 33:** Photo by Mark Simons. **Page 36:** Photo courtesy of Missy Lewis.



ON THE COVER. Between Homecoming 2018 and Homecoming 2019, Purdue will celebrate its sesquicentennial anniversary with the "150 Years of Giant Leaps" campaign. At the center of the celebration will be events focused around four "Giant Leaps" themes: space, artificial intelligence, longevity, and sustainability.

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| C O N S I D E R T H I S |



Photo by Mark Simons

Dear Friends,

This fall, as THiNK Magazine mailed, Purdue kicked off its yearlong sesquicentennial celebration.

Anniversaries are occasions for reflection. We look back on 150 years of education and research that have improved lives and shaped communities. It is appropriate to look back, to celebrate our Giant Leaps, and to be informed about ways in which our successes might be even greater.

As important, though, is looking forward and envisioning what achievements the next 50, 100, or 150 years might bring. It is in that spirit Purdue is presenting its Ideas Festival as part of the celebration.

The Ideas Festival will convene discussions on Space, Artificial Intelligence, Health and Longevity, and Sustainability. In this issue of THiNK, we present an impressive collection of stories from the College that explore some of the ways our research and creative endeavors touch upon those topics.

Collectively, these stories demonstrate the impact and importance of our disciplines at Purdue. In an age of fast-paced technological advances, it is imperative that we recognize technology is developed by and for humans.

Whether it is questions about the ethical implications of artificial intelligence, strategies for living healthier, more productive lives, or how the images of historic figures are used even after their lives are over, the centrality of the liberal arts is undeniable.

The advances we will make in the next 150 years will be more dynamic with a more meaningful reach when considerations of societal and cultural impact, a genuine understanding of the human implications, and an appreciation of aesthetics are woven into decision-making processes.

The chance to contribute to conversations about the advances Purdue will develop illuminates the unique opportunity for our College of Liberal Arts. Through our good work as educators and scholars, the liberal arts prepare future leaders — whether students who major in our disciplines or those who enhance their majors outside our College by taking our classes — to define the Giant Leaps Purdue University will take in the years to come.

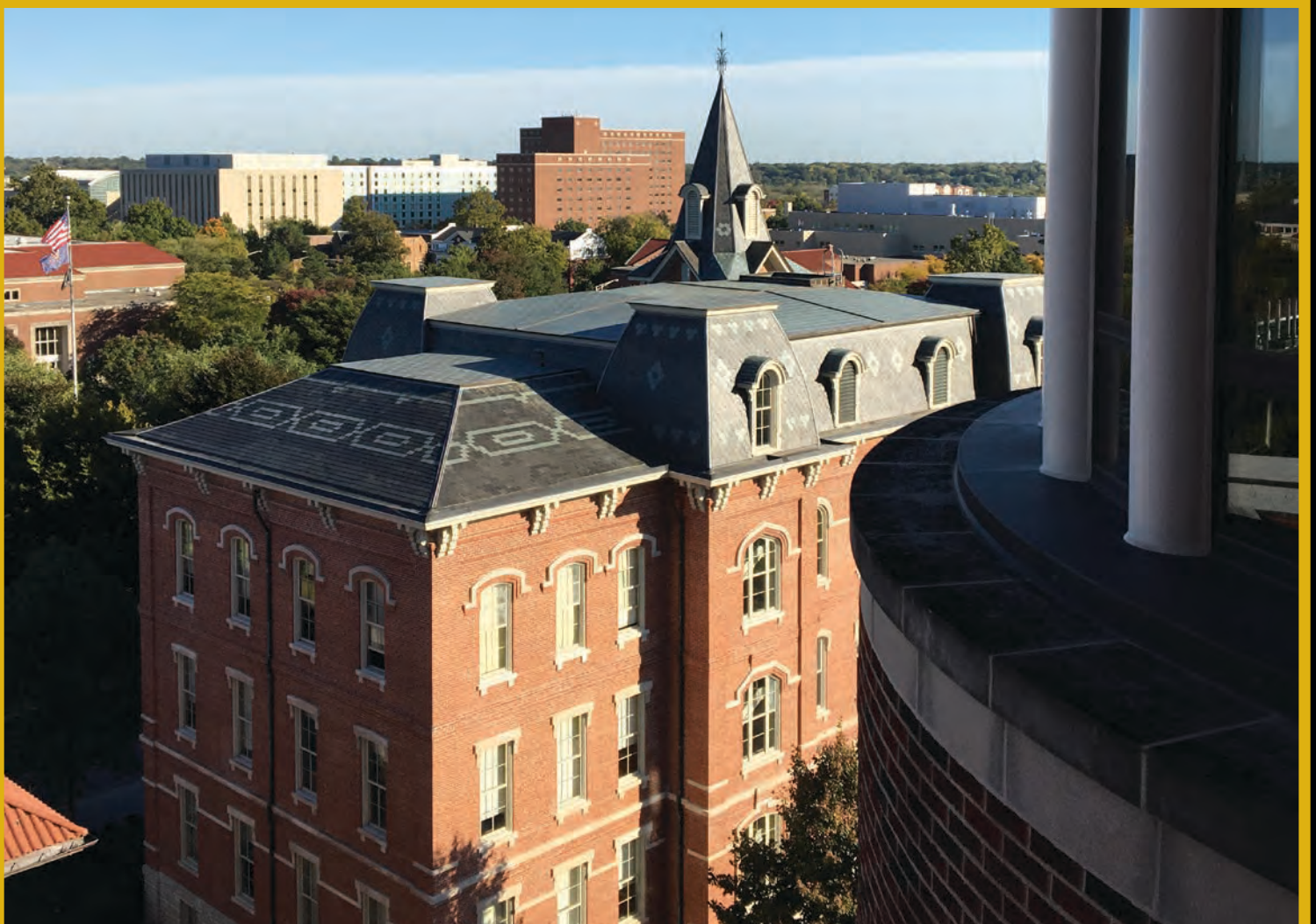
I invite you to explore these stories and consider the ways in which this College shapes our future.

Sincerely,

A handwritten signature in black ink that reads "David A. Reingold". The signature is written in a cursive, slightly slanted style.

DAVID A. REINGOLD

Justin S. Morrill Dean



SPACE
EXPLORATION

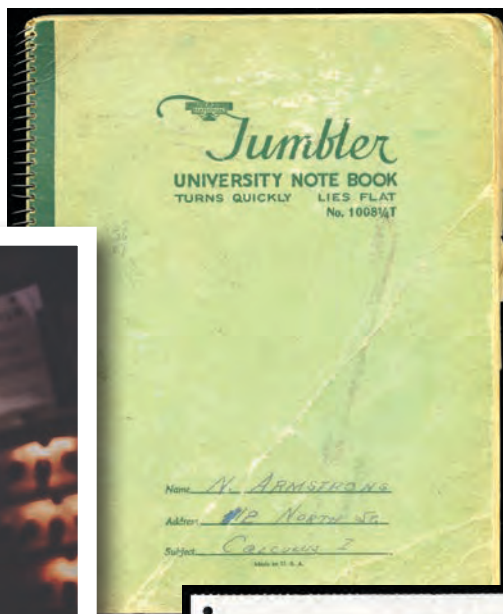
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HEALTH &
LONGEVITY

15 **YEARS OF** **GIANT LEAPS**[™] P U R D U E U N I V E R S I T Y

The Purdue University Sesquicentennial Campaign, 150 Years of Giant Leaps, is a yearlong celebration of Purdue, its remarkable people, its unique history, and its visionary drive to meet the world's future challenges. From Homecoming 2018 through Homecoming 2019, the Purdue community will spend the year celebrating its unique legacy, which has included giant leaps across every field of endeavor, and further advancing the mission set forth since its founding as a land-grant university in 1869. With the campaign serving as a springboard for a renewed commitment to growth, innovation, and discovery, Purdue's call is simple: Whatever your pursuit, take Giant Leaps.



REGISTRAR'S OFFICE
PURDUE UNIVERSITY-LAFAYETTE, INDIANA
GRADE REPORT

REG. NO. 10081/T COPY 2

STUDENT NAME: MR. ARMSTRONG, NEIL ALDEN
 GRAD: AGRICULTURE
 ADDRESS: 112 NORTH ST. W.L.

KEY TO COURSES

1	Agriculture	12	Elementary Ed.	22	Mechanical Eng.
2	Accounting	13	Engineering	23	Metallurgical Eng.
3	Art	14	Gen. Ed.	24	Pharm.
4	Business	15	Home Econ.	25	Public Health
5	Chemistry	16	Liberal Ed.	26	Education
6	Physics	17	Education	27	Law
7	Mathematics	18	Education	28	Library Science
8	Psychology	19	Education	29	Public Admin.
9	History	20	Education	30	Public Admin.
10	Political Science	21	Education	31	Public Admin.
11	Social Science	22	Education	32	Public Admin.

DEPT.	COURSE NUMBER	COURSE TITLE	SEMESTER	GRADE	CREDIT HOURS	KEY TO GRADES AND DESIGNATIONS
GE	16	DESCRIP GEOM	1	C	3.00	A
PHY	22	GEN. PHYSICS	1	C	3.00	A
SPE	14	WRIT. OF SPEECH	1	C	3.00	A
MA	4	CALCULUS I	1	C	3.00	A
PEM	13	PHYSICAL ACTIV	1	C	0.50	A
SRD	13	MIL. BAND	1	C	0.50	A

ACCUM. TOTALS TO DATE: CREDIT HOURS 6.450, QUALITY POINTS 20.934

TOTALS FOR REPORT: CREDIT HOURS 6.450, QUALITY POINTS 20.934

Neil Armstrong donated hundreds of boxes of personal documents to Purdue, including items like this notebook and grade report from 1949. (Neil A. Armstrong Papers, Courtesy of Purdue University Libraries, Karnes Archives & Special Collections)

Inspiration from the lunar surface

Historians and writers regularly visit Purdue University Archives and Special Collections to research their work, but visits from visual artists are not as common.

With the 50th anniversary of Boilermaker Neil Armstrong’s landmark moon landing approaching in 2019, leaders at Purdue Galleries and Barron Hilton Flight and Space Exploration Archives sought a unique way to celebrate this important moment in university and world history.

“We thought, why don’t we have artists come in and conduct research in the archival collections to see what might inspire them?” said Tracy Grimm, archivist for the Hilton collection.

Over the summer, artists Jennifer Scheuer, Frances Gallardo, and Michael Oatman were granted access to the personal documents and artifacts of legendary astronauts like Armstrong and fellow Purdue alumnus Eugene Cernan that are housed in the archives. Those materials will inspire artwork for the exhibition, “Return to Entry: Interpreting Purdue’s Space Exploration Archives,” at the Robert L. Ringel Gallery in Stewart Center.

The exhibition will run from March 25 through May 11.

“We’re going to take a moment here and pause and kind of look back and really think about it a little bit, about what happened,” Purdue Galleries interim director Michal Hathaway said of the



Inspiration from the lunar surface

CONTINUED FROM PAGE 5

Armstrong-led Apollo 11 lunar landing on July 20, 1969. “We’re taking just that little moment in history and reviewing it a bit.”

That was the starting point for the exhibition, but it was up to the individual artists to determine what inspired them once they began to examine the massive volume of materials available. Grimm said the Neil A. Armstrong Papers feature approximately 450 boxes of his personal belongings — including 70,000 leaves of paper in the fan-mail section alone — and that others involved with the space program have also donated to the collection.

“We have the papers of other astronauts, not even limited to Purdue graduates,” Grimm said, “because once people knew that Neil and Eugene Cernan donated their papers to Purdue and that there was an endowment for the care of flight and space documentation here at Purdue, I think they felt most comfortable donating their papers here. We have developed quite an interesting research collection for human space exploration during the Apollo and shuttle eras.”

After receiving special collections grants from the Hilton endowment to cover travel and lodging, the visiting artists’ mission was to “bring art, engineering, and science together to imagine new horizons” informed by the archival documents, according to the exhibition’s description.

Oatman, an associate professor of architecture at Rensselaer Polytechnic Institute in New York, was well-versed in using existing artifacts for inspiration, as evidenced by his collages and installations built from found and handmade objects.

Gallardo, whose work Grimm described as having an “ethereal, sort of otherworldly” feel, also visited from New York.



Artist Michael Oatman examines pieces from the Neil A. Armstrong Papers with help from archivist Tracy Grimm. (Photo by David Ching)

Meanwhile, Scheuer was already on campus. The visiting assistant professor in the Patti & Rusty Rueff School of Design, Art, and Performance was already familiar with the archives, as well, having brought classes there to utilize its materials for research projects on anatomy.

Scheuer has, in the past, also turned to archival material to inspire art, creating prints that explore an ancient theory about plants and medicine, the “Doctrine of Signatures,” which suggests that plants physically resemble the body part they can treat. For instance, a veiny bloodroot could be used to treat a condition of the circulatory system.

“Often when I’m in the archive, I’m reading text-based works. The material is not necessarily something visual, but as an artist I am visualizing the information,” Scheuer said in June, shortly after beginning her research in the space collection. “I think that will be the case working with the Purdue collections.”

For the most part, Scheuer and the other artists were on their own to discover and create. Grimm willingly assisted the artists in finding archival materials that fit their individual interests, but she and the other organizers placed no requirements on what they could produce from there.

“I think it will just depend on what their muse is when they go and look at this and see what inspires them to do work,” Hathaway predicted. “We’re encouraging them to especially look at Neil’s stuff

since he has a connection to the university and we’re celebrating that anniversary. But it’s kind of open to the artist, and they’ll be able to pull in their own experiences, as well.”

Scheuer wasn’t alive when Armstrong took those first steps on the moon, adding to the project’s appeal for her. Most young people possess a basic understanding of the Apollo 11 mission and its historical significance, but her archival research provided a rare glance at NASA’s mission preparations and Armstrong’s thought processes leading up to launch.

The opportunity to dig through those intimate details from one of the most ambitious achievements in human history made joining the exhibition a no-brainer, Scheuer said.

“I know a little bit about the moon landing and NASA from history classes and watching documentaries over the years,” Scheuer said. “What is exciting about the project to me is having firsthand access to this cultural experience through the archives and to consider what questions might be significant to ask as an artist.

“How do I express the historical and cultural significance of these events? Or how, visually, can I express cultural impacts of NASA and space?”

As the 50th anniversary of Armstrong’s “Giant Leap” arrives next summer, we will have the opportunity to see just how Scheuer and the other artists launch their own artistic explorations.

By David Ching



Purdue's key role in the race to space



Astronauts Gus Grissom, Ed White, and Roger Chaffee (left to right) stand together 10 days before a fire during a prelaunch test killed all three men. Grissom and Chaffee are among Purdue's 24 astronauts. (Photo courtesy of NASA)

Michael G. Smith's "History of the Space Age" course has always had a local flavor thanks to Purdue's many ties to space exploration.

That will be especially true over the next academic year because of its special connection to Purdue's most famous alumnus, Boilermaker astronaut Neil Armstrong, whose words inspired the "Giant Leaps" theme the University is employing for its 150th anniversary.

"I'm centering my 2018 and 2019 courses on the Apollo 11 anniversary coming up," the professor of history said, referencing the 50 years that will have passed since July 20, 1969, when Armstrong made his "giant leap for mankind" and became the first human to walk on the moon.

"History of the Space Age" — which Smith will teach again in the spring, following a fall undergraduate seminar in which students will research and write magazine-length articles on space exploration — traces the roots of the space race from the early 20th century through the Cold War to entrepreneurial efforts like SpaceX that drive space exploration today.

Even in typical years that Smith teaches the course, he makes it a regular point to feature Purdue alumni who contributed to space exploration in ways both big and small. With 24 astronauts to Purdue's credit, an alum has represented the University in space on more than a third of all human spaceflights, but the connection does not include astronauts alone.

"We don't know a lot about how Purdue engineers have informed the space program," Smith said. "We know about our astronauts, but even then it's more popular, narrative history rather than the hard-hitting interpretive history. So I'm teaching more about the engineers and astronauts as I discover in my research work what Purdue gave to the space program, and the students really like that."

Some students even contribute to Smith's course materials. The history professor is collaborating with them on a digital textbook, with engineering students condensing complex processes into layperson's terms and history students supplying context for important events.

For instance, Max Campbell (B.A. 2014, history, M.A. 2016, history) is writing a section on Purdue's noteworthy appearance in the 1967 Rose Bowl. Not only did Purdue's football team win in its first Rose Bowl appearance, but Boilermaker astronauts Armstrong, Gus Grissom, Roger Chaffee, Eugene Cernan, and Jerry Ross also were present. Weeks later, Apollo 1's Grissom and Chaffee, along with the team's third member, Ed White, were killed in a fire during a prelaunch test.

"It's this unique moment in Purdue and space history, almost like a departure from the early Mercury and Gemini programs into the moon program, basically," said Campbell, who also designed the online textbook's digital forum. "It's kind of this branching-off point. There are a lot of things that started to happen after that."

Since Smith began teaching the course in 1996, its conclusion has changed. In the early days, he ended with the proposed missile defense initiative known as "Star Wars" in the 1980s. Later, he focused on NASA's Challenger and Columbia space shuttle disasters. Most recently it has been the commercial efforts of Elon Musk's SpaceX and smaller DIY ventures — bringing students up to the present in a subject whose history continues to be written.

"It changes all the time," Smith said. "What's interesting is that the students tend to know a lot more about the most recent events than I do. So that's nice. It creates a conversation. I've learned more from them in those final weeks of class because they keep up better with current events." By David Ching



Pesticides' effects on sustainability

The story of toxic pesticides in America did not end with the Environmental Protection Agency's ban on dichlorodiphenyltrichloroethane, better known as DDT.

Fritz Davis makes that important point — and addresses the consequences of thinking otherwise — in his environmental history courses and in his book, *Banned: A History of Pesticides and the Science of Toxicology* (Yale University Press, 2014).

“Don't get me wrong, the DDT ban in 1972 was very important,” said Davis, R. Mark Lubbers Chair in the History of Science and Interim Head in the Department of History. “It was important for the health of the environment, and a number of wildlife populations have recovered since the ban on DDT. It's true for bald eagles, for brown pelicans, for osprey, among many others. Having said that, the argument that I try to make is that was anything but the end of the story, and that the pesticides used in the 1970s, '80s, and '90s were extremely toxic — toxic to farm workers as well as wildlife.

“Although most of those pesticides were banned in the early 2000s, even today the pesticides that are widely used in agriculture pose real threats to honeybees and bird populations,” Davis continued. “So no, I don't think most Americans are aware of

the tradeoffs that come with widespread pesticide use. I think for most of us, the story of toxic pesticides ended with the ban of DDT.”

Across the globe, the argument persists that pesticides remain vital in food production to affordably feed a growing population. In fact, the volume of pesticides used continues to rise both domestically and globally.

If that is to change, the United States almost certainly must lead the way, Davis said, referencing China's 1983 ban of DDT and its 2007 bans on many of the most toxic pesticides that the U.S. banned earlier in the decade.

“The overarching point that I try to make is that all chemical insecticides carry unintended consequences and yet agriculture, not just in the United States, but all around the world, remains dedicated to these chemical inputs,” Davis said. “The other side of that, though, is what are the alternatives?”

One alternative is to purchase organic produce. And while that is an option that has risen in popularity, it is not the most cost-effective way to shop.

“As produce has been produced organically at larger and larger scales, the prices come down, but not to a price that

is equivalent to produce produced with the now-standard chemical inputs in the form of pesticides and fertilizers,” Davis said. “But yes, they are generally more expensive and consumers have to weigh whether or not that's of value to them.”

Government intervention remains another effective possibility. Previous pesticide bans resulted in improved environmental and health conditions, as did legislation like the Clean Air Act and Clean Water Act.

And then there are the decisions that everyday citizens can make, Davis said.

“This is something that goes back to Upton Sinclair and *The Jungle*, where consumers take an active role in demanding food safety, which continues up to the present,” Davis said.

“I think that's, for many people, the promise of organic produce — that these foods will be free from chemical inputs, essentially.”

Time will tell how world leaders will address these concerns as they seek to meet the needs of a growing populace. Davis said the problems associated with pesticide use are not new, and it will require international cooperation to uncover solutions that are both economically and environmentally workable. By David Ching





people's carbon footprints than the steps they can take to create a sustainable world.

However, Nyssa views the Purdue community as a shining example of individuals striving to speak the ever-growing, yet underused, language of climate change and sustainability.

“This university bridges many divides and inspires people from all walks of life to talk passionately about these issues and think of cutting-edge ways to solve them,” Nyssa said. “It’s impressive how strongly Purdue invests in these environmental issues and persuades such an eclectic mix of people to commit to them.”

The Purdue Climate Change Research Center (PCCRC) is one of the groups dedicated to exploring the causes and impacts of climate change, as well as devising novel approaches to adaptation and building sustainable communities.

Established in 2004 as part of Discovery Park’s Center for the Environment, the PCCRC consists of a community of scholars spanning 23 departments and eight academic units.

To get an idea of the variety of members and specialties they bring to the table, consider a few of its faculty affiliates: Erin Hennes, an assistant professor of social psychology, examines public understanding of climate change information; David Johnson, an assistant professor of industrial engineering and political science, performs statistical modeling on extreme climate change scenarios; Robert Marzec, a professor of English, researches the historical transformations of humanity’s involvement with the environment; and Charles Gick, a professor of fine arts, explores the use of video, performance, painting, photography, and assemblage in confronting people’s relationship with nature.

This group embodies what Purdue aims to celebrate over the next year with its 150th anniversary Ideas Festival – a wide spectrum of scholars joining forces to study the world’s largest problems and opportunities.

“Climate change presents grand challenges, and building a sustainable world is a daunting task,” Nyssa said. “These obstacles are especially overwhelming when we lack a full understanding of them. It’s encouraging to see Purdue creating innovative programs that get to the bottom of these issues and connect us more closely to our local and global environment. It’s a blast working with this university in tackling an issue that so many people are passionate about around here. It gives me hope for a bright future.”

By Sam Watermeier

MENTAL VOCABULARY





Dancer Adam Shay, a senior in game development and animation, performs while wearing a proximity sensor attached to his rib cage. The sensor allows Shay to control the stage lights with his movements. (Photos by Rebecca Wilcox)

Illuminating artistic possibilities

At a fundamental level, a unique research collaboration in the Patti & Rusty Rueff School of Design, Art, and Performance involves programming wearable movement sensors that allow performers to control the stage lighting schemes.

And yet the project is about so much more than that.

The research that Rich Dionne, a clinical assistant professor and technical director in the Rueff School, is conducting with Division of Dance instructors Renee Murray and Kathleen Hickey and visiting assistant professor of costume design Erin Carignan allows the collaborators to reimagine what is possible on the stage.

“Of course I find the hardware and software stuff fascinating, as evidenced by the piles of hardware all over my desk,” said Dionne, the project’s technological mastermind. “But the project has caused us to have to think differently about rehearsal and performance. Not even just about authorship and control, but how does the whole creative process work with technology?”

For choreographers Murray and Hickey, how can the dancer convey a story by affecting the light’s color, brightness, or direction?

Which performer should control the light changes?

How can they encourage artistic growth from their dancers,

allowing them space to improvise as they interact with the lights and fellow performers?

And how can they make the audience aware the dancer is manipulating the stage atmosphere?

“We’re interacting with lighting through our exploration process,” Murray said. “Hopefully not just layering it on top so it’s not just an interesting design element, but that it becomes integral to the piece so that the dancers are in conversation with the lighting throughout the process.”

That has been the premise of the experiment since Dionne, Murray, and Hickey first decided to collaborate in 2015, but their November 2016 debut performance using the technology made it clear that exploring the marriage between art and technology would require further innovative thought. They also needed to stray from the conventional path that connects rehearsals to the formal performance.

Most of the heavy lifting for a dance or theatre production is done in the studio or rehearsal room. There, directors and their actors or dancers iron out details well before they transfer the piece to the performance stage. It’s nearly a finished product once onstage

rehearsals begin, with technical workers who manage light and sound joining the artists to apply finishing touches prior to opening night.

Only after their debut performance did the collaborators realize that a traditional approach would not suit their specific needs. They needed to choreograph and rehearse the pieces while using the sensor-connected lights, and they needed to involve technical specialists in the creative process from the very beginning, not only at the end.

“Kat and Renee were developing choreography in a vacuum,” Dionne said. “They were imagining what would happen with the sensors they had instead of actually working with them. Well, when the dancers are interacting with the lighting or the sound or the video, you can’t wait until the end. So one of the first things we did after that performance was to put some lighting instruments in the dance studio so that as they’re working on exploring what the choreography could be, they would have access to the light fixtures that could be controlled and some of the sensory devices.

“It seems obvious in retrospect, that if you’re going to dance with the technology, you need to practice with the technology. But it didn’t occur to us because you sort of live in the assumptions you live in.”



MORE ONLINE:
Dancers and choreographers describe the process of integrating motion sensors into their performances. Visit cla.purdue.edu/think

Illuminating artistic possibilities

CONTINUED FROM PAGE 13



Above, Grace Morris, a senior in English, performs a duet with Renee Murray. Morris is wearing a flex sensor on her left elbow that allows her to manipulate the stage lights by flexing or extending her arm.

Theatre lighting MFA student Allison Newhard could make a similar statement about her previous approach to her responsibilities. She had never participated in such an outside-the-box project before, and can now admit having felt somewhat insulted that it took away her control over the lights and handed it to the performers.

However, as her familiarity with the project grew, she became inspired by the new ways she could affect the presentation of each work.

“We felt a little like our jobs were being taken away because they were putting the design in the control of the choreographers,” Newhard said. “If they wanted the light to tilt a certain way, they’d move their arm a certain way. So all of a sudden, they were really the designers.”

“But it opened up a whole new world of now I can sit there and think, ‘Well, what do I want each sensor to control? What kind of attributes can each sensor control?’ And that got us to a whole different side of design.”

As is often the case with a new venture, the 2016 debut came with its share of technical hiccups. The DIY wearable technology can be finicky at

times. Syncing the sensors with the lights is complicated, and the interface does not always work as intended. And the collaborators had to scrap an ambitious plan to perform to music that an AI algorithm composed instantaneously based upon data it received from the body sensors.

In its infancy, as remains the case, the project required patience from all involved.

“With every experiment you have a hypothesis, and that first hypothesis sort of gave us what we wanted, but not entirely,” Hickey said. “So now we have learned from that first process of research, and we’re trying to do it in a different way and look at it through a different lens. Now it’s really about what can the technology do? How does interacting with the technology serve the dance, and how can we immerse ourselves completely?”

Even if the research can occasionally become frustrating, with two technical steps forward and one step backward, the collaborators agree that it has advanced significantly since the first performance.

The lights’ presence in the studio has given Murray and Hickey time to

explore ideas with their dance students, and Dionne has made enormous strides developing the software that allows the sensors and lights to communicate.

Credit Puja Mittal for some of the technical progress, as well.

Hickey happened to notice Mittal wearing a Purdue Hackers T-shirt in a dance class two years ago and asked the senior in computer science whether she would be interested in helping Dionne author more advanced software code.

“I was like, ‘This is the coolest project that I’ve ever heard of. I would absolutely love to talk to the professor,’” Mittal said.

Their partnership resulted in a more polished software infrastructure that expanded the possibilities for performers to affect the environment on stage.

“Puja really revolutionized the program that we’re using and the technology that we’re using,” Hickey said. “I’m sure she will be kinder about our technology, but I feel like she brought us from the Dark Ages to now. She’s wonderful.”

Her involvement has benefited Mittal, as well, and not just because it offered a chance to develop her programming skills.

“

I feel like because we're such an investigatory and exploratory school, with this idea of imagination and where we can go and how we can still provide inspiration to our students, the glory of this collaboration is that it is ongoing with every new idea. There are always things to learn and there are always things to ask, 'OK, what's behind this curtain and what's behind that curtain? Keep going.'

— Choreographer Kat Hickey

”



She is also one of the dancers who perform with the sensor technology.

“Being able to feel like, ‘I built this and now I’m performing with it’ is honestly a dream come true,” Mittal said. “It’s nothing short of that.”

Where the project goes next is still to be determined. Murray and Hickey are planning an informal performance this fall, with a more structured exhibition to follow in the spring.

And as they work toward those performances, they also contemplate what might become of their work in the future.

Murray and Hickey continue to experiment with their students on the many ways they can allow performers to control the stage environment and respond to any changes.

Mittal would love to see it developed into a home version that a user could program from a laptop.

“There are so many more options then,” she said. “It’s not just these five dancers that have access to this technology, it’s the world. And then whatever can be made with that,

that expands it so much more.”

And Dionne sees the technology eventually becoming useful for traditional theatre performances, where actors wearing sensors or smart fabrics can affect the stage conditions. He also hopes to hand the technology over to other dance companies, allowing them to add their own twists to what the Purdue group has accomplished.

As another example of the innovation that is taking place in the newly renamed Rueff School — which added “design” to its title in June to recognize the school’s cutting-edge design program — the collaboration’s future possibilities are seemingly endless.

“I feel like because we’re such an investigatory and exploratory school, with this idea of imagination and where we can go and how we can still provide inspiration to our students, the glory of this collaboration is that it is ongoing with every new idea,” Hickey said. “There are always things to learn and there are always things to ask, ‘OK, what’s behind this curtain and what’s behind that curtain? Keep going.’”

By David Ching

Striking an ethical balance in AI

While he acknowledges that humans must be mindful of how we allow rapidly advancing technology to impact our lives, Daniel Kelly does not buy into the doomsday scenarios tying the beginning of artificial intelligence (AI) to the end of humanity.

Instead, the associate professor of philosophy points to centuries of recorded human history that indicate the exact opposite.

“The way that the human evolutionary trajectory shot off from that of other primates was driven by our capacity to cooperate and build technologies which allowed us to collectively solve problems,” said Kelly, who discussed the subject in a presentation titled, “Minds, Culture, and the Evolution of Intelligence: What’s Going to Happen to Us?” at the 2014 Dawn or Doom conference. “Our intelligent capacities have never been completely confined to our biological brains.”

The difference today, of course, is that technology is exponentially more sophisticated than it was hundreds of years — much less decades — ago. Advancements in areas like AI and machine learning are increasingly affecting our everyday lives, sometimes in detrimental ways.

As these technologies continue to develop, it is imperative for humanity to develop an ethical structure to harness their potential instead of spelling our doom. Kelly fears society is already behind in that regard.

“How to have good oversight, and by whom, and who understands it well enough to have effective oversight are all central issues. In the last couple of decades, our technologies have developed so rapidly and have become so integral to our lives so quickly, that I think our ethical systems for thinking about how to deal with a lot of them are still playing catch-up,” Kelly said.

As an example, Kelly cited his project on human reliance on algorithms to sort through big data, ignoring the reality that algorithms reflect the biases of their human programmers. There are times, Kelly said, where this allows the algorithm to “turbocharge” injustices we already see in society.

“One of the worries here is that because algorithms, in the



public imagination, have this veneer of mathematical infallibility, this connotation of pure objectivity, that we’re going to give them a kind of epistemic authority that they don’t really deserve. ‘Well, the algorithm says that this person is a high risk to commit another crime, so, of course, they should not get parole. They should be thrown back in jail.’ But algorithms are not infallible oracles,” Kelly said.

“Their outputs shouldn’t be taken as sacrosanct — especially when they are operating with data that can reflect past prejudices that have been baked into our society already. So one worry might be that we’ll start treating these artificial intelligences as being better and more objective than they actually are; we’ll cede too much authority to them too soon when in fact they’re not anywhere close to being able to make fine-grained and ethically informed judgments.”

Kelly’s hope is that those working in the humanities will provide a framework for benefiting from these radical technological advancements while still maintaining some semblances of personal privacy and transparent, ethical behavior from developers and big tech companies.

Maintaining that balance will be one of the major societal challenges of the coming decades, but the technological advancement itself does not concern Kelly. Just as previous generations of humans leveraged innovation to further the evolution of the species, Kelly predicts these developments will only further that progress.

“What’s made us distinctively human is that we’ve been doing stuff like this — externalizing our intelligence and problem-solving capabilities into useful technologies — for hundreds of thousands of years,” Kelly said. “We create new gadgets, and then change as we come to rely on those gadgets. This pattern has driven a feedback loop that over the long haul has helped generate our big brains and massively increased our collective problem-solving capacities.

“There’s something ironic about the worries about whether, in general, artificial or extra-biological intelligence is going to be the doom of us. If handled poorly, sure it might be. But there’s an interesting sense it was key to genesis of us as a species, too.”

By David Ching

Broadening perspectives in STEM fields



Why was it not standard practice for automakers to use pregnant crash-test dummies in accident simulations?

Why do plumbers and electricians talk about inserting “male” connectors into “female” receptacles?

Why do old science buildings on college campuses frequently have a glaring shortage of women’s restrooms?

The narrow viewpoint that all too often characterized scientific work in decades past is slowly broadening as people with a wider array of life experiences enter the field. As that change occurs, associate professor of history Sharra Vostral said, the result is a superior brand of science.

Vostral’s “STEM and Gender” course examines the culture of science and technology, focusing on how the inclusion of additional viewpoints can accelerate innovation.

“This is really the kind of message of hope that I like to give at the end — that diverse ideas create better science,” Vostral said. “More people thinking and bringing different perspectives to a problem creates better solutions, and it seems like this is, to me, the ultimate hopefulness that the class can bring.”

Although Vostral is a faculty member in Purdue’s history department, in the past she has instructed in science and technology studies, as well as in gender and women’s studies. Those experiences inform her teaching in the “STEM and Gender” class, in which approximately two-thirds of the students are women studying science and engineering.

U.S. Department of Commerce statistics revealed that women held just 24 percent of all STEM jobs in 2015, which is why Vostral believes her course’s lessons can be especially valuable for her female students. Sometimes they contend with subtle messages that they do not belong in scientific fields, but Vostral reminds them that their presence is important.

“Some of it is about helping change their worldview a little bit to understand,

‘Wait, wait, wait, there are a lot of things happening within science that have been stacked against you.’ Just understanding that helps them to do better, to not internalize it so much,” Vostral said. “That’s really important, and I think it’s a wakeup call that helps them feel like, ‘OK, I can do this.’”

To drive home her point about the necessity of diverse thought, Vostral sends students to Purdue Archives and Special Collections to conduct class research and requires them to collaborate on design projects that employ gender-conscious thinking to improve upon preexisting products.

The objective is for students to learn to consider perspectives different from their own.

“If I can convey that, that makes them better scientists, and in the end, that’s what I’m interested in. I want them to be smarter,” Vostral said. “I want them to think about problems in a much deeper way and to do better science and engineering.”

By David Ching

Healthy decisions improve later life

Kenneth Ferraro understands why someone might assume he studies old people. The Distinguished Professor of Sociology serves as director of the Center on Aging and the Life Course, after all.

While the mistake is understandable, Ferraro wants people to pay more attention to the “and the life course” portion of the center’s title. Living conditions in the years leading up to old age often impact the quality of our golden years, and Ferraro’s research also accounts for that important period.

“Many of us underestimate the influence of the early years on adult health, especially when we are teenagers and think of ourselves as invulnerable,” Ferraro said. “Most people become more aware of their health limitations and risks during middle age, and many embark on efforts to promote health. If people stay in the mindset that they are invulnerable, growing older may not be a pretty scene for them.”



This is an area of special concern today as gerontologists observe current trends and attempt to assess future conditions.

In general, American life expectancy continues to rise thanks to medical and technological advancements and improved awareness of risky life choices. This of course seems like a positive development, but are these people enjoying additional good years or are they simply living longer with chronic conditions?

“Most people want quality of life, and they interpret it as including some degree of independence. We dislike the thought of being dependent in later life, but health problems may trigger a loss of personal control,” Ferraro said. “During middle and later life, people think more about how to preserve health in the face of mounting challenges, but the nation’s health could improve greatly by more attention to health at younger ages. Small changes during early adulthood and middle age may yield meaningful health dividends during later life.”

Although there are sure to be further innovations that lengthen and optimize life, there are also obvious factors that will continue to make a difference. Diet. Exercise. Managing stress. Lifestyle choices like smoking or substance abuse.



Distinguished Professor of Sociology Kenneth Ferraro won the 2018 Lu Ann Aday Award, Purdue’s most prestigious honor in the humanities and social sciences. (Photo by Alex Kumar)

In fact, Ferraro notes that gerontologists are concerned that women’s life expectancy is not rising at the same rate as men’s, possibly because of women’s increased labor force participation in recent decades while still juggling domestic and social responsibilities outside the office.

And of additional concern: Life expectancy is not growing at all in certain geographic areas.

“Some U.S. counties and states are seeing tremendous gains in life expectancy, but it is not happening in other counties,” Ferraro said. “There has actually been a decline in life expectancy in some rural counties of

Kentucky and West Virginia, which is likely related to tobacco culture: tobacco farms, high rates of smoking, obesity, sedentary lifestyle, consumption of trans fats. There are different cultural approaches to health, and some of the widely accepted lifestyles come back to haunt people during their middle and later years.”

Ferraro’s life-course perspective has produced a wealth of innovative research — including his recent book *The Gerontological Imagination: An Integrative Paradigm of Aging* (Oxford University Press, 2018) — that established him as a leader in his field. It also led to his selection for the 2018 Lu Ann

Aday Award, Purdue's most prestigious honor in the humanities and social sciences.

With Purdue's 150th anniversary Ideas Festival set to launch this fall, the timing will be perfect for Ferraro to deliver the Lu Ann Aday Distinguished Lecture on Oct. 29.

One of the Ideas Festival's four themes is "Giant Leaps in Health, Longevity, and Quality of Life," which aligns with Ferraro's area of study. Along with the Center on Aging and the Life Course's September symposium, "Technological Innovations for Optimal Aging," Ferraro's lecture will open the conversation that will take place across campus over the next year about longevity.

The themes might range from technical — advancements in technology that help detect, prevent, and treat

diseases or robotics that assist seniors with daily tasks — to medical — ideas for preventing and treating cancer or eliminating neurodegenerative diseases like Alzheimer's and Parkinson's — to fanciful — considering how surgery will change in the future or asking whether humans could someday live to 150 years old.

There is ample reason to approach these subjects with optimism. Ferraro points out that there has been a substantial decline in the prevalence of cardiovascular disease, breast cancer, and prostate cancer, with evidence showing people are better able to manage these conditions and enjoy a higher quality of life while dealing with them.

However, not all of the news is good. Incidences of liver and brain cancer are

rising at an alarming rate, and diabetes is on the rise, as well.

These contradictions will be aspects of the discussion that Ferraro hopes will occur at Purdue over the next year as the campus contemplates how to optimize the quality of life for all with the goal of adding high-quality years to everyone's life expectancies.

"The spatial variability in health and life expectancy also reveals one of the key ideas of gerontology: The aging process is modifiable," Ferraro said. "The link between social life and health confirms that we can either slow or accelerate biological aging.

"Our goal is to identify the social origins of health in order to optimize the aging experience for all."

By David Ching

Evaluating connection between health, education

Educational attainment has a long-term effect on health. As it turns out, your children's educational achievements can also make a difference.

Rather than limit his research to the impact of parents' educational attainment and the resulting financial impact it had on the quality of their lives, sociology associate professor Shawn Bauldry adds their children into the equation.

His goal: Determine the extent that children's educational success benefits their parents late in the life course.

"How well your children do in terms of how far they go in their educational careers is associated with their parents' health," Bauldry said. "Later in life, we're at a period in the life course where people might be retiring, might be experiencing more health problems, might be starting to engage with the healthcare system a bit more, and, at that point in time, your own resources might not be as important as your children's resources and what they can bring to help you."

Increased economic resources are the most obvious factor allowing educated children to better assist their aging parents,

Bauldry said, but there are other ways they may also be of assistance.

"More educated children might be better able to assist a parent who is suffering from some illness to understand the illness, to navigate the healthcare system, and to address the issue," Bauldry said. "It's a complex system."

Bauldry's research fits into the broader conversation about health and longevity that will occur during Purdue's 150th anniversary Ideas Festival over the next year. Much of that conversation will likely center around scientific innovation, but Bauldry also encourages us to think broadly about quality-of-life issues.

"What are the things that affect lots of people? Or how can we take technological developments that only a few individuals are using and extend them? Those sorts of questions are harder," Bauldry said. "I think we spend more time and resources trying to find the newest form of intervention or treatments for a specific diseases. But expanding access to these developments to the broader population is also an important piece."

By David Ching

Design collective aims to do good

At the heart of an ambitious design project founded at Purdue is a desire to ease the everyday burdens, both large and small, that disabled people face.

After witnessing the success of a remote global design workshop that Purdue held annually in the past, associate professor of industrial design TJ Kim sought to expand upon the concept. He wanted it to be interdisciplinary, combining input from biomedical, engineering, and design contributors. He wanted it to include global perspectives in real time. And he wanted it to be assistive, with participants examining the challenges of disability and designing solutions that address specific conditions.

The result was the Design Good Now hackathon. The global design initiative will enter its third year on Nov. 2-4, when, for the first time, it will be part of Purdue's Dawn or Doom conference.

"Our goal is to design and develop product ideas that are useful for people with disabilities, people who cannot see, hear, walk, or who have no hands and legs," Kim explained. "All kinds of possibilities are considered for them. We design to make their everyday life easier. That was the whole topic and expectation in our global workshop."

After a modest debut in 2016, with five universities around the globe participating, Design Good Now exploded in size last year. Approximately 2,000 students from 30 universities — from North America to the UK to the Middle East to Asia — participated in 2017. Student teams contemplated solutions to a provided real-life condition, conceiving adaptive products, and then used technology-based tools like computer-aided design (CAD) generation or 3D printing to build them.



Andy Wang — shown above wearing a watermelon wrapped to his stomach to simulate pregnancy — and his Design Good Now groupmates designed a spring-mounted knee support that would make it easier for a pregnant woman to return to an upright position after bending down. (Photo by Zach Hellman)

The university groups across the globe communicate remotely with the Purdue-based participants, who work out of the MatchBOX Coworking Studio in downtown Lafayette.

"It's happening simultaneously across the world, and then we're sharing process and methods on social media," Kim said. "That's a way we communicate, sharing our thoughts by showing them what we are doing and have done. Visually communicating has helped us to better understand how participating universities are approaching the solutions with their own point of view."

Among the product solutions that the design groups created last year were a spring-mounted knee support to make it easier for a pregnant woman to return to an upright position after bending down and a device that would allow someone with arthritis to open a jar by pressing down on the lid instead of having to twist.

Kim expects the two-day, nonstop design event to continue to grow in size, particularly now that Dawn or Doom has joined the Patti & Rusty Rueff School of Design, Art, and Performance's Department of Industrial Design and the Weldon School of Biomedical Engineering as a sponsor.

"Dawn or Doom invites everyone from the school, so it's the same idea. We're trying to invite everyone from the school, not only design students, but engineering students, liberal arts students, anyone who has interest in developing product ideas for people with disabilities," Kim said.

"We're trying to make this an interdisciplinary activity and a campus-wide event to make a bigger impact for our own communities."

By David Ching



University Hall, 2018



University Hall, 1923

SCENES OF OLD PURDUE

University Hall, now home to Purdue's Department of History, was one of the original six buildings on campus. Much has changed around the building in the 150 years since the university's founding, but one thing remains exactly the same: Purdue's commitment to its mission as a place of research and learning.

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YEARS OF GIANT LEAPS™

Insights from the White House

Former First Lady Laura Bush and daughters Barbara Pierce Bush and Jenna Bush Hager will offer their perspectives on public service and share stories from life in the White House when they visit Purdue on Oct. 18 as part of the Louis Martin Sears Lecture Series presented by the College of Liberal Arts and the Department of History.

“Women in the White House and Beyond: A Conversation with Mrs. Laura W. Bush, Barbara Pierce Bush and Jenna Bush Hager” will be hosted by associate professor of history Kathryn Brownell, who will facilitate the conversation.

“I am looking forward to hearing the different perspectives of women who have been instrumental in shaping human rights initiatives, and discussing how they used their experiences from the White House to shape global policy discussions about education and healthcare,” Brownell said.

Mrs. Bush is an advocate for literacy, education and women’s rights. After leaving the White House, President and Mrs. Bush founded the George W. Bush Presidential Center in Dallas, Texas. The center is home to the Bush Presidential Museum and Library and the George W. Bush Institute, a public policy center established to solve today’s most pressing challenges by developing leaders, advancing policy and taking action. As Chair of the Bush Institute’s Women’s Initiative, Mrs. Bush promotes access to education, healthcare, and economic opportunity for women and girls around the world.

Both daughters of former President George W. Bush and Mrs. Bush remain active in global philanthropy. Barbara is the CEO and co-founder of Global Health Corps, which endeavors to solve the world’s biggest health problems. Jenna has been involved with UNICEF since interning with the organization in 2006 and writing the New York Times best-seller, *Ana’s Story: A Journey of Hope*, based upon the life of a struggling, 17-year-old single mother with HIV.

“I’m really interested in how they’ve been able to carve out their own spheres of influence,” Brownell said.

Purdue historian Louis Martin Sears established a trust in 1950 that created an annual series of free lectures on American diplomatic history or international relations. Sears served as a faculty member in the then-joint Department of History and Political Science from 1920 to 1956 and authored numerous books.

Images courtesy of C-SPAN Video Library





Unique midterms ripe for analysis

In some ways, the American political system seems to be more chaotic as the 2018 midterm elections approach than it has been since the turbulent 1960s.

That may feel unsettling to some voters, but that same uncertainty makes it ripe for analysis by political scientists. What better time for professor of political science Jay McCann and his students to examine the political process in his “Campaigns and Election” course?

“A lot of wear and tear is evident in this country, but also across Western democracies,” McCann said. “We are not acquitting ourselves well — at least not as well as we’d want as a country — and the students in our classes seem to get that. As a political science professor, it’s interesting to try to figure out, ‘Well, how much of this is related to our politics and the practice of it?’ ”

McCann has taught the course in previous election years, but this one feels different — especially for a midterm. Beyond voting to determine whether Democrats regain control of at least one house of Congress or whether Republicans retain total control, this election will also serve, at least to some degree, as a referendum on Donald Trump’s presidency.

So, while McCann is focusing on congressional and lower-level elections in class, he knows the contentiousness and pronounced polarization in national politics are also important to acknowledge.

“Midterm elections oftentimes become nationalized when there’s a particular big issue or some sort of agenda item that we’re all talking about,” McCann said. “The 900-pound gorilla in the room at this critical juncture is Trump.”

In addition to the individual races, there are many timely topics that also merit discussion in a course that covers elections.

Is our voting technology secure?

What are fair solutions to questions about voter registration and ballot security?

Should the U.S. rethink its campaign finance laws to reduce the influence big donors can have on elections?

And is it necessary to end the practice of gerrymandering in voting districts?

When students argue for changes, McCann walks them through the potential advantages and consequences of each decision.

“With a critical eye, we can speculate about reforms. With the students, it’s always engaging to talk about, if someone says, ‘We’ve got to get rid of gerrymandering,’ OK, great. Let’s go with that,” McCann said. “Well, what does a world without gerrymandering look like? How do we get there and how would that change, given that everything is interconnected? When you change one thing, you’ve got to think about spillover effects, other indirect effects, and that’s thinking analytically. It’s interesting to take students down that path.”

The elections seem especially ubiquitous this fall, and that is evident even in the fall semester course catalog. Of course the midterms figure heavily into the political science curriculum this semester, but they are also present in other areas of study and in events planned for this semester.

For instance, Jennifer Hoewe, a new assistant professor in the Brian Lamb School of Communication, is teaching a graduate-level course on media and public opinion — including how media presentation and polling can impact voter behavior.

Hoewe’s class is examining poll methodology and the ways



President Mitch Daniels and PBS' Alexander Heffner served as panelists throughout the evening at a 2016 Super Tuesday election watch party sponsored by the Purdue Honors College, the Brian Lamb School of Communication, the Department of Political Science, and Pi Sigma Alpha. Below left, students conduct a television broadcast of the event.

(Photos courtesy of Purdue Honors College)

polling data can be misrepresented when details like margin of error are explained in a deceptive or sloppy fashion. She is also examining whether polling agencies like Gallup Inc. and Pew Research Center have re-evaluated their practices in the wake of Trump's election, where most published polls had opponent Hillary Clinton winning comfortably.

"It just always looked like it was in her favor even though sometimes it fell within that margin of error," Hoewe said. "So Trump could win within their polling numbers, it just looked unlikely.

"And so Pew, in particular, has done a lot of work to see what happened: 'How did we consistently think she was going to win? Did we undersample a particular area? Were our statistics a little off? Should we readjust the model?' Those kinds of things. That will be part of the class, looking through how these big groups like Gallup and Pew adjusted their polling since that election happened."

Election night itself will feature the return of a campus watch party that was a rousing success in 2016. Hundreds of students and community members packed the Honors Hall two years ago for the



event, which featured a live, TV-style production by Lamb School students, complete with analysis and commentary from faculty and student panels and interviews with luminaries like Purdue President Mitch Daniels and C-SPAN founder Brian Lamb.

For this election, the year-old Center for C-SPAN Scholarship & Engagement joined the event's lengthy sponsor list — a group that also includes the Lamb School, Purdue Honors College, Department of Political Science, and Pi Sigma Alpha, the political science honor society.

"It's pretty obvious that the center would want to be a part of that," C-SPAN Center managing director Connie Doebele said, "so we've offered to be one of the organizing groups this year because that stuff doesn't happen by itself. It's a lot of work."

It's also an election that will be of massive importance. Political pundits have dubbed multiple recent elections as the "most important election of our lifetime" for a variety of reasons, but America's political polarization made the 2016 and 2018 elections seem especially noteworthy.

The results on Nov. 6 will offer a significant assessment of Americans' satisfaction with their leadership and will also serve as fascinating subject matter for those studying the science behind it all.

"I think from everybody's perspective, the student perspective, this is a moment. This is a core moment — a real juncture — and not just in this country," McCann said. "The good news in our lifetimes is that democracy has been on an upswing. There are dozens and dozens of countries that are now fully democratic that in your parents' era would not have been.

"So if you like democracy, well, the trends look good. But the quality of democracy and the potential siege upon democracies, those are subjects of great concern to the general public, and certainly to the students." By David Ching



Susan Page, Washington Bureau chief of USA Today, joined C-SPAN founder and Purdue alumnus Brian Lamb in April as the inaugural guest at the Center for C-SPAN Scholarship & Engagement's speaker series. (Photo by Brian Powell)

C-SPAN Center broadens archives' scope

Connie Doebele worked at C-SPAN for 25 years, playing a pivotal role in developing some of the programming for which the television network is best known.

So, when the opportunity arose to hold a position focused on making the network's public affairs content readily available to scholars and the general public, Doebele's experience made her a perfect fit.

"I guess it's not surprising that my love for that network goes pretty deep. I spent my whole professional career there," Doebele said. "The opportunity to take the programs that I and my colleagues worked so hard on and see it have a new life and new possibilities of use for future generations, that opportunity was something that is such an obvious next step for me."

That next step is a leading role with the year-old Purdue University Center for C-SPAN Scholarship & Engagement, where Doebele serves as managing director. Purdue launched the center as part of the 30th anniversary celebration of the C-SPAN Video Library, housed at the Purdue Research Park.

The center's objective is threefold: to facilitate use of the network's expansive online archive — approximately 250,000 hours of available programming across three C-SPAN channels — for scholarly research, to promote its use in the classroom, and to engage with the public and academic community on public affairs issues.

“We want to look at this collection from a Purdue standpoint, from an academic standpoint, and say to the faculty, ‘We’re a resource to help you use it. We’re a resource to help you find material. We’re going to create a website that will be organized around topics in political science and communication, and we’ll help you and help you work with your students to use the material,’ ” said Robert X. Browning, professor of communication and political science and director of the Center for C-SPAN Scholarship & Engagement.

C-SPAN founder Brian Lamb, a Lafayette native and Purdue graduate (B.A. 1963, speech), approached the university in 1987 with the idea of developing a video archive of its programming. Browning was on board from the beginning, and when College of Liberal Arts Dean David A. Caputo gave the idea the green light, the C-SPAN archives were born with Browning at the helm.

By 2010, Browning and the Video Library's staff had digitized the network's entire catalog, assembling an immediately accessible online video library that is free and available for all to use. The archives won a 2010 George Foster Peabody Award — arguably the nation's most prestigious award for public service in broadcasting — for the online library's creation.

Recording, duplicating, indexing, and archiving C-SPAN's programming was no simple task, but it was critically important because of the network's unique role as a window into the daily operations of our nation's government.



Professor of communication and political science Robert X. Browning has helped manage the C-SPAN archives since they arrived on the Purdue campus in 1987. (Photo by David Ching)

C-SPAN — the Cable-Satellite Public Affairs Network — was founded in 1977 and launched with groundbreaking, gavel-to-gavel telecasts of deliberations from the U.S. House of Representatives two years later. The Senate joined the network's programming lineup in 1986. The private, nonprofit network is funded by affiliate fees paid by cable and satellite providers.

In addition to its wealth of politics-, history-, and book-related programming from the United States, the C-SPAN Video Library also features occasional governmental proceedings from a number of foreign countries — most notably the British Parliament's Prime Minister's Questions each Sunday night — offering viewers an unfiltered look at how these bodies operate.

“Our philosophy is to stay out of the way, not give opinions, all those little things,” said Lamb, who received an honorary doctorate from Purdue in 1986 and for whom the university's School of Communication is now named. “We tried from the very beginning

C-SPAN Center broadens archives' scope

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“It’s not surprising that my love for that network goes pretty deep. I spent my whole professional career there. The opportunity to take the programs that I and my colleagues worked so hard on and see it have a new life and new possibilities of use for future generations, that opportunity was something that is such an obvious next step for me.

— Center for C-SPAN Scholarship & Engagement managing director Connie Doebele

to be natural with the audience. It’s not television to us, it’s not radio to us, it’s a conversation, and you weren’t putting on a show. There’s a major difference in what we do and what everybody else does, and that’s not critical of the others. They are in the business of making money and we’re not.”

The impartiality of C-SPAN’s broadcasting approach is what makes it such a valuable resource for scholars. The unedited feed of exactly what was said and done on the congressional floor leaves viewers to draw their own conclusions about the proceedings rather than have those actions filtered through a third-party viewpoint.

Associate professor of history Kathryn Brownell is among the Purdue faculty members who have used the archives in their research and instruction. She collaborated with Jason Steinhauer, now director of the Lepage Center for History in the Public Interest at Villanova University, on a series of videos about presidential elections that used the archives as a resource.

“Making these videos really inspired a new way of thinking about and doing history that I’ve then brought into my classroom,” said Brownell, who is also using the C-SPAN library to research an upcoming book on the political history of cable television. “The following semester, they served as an inspiration, and a model, for how students could make their own videos based on the C-SPAN archives. In a C-SPAN video assignment, students used primary historical footage that the archive has compiled from all sorts of documentaries through the years, as well as discussion by scholars



Connie Doebele worked at C-SPAN for 25 years prior to becoming the managing director of the Center for C-SPAN Scholarship & Engagement at Purdue in 2017. (Photo by Rebecca Wilcox)

about the significance of certain historical developments.”

Doebele has assisted additional faculty members — a group that includes Jennifer Hall, the COM 114 course director; Peter Watkins, a visiting professor of political science; and Natasha Duncan from the Honors College — in facilitating their own use of the archival material in the classroom.

She will further engage with scholarly work at an archives conference that the C-SPAN Center plans to hold each fall. This year’s conference, set for Oct. 21-23, will broadly focus on President Donald Trump and the upcoming congressional elections.

Jennifer Hoewe, a new assistant professor in the Brian Lamb School of Communication, will be one of the presenters.



C-SPAN founder Brian Lamb shakes hands with former Purdue basketball star Vincent Edwards after a Q&A with USA Today reporter Susan Page at the Purdue Memorial Union North Ballroom in April.
(Photo by Brian Powell)

“The work the C-SPAN archives is doing is really important and really interesting, and it’s great to have records of what our representatives and senators are saying,” said Hoewe, who will assist the center on scholarly engagement as a faculty member. “My paper is going to look at how they’ve been talking about immigration and immigrants, and how that may or may not have changed with Trump’s inauguration and his presidency.

“I’m going to look at how senators and representatives from all parties were talking about immigration policy before Trump was elected and then afterwards — about 18 months on each side — and in particular the language and the rhetoric they’re using when talking about it in terms of policy.”

The C-SPAN Center’s mission does not begin and end with facilitating scholarly work and classroom use, however. The community engagement plank will also be an essential function, with plans in the works to revive a Maymester program that takes Purdue students to Washington, D.C., to work at C-SPAN headquarters, plus a springtime speaker series that will feature notable national journalists or politicians.

Susan Page, Washington Bureau chief of USA Today, was the inaugural speaker in the series. Her April 2018 Q&A session with Lamb drew a standing-room-only crowd to the Purdue Memorial Union North Ballroom.

“I’m pretty proud that we brought Susan Page here a few months after we kicked off,” Doebele said. “That was a pretty aggressive thing for a new center to do, but we did it, and we’re already talking about who we want to bring in next year.”

If anyone besides Lamb understands which guests might best fit the C-SPAN ethos, it would be Doebele. Between two different stints as a C-SPAN employee, she produced a number of different shows and helped bring trademark C-SPAN programming like *Washington Journal*, *Book TV*, and *America and the Courts* to U.S. airwaves.

Those with a watchful eye might have even caught a glimpse of her in the recent documentary *RBG*, which used footage from a 1986 C-SPAN interview Doebele conducted with U.S. Court of Appeals Judge Ruth Bader Ginsburg, seven years prior to Ginsburg’s nomination as a Supreme Court justice.

After its first year of existence, Doebele is pleased with the way the C-SPAN Center has evolved thus far. As long as she is able to expand scholars’ and students’ awareness that the archives are available for their use and to further C-SPAN’s public-service mission, Doebele’s role at the center will remind her why her time at the network always felt so special.

“It’s kind of like working for the same place, but having a brand-new job,” she said. “You’re working with the same people that you respect and love and have the same mission, but you’re looking at it in a new way.” By David Ching

Global studies program designed to expand perspectives, perceptions

A diverse campus, curious students, and a sad tale of how chocolate is made combine to form the early narrative for Purdue's global studies major. It launched in 2016 and is growing rapidly.

Global studies as a major at Purdue was inevitable. Just walk through Purdue Memorial Union, pass by the Neil Armstrong statue, or sit in an active classroom, and Purdue's extraordinary diversity is evident. In fall 2017, Purdue welcomed 9,097 students from 122 countries, giving Purdue the fourth-largest international student population among U.S. public universities and the second-largest among Big Ten schools.

That international flavor naturally makes students curious about the broader world. Tithi Bhattacharya was teaching global history and observed that trend among her students.

Her answer — the global studies major.

“There was a real hunger among students for more knowledge about globalization and the world outside the U.S.,” said Bhattacharya, associate professor of history and director of global studies. “I felt that providing all of these students with a program that satisfied their desire to know more about globalization would enhance both their intellectual experiences and make them see their place in the world more clearly.”

Global studies is often compared to and even incorrectly equated with an international studies program. International studies' origins are from political science, so its focus tends toward intercountry relationships, politics, and policy. Global studies, meanwhile, is interdisciplinary and examines the moving parts of globalization: economy, environment, gender, race, and other factors.

Its focus extends beyond peace talks, trade, and immigration



Many students study abroad during their time at Purdue, visiting locations throughout the globe. This photo was taken in the United Kingdom on a study abroad trip led by English professor Robert Marzec. (Photo courtesy of College of Liberal Arts Study Abroad)



Global studies minor Mackenzie Breneman during her semester abroad in New Zealand. (Photo courtesy of College of Liberal Arts Study Abroad)

to global sustainability, human rights, environmental change, and economic inequality.

“It is more people-focused than policy-focused,” Bhattacharya said.

The program’s affiliated faculty sport expertise in a variety of areas, including anthropology, art, history, literature, and sociology. Coursework includes classes on global awareness, human cultural diversity, gender and multiculturalism, and global history.

Students in the program are given a wide berth in selecting an area of concentration. These areas can be geographical or thematic, such as environmental change, market economies, or economic inequality. There are also language requirements and an expectation each student will complete at least one study abroad experience.

Those expectations weren’t an issue for Maggie Tienhaara, a sophomore from Fishers, Ind. She studied Spanish and took extended service trips to Costa Rica and Honduras even before arriving at Purdue. After two days on campus as a freshman, the program won her over, and she became one of the first Purdue students to select the global studies major.

“I came to college with all these ideas, and I wanted to have my ideas and beliefs challenged,” Tienhaara said.

Tienhaara is now the program ambassador for global studies and founder of Purdue’s Global Studies Club. She applied for and won grant money to purchase chocolate to teach middle school students about slavery in cocoa-producing countries such as Ivory Coast.

“They don’t know where the chocolate comes from and the effects it has on the lives of kids their own age,” Tienhaara said. “A lot of kids who produce the cocoa they’re eating have never tasted chocolate themselves. They had no idea there were millions of slaves still today. My hope is they learn more and someday come to Purdue and stop that.”

Global studies graduates pursue careers as public interest advocates, correspondents, foreign service officers, and government executives. Bhattacharya said a current student in the program is working in Germany with an immigrant rights organization. Others join programs such as Teach for America or the Peace Corps, or become development workers for nonprofits or non-governmental organizations (NGO).

Global studies program designed to expand perspectives, perceptions

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The global studies capstone project offers students the opportunity to create their own model NGO, recently tackling issues such as ecotourism in Bali, women's healthcare in Ghana, and clean water in Guatemala. Bhattacharya said the rigorous projects leave students ready to put their ideas into practice in the real world.

"Of course it is a degree that will enhance our students' chances of getting jobs in a competitive global job market. But we are not about slotting people in. First, we are preparing people to become global citizens. We want our students to be fluent in world cultures, in global issues that affect everyone," Bhattacharya said. "Secondly, we want students to make a positive impact on the world across borders. All of us know that we are in a world that is scoured by problems, but global

studies students know that they have to be part of the solution."

Tienhaara hasn't pinpointed her career path, but filters her future expectations in much the same manner as Bhattacharya described.

"If I'm helping people, working with the marginalized, and empowering them, that's the kind of community I want to be a part of. I would go anywhere in the world that needs help," she said.

"The people in this major are amazing. Every single one is going to do awesome things. Their willingness to pursue a career, not for themselves but for others, is heartening.

"Whatever it's going to be is going to be great." By Kristal Arnold



"Purdue students study throughout the globe. Above left, associate professor of history and director of global studies Tithi Bhattacharya poses in her office with a collection of students' final projects from their Survey of Global History/Global Awareness course (GSLA 101). Bhattacharya is holding a box of spices that were available to Europeans before they discovered the New World and Asia. At right is a project showing a model graveyard that compares Old World and New World diseases. (Photo by John Underwood). Top right, Maggie Tienhaara, right, poses with a classmate from a German language class during a trip to Germany. (Photo courtesy of Maggie Tienhaara) Bottom right, Destiny Clements (center) works with her committee on a resolution at a Model UN conference in Bogota. (Photo courtesy College of Liberal Arts Study Abroad)

MURPHY AWARD WINNER JOHN SUNDQUIST

Reflections on the importance of teaching

Outstanding instruction is the foundation for everything Purdue students and researchers accomplish. Somewhere along their path to discovery were teachers who sparked their interests and inspired them to achieve in the classroom, in the field, or in the laboratory.

By presenting the Charles B. Murphy Outstanding Undergraduate Teaching Award to up to six faculty members each year, Purdue celebrates those who kindle that spark in the next generation. One of this year's winners, associate professor of German and linguistics John Sundquist, shared his thoughts on teaching with *THiNK Magazine's* Carla D. Bass:

Why and when did you decide to become a teacher?

The major inspiration occurred during my first semester teaching German as a graduate student. I enjoyed the challenge of adapting materials given to all the first-year students to my own particular class, seeing what worked and what didn't, and trying again the next day.

I loved seeing my decisions applied in the classroom, observing the students' reactions, and recognizing that I was shaping their learning experience not only daily, but also in the long term.

Who were your mentors and what did you learn from them?

I've learned from many amazing teachers. However, one undergraduate professor, Sarah DeMaris at Valparaiso University, influenced me significantly in two ways.

First, as I sought structured programs to spend a year abroad after graduation, she suggested I accomplish this independently since German universities did not charge tuition. I did precisely that, navigating the German university system on my own and working part-time to finance living expenses. Second, through her advice I learned the lifelong skills of self-reliance and self-determination to achieve personal goals.

As a graduate student, I also benefited from mentors who taught me to apply my research findings in the classroom, thus opening new avenues of discovery for my students.

Can you provide an instance that conveys why teaching is so worthwhile?

Each day in the classroom is worthwhile, affording the opportunity to influence the next generation.

Perhaps the most rewarding experience is hearing from former students. My classes inspired many to visit Germany, others pursued goals we discussed, still others secured jobs based on skills I helped them develop and refine. A former graduate student recently thanked me for inspiring him to pursue an avenue of research, now established as a completely new agenda in his job as a university professor.



Associate professor of German and linguistics John Sundquist was named in March as a 2018 recipient of the Charles B. Murphy Outstanding Undergraduate Teaching Award. (Photo by Alex Kumar)

Challenging students to think in new ways; motivating them to study abroad, or inspiring them to tackle a new, challenging job — that is what I cherish most about this profession.

What advice can you offer aspiring teachers?

First, develop your intuition and listen to it. Effective teaching often occurs in the moment, those interactions between the teacher, students, and the material.

Second, connect to other teachers and learn alternative ways to present material or engage students.

And third, be aware of a variety of learning styles in the classroom: reading and writing, speaking and listening, or hands-on activities.

My motto is, "Tell me and I forget. Teach me and I remember. Involve me and I will learn."



Marcus Knotts
BA 1999, English,
2001, creative writing,
2003, psychology

Preserving Armstrong's legacy

Few Purdue alumni have an image, or a footprint, as iconic as that of Neil Armstrong. To preserve his memory, and the integrity of his likeness, if somebody wants to use Armstrong for marketing purposes, they first have to go through Marcus Knotts.

Knotts, senior associate vice president for planned giving with the Purdue Research Foundation, is a member of a three-person committee — along with Armstrong's widow, Carol, and PRF Board of Trustees member Julia Hipps — tasked with determining whether requests to use the late astronaut's image or persona would have satisfied Armstrong himself.

"We look at all those requests and we try to pair them with the instructions he left for us. While he really hoped we would use his image sparingly, he wants us to continue to encourage STEM education, and to celebrate discovery and ingenuity in science and education," said Knotts, who holds Bachelor of Arts degrees from Purdue in English (1999), creative writing (2001), and psychology (2003). "These are the kinds of things that he would want to support, and the kinds of things he would lend his image to during his lifetime. He wants us to carry on that mission, as well."

Prior to his death in 2012, Armstrong — who graduated from Purdue in 1955 before becoming the first man to walk on the moon in 1969 — signed an agreement with PRF to steward his personality rights along with a member of the Armstrong family. He is the only Purdue alumnus with such an arrangement, Knotts said.

When someone wishes to use Armstrong's image or likeness for commercial or educational purposes, it is Knotts' responsibility to review details of the request and present them to the committee, which collectively decides if the request is an appropriate usage.

Projects like film documentaries on space flight generally gain the committee's approval. However, those looking to sell a Neil Armstrong bobblehead or to use a recording of his voice in a diaper commercial will probably be disappointed by the committee's decision.

"And that diaper thing actually happened because of the 'One small step for man' statement," Knotts said, referring to Armstrong's famous words from the lunar surface. "They wanted to use the audio recording and pair it with the baby taking its first steps. Cute concept, but not within our guidelines."

The committee is also in preliminary discussions with a group aiming to develop a museum exhibit where visitors interact with lifelike holograms of historic figures. The exhibit is not a done deal yet, but the potential educational value has intrigued committee members.

“Advances in AI have been amazing, and there are technological wizards creating experiences where you interface with an AI to answer questions about someone’s life instead of watching a short film,” Knotts said. “You can speak to an avatar, ask the questions that are important to you, and it responds back to you based on your questions. I have seen the technology at work and it is truly amazing. But I have questions about what this means for the future.

“Right now, if you want to interview somebody, ask the questions everyone wants to know, and shape that conversation to fit the program, you can do that. But it is impossible to sit down with Benjamin Franklin or George Washington or, in this case, Neil Armstrong because they’re not here to answer those questions specifically. We have archives of what other people have asked them in the past, but not something you can go ask now. This is one of those situations where technology has advanced quicker than the conversation about what is the right way – the ethical and respectful way – to apply the technology to our own history. It’s a thrilling, vexing conundrum.”

Every Armstrong-related project does not come before the committee, however. For instance, the Armstrong biopic *First Man*, directed by Oscar winner Damien Chazelle and starring Ryan Gosling, is based upon the biography *First Man: The Life of Neil A. Armstrong* by James Hansen. The committee did not have any say-so in that project, although Carol and other Armstrong family members consulted with the film’s producers, Knotts said.

“Purdue did connect with them about some very specific items, for instance, but that was really more about Purdue itself and some items held by Purdue Archives,” Knotts said. “Personality law is relatively new, and not always easy to follow, but suffice it to say that they didn’t really need our permission to create the movie.”

Also a lawyer, Knotts describes his addition to the committee as a “happy accident,” following his review of contracts with CMG Worldwide, which markets and protects intellectual property rights for celebrity estates. Included on the Indianapolis-based company’s client list are the estates of Malcolm X, Mark Twain, Maya Angelou, Rosa Parks, Jackie Robinson, Dizzy Gillespie, and prominent figures from Purdue history like Armstrong and aviator Amelia Earhart.

With the 50th anniversary of Armstrong’s lunar landing approaching in 2019, Knotts expects the committee to be busy for the foreseeable future. In the coming months, he hopes to see something become of a rare interview Armstrong conducted with a group from Australia — currently stored away in a vault after its copyright expired — and for the astronaut’s estate to successfully launch an educational character Armstrong initially developed for a speech at the Cincinnati Museum Center.

He would also like to see more material that covers Armstrong’s pre-NASA life.

“It would be interesting to explore some of his early life a little further, too, because he was always a humble, yet fascinating, guy,” Knotts said. “But that’s the thing. He grew up in the Midwest like a lot of us, and his life story really demonstrates what happens when you set a goal and apply yourself. You aim for the stars and you can get there, and he really did.”

Regardless of what comes across the committee’s desk next, Knotts said he feels honored to be part of the group. As a Purdue graduate, he said, it is a privilege to play a direct role in protecting the legacy of the university’s most famous alumnus.

“There are people out there that are doing some cool things in education, making sure that younger generations don’t forget that our early space program and its daring missions were our baby steps into the great unknown. Apollo was the first time, and only time, we stepped on something other than Earth, so it is a tremendously important milestone,” Knotts said. “We support the efforts of educators that remind us where it all really started.”

By David Ching





Missy Lewis
(BA 1999, liberal arts;
MS 2003, liberal arts)
with her mother Kendra Lewis
(BA 1970, social sciences)

Family's Boilermaker ties run deep

It is not unusual to hear me introduce myself as a fourth-generation Boilermaker.

My grandfather's uncle was a professor at Purdue in the early 20th century, so it wasn't a complete surprise when my grandparents — both natives of Louisville — found themselves in West Lafayette in June 1946.

They were newly married, and my grandfather was ready to begin his studies, thanks to the G.I. Bill. When they brought their first-born home from the hospital, they bundled him up to sleep in a chest of drawers. Their first home was married student housing: the barracks.

Date nights consisted of family trips to Purdue (Lambert) Fieldhouse for basketball games. And yes, they were there that tragic night in 1947 when the bleachers collapsed.

1965

That little baby grew into a bright young man from Kentucky, following in his father's footsteps as an aspiring Purdue engineer. Meanwhile, an enthusiastic young lady in Indianapolis was learning that, much to her surprise, women could go to Purdue. Even better? They could major in the subjects that she loved the most — history and political

science — while getting a secondary teaching certificate. Her father told her she could always get a job as a teacher!

Much changed from the year these two arrived at Purdue, when women couldn't wear pants in the Purdue Memorial Union and curfews were strictly enforced in Wood Hall. Come graduation, my mom had watched the Indiana National Guard march up University Boulevard right past her sorority house, students were napping together in the Union, and future educators were told that 50 percent of them would never find a teaching job.

1995

My turn! I just wanted to be part of a legacy, our family tradition. So there was no question that I would find myself in West Lafayette, a Boilermaker, following in my mom's footsteps in the School of Liberal Arts.

The Liberal Arts and Education Building was one of the fanciest and best-equipped buildings on campus then, though my major most often sent me to Lambert Fieldhouse, and my friends in industrial design attended class in those same barracks that my grandparents called home. I really had no idea

then how I was setting my life and career path.

Today

The barracks are gone, and the College of Liberal Arts has become a destination — where students aspire to study at the Lamb School, in the state-of-the-art design facilities and theaters of Pao Hall, and under our inspiring faculty (a second Guggenheim Fellow among them).

Under the leadership of our university president — a product of the liberal arts himself — we are seeing affordability of and access to higher education expand with seven years of frozen tuition, the development of Purdue Global, and our own Degree in 3 program. We are advancing Purdue in ways I couldn't have even imagined 20 years ago, yet maintaining the same values that allowed my family tradition to begin.

Happy 150th birthday, Purdue. I hope to continue our tradition. And I can't wait to see what the next 50 years hold.

Missy Lewis is deputy executive vice president at the Indiana Academy of Family Physicians and is a board member with the Purdue Alumni Association



Class Notes

1973

BARBARA L. WALLACE (BA, Political Science) was appointed by the joint leadership of the United States Congress to serve on the board of directors of the Office of Compliance. She assumed her duties as the board chair in April 2017.

1977

CAROL MORGAN POTTENGER (BA, History; HDR, '07, Social Sciences) Vice Admiral, U.S. Navy (retired), was appointed to the Board of Serco Inc. for U.S. business. Serco Inc. is a provider of professional, technology, and management services.

1979

KAREN KORELLIS REUTHER (BA, Industrial Design) was appointed global creative director for Reebok. She most recently served as creative director and brand psychologist at Cast Collective, a Boston-based collective of consultants working in the areas of design, innovation, and technology.

1981

LYNN DUGLE (BA, Spanish) was named by *Washington Executive* to its list of "Top 25 Government Contract Executives to Watch in 2018." Dugle is the chief executive officer of Engility Holdings, Inc.

1982

MARK J. CRABB (BA, Fine Arts) joined the Greater Palm Springs Convention & Visitors Bureau in Florida as vice president of convention sales & services.

1986

MARY MURCKO (BA, Communication) was named senior vice president of partnerships and revenue at Fullscreen Media, Inc. Fullscreen Media is an entertainment company and global network that offers creative tools, services, and consultation to YouTube content creators and brands.

1987

GRETCHEN A. ROSSWURM (BA, Communication) was appointed by The Parkinson's Foundation as one of five new members of its People with Parkinson's Advisory Council. Rosswurm also is vice president for global communications & corporate social responsibility for Celanese Corporation in Irving, Texas.

1988

C. AUSTEN ANGELL (BA, Design), CEO and founder of Modern Edge of Portland, Oregon, addressed the Product Development and Management Association's Annual Conference in Chicago, participated in the Extravehicular Activity (EVA) Technology Workshop at NASA's Johnson Space Center in Houston, and provided the keynote talk at TieCON 2017.

1992

CHRISTIAN BARNARD (BA, Communication) is the chief operating officer for T3 in Austin, Texas, and a member of the Board of Advisors at Drawn. T3 is an independent advertising agency headquartered in Austin. Drawn is a brand strategy and advertising agency headquartered in Los Angeles with offices in Chicago, Austin, and San Francisco.

ALLISHA ANDERS ELLIOTT (BA, Sociology), senior vice president and chief human resources officer for Sensata Technologies Holding in the Boston area, now has an expanded role. Elliott has gained oversight of global communications in addition to her previous responsibilities.

MICHAEL GOODING (BA, Communication) was promoted to senior manager of distribution operations for Grainger at their Kansas City, Mo., location.



VERONICA APPLETON

VERONICA S. APPLETON (BA 2010, Communication) was named to *Crain's Chicago Business*' "20 in Their 20s" list because of her efforts to change the advertising industry. As a working professional in a field where minorities are alarmingly underrepresented, Appleton and her co-workers at We Are Unlimited aim to solve that issue.

As assistant director of diversity and inclusion at We Are Unlimited — which launched in 2016 and represents major companies like McDonald's — Appleton's HR team partnered with the Chicago Advertising Federation and Chicago Latino Network to hire and retain advertising job candidates from underrepresented groups.

Furthering that effort, Appleton also oversees a high school mentorship program and a college internship program, and in 2017 served as a diversity trainer for the nonprofit One Million Degrees, which offers support to community college students.

Appleton earned a master's degree in communication at DePaul University, where she serves as an adjunct professor in the College of Communication. She is working toward a PhD in organizational leadership at the Chicago School of Professional Psychology and plans to graduate in 2019.

Appleton has also published two children's books, *Journey to Appleville* and *Tu-Tu Goes to School*, which promote diversity and education.

Photo by Perry Hammock

1994

SHELESE EMMONS WOODS (BA, Political Science) was promoted to civil chief of the U.S. Attorney's Office for the Southern District of Indiana. Woods has been an assistant U.S. attorney since 2005.

CHANTAL FORSTER (BA, English) was promoted to executive director of the Technology Affinity Group Board of Directors by the Technology Affinity Group Board of Trustees.

COLLEEN LANGEVIN (BA, Communication) was appointed to chief marketing officer (CMO) for Epicor Software Corporation, a global provider of industry-specific enterprise software to promote business growth.

1995

AMY FRIEDRICH (MA, Organizational Communication) was appointed president of the US Insurance Solutions division of Principal Financial Group in West Des Moines, Iowa, in May 2017.

KRISTEN MCVEY (BA, Political Science) was appointed by Gov. Eric Holcomb as the Tippecanoe Superior Court 5 Judge. McVey joined the prosecutor's office in 2002 and has been chief deputy for the past 10 years.

1997

PATRICK G. MCCLAIN (BA, Political Science) was appointed senior vice president of Hubzu Auction Services, a leading provider of services and technologies to the mortgage and real estate industries. Hubzu is one of the nation's largest online real estate auction services platforms.

CARRIE STAPP (BA, Communication) was appointed senior vice president of product management at Harland Clarke of San Antonio, Texas.

1998

ZILLAH FLUKER (MA, History) was named vice president of institutional advancement for Miles College in Fairfield, Ala., in November 2017.

1999

CARRIE (FISCHER) GRAPENTHIN (BA, Communication) was hired by Lincoln International, a leading global mid-market investment bank, to lead the firm's global brand and marketing strategy efforts.

DENNISE GRATER (BA, History), a teacher at McCutcheon High School in Lafayette, Ind., was a finalist for the Olin W. Davis Award for Exemplary Teaching of Economics from the Indiana Council for Economic Education and Indiana Farm Bureau Foundation. Grater teaches social studies and has been with the Tippecanoe School Corporation for 11 years.

NATHAN D. O'CONNOR (BA, Political Science) is the managing director and executive vice president at Equity Methods, a consultancy that helps hundreds of public and private companies model, value, and account for equity compensation and other complex securities.

2000

RYAN P. FAYHEE (BA, Sociology), former Department of Justice national security official, has joined the international trade practice of Hughes Hubbard & Reed.

ADAM J. KRUPP (BA, Communication) was named by the *Indianapolis Business Journal* to its "2018 Forty Under 40 List of Rising Stars to Watch." Krupp is the Commissioner for the Indiana Department of Revenue.

CARLIE OAKLEY (BA, Communication) was named by the *Indianapolis Business Journal* to its "2018 Forty Under 40 List of Rising Stars to Watch." Oakley is vice president of marketing & brand excellence for Eight Eleven.

2001

JULIE K. TIBBETS (BA, Political Science) has joined the Global 50 law firm, Goodwin. Tibbets is a partner at its Washington, D.C., office within its nationally recognized Technology and Life Sciences Companies practices.

2002

KENDRA BRACKEN-FERGUSON (BA, Communication), Founder of The BrainTrust, and her team, will join CAA-GBG Global Brand Management Group, a subsidiary of Global Brands Group, to enhance their digital and social media presence. Bracken-Ferguson was appointed chief digital officer of CAA-GBG and will lead the new digital marketing and social media efforts.

RYAN L. KRING (BA, Communication), vice president of business development for Ancon Construction, was named Outstanding Young Business Leader of the Year by the South Bend Regional Chamber at its annual Salute to Business event.

2004

SUNNY LU WILLIAMS (BA, History) is now the president of TechServ Corporation, an IT solution provider, serving government and business customers in the Chicago and Indianapolis areas. Previously she was vice president of business development at Telamon Corporation.

2007

LAUREN BRIGGEMAN (BA, Theatre), co-founded and serves as artistic director at Summit Performance Indianapolis, the city's first women-focused theatre company. Summit staged its first performance, Lauren Gunderson's *Silent Sky*, in June and July at the Phoenix Theatre Cultural Centre.

THOMAS A. CROSSON (BA, Political Science) completed an MBA at the Goizueta Business School at Emory University in Atlanta. He is a group vice president with SunTrust Banks, Inc., a top 10, U.S.-based bank, and leads corporate communications for the Wholesale segment of the company.

2008

RANDY DAM (BA, Political Science) is the coach of Jesuit Dallas Crew. Dam arrived at Jesuit Dallas after a four-year tenure at Dallas United Crew, including three seasons as the varsity head coach.

STEVEN J. GARBACZ (BA, English) appeared on the game show *Jeopardy!* The trivia game requires competitors to display broad knowledge in a variety of categories. Garbacz is assistant managing editor at *The News Sun* and *The Star* in northeastern Indiana.

2009

CODY PECZKOWSKI (BA, Sociology) opened Mootown Brewing Co. in Whitestown, Ind., and serves as the head brewer.

2010

JACK R. BAKER (PhD, English), co-author of *Wendell Berry and Higher Education: Cultivating Virtues of Place* (University Press of Kentucky, 2017), was nominated for *The Chronicle of Higher Education's* Inside Higher Education's Reader's Choice Award. Baker also has earned tenure at Spring Arbor University in Michigan.

BEN FRAZEE (BA, History), principal IT consultant for strategy and business development at Vanderbilt University, recently received a Pacesetter Award. Vanderbilt gives the award to as many as 10 employees per year who have built positive customer relationships and continually exhibited exemplary performance in relation to VUIT's Guiding Principles.

2013

JUDE C. NWAOKOBIA (BA, History) has joined Outten & Golden LLP, a Washington D.C., law firm specializing in employee rights law. Nwaokobia represents the firm's growing practice representing employees in all areas of employment law.

2015

MAURICIO CASTRO (PhD, American History), a Postdoctoral Fellow at Duke University's Program in Latino/a Studies in the Global South, published a piece in the *Washington Post's* "Made By History" section in May. The piece, "When U.S. policy was to unite, rather than divide, immigrant parents and children," was drawn from his dissertation at Purdue.

LAUREN K. E. ISAACS (BA, Communication) is the college relations consultant for Republic Airways. She started her new position with Republic Airways of Indianapolis in January 2018.

Moved? New career? New name?

Let us know about your life updates and professional accomplishments by emailing us at thinkcla@purdue.edu



LAUREN MILLER

LAUREN ASHLEY MILLER (MA 2012, American Studies) has been recognized by *Essence* on its list of "33 Self-Care Sistahs That Helped Redefine Wellness in 2017" and by *Shape Magazine* as "one of the most important voices in the wellness industry" because of her work to ensure that women of color receive the compassion, care, and belonging that she believes they deserve.

Miller, who goes by Lauren Ash in her professional career, is the founder and executive director of the wellness lifestyle brand Black Girl in Om and is a trainer with Nike. She serves as a yoga and meditation guide, public speaker, podcaster, and creative writer, having contributed to publications like *Elle*, *Essence*, *Forbes*, *Glamour*, and *Teen Vogue*. The native Minnesotan now lives in Chicago and is also co-founder of the lifestyle brand "Lifestyle With Ivory + Ash" along with Deun Ivory.

In addition to touring the country teaching workshops on self-care and yoga to women of color, Miller has also moderated panel discussions at SXSW, the interactive film and music industry conference and festival in Austin, Texas. She sits on the advisory board of the SXSW Wellness Expo.

Photo by Deun Ivory

Distinguished Alumni

Since 1986, the College of Liberal Arts has recognized the outstanding achievements of its graduates through the Distinguished Alumni Awards program. Recipients of this award have made significant contributions to society, and their accomplishments, affiliations, and careers honor the legacy of excellence at Purdue University and in the College of Liberal Arts.



JEFFREY BULINGTON

*BA 1989, MA 1991, Philosophy
PhD 2012, Education*

As a Purdue student aiming to identify his future profession, Jeffrey Bulington took a career quiz in hopes that it might point him in the right direction. The quiz's feedback suggested that he seek a job where an intense interest of his would be useful to someone else. Bulington found that position as a chess teacher, where he combines his love of the game and his passion for teaching while serving as the executive director and lead teacher of the Southwest Mississippi Chess Foundation.

While discovering the complexities involved with playing chess, the rural Mississippi students in the program learn how to win and lose with grace and how to focus on the task at hand, gaining essential self-confidence in the process. CBS news magazine show *60 Minutes* profiled the life-changing program in a segment last year.

As it turned out, that career quiz was a useful reminder for Bulington to always maintain an open mind about unexpected possibilities that might arise. "I ended up becoming exactly what it was I would have wanted to be had I known such a thing was possible," he said.



SUZANNE CROUCH

BA 1975, Political Science

Suzanne Crouch credits her political science coursework at Purdue for setting her on a path that led to the Indiana Statehouse. The values that inform her work in politics came from her parents.

"I didn't grow up in a political home, but my parents instilled in me values and principles that I think led me to public service and actually led me to Purdue University," said Crouch, who became Indiana's 52nd lieutenant governor in January 2017.

Crouch's tenure as lieutenant governor is only her most recent post in a political career that spans nearly 25 years in elected office. Then-Gov. Mike Pence appointed Crouch to replace Dwayne Sawyer as Indiana State Auditor in 2013, and she won election to the position the following year. Prior to that, Crouch represented Indiana's 78th District, which includes parts of Vanderburgh and Warrick counties, in the state's House of Representatives from 2005 to 2014. Crouch served as Vanderburgh County Auditor and served on the Vanderburgh County Board of Commissioners before becoming a state legislator.