Carnegie Mellon University’s Dietrich College of Humanities and Social Sciences is no ordinary liberal arts school. From creative writing and neuroscience to behavioral economics and bioethics, the Dietrich College is home to eight departments as well as many programs and research centers that often cross disciplines to solve real-world problems.
MESSAGE FROM THE DEAN

At Carnegie Mellon University, the Dietrich College of Humanities and Social Sciences is the home for research and education focused on humanity. From how the brain gives rise to the mind, to how we make decisions, to how we should make decisions, to how a collection of individual agents can form a society, to how societies have evolved over time from small tribes to great nations, to how languages and cultures vary and how they shape the human experience, to the amazing edifices of literature and philosophy produced by these cultures, our college is the home to some of the most exciting interdisciplinary research and teaching in the world.

Our faculty do foundational and deep disciplinary research, collaborate across many disciplines, take on problems that are important to the world today and share a passion for innovation in both research and teaching. Our students are trained in a wide array of disciplinary approaches, and they become involved in research early and often. They emerge from their experience at CMU able to communicate, think, learn and understand the world in ways that will serve them for the rest of their lives.

This “2017 year in review” is a sample of stories about the faculty, staff, students and alumni in the college that found their way to the CMU websites, local press or the national media. By any measure it is an impressive compilation. The awards, honors, accomplishments, imaginative projects and general energy that jump off the pages to follow should give an interesting snapshot of the college in its 48th year and in Carnegie Mellon University’s 50th.

I am grateful to Shilo Rea, our phenomenal director of public relations, for putting it together. Whether you are a member of our faculty or staff, a current or former student, or someone curious about what is happening at Carnegie Mellon’s Dietrich College of Humanities and Social Sciences, I hope you find what follows as interesting as I do!
FACTS AND FIGURES
The Dietrich College of Humanities and Social Sciences is no ordinary liberal arts school.

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DEPARTMENTS AND PROGRAMS

- English
- History
- Modern Languages
- Philosophy
- Psychology
- Social and Decision Sciences
- Statistics & Data Science
- Center for the Neural Basis of Cognition
- Information Systems Program
- Institute for Politics and Strategy

THE BEST SCHOOLS RANKED THE DIETRICH COLLEGE #19 IN THE WORLD FOR SOCIAL SCIENCES
Baruch Fischhoff, a renowned expert in decision science and risk analysis, has been elected to the National Academy of Sciences. NAS membership is one of the highest honors a scientist can receive and recognizes distinguished and continuing achievements in original research.

Fischhoff, the Howard Heinz University Professor in the Institute for Politics and Strategy and the Department of Engineering and Public Policy, is also an elected member of the National Academy of Medicine. A cognitive psychologist by training, Fischhoff has spent his career trying to understand and aid the decision making of individuals and organizations. He is one of the founders of the field of decision science and has written seminal papers on decision making in areas ranging from health to the environment to national security.

Carnegie Corporation of New York named David Danks a 2017 Andrew Carnegie Fellow. The 35 selected fellows will receive a total of $7 million in funding, or $200,000 each, making it the most generous stipend for humanities and social sciences research available.

Danks, the L.L. Thurstone Professor of Philosophy and Psychology and head of the Department of Philosophy, will use the fellowship to explore human trust in the age of autonomous technologies.

Roberta Klatzky, the Charles J. Queenan Professor of Psychology, is a world-renowned expert in cognition who examines the relationships between human perception and action, with a focus on touch. She was elected to the American Academy of Arts and Sciences, joining the world’s most accomplished scholars, scientists, writers, artists and civic leaders, and elevated to a fellow in the Institute of Electrical and Electronics Engineers (IEEE), the world’s largest technical professional organization.

The American Association for the Advancement of Science (AAAS), the world’s largest general scientific society, selected Michael J. Tarr as a fellow. Tarr’s recognition is for outstanding contributions to research on face, object and scene perception, on computational and artificial vision systems and on the nature of perceptual expertise.

Tarr studies the neural, cognitive and computational mechanisms underlying visual perception and cognition.
CMU student and Puerto Rican native Rosana Guernica began chartering flights to hurricane-ravaged Puerto Rico to evacuate at-risk patients who couldn’t find a way out.

The third-year Dietrich College of Humanities and Social Sciences student majoring in decision science applied organizational behavior and decision-making tools from her studies to help save lives. In doing so, she found her calling. Guernica said the humanitarian work changed her, and it made her realize the impact she could have on people’s lives through public service.

“For any Puerto Rican at the time, it was the worst feeling just being in the states and knowing there was nothing we could do,” Guernica said. “So, it was incredibly empowering, but I was very grateful that I was able to do my part to help my home.”

Between October and December 2017, Guernica completed five relief trips that delivered 76,500 pounds of supplies to the island and evacuated 296 people to the U.S. mainland. To pay for the flights, she raised more than $250,000, the bulk of which came from an online crowdfunding campaign.

With her background in decision science, which studies behavior and the factors that influence our judgment and choices, Guernica has an eagle eye for consistency and rationality. Her frustration mounted when she saw an irrational situation unfolding. As emergency response to the island gridlocked, people in Pittsburgh continued to collect donations that Guernica doubted would reach hurricane survivors in time due to transportation issues.

Guernica decided to take measures into her own hands. She used teachings from CMU on organizational behavior, encouraging brainstorming, marketing, decision science and problem-solving to help pull together her relief flights.

“When it comes to approaching complex problems, that’s decision science,” Guernica said. “You learn how to avoid certain biases and you learn to understand how you can be making mistakes even when it feels completely right and natural.”
Guernica used those problem-solving tools as she tried to strike a balance between satisfying the need at hand and optimizing efficiency.

“There were times when we weren’t as optimized as we could be,” Guernica said. “We got better each flight.”

Guernica ended up leading four relief trips, which continued to grow in scale. On each of the flights, many evacuees were in need of medical attention, including two who received eye surgeries. Guernica worked with a network of doctors, community members and foundations, including the Fundación Stefano, to find patients in need.

On the missions, she brought medical professionals from Pittsburgh, Miami and Puerto Rico and a team of students and staff from CMU, led by Gabriel Ostolaza, a master’s degree student in electrical and computer engineering. The team became key to her efforts, helping her prepare for the trips, raise funds, and load and distribute thousands of pounds of supplies.

The missions have included partnerships with the Los Angeles-based Warrior Angels Rescue, Chicago area-based Hope Heroes NFP, and the Pittsburgh-based Brother’s Brother Foundation and Global Links, the latter of which helped Guernica and her team gather together water filters, batteries, food, solar panels, medical equipment, medicine and other supplies for the island.

Through this work, Guernica saw the impact one person could have in setting a project in motion, and she hopes others take action when they see inequalities or issues that need to be addressed.

“We’re desensitized to it, we turn it off and we tell ourselves there’s nothing we can do,” she said. “But the truth is, if you care enough, if it’s important enough to you, there is something you can do.”

Next up for Guernica is to apply to the Heinz College of Information Systems and Public Policy, with the hopes of obtaining her master’s degree in public policy and management.
Companies, organizations and even governments—particularly the United States following former President Barack Obama’s 2015 executive order to incorporate behavioral insights to better serve the American people—are turning to behavioral economics. The reason: Smartly designed and implemented behavioral interventions change the way we make decisions, alter the way organizations operate and influence how policies are implemented.

But not all behavioral interventions are created and tested equally. At Carnegie Mellon University, researchers use a unique fusion of economics and psychology to tackle some of the most complicated and costly problems, ranging from rising health care costs and workplace discrimination to climate change and “fake news.”

“At Carnegie Mellon, we’re looking at problems that matter to the world and trying to understand the issues and why they happen but also how to change them,” said Linda Babcock, the James M. Walton Professor of Economics and head of the Department of Social and Decision Sciences.

“Our brand of behavioral economics is much more mixed—about 50 percent economics and 50 percent...
The First Behavioral Economics Ph.D. Program

Now, students looking to do cutting-edge research at the intersection of economics and psychology can get the first and only Ph.D. in behavioral economics at Carnegie Mellon University.

“We are thrilled to be able to offer this unique graduate degree program that will focus on basic and applied research and complements our undergraduate degree in behavioral economics, policy, and organizations, also the first-of-its-kind,” said Linda Babcock, head of the Social and Decision Sciences Department.

Because it is a joint program through the Dietrich College of Humanities and Social Sciences’ Department of Social and Decision Sciences and Tepper School of Business, students will also have access to world-renowned experts in decision science, organizational behavior, statistics, marketing and many other areas. Research facilities like the Center for Behavioral and Decision Research and BEDR Policy Lab will also be key resources for students.

“The CMU economics Ph.D. program has a long tradition of rigorous training in economics and econometrics that launches students into economics research. I am excited that this will now be combined with exposure to psychology and state-of-the-art training in behavioral economics. This new combination will allow students to undertake path breaking research at the intersection of economics and psychology,” said Chris Sleet, head of economics.
VOICING OPINIONS TO INVOLVE CHANGE

Model Driverless Car Regulations After Drug Approval Process, AI Ethics Experts Argue

Autonomous systems — like driverless cars — perform tasks that previously could only be performed by humans. In an IEEE Intelligent Systems Expert Opinion piece, Carnegie Mellon University artificial intelligence ethics experts David Danks and Alex John London argued that current safety regulations do not plan for these systems and are therefore ill-equipped to ensure that autonomous systems will perform safely and reliably.

Danks, the L.L. Thurstone Professor of Philosophy and Psychology and head of the Department of Philosophy, and London, the Clara L. West Professor of Ethics and Philosophy, proposed that this regulatory system should be modeled and managed similarly to how the Food and Drug Administration regulates the drug approval process.

“Autonomous vehicles have the potential to save lives and increase economic productivity. But these benefits won’t be realized unless the public has credible assurance that such systems are safe and reliable,” London said.

Terrorism Research Must Be Driven By Evidence, Not Political Agendas

Despite concerted efforts by many people and institutions, fundamental aspects of terrorism — identifying participants, understanding how they radicalize, and developing effective countermeasures — remain unclear.

In a Science Policy Forum article, four experts from different fields offered a strategy for terrorism research, including CMU’s Baruch Fischhoff, the Howard Heinz University Professor in the Institute for Politics and Strategy and Department of Engineering and Public Policy.

“Bridging theory and practice is always challenging, particularly when diverse forms of expertise are needed, and the people who have it lack opportunities, and perhaps incentives, for collaboration,” said Fischhoff. “Research that overcomes these barriers is a hallmark of Carnegie Mellon and of the projects featured in our article. It is essential if the social sciences are to make their essential contributions to the fundamentally human problems that terrorism reflects and represents.”

Improving Security Science Through Collaboration

Fischhoff also co-chaired the National Academies of Sciences, Engineering and Medicine’s Committee on Future Research Goals and Directions for Foundational Science in Cybersecurity, along with Peter Weinberger from Google.

Their report made four broad recommendations: support a long-term, inclusive, multidisciplinary approach to security science; integrate the behavioral, organizational and decision sciences into the research effort; integrate engineering and operations for a lifecycle understanding of systems; and sustain long-term support for security science research, providing institutional and community opportunities to support these approaches.
**How to End International Tax Competition**

*Danielle Wenner*, assistant professor of philosophy and associate director for the Center for Ethics and Policy, and *Kevin Zollman*, associate professor of philosophy, wrote an opinion piece for the New York Times on how to end international tax competition. Using game theory—the science of strategic interaction—they outlined how the Republican’s plan to reduce the corporate tax rate may end up harming us economically.

“Rather than rewarding corporations for keeping their profits offshore, the United States should be a global leader in fighting tax competition. By working with other countries — not against them — we may be able to implement our own solution to this modern-day collective action problem,” they wrote.

**Moving Beyond Nudges to Improve Health and Health Care Policies**

With countries around the world struggling to deliver quality health care and contain costs, a team of behavioral economists led by *Loewenstein* believes it’s time to apply recent insights on human behavior to inform and reform health policy.

A report published in Behavioral Science & Policy outlined how behavioral science could be used to improve the quality and cost effectiveness of American health care. To do this, the research team argues that policies targeting individual behaviors—nudges—need to be augmented with more far-reaching and systemic interventions.

**Highway Safety: National Academies Committee Recommends Implementation Improvements**

An estimated 550,000 commercial motor carriers—trucks and buses, employing over 4 million drivers—move freight and passengers across U.S. highways each year, resulting in about 100,000 fatality- or injury-causing crashes.

Congress asked the National Academies of Sciences, Engineering and Medicine to investigate whether the methods used to evaluate the safety of long-distance trucks and buses were adequate. A committee, co-chaired by Statistics Professor *Joel Greenhouse*, found that while the Federal Motor Carrier Safety Administration’s (FMCSA) Safety Measurement System (SMS) used to identify vehicles at high risk for future crashes is conceptually sound, several features involving its implementation need to be improved. The committee, operating under the National Academies’ Division of Behavioral and Social Sciences and Education's Committee on National Statistics, outlined its recommendations.
CLASSES MAKING AN IMPACT

Vacant No More: Students Present Urban Development Solutions

Eight Dietrich College of Humanities and Social Sciences students—Joe Cossins, Emmett Eldred, Ariel Hoffmaier, Dhruva Krishna, Karyn Michela, Uzoma Nwanko, Alex Pasch and Cullen Wells—offered Pittsburgh City Council a report on anti-poverty research and a decision tree they devised as a planning tool for vacant land. The presentation concluded their capstone project for the Ethics, History and Public Policy (EHPP) major.

“We’ve collaborated with EHPP students on research for the past several years on a number of topics. Based on discussions to establish an affordable housing trust fund, I talked with the students about how they could take that to the next level, thinking broadly on an affordable neighborhood,” said Councilman Dan Gilman (DC ’04), who served as the chairperson for the hearing.

The resulting report, “Placemaking in Pittsburgh: Uses and Considerations Regarding Vacant Land,” targets the city’s 27,000 lots of vacant land, which became the focus after the team researched how similar cities addressed pocket areas of poverty. Portland used vacant lots for affordable housing, and Cleveland cleaned up lots to increase the value of surrounding property.

In the report, the students emphasize the placemaking paradigm, defined as a holistic approach to developing sustainable communities “shaped by time and history, rather than mere public space or affordable housing units.” Where other development methods could potentially displace low-income residents by a sudden rise in property values, placemaking seeks to foster affordable neighborhoods over time.

“Our recommendations are about how city and community leaders can reference our research to make decisions about community development,” said Eldred. “Having eight sets of eyes on your work instead of just one allowed us to write something of high quality. We were thorough.”

Danielle Wenner, assistant professor of philosophy and associate director of the Center for Ethics and Policy, advised the students.

“The students’ decision to focus on vacant land use was both creative and on target. I was incredibly impressed by the depth of their research on the subject, as well as the extent to which they were motivated to create a policy recommendation that prioritized community voice and autonomy,” Wenner said.
**Mind Field** Aims To Raise Awareness of Subtle Racism

Undergraduate and graduate students produced “Mind Field” to raise consciousness about race, stereotyping and inadvertently offensive comments that can occur even among friends.

“We think ‘Mind Field’ will help CMU students navigate the complexities of our diverse community and contribute to a learning environment that is inclusive and affirming for all,” said Ralph Vituccio of the Entertainment Technology Center who co-taught students in the Morality Play course this spring along with Andy Norman of the Department of Philosophy.

Mind Field features everyday scenarios, such as students working on a group project or prepping for an interview. The viewer engages in these short vignettes as the third or fourth person in the scene, participating in the conversation by selecting word bubbles with responses at the bottom of the screen. Following each vignette, the character who has been slighted by a classmate or friend speaks in a monologue about how the situation impacted him or her.

**Information Systems Students Get Innovative**

Fifteen teams of Information Systems Program seniors put their innovation to work. Students, including two from CMU Qatar and one from the Singapore Management University Fast Track Program, spent a semester developing new, creative apps. Ideas ranged from an app to give customers more control over their dining experiences, a tool to help people plan itineraries for groups of friends and a platform to connect current CMU students to alumni.

Rumby Wilson, Asawari Kanitkar and Ahmed Abdeltawab’s (pictured) PRETZEL is an application that allows users to simply and rapidly create custom, well-designed presentations through a simple interface.

**Global Studies Projects Examine Language, Education Policy**

“‘She angry.’ ‘He going to the store.’ ‘We staying home.’ An English teacher may itch to correct those sentences – but would they be right?”

Dropping the copula—or conjugated “be” verb—is a common linguistic feature of African American Vernacular English (AAVE). Like all dialects, AAVE has consistent internal logic and grammatical complexity, but many educators still cling to outdated notions of “correct” English. And in some schools, students suffer because of it.

Gabrielle Rickstrew examined how the use of AAVE impacts the quality of education students receive in the United States. Rickstrew was inspired by her experiences growing up biracial in a primarily white, middle class area.

“I remember distinct moments of trying to help my AAVE-speaking friends edit their school and college application essays. These moments solidified my understanding that my friends who spoke AAVE were not treated the same way that I, a Standard English-speaker, was treated by our school administrators and teachers,” said Rickstrew, a global studies and Hispanic Studies double major.

She has been researching the topic as part of the global studies capstone seminar. Seniors in the class develop independent projects that draw from their coursework, foreign language training, internships and study abroad experiences.

“I think that by their senior year, most CMU students are ready and eager to follow their intellectual passions and pursue a research project,” said John Soluri, director of global studies and associate professor of history. “It is an important part of their intellectual growth as young thinkers and also has practical advantages for when they seek a job or an advanced degree.”

Other projects focused on indigenous rights in Mexico, the globalization of hip hop and economic self-sufficiency among Nepali Bhutanese refugees in the greater Pittsburgh area.

"Mind Field" Aims To Raise Awareness of Subtle Racism

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CMU engineers and cognitive neuroscientists have demonstrated that a new high-density EEG can capture the brain’s neural activity at a higher spatial resolution than ever before.

This next generation brain-interface technology is the first non-invasive, high-resolution system of its kind, providing higher density and coverage than any existing system. It has the potential to revolutionize future clinical and neuroscience research as well as brain-computer interfaces.

“These results are crucial in showing that EEG has enormous potential for future research. Ultimately, capturing more neural information with EEG means we can make better inferences about what is happening inside the brain. This has the potential to improve source detection, for example, in localizing the source of seizures in epilepsy,” said Amanda K. Robinson, the lead author and a postdoctoral researcher at Carnegie Mellon University.

“Our project is but one example of how working across disciplines can push the boundaries of our science, enabling new methods for studying and, ultimately, understanding the brain.”
— Michael J. Tarr

TAKING NEUROSCIENCE RESEARCH TO THE NEXT LEVEL
fellow in CMU’s Department of Psychology and Center for the Neural Basis of Cognition (CNBC) during the study.

To create the new tool, the team modified an EEG head cap from a 128-electrode system, which increased its sensor density by two to three folds over occipitotemporal brain regions. They designed the experiments to use visual stimuli with low, medium and high spatial frequency content.

Then, they used a visual paradigm designed to elicit neural responses with differing spatial frequencies in the brain and examined how the new super-Nyquist density EEG performed, revealing that the new configuration captured more neural information than standard Nyquist density EEG. The subtle patterns of neural activity uncovered by the new super-Nyquist EEG were closely related to a model of primary visual cortex.

“It is exciting to see that exceeding these ‘engineers’ Nyquist densities can provide new information about brain activity, and it opens doors for utilizing higher-density EEG systems for clinical and neuroscientific applications. It also validates some of our fundamental information-theoretic studies in the past few years,” said Pulkit Grover, assistant professor of electrical and computer engineering and a member of the CNBC.

Early financial support to modify and test the new EEG was provided by CMU’s BrainHub initiative and ProSEED program.

In addition to Robinson and Grover, CMU’s Michael J. Tarr, Praveen Venkatesh and Marlene Behrmann and the University of Pittsburgh’s Matthew J. Boring participated in the study.

Nearly 150 media outlets covered this study, including the Wall Street Journal, Reuters, CBS News, NBC News and the BBC.

Brain Imaging Science Identifies Individuals With Suicidal Thoughts

Researchers led by Carnegie Mellon University’s Marcel Just and the University of Pittsburgh’s David Brent have developed an innovative and promising approach to identify suicidal individuals by analyzing the alterations in how their brains represent certain concepts, such as death, cruelty and trouble.

Suicidal risk is notoriously difficult to assess and predict, and suicide is the second-leading cause of death among young adults in the United States. Published in Nature Human Behaviour, the study offers a new approach to assessing psychiatric disorders.

“Our latest work is unique insofar as it identifies concept alterations that are associated with suicidal ideation and behavior, using machine-learning algorithms to assess the neural representation of specific concepts related to suicide. This gives us a window into the brain and mind, shedding light on how suicidal individuals think about suicide and emotion related concepts,” said Just, the D.O. Hebb University Professor of Psychology.

“What is central to this new study is that we can tell whether someone is considering suicide by the way that they are thinking about the death-related topics,” he said.

Just and Brent are hopeful the findings from this basic cognitive neuroscience research can be used to save lives.

“The most immediate need is to apply these findings to a much larger sample and then use it to predict future suicide attempts,” Brent said.
“The witness shouted during the trial”

Selecting Sounds: How the Brain Knows What To Listen To

How is it that we are able—without any noticeable effort—to listen to a friend talk in a crowded café or follow the melody of a violin within an orchestra?

A team led by scientists at Carnegie Mellon University and Birkbeck, University of London has developed a new approach to how the brain singles out a specific stream of sound from other distracting sounds. Using a novel experimental approach, the scientists non-invasively mapped sustained auditory selective attention in the human brain. Published in the Journal of Neuroscience, the study lays crucial groundwork to track deficits in auditory attention due to aging, disease or brain trauma and to create clinical interventions, like behavioral training, to potentially correct or prevent hearing issues.

“Deficits in auditory selective attention can happen for many reasons—concussion, stroke, autism or even healthy aging. They are also associated with social isolation, depression, cognitive dysfunction and lower work force participation. Now, we have a clearer understanding of the cognitive and neural mechanisms responsible for how the brain can select what to listen to,” said Lori Holt, professor of psychology.

“Mind Reading” Technology Decodes Complex Thoughts

Scientists can now use brain activation patterns to identify complex thoughts, such as, “The witness shouted during the trial.”

This latest research led by Marcel Just builds on the pioneering use of machine learning algorithms with brain imaging technology to “mind read.” The findings indicate that the mind’s building blocks for constructing complex thoughts are formed by the brain’s various sub-systems and are not word-based. Published in Human Brain Mapping and funded by the Intelligence Advanced Research Projects Activity (IARPA), the study offers new evidence that the neural dimensions of concept representation are universal across people and languages.

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Despite major brain differences, many species from spiders to humans can recognize and differentiate relative quantities. Adult primates, however, are the only ones with a sophisticated cortical brain system, meaning that the others rely on a subcortex or its evolutionary equivalent.

CMU scientists wanted to find out whether the adult human subcortex contributes to number processing at all. Published in the Proceedings of the National Academies of Sciences, their study found that the adult subcortex processes numbers at the same level as infants and perhaps other lower-order species, such as guppies and spiders.

“This study tells us a great deal about the human subcortex, most importantly that it does not appear to improve from its number abilities in infancy, while the cortex, which is more developed in humans than in any other species, does continuously develop,” said Elliot Collins, a Ph.D. student in psychology in CMU’s Dietrich College of Humanities and Social Sciences and a M.D. student in the School of Medicine at the University of Pittsburgh.

CMU’s Marlene Behrmann, the Cowan University Professor of Cognitive Neuroscience, and the University of Massachusetts’ Joonkoo Park, who received his master’s in human-computer interaction from CMU, also participated in the study.

“Computer Vision Takes Off

Computer vision has exploded over the past five years, and it is now able to identify objects with uncanny accuracy, leading to advances in everything from surveillance cameras to self-driving vehicles.

Michael J. Tarr, head of the Psychology Department, said there are two principal reasons for the rapid advances in computer vision, which uses artificial intelligence to interpret and process the scenes viewed by cameras and other devices. First, because of the web, millions of images have now been labeled, allowing robotic vision systems to train themselves in how to identify what’s in a scene, using a form of artificial intelligence known as deep learning.

Second, a new generation of graphics processing units, or GPUs, originally developed for the video gaming industry, has enabled much faster learning and identification of images. Also, the processing architecture used by deep networks mimics the human visual system, even to the point of apportioning the networks’ layers so they mirror the arrangement of functional brain areas humans use to see.

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— Elliot Collins
Supportive Relationships Linked to Willingness to Pursue Opportunities

Research on how our social lives affects decision-making has usually focused on negative factors like stress and adversity. Less attention, however, has been paid to the reverse: What makes people more likely to give themselves the chance to succeed?

That’s the question CMU psychologists recently posed. Published in Personality and Social Psychology Bulletin, they discovered that people with supportive spouses were more likely to take on potentially rewarding challenges and that those who accepted the challenges experienced more personal growth, happiness, psychological well-being and better relationship functioning months later.

“We found support for the idea that the choices people make at these specific decision points—such as pursuing a work opportunity or seeking out new friends—matter a lot for their long-term well-being,” said Brooke Feeney, professor of psychology.

Feeney added, “Significant others can help you thrive through embracing life opportunities. Or they can hinder your ability to thrive by making it less likely that you’ll pursue opportunities for growth.”

CMU’s Meredith Van Vleet and Brittany Jakubiak also contributed to the study, as did Colgate University’s Jennifer Tomlinson. The National Institutes of Health funded this research.

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— Brooke Feeney
Married People Have Lower Levels of Stress Hormone

Studies have suggested that married people are healthier than those who are single, divorced or widowed. A CMU study provided the first biological evidence to explain how marriage impacts health.

Published in Psychoneuroendocrinology, the researchers found that married individuals had lower levels of the stress hormone cortisol than those who never married or were previously married. These findings support the belief that unmarried people face more psychological stress than married individuals. Prolonged stress is associated with increased levels of cortisol, which can interfere with the body’s ability to regulate inflammation and in turn promotes the development and progression of many diseases.

“It is exciting to discover a physiological pathway that may explain how relationships influence health and disease,” said Brian Chin, a psychology Ph.D. student. Sheldon Cohen, the Robert E. Doherty University Professor of Psychology and renowned health and behavior expert, and Michael L.M. Murphy, psychology postdoctoral fellow, and the University of Pittsburgh’s Denise Janicki-Deverts were also part of the research team.

Children of Separated Parents Not on Speaking Terms Are More Likely to Develop Colds as Adults

Previous research has indicated that adults whose parents separated during childhood have an increased risk for poorer health. However, exactly what contributes to this has been less clear, until now.

A team led by Cohen and Murphy wanted to better understand if specific aspects of the family environment following a separation better predicted children’s long-term health outcomes. Published in the Proceedings of the National Academy of Sciences, they found that adults whose parents separated but did not speak to each other during individuals’ childhoods were three times as likely to develop a cold when intentionally exposed to a common cold virus than adults whose parents had remained together or separated but continued to communicate.

“Early life stressful experiences do something to our physiology and inflammatory processes that increase risk for poorer health and chronic illness,” Murphy said. “This work is a step forward in our understanding of how family stress during childhood may influence a child’s susceptibility to disease 20-40 years later.”

Mindfulness Meditation App Works—But Acceptance Training Component Is Crucial

For the millions of mindfulness meditation mobile app users, there is good news: New research shows that they can reduce the body’s response to biological stress.

A CMU–led study found that one component of mindfulness interventions is particularly important for impacting stress biology. Acceptance, or learning how to be open and accepting of the way things are in each moment, is critical for the training’s stress reduction effects. Published in Psychoneuroendocrinology, the researchers offered the first scientific evidence that a brief mindfulness meditation mobile app that incorporates acceptance training reduces cortisol and systolic blood pressure in response to stress.

“We have known that mindfulness training programs can buffer stress, but we haven’t figured out how they work,” said David Creswell, associate professor of psychology. “This study, led by Emily Lindsay in my lab, provides initial evidence that the acceptance training component is critical for driving the stress reduction benefits of mindfulness training programs.”
Information Avoidance

Drawing on research in economics, psychology and sociology, George Loewenstein, Russell Golman and David Hagmann illustrated how people deliberately avoid information that threatens their happiness and wellbeing. Published in the Journal of Economic Literature, they show that, while a simple failure to obtain information is the most clear-cut case of “information avoidance,” people have a wide range of other information-avoidance strategies at their disposal. They are also remarkably adept at selectively directing their attention to information that affirms what they believe or that reflects favorably upon them, and at forgetting information they wish were not true.

“The standard account of information in economics is that people should seek out information that will aid in decision making, should never actively avoid information, and should dispassionately update their views when they encounter new valid information,” said Loewenstein, the Herbert A. Simon University Professor of Economics and Psychology.

Loewenstein continued, “But people often avoid information that could help them to make better decisions if they think the information might be painful to receive. Bad teachers, for example, could benefit from feedback from students, but are much less likely to pore over teaching ratings than skilled teachers.”

Information avoidance can harm individual well-being, as when people miss opportunities to treat serious diseases early on or fail to learn about better financial investments that could prepare them for retirement. It also has large societal implications. The demand for ideologically aligned information drives media bias, which fuels political polarization: When basic facts are no longer part of a shared understanding, the foundation of societal discourse disappears.

“An implication of information avoidance is that we do not engage effectively with those who disagree with us,” said Hagmann, a Ph.D. student in the Department of Social and Decision Sciences. “Bombarding people with information that challenges their cherished beliefs – the usual strategy that people employ in attempts at persuasion -- is more likely to engender defensive avoidance than receptive processing. If we want to reduce political polarization, we have to find ways not only to expose people to conflicting information, but to increase people’s receptivity to information that challenges what they believe and want to believe.”

“People do it for a reason.”

— Russell Golman
The Latest Behavioral Economics Research

**Default Choices Matter, Especially for Poorer, Less Educated Individuals**

Ania Jaroszewicz, who is pursuing her Ph.D. in behavioral decision research, and other researchers took advantage of a resulting federal lawsuit against a fraudulent company to test default choice architecture when the optimal choice was clear: End the subscriptions.

Published in the Economic Journal, the study showed that 99.8 percent of consumers ended their subscriptions when it was the default, but only 36.4 percent of consumers ended their subscriptions when they had to take action to do so. The results also demonstrated that consumers residing in poorer, less educated areas were less likely to actively cancel.

**Restricting Pharmaceutical Reps’ Marketing Tactics Changes Physician Prescribing Behavior**

A team, led by the University of California, Los Angeles’ Ian Larkin and CMU’s George Loewenstein, examined restrictions 19 academic medical centers in five U.S. states placed on pharmaceutical representatives’ visits to doctors’ offices. Published in the Journal of the American Medical Association, the results revealed that the restrictions caused physicians to switch from prescribing drugs that were more expensive and patent-protected to generic, significantly cheaper drugs.

The study was the largest, most comprehensive investigation into the impact of restricting pharmaceutical sales representative visits to doctors.

**Research Explains How Family Members Can Impact an Autism Diagnosis**

Research from Columbia Business School, Carnegie Mellon University and the Seaver Autism Center for Research and Treatment at Mt. Sinai reveals that children who had frequent interaction with grandparents or older siblings were diagnosed earlier with autism spectrum disorder. Published in the journal Autism, the study was the first to ask not only parents, but also friends and family members who had contact with the child about their early observations of the child.

Loewenstein said, “The study provides new evidence of the occurrence of information-avoidance, and of its consequences.”

**How You Make Decisions Can Affect Your Patience**

CMU, Temple University and Columbia University researchers found that how you approach making decisions can impact your ability to be patient and choose the longer-term option. Their findings were published in the Proceedings of the National Academy of Sciences.

Daniel Wall, a Ph.D. student in social and decision sciences, said, “I’m a pretty impatient person. This research has helped me reframe the self-control decisions I struggle with as comparisons between salient options. My mom is always trying to give me junk food, but when I compare a bag of Peppermint Patties to not fitting into my jeans, it’s easier to abstain.”
One way to learn about an unfamiliar place is to step behind the lens. That is exactly what CMU students did to learn about Cuban artists.

**Ralph Vituccio**, associate teaching professor in the Entertainment Technology Center, and filmmaker **Andres Tapia-Urzua** created a transformative documentary-making course that took students to Camagüey, Cuba during spring break, and let them add “international documentarian” to their resumes.

The class was designed for students to discover the unknown, so formal filmmaking experience was not necessary. It was offered through the Interactive Design, Arts and Technology Network (IDeATe), an interdisciplinary program that supports eight undergraduate concentrations that can be taken as minors, and it was open to students across campus.

In weeks leading up to the trip, students learned film shooting techniques and interviewing rules such as giving people headroom in shots, lighting and angles, as well as general Cuban history. It was also decided the interactive documentary would be comprised of three parts: the city of Camagüey, the art media center Cedim and individual student journeys.

Joined by **Therese Tardio**, associate teaching professor of Hispanic Studies, and **Jill Chisnell**, integrated media and design librarian, students departed for Cuba with that general project skeleton; Vituccio and Tapia-Urzua left the rest for students to discover.

“We knew what kind of categories and areas to focus on, but it’s a fluid situation,” Vituccio said.

“You don’t want to go with such a dogmatic point of view that you tell people what to say to the camera, unless it’s a very specific political agenda,” Tapia-Urzua said. “But here it was a trip of discovery as well. Before the trip some students said they didn’t want to have too many ideas, because they wanted to be open to whatever was coming. When they got back from Camagüey they said those were the best parts of the trip.”
While in Cuba, each student focused on a specific aspect to document and create into a personal project, to be used as a third part of the documentary. English major Stephanie Haber imagined her personal project would involve movie theaters. Once she arrived to Camagüey, a different door opened.

“We were each able to focus on what we were passionate about while we were there. I was wowed by how colorful all of the doors to people’s homes are, and how people are always standing in their doorways, sharing their homes with everyone,” Haber said.

Students are still reflecting on the trip and how it changed their social views.

“Here in the U.S., art is definitely less valued than STEM professions, but in Cuba, artists are very esteemed, and it’s honorable to be an artist,” said Vidya Palepu, an English major.

For JunSu Jang, an electrical and computer engineering major, the course was a mark of social responsibility.

“Cuba was a very good reminder of my privileges,” Jang said. “In Cuba, they have the knowledge but lack the means. They know computer science theories, but because they lack the physical hardware they have no means of application.”

Jang added, “It was a reminder to work hard and if there’s an opportunity to give back, whether it’s through fiscal means or through expertise, I’ll always keep that in mind.”

As a gesture of goodwill, David Beinhart, a business and creative writing major, collected CMU T-shirts, water bottles and other gear to share with Cubans. The experience, he says, is one he’ll never be able to shake.

“Being a Dietrich College and Tepper student, I love the interdisciplinary nature of CMU,” Beinhart said. “I’m at Carnegie Mellon studying business and creative writing. It’s not what you’d think of as a traditional film background, but I can now say I shot an international documentary, and nobody can take that away from me.”

IDeATe – Dietrich College Cuban Interactive Documentary Project was administered by the Department of English and funded by the Dietrich College of Humanities and Social Sciences, English Department and a CrossWalk grant.
Students in the Washington Semester Program (WSP) get to explore the United States capital while completing coursework and internships with D.C.-based organizations.

“CMU’s Washington Semester Program provides undergraduates with a comprehensive experience in our nation’s capital. Students learn, live and work alongside statesmen, scholars and policy makers,” said Kiron Skinner, director of the Institute for Politics and Strategy, which sponsors the program. “It is a truly transformative experience.”

As an intern for U.S. Senator for Pennsylvania Patrick J. Toomey, Kellen Carleton worked on the senator’s national security, foreign policy and healthcare teams. He attended and reported on briefings, researched options to reduce healthcare spending and helped manage the office’s correspondence with constituents.

“They actually spend a great deal of time and thought taking their constituents’ issues into account when making decisions,” said Carleton, a policy and management major.

Billy Rielly, special assistant in the senator’s office and Carleton’s supervisor, has worked with CMU interns before. He is consistently impressed by their work ethic and political knowledge and the WSP’s immersive nature.

“Kellen accomplishes any task without complaint and is not afraid to speak up when meeting with senior level staff,” said Rielly. “The WSP provides students with the ability to gain a thorough understanding of the political and policy-making world through hands-on experiences. Students can learn so much from interning in politicians’ offices, including valuable experience in writing, communications and strategy.”

But there is more to Washington than politics.

Eliza Donohue worked behind the scenes at the United States Holocaust Memorial Museum, assisting with events and program management for the museum’s marketing and national operations department. She gained real-world experience by updating the museum’s website and attending high-profile events like the premiere of the film, “The Zookeeper’s Wife.”

“I have found it really rewarding to watch myself start as a novice intern and find my place at work,” said Donohue, a social and political history and policy and management double major.

Donohue’s manager, Christine Sonnabend, has witnessed her growth firsthand and believes that the WSP is valuable because it exposes students to life beyond their campus.

“Eliza has impressed me with her willingness to jump in and do any task, to be so upbeat and cheerful on a daily basis and with the quality of her work,” said Sonnabend, project manager at the museum.

“Students can learn so much from experiencing all Washington, D.C. has to offer – from culture to politics,” she added.
OUI OU NON: WHAT IT MEANS TO BE FRENCH

International travel and national identity may seem like new, provoking topics, but their growing complexity is apparent in many nations across the globe.

**Mame-Fatou Niang** studies cultural minorities with particular interest in French people of African and Muslim descent. France is an interesting case because it is at the crossroads of Europe, Africa and the Middle East.

Niang, an assistant professor of French and Francophone Studies, is writing a book on Afro-French identity and recently completed one on “les banlieues françaises,” which are distressed suburbs primarily made up of immigrants in France.

She collaborated with recent graduate **Kaytie Nielsen** (BHA’16), a creative writing and directing double major, to create a documentary that screened on the festival circuit in North America and in France. The film “Mariannes Noires,” which was created for Nielsen’s Dietrich Honors Fellowship project and includes interviews with seven Afro-French women, is described as “a critical piece in the study of national identity in Post-Charlie Hebdo France.”

Niang has been quick to adopt video as a teaching tool and shoots brief footage on her travels that she brings into the classroom.

“These three-minute films say so much to students about France and its changing identity,” Niang said.

In one video, for example, she filmed an outdoor market in the Alps just as Sunday mass let out. The crowd is made up entirely of senior citizens. Niang asks her class why young generations are absent from the church scene.

“The video gets them talking. I put up these images, give them a topic and all of a sudden you’re building up a discussion. I absolutely love it when you have a good exchange of ideas in class,” she added.

The concept of what it means to be French today is at the heart of her work.

“Mame plays a vital role in our French and Francophone Studies Program, the Department of Modern Languages and the university community. A native of Senegal with broad research interests in contemporary France, Sub-Saharan Africa, transnational studies, media studies, gender studies, and urban studies, she has enriched students’ exposure to the diversity of the French-speaking world,” said **Susan Polansky**, head of the Department of Modern Languages.

“She is a passionate and charismatic teacher who inspires her students and colleagues,” Polansky added.

Niang’s courses are taught all in French and include “Introduction to French Culture” and “The Francophone World,” along with advanced courses that take a deep dive in social issues. Students gain an understanding of cultural complexities while developing language skills and fluency.

Niang teaches the tenets that defined French culture throughout the 16th to 19th centuries and challenges students to understand France’s national identity in the present. At times, discussions can become controversial, but she expects her students to be respectful of each other.

“My teaching style is influenced by my Senegalese culture, which was very strict growing up, but also by my mother, who is extremely supportive and a go-getter. My mother was the second woman in Senegal to earn an engineering degree. I look to her a lot,” Niang said.

Niang joined the university four years ago, having earned a doctorate from Louisiana State University and studying previously in Lyon, France. She says the global nature of CMU enlivens her conversations that, in turn, feed into her research.

“CMU’s Department of Modern Languages is a place where you feel at home but at the same time you are intellectually stimulated,” she said. “People are interested in and ready to support your research. In a sense, it was the feeling I got when I first visited, and it has been confirmed.”
The soft smile on the face of a Holocaust survivor at a heritage festival was one of last summer’s memorable moments for Laurnie Wilson (DC’16). She imagined he had moments in his life when he thought smiling would never again be possible. Wilson, a freelance writer, recently returned from a study seminar in Poland where she met Howard Chandler, age 89, and learned about his early life and a Jewish culture that was eradicated by Nazi Germany.

Classrooms Without Borders (CWB) coordinated the tour and offered funding to a small group of Carnegie Mellon University faculty. They extended an invitation to Wilson based on her fiction and photography work as a Dietrich Honors Fellow, her bachelor’s degrees in creative writing and history and minor in German. She felt honored.

“Being able to process and discuss the events of the trip with such thoughtful, articulate and educated individuals completely expanded the scope of my thoughts and the way I approached our discussions. That said, it wasn’t all academic analysis. This trip was an emotional rollercoaster, and sometimes a kind smile or a warm hug was far more resonant than any conversation,” Wilson said.

The Department of History’s Laurie Zittrain Eisenberg, Paul Eiss, Michal Friedman and John Weigel and the School of Computer Science’s Roni Rosenfeld spent eight days traveling through Poland.

CWB tours focus on experiential learning—participants meet people personally affected by the course of history who then demonstrate how the events resonated.

“Our mission is to use the country as a textbook to help educators and students gain a deeper understanding of what they are teaching and learning.”
—Zipora “Tsipy” Gur
“Our mission is to use the country as a textbook to help educators and students gain a deeper understanding of what they are teaching and learning,” said Zipora “Tsipy” Gur, CWB founder and executive director.

For example, the group visited Auschwitz with Chandler who had been imprisoned as a teenager and could talk about his experiences there. He recalled trying to throw a sweater over a fence to his father as he was being marched with other men out of the camp. A guard shot at him and the bullet grazed his ankle. The group stood next to the fence as Chandler recounted the story. He never saw his father again. His mother, sister and little brother were also murdered.

Another person they met on the trip, Paulina Plaksej, showed them a medallion awarded to her family by Israel for sheltering Jews during the war. They met Polish high school students taking part in a project to recover Jewish aspects of their town’s history. In Warsaw and Krakow, they encountered leaders of the emerging Jewish communities who further deepened their understanding of genocide’s impact and gave hope to actions being taken to reconstruct and share a culture lost.

“Everywhere we went we met a person with a compelling story. To be there in the place where it happened is so powerful. It really engages your brain, your heart, your senses and your imagination—it was just a phenomenal educational experience,” said Eisenberg, teaching professor of history.

Friedman, visiting assistant professor of history, teaches on the Holocaust. She said the seminar provided a “texture to history” that enhances the understanding gained through academic scholarship.

“The seminar emphasized the richness of Jewish life before the war. I was reminded that in teaching about the Holocaust, providing a sense of this longer history is central to any understanding of the magnitude of what was lost,” Friedman said.

Eisenberg added, “We felt charged with the responsibility of bringing the message of tolerance and the importance of finding ways to resist evil back to the classroom and sharing with our students so that the impact goes that much further.”

As the faculty members folded their experiences into instructional materials, Wilson also felt compelled to take action as a writer.

“I actually have come to feel a responsibility for using my storytelling ability to spread awareness of how we can each become more tolerant, understanding, accepting of differences and compassionate towards ourselves and each other,” Wilson said.

She is planning a podcast series and a documentary.

“I saw some of the most tragic acts of human history and knew I couldn’t just go back to my ‘normal’ life. Although I’m not an educator, I’m working on my own ways of educating communities on these important themes,” she said.
The centenary of the Russian Revolution in 2017 marked 100 years since the start of the world’s first socialist society. This historic event inspired questions about what lessons it and its experiments with free love, women’s equality and the socialization of household labor can offer the world today.


“Now that the Soviet Union has collapsed, there is a tendency to see it as something that offers no models, but in fact many of the experiments pioneered under socialism would still be enormously positive for working women today,” said Goldman, the Paul Mellon Distinguished Professor of History.

The Soviet Union would eventually become the first country in the world to enshrine women’s equality with men into law and to legalize abortion. The Bolsheviks put forward a radical program that encompassed the socialization of household labor through public dining halls, daycare centers and laundries; no-fault divorce; and recognition of cohabitation as the juridical equal of legal marriage.

At its start, the Soviet Union sought to overcome economic ruin and high unemployment. Female workers were challenged by scant job options and a shortage of funds to create the services needed to support full equality and to free them from the burden of housework.

Nevertheless, women persisted in organizing and pressuring the state.

Between 1929 and 1935, nearly four million Soviet women entered the workforce and began to earn wages.

“The working class grew at an unprecedented rate, changing in size and social composition. Even more striking was the critical role of women: in no country of the world did they come to constitute such a significant part of the working class in so short a time,” Goldman wrote in the introduction to “Women at the Gates.”
Goldman investigated the players and policies that brought women up to—and through—the gates of factories in the 1930s to benefit from waged labor.

For example, working class and peasant women rallied to organize a women’s department within the Communist Party—the Zhenotdel—despite criticism from other party members. Committed and impassioned women, known as the “zhenotdelki” or “zhenskii aktiv” (meaning women activists), pushed within the Party and the labor unions to bring employment opportunities to women.

“These were women who were interested in transforming all of the issues of family and daily life so that women could be freed in order to realize themselves as people,” Goldman said.

When the party promoted workplace productivity, Zhenotdel leader Aleksandra Artiukhina, the daughter of working-class parents in the textile industry, targeted the specific interests of women and emphasized the socialization of household labor.

As women entered the work force, the Soviet government rolled out solutions. Government-subsidized canteens provided workers with daily meals. It created day care centers and public laundries. The new public resources eased the burden from women returning home after a day at work.

Further, women’s “re-gendering brigades” assessed which jobs, previously seen as “male,” might be suitable for women. Goldman explained that Soviet women had to push hard to gain this kind of equality, and they attained success despite discrimination and hostility from bosses and male coworkers. Industries began to allow women to pursue skilled and semi-skilled positions, previously reserved for men only. Women, once consigned to the lowest and most unskilled jobs, now had a wide range of jobs available. Soviet women entered jobs in all areas that women in other countries were unable to access.

“Opportunities for oppressed groups are never handed to them; people have to struggle for them. I think we should try to learn more about what happened in that time and that place. It’s part of a legacy that we have as feminists today,” Goldman said.

“The Russian revolution left us a powerful legacy. As women around the world struggle today with many of the same issues that faced women over a century ago—the contradiction between home and work, the right to control our own bodies, the opportunity to receive an education, and basic issues of equal rights and recognition—the radical vision offered by revolutionaries 100 years ago still has much to teach us.”

— Wendy Goldman
CMU’s Lisa Tetrault, Candace Skibba and Jess Klein will co-teach a course on the topic, part of the Dietrich College of Humanities and Social Sciences’ new Grand Challenges Seminars that tackle significant social problems using an interdisciplinary approach. Each instructor will draw from their varied strengths in feminist theory, disability studies and advocacy for survivors of sexual assault.

“While each of us are steeped in these issues in our research and teaching, the topic is so huge and complex that we need the differing expertise that each of us brings to this course,” said Tetrault, associate professor of history, a women’s history, suffrage movement and feminism expert.

Students will learn how to differentiate between various forms of gender-based violence and examine sexual violence on college campuses and in the military, prisons and conflict zones. The course will also address how the media and arts portray it as well as how it intersects with age, race, sexuality, disability and gender identity.

“While it’s important to provide concrete definitions of sexual and domestic violence, it’s even more critical to understand how it manifests in society and how it is perpetuated,” said Klein, CMU’s coordinator of gender programs and LGBTQ initiatives. “Rape, sexual violence, physical assault, cat-calling, groping, inappropriate jokes and gestures are all part of a culture of violence. This class will focus on the problematic, learned behaviors that exist within this culture.”

Though the topic is challenging, it is also ripe for discussion.

“I am sure that some of the information will be met with resistance, fear, discomfort and, perhaps, sadness,” said Skibba, an assistant teaching professor of Hispanic Studies. “My hope is that through the analysis of gender-based violence, the students come to terms with their privilege and realize that we are all responsible for how others are treated.”

Through campus events and other programming activities, the instructors plan to engage students with the course material for all four years of their undergraduate experience.

“The amazing possibility to link academics with student life—particularly Jess Klein’s SHIFT initiative, that is trying to change the culture around gender-based violence on CMU’s campus—is especially exciting to me,” said Tetrault.

Skibba added, “I hope they embrace the conversation of a difficult topic as something that is necessary.”

Gender-Based Violence will be offered in Spring 2018 and 2019.

According to the World Health Organization (WHO), one in every three women has been beaten, coerced into sex or abused. Gender-based violence is so pervasive that it has been declared a global health crisis.
Emanuela Grama Lends an Ear to Immigrant Group

Immigration and accurate media coverage have been trending points of discussion during the past year. When the two recently became intertwined in a small western Pennsylvania suburb, CMU’s Emanuela Grama offered to reporters to do what was most needed: Listen.

A group of about 40 Roma families—an ethnic group from Romania that has suffered persecution and social marginalization—recently sought asylum in the small town of California, Pa. Grama, a native of Romania, accompanied reporters from the Pittsburgh Post-Gazette as a translator.

Grama, who studies how states use material practices to produce political communities, told the Pittsburgh Post-Gazette that she agreed to get involved because “A few of them have talked with reporters, and they feel they have been misrepresented.”

When the Roma first arrived in California, questions were asked by current residents and left unanswered. Rumors swarmed of the Roma being poor and unkempt, and those are the messages some news outlets ran with when writing about the place of the Roma in California, giving the Roma an identity that isn’t theirs.

“The media—and social media—seems to have replaced such an unmediated conversation,” Grama said. “Instead of trusting one another, and signaling respect to one another, we prefer to place that trust in the media on the assumption that they offered trustworthy, unbiased information.”

The consequence of the mistrust, from the Roma with reporters and California residents with the Roma, results in more questions. Questions about integration and what it means to know one another.

“This is immensely relevant to broader questions that preoccupies everyone living in today’s world: Who do we trust and why? What does belonging to a community mean in a digital era?” Grama said. “Issues of trust are intrinsically connected to community-making because conversations about trust—whom do we extend that trust, and whom we deny that trust, are related to issues of dignity, respect to difference, self-respect, etc.”

In spite of the miscommunications, there are California residents who extended helping hands to the newcomers.

Attorney Lisa Buday posted fliers in Romanian, directing the Roma to where they can get supplies. Buday told the Post-Gazette, “There’s a long history in my family of welcoming people to our table.”

Since the initial introduction of the Roma to the small town, there have been successes in integration of the Roma within the community. As of last month, at least one of the children had registered to start school in the California borough.

For anyone who may experience situations like this in the future, Grama has simple advice.

“Leave the phones down,” Grama said. “Have coffee or share a meal. Pay attention. Assume nothing. Welcome any questions. Sometimes you can enjoy coffee together even if you don’t share a common language.”

— Emanuela Grama
THE VOICES BEHIND TEENIE HARRIS’ PHOTOS

From the 1930s to the 1970s, Charles “Teenie” Harris captured Pittsburgh life as one of the principal photographers for the Pittsburgh Courier, one of the nation’s leading black newspapers by the 1930s.

During his more than 40-year career, Harris took more than 80,000 images. Since 2003, the Carnegie Museum of Art (CMOA) has scanned and catalogued 60,000 of those images, one of the most detailed records of the black urban experience known today.

In collaboration with Carnegie Mellon University’s Joe Trotter, Newcastle University’s Ben Houston scaled those down and paired 25 of Harris’ photographs with the voices of people who lived during those times and created the exhibit “Teenie Harris Photographs: In Their Own Voice” at CMOA.

“I was privileged to have access to two tremendously rich historical resources, one being the Teenie archive, the second being our own Remembering African American Pittsburgh oral history project,” said Houston, who directed the Remembering African American Pittsburgh project at CMU. “The latter was of course Joe’s brainchild, and one that I’m proud to be associated with in having directed it.”

Houston, under Trotter’s guidance, led the Remembering African American Pittsburgh project from 2006 to 2009. It was developed by CMU’s Center for African American Urban Studies and the Economy (CAUSE) and was funded by Nancy and Milton Washington, the Falk Foundation, BNY Mellon, the Office of Global Philanthropy and the Giant Eagle Corporation. CMU and the University of Pittsburgh recorded 180 oral histories in digital audio, including memories and narratives available nowhere else.

“Our oral history project aimed to create a record of African American life and culture during the late industrial and early postindustrial eras in Pittsburgh’s history.”
— Joe Trotter

The exhibit at CMOA is over, but the full exhibition can be experienced via the app “Not as it is,” developed by FloCulture. For free, users in the United States can view content, create their own photos and submit feedback about the exhibit.
In the world of energy innovation, there is a place for the humanities, and a team of Carnegie Mellon University historians and literary and culture experts demonstrated why.

The English Department’s Kathy M. Newman, Jacob Goessling and James Wynn and the History Department’s John Soluri presented “Contesting Energy: Labor, Culture and Politics” as part of the Scott Institute’s 2017 Energy Week. The symposium focused on the role that energy plays in culture at large, and more specifically in the Pennsylvania region.

“The humanities are always having to justify their existence, and here’s one way the humanities can directly contribute to a significant problem in the world,” said Goessling, a Ph.D. student in literary and cultural studies.

The issue of renewable energy involves the humanities in terms of how people see energy in their surroundings. The existence of wind farms, for example, can conflict with the ways people have come to think about the beauty of uninterrupted landscapes, especially in American culture.

“People are starting to consider how changes in energy technologies will be coupled with changes in culture,” Goessling said.

In this case, the humanities provide tools to develop new ways of seeing the energy forms that surround us.

“I decided to get involved with the energy symposium to highlight the important role that social and political forces and argument play in energy policy and decision making,” said Wynn, associate professor of English and rhetoric. “At the conference, I talked about citizen science in the wake of the nuclear meltdown at Fukushima and how citizen efforts to gather and represent radiation risk generated controversy and raised questions about the quantity and quality of information the Japanese government was releasing in the wake of the accident.”

Their talk, sponsored by a seed grant from the Scott Institute, touched on other topics, including energy in history and the risk of energy production and petroleum work in the Americas. It even covered Hollywood’s local, global and racial implications in movies like “Gasland” and “Promised Land,” both based in Pennsylvania.
What started as an annual writing contest encouraging students to express their personal struggles with race and discrimination is now an anthology featuring 91 pieces by 83 writers on topics ranging from racial and cultural stereotypes and school bullying to homophobia and identity questions.

Published by CMU Press, “Challenges to the Dream: The Best of the Martin Luther King, Jr. Writing Awards at Carnegie Mellon University” is a powerful selection of poetry and prose.

Its purpose is to not only share especially moving pieces but also encourage and extend more conversations about racial, political, gender, cultural and other diversity issues.

“The mission of the MLK Day Writing Awards is to create a space for daring, eloquent and inventive work, in the belief that the process of writing itself can help young people explore and break down issues of difference in their lives,” said Jim Daniels, the Thomas Stockham Baker University Professor of English who founded and directs the awards program and edited the book.

“It is consoling beyond words to witness these young writers wrestling with the realities of race, bringing solid thought and well-wrought language to bear upon that process. This is the mortar that will mend our nation’s spirit. These are the minds and hearts to whom I feel safe entrusting our collective future.”

— Tracy K. Smith, Poet Laureate of the United States
In 2014, Deborah Monti’s “The Woman, the Paradigm” won first place for high school poetry. Now, Monti is studying history with a focus on human rights and legal studies at Yale University.

Skin starts crinkling
As my arms start peeling and my hips start widening
And my freckles being disintegrating as my face morphs
Into a soft-cheeked big-lipped paradigm
Of the Hispanic woman society has made me out to be.
Until my hair turns a jet-black shade
My eyes an almond brown and my skin a deep cocoa
I cannot speak Spanish
They see that I am pale and lanky and sheltered
And until I crack with Hispanic features
They will not believe my native tongue.
I too had a dream
But it was of sweet bonbons and the local radio station
The chain linked fences and cheap fireworks
Grandmother’s sweet kisses.
With a tattooed back, a lip pierced, and a faint accent
I’ve signed my life to be a Latina teen from Queens
Well I might be
Because that’s the only Hispanic woman portrayed on TV

“These are the voices we need to hear. Inside these words, through these emotions, observations and declarations, we get close to what we can call real news,” said Alberto Ríos, author of “A Small Story about the Sky” and poet laureate of Arizona.

Of the 83 contributors, approximately 40 are graduates of the Pittsburgh Public Schools and about 30 are CMU alumni. Jonathan deVries received his bachelor’s degree in Hispanic Studies in 2005 and tied for first place in college poetry that year for “My Father Tries to Bond with Me.”

“It is flattering and surprising to see something I wrote 13 years ago resurface in this book. The surprise comes from seeing that, while my craft may have changed over the years, the underlying emotions driving the process haven’t. More broadly, the awards program has shown me how subtle racism can be and how many people it has impacted. In this way, it is important to conduct yourself properly, not just hold opinions about racism,” said deVries, who now works as an urban planner in New York City.

To help educators and others use the book as a conversation starter and resource, CMU’s M. Shernell Smith and Kitty Shropshire are preparing a reading and study guide.
George Loewenstein, the Herbert A. Simon University Professor of Economics and Psychology, gave the keynote lecture at Behavioral Insights in Action. Loewenstein presented findings from his work, most in collaboration with students and colleagues in the Social and Decision Sciences Department, that challenges traditional economic accounts of how people deal with information. In some cases, motivated by curiosity, people seek out information that has no value for decision-making. In other situations, if it threatens to be painful, people avoid information that could inform decisions. And, rather than updating their beliefs rationally, people often defend their beliefs as they would defend material possessions.

“Professor Loewenstein’s work sheds critically important insights into some of the most basic aspects of how humans form beliefs, seek or avoid information and make decisions,” said Mark Kamlet, University Professor of Economics and Public Policy and Provost Emeritus who attended the packed lecture.
Carnegie Mellon University welcomed Nobel-prize winning economist Jean Tirole, John Bates Clark medal winner Matthew Rabin, New York University economist Andrew Caplin and other attendees to The Conference on Belief-Based Utility in June. Hosted by the Department of Social and Decision Sciences, the two-day event attracted top minds from leading institutions worldwide to discuss moral influence, self-image and sense-making and their implications for economics.

"Many great economists and psychologists are recognizing that people care about and derive utility from their beliefs. We brought them together and initiated a highly stimulating conversation by organizing open discussions along with traditional presentations," said Russell Golman, assistant professor of social and decision sciences and co-organizer of the conference. "Research in belief-based utility could have incredible implications in the Information Age."

A second event during the same week also promoted scholarly inquiry in behavioral economics. Faculty and students from universities around the world met at the Early-Career Behavioral Economics Conference, sponsored by the Russell Sage Foundation and also hosted by the Department of Social and Decision Sciences.

"The conference was an outstanding success, with incredibly high quality and innovative research presentations. It is truly inspiring to see so many young scholars working on so many interesting topics," said Silvia Saccardo, assistant professor of social and decision sciences and one of the organizers.
The Ethics of Time Travel

When it comes to time travel, physicists say it could happen. Mara Harrell, teaching professor of philosophy, asks whether it should.

“Deciding whether we should travel back in time, if we could, is just like everyday decision making. In philosophy, we approach this kind of question as a thought experiment,” Harrell said.

Harrell gave Spring Carnival talk, “Traveling Through Time: Exploring the Ethical Boundaries of Future Technology,” that was part of CMUThink, an Alumni Association program designed to provide continued intellectual engagement for the alumni community through regional events, webinars and discussions.

In an ethical thought experiment, a person thinks through the consequences of an idea or scenario to determine which sequence of events would lead to the best outcome. Time travel, indeed, would be a powerful agent of change, but a scholarly approach to decision-making, ethics and social responsibility also grants the ability to make a difference in the world. An educated mind can wield the power to change the future every day.

Listen Up: Auditory Scientists Catch Students’ Attention

When we think of our most memorable learning experiences, we’re more likely to recall a special field trip or charismatic speaker than a citation in a research paper. Besides offering a change of pace, these experiences help new concepts take hold.

Just ask the students in a recent Auditory Perception course. They participated in Q&A sessions with guest speakers who lectured about auditory science topics from absolute pitch to cochlear implant technology.

“Guest speakers enhance class material because the students like to have a chance to directly inquire about research that produces ‘facts’ that they read about,” said Laurie Heller, associate teaching professor of psychology. “It’s exciting and motivating to ask the people who actually conduct the research.”

Visitors included neuroscientist, musician, professor and author Daniel Levitin, Heather Bortfeld, who leads developmental cognitive science research at University of California, Merced, Richard Randall, CMU’s Cooper-Siegel Associate Professor of Music Theory, and Christopher Brown, assistant professor of hearing science at the University of Pittsburgh.

ESPN’s Brian Burke Keynotes CMU’s First Sports Analytics Conference

Some of the biggest names in sports analytics came to Pittsburgh for a CMU first: The Carnegie Mellon Sports Analytics Conference.

The event featured experts from across the nation discussing hot topics such as spatial tracking of NBA players and the latest research on concussions in the NFL. ESPN’s Brian Burke, one of the leading voices in NFL analytics, gave the keynote talk on “The Analytic Kill Chain.”

Other speakers included Luke Bornn of the Sacramento Kings, Karim Kassam from the Pittsburgh Steelers, Disney’s Peter Carr and Sam Ventura, the three-time CMU statistics alumnus who spent the past two years as an analytics consultant for the Stanley Cup Champion Pittsburgh Penguins and is now their director of hockey research.

“It was exciting to showcase the modern, advanced sports analytics research currently being done in professional sports and on the Carnegie Mellon campus as well as welcome back many of our Carnegie Mellon alumni currently working in sports analytics,” said Rebecca Nugent, associate head of the Department of Statistics & Data Science. “Given the rapid growth and direct impact of research in this field, we look forward to making this conference an annual event.”
The Pittsburgh Summer Internship Program

Quality internships and quality interns can be hard to come by. However, for Pittsburgh-based organizations and Dietrich College of Humanities and Social Sciences students, it’s all about to become a little bit easier.

The Pittsburgh Summer Internship Program will offer students in need of valuable internship experiences an opportunity to connect with companies and organizations in the Pittsburgh area, particularly in ways that benefit the community. And they will receive financial support.

“I had a great internship with The Carey Group in Pittsburgh this past summer. I was working on national lobbying campaigns and with local and national non-profit groups. Every day I was given tasks for which I had almost no relevant experience, but I could depend on the guidance and support from everyone in the office. I learned a ton,” said Cameron Dively, an ethics, history and public policy senior who helped kick-start the idea.

Dively proposed building a Pittsburgh based internship program to Dietrich College Dean Richard Scheines, and the two of them have partnered—with several others in the college—to make it happen.

Celebrating the Arts in Society

From the role of public art to the evolution of media to how people use performance through social rituals, athletics and digital devices, the Center for the Arts in Society (CAS) has been re-framing the view of day-to-day life since 2008.

Projects from CAS’ latest mission—the Performance Initiative—were on display at the Miller Gallery and the focus of a special reception, complete with live music and fanfare.

“It was great to see a room packed full of people from so many different schools and departments across campus,” said James Duesing, CAS director and professor of art. “A highlight for me was seeing the project leaders present their work and the considered way Wendy Arons and Kristina Straub introduced such diverse projects in the context of contemporary performance.”

Events Focus on Karl Marx’s Growing Popularity

Karl Marx was born nearly two centuries ago, but in the last 10 years he’s becoming more relevant. With his book sales up and his critique of capitalism seeming fresher than ever, artists, intellectuals and grassroots movements are taking a new look at some of Marx’s old ideas.

English Professors Kathy M. Newman and David Shumway planned a series of events that offer a variety of perspectives on Marx’s ideas and impact. Through lectures, performances and an art exhibit, this programming will explore Marx’s critique of inequality and capitalism as well as his influence on political movements and political regimes, including totalitarianism.

“Inequality, especially in the US, is worse than it has been since the age of the Robber Barons,” said Newman. “The richest Americans have claimed the largest share of recent economic growth, and the workers who created that growth aren’t getting their fair share. It makes sense that Marx, who was very critical of capitalism as an exploitative system, is making a comeback.”
As the sophisticated use of digital information transforms business and daily life, an innovative approach to data science across academic fields is fueling a popularity boom at CMU’s Dietrich College of Humanities and Social Sciences, in what was once a quiet corner of the academy: Statistics.

Dietrich College’s Department of Statistics and Data Science—a global leader in applying statistics to many areas of science, technology, policy and education—is among the fastest growing statistics programs in the nation.

The number of undergraduate statistics majors has nearly quadrupled since 2010 and has grown more than twenty-fold since 2005. And since 2013, the Dietrich College applicants who indicated interest in studying statistics have more than doubled.

“Our statisticians and data scientists exemplify the Carnegie Mellon approach to the humanities and social sciences, which infuses foundational and deep research across disciplines to take on and offer solutions for issues that are important to the world today,” said Richard Scheines, dean of the Dietrich College.

In many institutions, statistics is not associated with the humanities or social sciences. But at Carnegie Mellon, where it is situated in the Dietrich College and applied in unexpected fields, this innovative approach is helping drive an unusual rise in the portion of admitted students choosing the university over its competitors.

Students at every level in the Department of Statistics and Data Science engage with interdisciplinary, real-world problems and gain extensive experience working

“For the past 50 years, we have made a big impact in both statistical theory and applying those theories to real problems and real data in fields from genetics and astronomy to sports and finance.”

— Christopher Genovese
with actual data. Recent projects analyzed domestic violence incidents and county response services, predicted yearly revenue streams for companies, visualized city crime reports, investigated if communal coping affects diabetes treatment and determined the impact of filtering tweets for social unrest.

“For the past 50 years, we have made a big impact in both statistical theory and applying those theories to real problems and real data in fields from genetics and astronomy to sports and finance,” said Christopher Genovese, head of the Statistics and Data Science Department. “Data challenges are everywhere, and the demand for professionals to effectively approach them from a statistical way of thinking, with the best tools and techniques, is going to keep growing.”

Graduates from the Statistics and Data Science Department are finding success in many different industries. Roughly 10-20 percent of recent undergraduate statistics majors have gone on to graduate or professional school. The rest are getting jobs predominately in finance and banking, consulting, analytics, management and marketing.

Samuel Ventura, who got his bachelor’s, master’s and doctoral degrees in statistics from CMU, is now the Pittsburgh Penguins’ director of hockey research. It’s his job to collect and use data to increase the team’s chances of winning.

“My first foray into taking complex data sets and trying to make something of them was when I was a rising junior working with Bill Eddy on a neuroscience project,” Ventura said. “As a graduate student, I got involved with statistics in sports, and our published papers and projects—like War on Ice—gave us notoriety in the academic and sports analytic worlds.”

One strategy the department is using to keep pace with the demands and evolve for the future is to build on and highlight connections between statistics and other fields by offering joint majors, such as with economics and machine learning, and specific tracks in neuroscience and mathematical sciences. Future additions may include tracks in data science and machine learning, curriculum refinements to broaden students’ exposure to real, large-scale data and redeveloping how computing is taught.

“Our curriculum is designed to give students a taste and a wide variety of experiences of what it is like to do statistics and data science in the real world. We take problems that are real—from research, industry and government—and put them straight into the classroom,” said Rebecca Nugent, associate department head and director of undergraduate studies.

Department Name Change
CMU changed the name of its Statistics Department to the Department of Statistics and Data Science. The new name reflects the broad reach of statistics at Carnegie Mellon, which encompasses the many facets of modern data science.

“The name change simply captures what we have been doing for some time,” Genovese said. “This is a formal way to further establish our presence and prominent reputation in data science, and it matches what we are doing both in our curricula and in our research.”

Graduate Students Keep Winning Big
Within the past year, multiple teams made up of Department of Statistics and Data Science Ph.D. students have placed in the top five at major datathons, competitions that consist of teams of computer scientists, data scientists and other experts who work on a case to study and analyze data.
Carnegie Mellon’s Flu Forecasts Prove Most Accurate

For the third year in a row, CMU’s forecasts of national influenza activity have proven to be the most accurate among all forecasting systems evaluated by the U.S. Centers for Disease Control and Prevention. Ryan Tibshirani, associate professor of statistics and data science, is part of the research group.

CMU’s Delphi research group fielded two forecasting systems during the flu season that ended in May. The systems ranked first and second among the 28 systems submitted to the CDC’s forecasting research initiative by university and governmental research groups.

In contrast to the CDC’s longstanding flu surveillance network, which measures flu activity after it occurs, the forecasting effort attempts to look into the future — much like a weather forecast — so health officials can plan ahead.

Many epidemiological forecasting systems are based on mechanistic models that consider how diseases spread and who is susceptible to them. The CMU team’s systems work differently. One version, called Delphi-Stat, is a non-mechanistic model that uses artificial intelligence — in particular, machine learning — to make predictions based on past patterns and on input from the CDC’s domestic influenza surveillance system. The other, Delphi-Epicast, relies on the so-called “wisdom of the crowds,” basing its forecasts on the judgments of a number of volunteers who submit their own weekly predictions.

During the 2016-17 flu season, Delphi-Stat did a bit better on short-term forecasts and Delphi-Epicast did a bit better on long-term forecasts, said Tibshirani.
Uncertainty Perception Drives Public’s Trust, Mistrust of Science

Many policies — from medicine to terrorism — depend on how the general public accepts and understands scientific evidence. People view different branches of sciences as having different amounts of uncertainty, which may not reflect the actual uncertainty of the field. Yet public perceptions determine action, allocation of funding resources and the direction of public policies. It is therefore necessary to understand perceptions of uncertainty and the influences that political affiliations have on scientific beliefs.

Researchers took the first step to understanding more of the whole picture by measuring scientific uncertainty broadly — across many areas of science, not just topics that are typically polarized. Published in the Journal of Experimental Psychology, the team found that how people comprehend the accuracy of a specific scientific field drives their perception of it and how they gauge its uncertainty.

“Uncertainty is a natural part of scientific research, but, in the public domain, it can be used selectively to discredit undesirable results or postpone important policies. Understanding how the public perceives uncertainty is an important first step for understanding how to communicate uncertainty,” said Stephen B. Broomell, assistant professor of social and decision sciences.

To examine perceptions of scientific uncertainty, Broomell and Ph.D. student Patrick Bodilly Kane developed a scale to measure how people judge different sciences. They were then able to create a map that plots scientific disciplines from least to most certain.

“The map shows that perceptions held by the public may not reflect the reality of scientific study,” Broomell said. “For example, psychology is perceived as the least precise while forensics is perceived as the most precise. However, forensics is plagued by many of the same uncertainties as psychology that involve predicting human behavior with limited evidence.”

Broomell and Kane also found that perceptions of scientific uncertainty were highly correlated with judgments about a particular science’s value. And this impacts how people think a scientific field should be funded.

“This tells us that people are not connected to the practice of scientific exploration. When perceived accuracy isn’t the same as actual accuracy, this can lead to dangerous choices, as some essential fields like psychology, economics and genetic engineering provide vital social services but may be cut off because of this disconnect,” Broomell said.

While political affiliations are not the only factor motivating how science is perceived, the researchers did find that sciences that potentially conflict with a person’s ideology are judged as being more uncertain.

“Our political atmosphere is changing. Alternative facts and contradicting narratives affect and heighten uncertainty. Nevertheless, we must continue scientific research. This means we must find a way to engage uncertainty in a way that speaks to the public’s concerns,” Broomell said.

Interestingly, the study showed that the uncertainty for scientific fields does not carry over and inform perceptions about individual study results. This provides scientists with an opportunity for better communication. Focusing on individual results can help allay misperceptions and concerns. Communicators should therefore focus on the specific details of a study’s result rather than engaging in the defense of scientific practice more broadly.
Fingerprints Lack Scientific Basis for Legal Certainty

It may surprise many, especially those susceptible to the CSI effect, but fingerprint evidence is not conclusive beyond a reasonable doubt.

A new American Association for the Advancement of Science working group report on the quality of latent fingerprint analysis said that courtroom testimony and reports stating or even implying that fingerprints collected from a crime scene belong to a single person are indefensible and lack scientific foundation.

“Fingerprinting is one of the most heavily used forensic methods. Routinely, fingerprint analysts report and testify to ‘identification,’ that is, that the person who left the mark at the crime scene is the same person whose fingerprint is in the database, said Joseph B. (Jay) Kadane the Leonard J. Savage University Professor of Statistics and Social Sciences, Emeritus. “Our review of the scientific literature found that there is no scientific way to estimate the number of people in some community—a city, a state, the country, the world—who share the characteristics found, and hence no scientific basis for identification.”

Aging Power Plants Provide Trump Administration With Environmental Risks and Economic Opportunities

When it comes to the current plans to retire U.S. power plants, CMU researchers believe we are “running towards a cliff with no fence.”

Published in Energy Policy, David Rode and Paul Fischbeck and alumnus Antonio Páez, who now works for DAI Management Consultants, examined more than a century of power plant construction and retirement data.

They found that power plant retirement trends will complicate achieving long-term carbon dioxide emission reduction targets and require a significant increase in capital investments. Additionally, a shift in investment emphasis from adding megawatts of generating capacity at low cost to reducing tons of carbon dioxide emissions is creating an imbalance that may pressure grid reliability over the next two decades.
Polarization for Controversial Scientific Issues Increases With More Education

A commonly proposed solution to help diffuse the political and religious polarization surrounding controversial scientific issues like evolution or climate change is education.

However, CMU researchers found that the opposite is true: people’s beliefs about scientific topics that are associated with their political or religious identities actually become increasingly polarized with education, as measured by years in school, science classes and science literacy.

“A lot of science is generally accepted and trusted, but certain topics have become deeply polarizing. We wanted to find out what factors are related to this polarization, and it turns out the ‘deficit model’—which says the divisions are due to a lack of education or understanding—does not tell the whole story,” said Caitlin Drummond, the lead author who recently received her Ph.D. in behavioral decision research.

They found that beliefs were correlated with both political and religious identity for stem cell research, the big bang and evolution and with political identity alone on climate change. On each of these issues, individuals with more education, science education and science literacy had more polarized beliefs.

The researchers found little evidence of political or religious polarization for nanotechnology and genetically modified food.

“These are troubling correlations. We can only speculate about the underlying causes,” said Fischhoff, the Howard Heinz University Professor in the Institute for Politics and Strategy and the Department of Engineering and Public Policy. “One possibility is that people with more education are more likely to know what they are supposed to say on these polarized issues in order to express their identity. Another possibility is that they have more confidence in their ability to argue their case.”

The results also showed that for all six issues, people who trust science more are also more likely to accept scientific findings.

Group Tolerance Linked to Perceptions of Fairness and Harm

Look for the fault line in any modern conflict and it likely follows a familiar division between the opposing groups. Whether that divide is sectarian, ethnic or ideological, people’s devotion to the values that define their communities can make it seem as if violence along their boundaries is inevitable.

But a new study of groups in tension or conflict found evidence that people are willing to share a society with those of differing beliefs as long as they believe that those groups share a commitment to universal moral values such as fairness and harm.

Published in Personality and Social Psychology Bulletin, CMU’s Nichole Argo and other researchers interviewed hundreds of members of sectarian groups in Lebanon, ethnic groups in Morocco and ideological factions in the United States. Their findings undermine political claims that conflicts arise because of differences in what they call “binding” values, such as beliefs about God, purity or deference to authority. Members of groups may believe in these things, but they don’t necessarily expect others to share those beliefs.
JOEL TARR’S FIRST 50 YEARS AT CARNEGIE MELLON UNIVERSITY

“When Joel arrived at Carnegie Mellon, he was a political historian. Over the course of the next half-century, he used CMU and Pittsburgh as his laboratory and has become one of the most revered scholars of history and the urban environment and the development of urban technological systems.”

— Richard Scheines
Few people know the history of Pittsburgh better than Joel Tarr—or better understand the relationships between cities, the environment and technology—or can tell you more about the history of Carnegie Mellon University.

Tarr has called CMU his home away from home for five full decades, and the Department of History held a celebration to honor his achievements as an educator, researcher, historian and outstanding university citizen.

The program featured tributes by professors from all across campus, including Alfred Blumstein, the J. Erik Jonsson University Professor of Urban Systems and Operations Research, Emeritus in the Heinz College; David Dzombak, the Hamerschlag University Professor and head of the Civil and Environmental Engineering Department; Francis McMichael, professor of environmental engineering; David Klahr, the Walter van Dyke Bingham Professor of Cognitive Development and Education Sciences; and Steven Schlossman, professor of history. Interim President Farnam Jahanian and Dietrich College Dean Richard Scheines also offered remarks on Tarr’s distinguished career.

Tarr studies the history of the urban environment and the development of urban technological systems. He has directed twenty-four doctoral dissertations. He has served on National Research Council committees dealing with issues of urban infrastructure, public transit, and water pollution. He has directed or co-directed research projects from the National Science Foundation, the National Oceanic and Atmospheric Administration, the National Park Service, the National Endowment for the Humanities and numerous foundations.

Tarr is the Richard S. Caliguiri University Professor of History and Public Policy in the Department of History in the Dietrich College. He has additional appointments in the Heinz College and Department of Engineering and Public Policy. He served as acting dean of the Heinz College (SUPA, 1986), associate dean of the Dietrich College (then the College of Humanities and Social Sciences (H&SS), 1988-91), acting dean of H&SS (1991-92) and acting head of the Department of History (1992-93).

In 1992, CMU awarded Tarr the Robert Doherty Prize for “Substantial and Sustained Contributions to Excellence in Education.” In 2008, the Society for the History of Technology awarded him the Leonardo da Vinci Medal, the Society’s highest honor, bestowed to an individual who has made an outstanding contribution to the history of technology through research, teaching, publication and other activities. In 2015, the American Society for Environmental History awarded Tarr its Distinguished Service Award, given to an individual who has contributed significantly to the development of ASEH as an organization.

First-Ever Tarr Fellow

Ph.D. student Javier Bonilla Garcia has received the first Joel Tarr Fellowship. He is studying the environmental history of the public water supply in Panama City in connection with the construction of the Panama Canal.
There's a lot to discover in Carnegie Mellon University's Dietrich College of Humanities and Social Sciences. And each year, instructors are creating new and innovative courses that keep up with current events and look to the future. Here is a sample of the latest cool classes that Dietrich College students are taking.

**Artificial Intelligence and Humanity**

Taught by Jennifer Keating, assistant dean for educational initiative in the Dietrich College, and Illah Nourbakhsh, AI and Humanity is a Grand Challenge Interdisciplinary Freshman Seminar. These courses are designed to create educational experiences that focus on tough societal problems. AI and Humanity embraces the bond between the humanities and computer science by addressing what it means to be human in the context of a rapidly advancing technological age. Ultimately, the goal is to understand the future of human-to-machine relationships.

“I believe one important way universities can help forge common ground is by breaking traditional disciplinary barriers,” said Nourbakhsh, professor of robotics in the School of Computer Science. “This class excites because it takes on issues that are truly consequential to our society—labor, equity, agency, bias and such—and creates a space in which first-year students from two very different CMU schools engage with one another in understanding how our past helps us evaluate the future.”

A different point-of-view is why computer science freshman Michael Huang signed up for the course.

“I decided to take the class because I thought it would add an interesting new perspective to my interests in machine learning,” Huang said. “So far, my favorite aspect of the class would be the diversity of source materials, from Frederick Douglass’s autobiography to Star Trek episodes, each source contributed interesting implications and ideas for future society that I hadn’t considered before.”

The variety is also what attracted Rebecca Zheng, a Dietrich College freshman, to sign up for it.

“Not only do we talk about artificial intelligence in general, but we extend to discussing the implications of AI on labor, economics, and society,” Zheng said. “It has changed the way I view the world and made me more aware of how technology impacts everyday life.”
Bubbles: Big Data for Human Minds

Bubbles—such as the market bubble behind the 2008 housing crash, to contemporary information and social bubbles created by social media sites like Facebook—are a basic feature of modern life. To make sense of them, people need to understand basic social science questions about what they believe, where ideas come from and how to measure consequences. Bubbles, taught by Simon DeDeo, requires students to walk in with a willingness and initiative to work with real-world data.

“We get students out in the wild as soon as we can, looking for real-world examples of the theories we cover in class,” said DeDeo, assistant professor of social and decision sciences. “The discoveries they bring back are fantastic: analyses of everything from meme-factories on Reddit to the rise and fall of TV show plot devices, information cascades among sports commentators, the psychology of conspiracy theorists, and the effect of our president’s tweets on stock market volatility.”

The course covers topics ranging from literary fads to revolutions, with examples ranging from the novels of Jane Austen to the algorithms underlying cryptocurrencies such as BitCoin.

“I decided to take Bubbles because I wanted to get exposure to and experience with big data analysis,” said Anne Widom, a senior majoring in psychology. “My favorite thing about the class is that just a few weeks in I’ve already learned how to run some preliminary data analysis on texts and find interesting results, but that there is always a non coding option that is similarly interesting for those with less experience coding.”

Climate Change

Another Grand Challenge seminar, this class aims to answer what climate change is, how scientists know it’s happening, why there’s so much public debate over it, what solutions are available and determine the pros and cons of those solutions. Tackling these questions is a three-professor job, with Peter Adams, Kasia Snyder and James Wynn instructing.

“I wanted to teach this course because to me proliferating knowledge and understanding, especially amongst young people, of how big and hard won a step forward the global climate agreement—the Paris Agreement—was and what exactly is its nature is the most meaningful follow up a negotiator can pursue outside the UN process,” said Snyder, an adjunct instructor in the Dietrich College.

Interested in exploring the challenges and complexities of climate change, College of Engineering freshman Nickia Muraskin has found that the course offers a valuable perspective.

“The Climate Change Seminar goes beyond the problem-solution construct typical of engineering so that we understand the complexities of the issue in the context of the real world,” Muraskin said. “I enjoy the experience of discussing a global issue with other students of diverse backgrounds, in particular because of the relevance climate change has to our futures and how it relates to current political events.”

Having the opportunity to teach students who are delving into this topic with this interdisciplinary approach is Wynn’s favorite part of the course.

“These students are just starting off on their intellectual explorations,” said Wynn, associate professor of English. “They offer unique insight on what it is like to explore rhetoric and the rhetorical dimensions of climate change for the first time.”

Investigating the topic with experts from different backgrounds and angles including, scientific, political, rhetorical, cultural, economic, technological and ethical, Adams is learning alongside the students.

“One great thing about teaching this course is the interdisciplinary nature of the material and the lineup of the instructors,” said Adams, professor of civil and environmental engineering and engineering and public policy. “It’s unique to have a rhetorician, climate negotiator, and a scientist co-teaching. I love teaching with James and Kasia because I end up learning so much. Also, it’s fun to tell my engineering colleagues that I have to go read Aristotle’s Rhetoric for next week’s class.”
TEN JUNIORS NAMED DIETRICH COLLEGE HONORS FELLOWS

Ten distinguished Dietrich College of Humanities and Social Sciences juniors spent the summer working on research and creative projects that span from how the U.S. federal court system can restrain an “imperial presidency” to exploring the future of work through poetry.

The students’ work is funded through the Dietrich College Honors Fellowship, an extension of the college’s Senior Honors Program, and gives the fellows a head start on their thesis development.

“This year’s cohort of research fellows reflects the high quality and promise of past cohorts, but also has shades of intellectual diversity that we haven’t seen before,” said Joseph E. Devine, associate dean for undergraduate studies.

David Beinhart
Majors: Business Administration, Creative Writing
Project: An Inquiry Into the Future of Work
Adviser: Jim Daniels

Isabel Bleimeister
Major: Neuroscience
Minor: Biomedical Engineering
Project: Subcortical Visual Processing
Adviser: Marlene Behrmann

Kyanna Dawson
Major: International Relations and Politics
Project: The Balance of Powers: The Federal Court System and the Presidency
Adviser: Geoffrey McGovern

Jenna Houston
MAJORS: Gender Studies, Art
MINOR: Photography
PROJECT: “Vulvodynia: A Documentary”
ADVISERS: Lisa Tetrault and Ross Mantle
Amber James
MAJOR: Technical Writing and Communication
MINOR: Biomedical Engineering
PROJECT: Sustainability and Technical Communications in Global Health Projects
ADVISER: Necia Werner

Yong H. Kim
MAJOR: Economics
MINOR: Decision Science
PROJECT: What Can the U.S. Learn From the Health Insurance Systems of the Netherlands and Switzerland?
ADVISER: Martin Gaynor

Zeyneb Majid
MAJOR: Psychology
MINOR: Biomedical Engineering
PROJECT: Understanding Resistance to Communal Coping and Its Effect on Health Outcomes in Young Adults with Type 1 Diabetes
ADVISER: Vicki Helgeson

Manvendu Navjeevan
MAJOR: Economics and Mathematical Sciences
MINOR: Statistics
PROJECT: Pittsburgh City Programs and Their Impact on Income Mobility
ADVISER: Laurence Ales

Ian Sears
MAJOR: Creative Writing
MINOR: International Relations and Politics
PROJECT: Exploring Narrative Identity Through Fiction
ADVISER: Kevin González

Lauren Yan
MAJOR: Cognitive Science
PROJECT: Facilitating Memory Through Games in Children Aged Three to Five
ADVISER: Sharon Carver
Five Dietrich College Ph.D. students will start ambitious projects that blend research from the English, History and Modern Languages Departments.

“Dietrich College students continue to submit really interesting project proposals. From a strong group of applicants, we selected five projects for support. Some of them will prototype novel learning technologies, others will use digital tools to answer previously unanswerable research questions in the humanities,” said Andy Norman, project manager for the fellowship.

Norman added, “We’re providing them with expert support, and we’re excited to see what they can accomplish.”

The support comes from the Andrew W. Mellon Foundation, which awarded a five-year $2 million grant to CMU in 2014 to transform humanities graduate research and increase learning through digital technology.

### Five Andrew W. Mellon Fellows Selected

**Frank Dolce**  
Modern Languages Department  
Dolce’s fellowship research will utilize the video-recording technology V-Note to facilitate and analyze advances in student performance of higher-order interactional competencies using their foreign language.

**Susan Grunewald**  
History Department  
Grunewald’s research involves German prisoners of war (POWs) in the Soviet Union from 1941 to 1956 and investigates why the Soviet government chose to delay repatriation for 11 years after the end of WWII, which was seven years longer than any other Allied Powers held their POWs.

**Calvin Pollak**  
English Department  
As a fellow, Pollak will investigate how public discourse about the National Security Agency’s (NSA) data collection policies shifted in response to Edward Snowden’s leaks of secret NSA documents in 2013.

**Natalie Suzelis**  
English Department  
Through Suzelis’ fellowship, she hopes to connect literary scholarship, network science, and the ecological history of capitalism to show how histories of climate and sociological transfigurations have influenced our modern world system of capital.

**Xiaofei Tang**  
Modern Languages Department  
Tang’s research intends to design an immersive digital game to teach Chinese formulaic expressions and to examine the effects of game-based language learning.
STUDENT HONORS AND ACHIEVEMENTS

Truman Scholar

Mikaela Wolf-Sorokin, a junior global studies and Hispanic Studies major, won a 2017 Harry S. Truman Scholarship.

Selected from 768 candidates, Wolf-Sorokin is one of 62 recipients of the prestigious national scholarship designed to support the next generation of public service leaders. Wolf-Sorokin is the sixth overall CMU student to receive this award and the first since 2009.

“Mikaela is as passionate about public service as any student I’ve ever met,” said Richard Scheines, dean of the Dietrich College. “Pretty much our only comment during mock interviews was to ‘slow down and breathe in between paragraphs!’ I actually feel better about the future of the planet knowing that people like Mikaela are throwing themselves into improving it so forcefully. The Truman Scholarship is a great honor, and Mikaela is a great choice.”

Truman Scholars receive a $30,000 scholarship toward graduate school and the opportunity to participate in professional development programming to help prepare them for careers in public service leadership. Wolf-Sorokin plans to attend law school and focus on immigration and social work. She is currently taking a gap semester and volunteering for an organization that provides humanitarian aid to migrants in the desert. Through an internship, she is working with unaccompanied minors in a Tucson-area shelter and adults detained in immigration detention facilities in Florence, Arizona.

“I applied for the Truman Scholarship because it seemed like a great opportunity to meet a network of people who are all passionate about public service but interested in a variety of issues,” Wolf-Sorokin said. “I want to gain the skills to provide quality legal services to immigrants fleeing violence in their home country. Because of the nature of this work, most people have undergone terrible trauma. A law degree with a social work concentration will give me the necessary skills to support those individuals as we fight their legal cases.”

Fulbright Awards

Six Carnegie Mellon University seniors were named Fulbright award winners – and three were from the Dietrich College of Humanities and Social Sciences.

The Fulbright award recipients for 2017 taught and conducted research all over the globe.

“This year’s Fulbright awardees personify the ideals of the Carnegie Mellon undergraduate experience,” said Joanna Dickert, assistant director of undergraduate research in CMU’s Fellowships and Scholarships Office, which provides support to students applying for nationally competitive fellowships and scholarships.

“They are committed scholars and citizens who have crafted distinctive paths for intellectual exploration that embraced experiential learning via undergraduate research, study abroad and service learning. We have every confidence that they will continue to learn, create, discover and inspire in their respective host countries as ambassadors for Carnegie Mellon and the United States.”

The three Dietrich College recipients were: Melanie Diaz, English and Global Studies, with a minor in Politics and Public Policy Emily Joyce, International Relations and Politics; Hispanic Studies Kayla Lee, Global Studies and Hispanic Studies, with a minor in Politics and Public Policy
Eight Seniors Named Andrew Carnegie Society Scholars

ACS Scholars are CMU undergraduate students who combine high academic standards with extracurricular activities, such as volunteering, playing sports, taking on leadership roles and participating in student organizations and the arts.

Ian Asenjo
Global Studies; Ethics, History and Public Policy

Apoorva Havanur
Statistics and Machine Learning; Economics

Kim Hochstedler
Statistics and Data Science

Amber James
Technical Writing

Maria Navarro-Gutierrez
Global Studies; Professional Writing

Cori Sidell
Decision Science

Victor Tavarez
International Relations and Politics

Mikaela Wolf-Sorokin
Hispanic Studies; Global Studies

Critical Language Scholarships

Philip DeCicco, an international relations and politics major, and Orchi Banerjee, a decision science major, received Critical Language Scholarships. DeCicco spent the summer in Ibra, Oman studying Arabic, while Banerjee studied Arabic in Meknes, Morocco.

Senior Wins Gretchen Lankford Prize

The award recognizes graduating seniors who are interested in a teaching career. Named for the late Gretchen Goldsmith Lankford, the prize underscores her deep conviction that “devoted teaching makes a difference in the lives of young people, helping them to fulfill their potentials as intellectuals, citizens and as human beings.”

Lisa Murphy, the 2017 recipient, plans to pursue a master’s degree in special education and teach children between preschool and first grade. She is particularly interested in understanding how children on the autism spectrum learn and develop.

“Each child is a different puzzle and I love the challenge of combining observations, collaboration with others and research to figure out what the most effective intervention may be,” said Murphy, a psychology major with a concentration in child development.
Alan and Gloria Siegel Award for Professional Writing

The Alan and Gloria Siegel Award for Professional Writing recognizes outstanding work by professional writing students and is endowed by Alan Siegel, president and CEO of Siegelvision and nationally renowned for his research on plain language and clear communication. The 2017 winners were Abigail Salmon and Valerie Yam, both professional writing majors, for their collaboration on an instructional document titled, “How to Wear the Kiltie Band Uniform.”

Honor Societies

Nu Rho Psi
The National Honor Society in Neuroscience now has a CMU chapter. It already boasts 16 undergraduate student members and three graduate student members from across five colleges, including the Dietrich College.

Phi Beta Kappa
Only one percent of college students nationwide receive an invitation to join the prestigious honor society, and in 2017, 17 Dietrich College students were inducted.

Phi Alpha Theta
Ten students joined the national history honor society, which has more than 400,000 members.

Phi Sigma Iota
Twenty students from the Modern Languages Department were invited to join the prestigious international honor society that recognizes the achievements of outstanding students in academic fields related to foreign languages, literatures and cultures.

Psi Chi
Twenty-one students with primary or secondary majors in psychology were inducted into the international honor society dedicated to encouraging, stimulating and maintaining excellence in psychology and the science of psychology.

Sigma Tau Delta
Sixteen students were welcomed into the society that honors the academic excellence of students studying the English language and literature.

4.0 Student-Athletes

During the spring semester, 14 Dietrich College student-athletes had a 4.0 GPA, while 17 achieved it during the fall. Senior Kiersten Chuc, who’s studying statistics and French and is a member of the Tartan track and field team, was the only Dietrich College athlete to receive a 4.0 during both semesters.

Honorable mention recipient Jeneni Withers (left) stands with winners Valerie Yam and Abigail Salmon.

Kiersten Chuc

Honorable mention recipient Jeneni Withers (left) stands with winners Valerie Yam and Abigail Salmon.
Caps were tossed, tassels moved from right to left and now the Class of 2017 will show the world what they’re made of.

“Graduating from Carnegie Mellon University is no small feat,” said Richard Scheines, dean of the Dietrich College of Humanities and Social Sciences. “Our faculty take pride in putting obstacles in your way. Our education is one of the most rigorous in the world, and our graduates tell me that they are more prepared than anyone else.”

Many of the newest Dietrich College graduates will start their journeys at companies like Amazon and Google or in top graduate programs, taking the experiences of the past four years with them.

“We’ve grown. We’ve accepted that life, much like learning, is a process,” said David Diran Selverian, a decision science major, in his speech at the Department of Social and Decision Sciences’ diploma ceremony.

CLASS OF 2017

By the Numbers

- 287 Undergraduate Degrees Conferred
- 145 Students Graduated With Honors
- 102 Master’s Degrees Awarded
- 38 Doctoral Degrees Awarded
Ready for the Next Steps

Before the ink even dried on their diplomas, many of the newest Dietrich College graduates had secured jobs or spots in top graduate programs.

Stephen Wu, who double-majored in computer science and logic and computation, will begin working as a software engineer at Amazon, where he will help scale its new Amazon Tickets platform. He sees it as a major boon for Amazon to branch out into ticket sales and is excited to build a startup within a large company.

Wu hopes the experience will inspire ideas for his own music industry startup, which he plans to launch with other alumni from his CMU network.

“I have made some of my best friends at CMU. I want to apply my analytical thinking to identify problems in the industry and work with the smart and talented people I met here,” said Wu.

Not all students are launching careers immediately after graduation. Others—like Jack Kroger—are pursuing graduate school at highly-ranked institutions.

Kroger will begin a one-year master of science program in development studies in the London School of Economics’ (LSE) International Development Department. Afterwards, he plans to become an analyst for a transnational organization like the World Bank or a non-governmental organization specializing in development or human rights.

“I think that CMU has provided a well-rounded and interdisciplinary education that I will be able to continually pull from in the future,” said Kroger, who majored in economics and statistics and had an additional major in international relations and politics. “The Institute for Politics and Strategy specifically has been instrumental in shaping me to think critically about policy in a non-political way. It has also shown me ways that the statistical and economic tools that I have learned can be used to enhance research into international relations, political economy and, ultimately, development.”

Statistics major Skye Toor is working as a statistician and programmer at Pew Research Center. Statistics and machine learning major Emily Helfer will begin working as a data scientist at Microsoft. Quinton Laurencio, who also majored in statistics and machine learning, will work as a summer analyst at Credit Suisse. Mengyao (Zoe) Wei, who majored in business administration with an additional major in statistics, will begin working as a business analyst at Deloitte Consulting. And Jade Schiffer, who majored in decision science with an additional major in human-computer interaction, will also join Deloitte as a summer business analyst.

Logic and computation major Tim Brooks will start a job this summer in Google Research’s camera group, where he will help develop algorithms for image processing, mobile cameras and photography software. Fresh from her public relations internship in the Dietrich College Dean’s Office, Sarah Gutekunst will head to New York City, where she will work as a communications assistant at Fried, Frank, Harris, Shriver & Jacobson LLP, a top international law firm specializing in mergers and acquisitions, private equity and real estate.
Attending college can be one of the most transformative journeys, and the beginning presents quite a few unknowns. Luckily, the new first-year students in the Dietrich College of Humanities and Social Sciences are joining a legacy built on respect and inclusiveness.

“You are not alone,” said Dietrich College Dean Richard Scheines. “Carnegie Mellon is a community in the true sense of the word. We care for and about one another.”

During his orientation remarks, Scheines ran down a brief list of Dietrich College accolades, including six members of the American Academy of Arts and Sciences, four members of the National Academy of Sciences (NAS) and two members of the National Academy of Education and advised students of the opportunities and resources within their reach.

“From creative writing to cognitive psychology, ethics, history and public policy and information systems, you have a very intellectual feast in front of you,” Scheines said. “My message? Eat in zest and sample the whole buffet.”

Senior Cameron Dively echoed the opportunity theme. A peer mentor and ethics, history and public policy major, Dively shared how he made the most out of his first three years at CMU.

“Coming in as a freshman, I had no concept of just how many opportunities CMU had to offer,” Dively said. “The faculty and staff want you to thrive.”

Dively’s prime example was an interaction he had during his sophomore year with Dietrich College Associate Dean Jay Devine.

“Dr. Devine reached out to me and said, ‘Here’s this cool fellowship. I think you might like it,’” Dively said. “He met with me, talked with me through the application process. He opened that door for me, all I had to do was walk through it.

“Dively added, “Be willing to walk through those doors when they’re open.”

Chances to start bonding with one another were offered throughout Orientation Week. Some of these opportunities included an Instagram photo contest and meeting with the entire incoming class and faculty at the Heinz History Center.
Marlene Behrmann, the Cowan University Professor of Cognitive Neuroscience and one of Dietrich College’s NAS members, felt energized from her conversations with the new class and was impressed by the kinds of questions they asked.

“This is why I love what I do,” Behrmann said.

Later in the week, students participated in a session on bringing awareness, being allies, and having the power to change dialogue, coordinated by Ayana Ledford, director of diversity and inclusion in the Dietrich College.

Students who attended the session took away the importance of respecting the opinions of others, being good listeners, and not being afraid to be vulnerable.

“I learned that we’re not all from the same place, but we’re all working together,” said Guillermina Tocalini, who is interested in pursuing a degree in information systems.

When discussing the essence of collaboration and student responsibility at CMU, Rebecca Nugent, teaching professor of statistics and data science, and Daniel Oppenheimer, professor of social and decision sciences, urged students to consider their actions and repercussions.

“I want to encourage everyone to take a little bit of time to think about what happens when you make a bad decision, quite often the focus of academic integrity,” Nugent said. “There’s a lot of pressure upfront about ‘don’t make the bad decision’ but

sometimes bad decisions happen. Students who can think through the bad decisions they make and talk about it, those are the students who tend to have greater success.”

Oppenheimer added, “Your mind is a house you’re going to live in for the rest of your life. This is four years where you can decorate it to be awesome. Spend your time really learning.”

Reflecting on the week, students talked with one another about key takeaways and what they’re excited for.

“Playfair was the point where I really started to see how cohesive, supportive and fun of a community CMU is,” said Eileen You (DC ’21).

“It’s been community building, immediately from the get go,” said CJ Rosado, who is interested in studying psychology. “I’m most excited to get into clubs and groups such as the LGBT group Allies, because where I grew up there wasn’t much for LGBT people, so maybe I can bring some of that back to my hometown.”

For the first time, Dietrich College Orientation was organized by the Academic Advisory Center (AAC).

“My hope is that students realized all that CMU, Dietrich and Pittsburgh have to offer them throughout their four years in the college,” said Ana Maria Ulloa, assistant dean and director of the AAC. “I hope they feel they made the right decision in coming to Dietrich and have begun developing a network of support with their peers, faculty and staff.”
ALUMNI TALK INTERNSHIPS AT UNDER CONSTRUCTION

When Matthew Hannigan (HNZ ’02), co-founder of The Sprout Fund, gave his keynote at Under Construction, he was serious about sharing some pointers about internships. Hosted by the Dietrich College of Humanities and Social Sciences, the fifth Under Construction event offered sophomores opportunities for meeting and talking with alumni about internships and career paths. In a brief address, Dietrich College Dean Richard Scheines encouraged students to “extract every tidbit of knowledge” as possible. Hannigan recalled what it was like being an intern. Despite some of his initial feelings of uncertainty, he stuck with the position in the Allegheny County government. What he learned influenced his career, and eventually it influenced a city.

During his internship, Hannigan gained an appreciation for small civic projects and their ability to make a large local impact. The concept became a central mission to the nonprofit he co-founded in 2002 with Cathy Lewis Long (DC ’91). Today, The Sprout Fund has invested $7 million in approximately 1,000 projects in the greater Pittsburgh region.

“Most people consider internships as part of their school experience, but it could actually be very important to your career,” Hannigan said.

After dinner and the keynote address, students met and spoke with Hannigan and more than two dozen alumni. The students asked a variety of questions, such as how to cope with nervousness before interviews, how to stand out as a candidate for competitive internships or what to do if the “right” internship is impossible to find. The alumni readily answered and based their advice on experience.

“Go out of your way to look for opportunities, to participate in informational interviews, and then follow up afterwards. Tell them why you were interested in joining them for an internship. Making a personal connection with someone at an organization can help to drive your application and make it visible in a sea of hundreds, sometimes thousands, of resumes,” said Juan Acosta ’15, a consultant at Booz Allen Hamilton.

Lisa Han, a sophomore economics major, recalled the event taking place last year. She anticipated good networking opportunities.

“I did not want to miss the chance to meet alumni because I knew it would be incredibly valuable. It’s important to make connections, and this is also a chance to connect with my fellow Dietrich College classmates,” Han said.

During breakout sessions, the alumni talked openly about their own internship experiences, as well as current careers. Importantly, they provided wisdom on how to handle let downs and failures.

“An internship is a low-risk learning opportunity, so it’s okay if it only offers one or two elements related to your passion. It might not be ‘the thing’ you want to do. I had a great internship and not-so-great internship; I learned from both of them,” said Joanna Lovering (BHA ’04), senior director at HALO Academy.

Internships were a major focus of this year’s event, according to the event’s organizer Jennifer Keating, assistant dean for educational initiatives at the Dietrich College.

“The event has evolved over the years, but it keeps getting better. We want the sophomores at the Dietrich College to know about all of the great opportunities that await them, even during those times when they don’t know exactly what the future holds. Under Construction provides a unique opportunity to do just that,” Keating said.

“By talking with the alumni, I gain a better understanding of what I would like to do and where I would like to go,” said Yasasvi Hari, a sophomore statistics major. “It helped to clear up my doubts and my fears.”
Want To Win a World Championship?
Hire a Dietrich College Grad.

A triple alumnus of CMU’s Statistics and Data Science Department, Sam Ventura (DC’10, ’11, ’15) worked for the NHL Pittsburgh Penguins as an analytics consultant for the 2015-16 and 2016-17 seasons. During those two seasons, the Penguins were back-to-back Stanley Cup Champions. For the 2017-2018 season, Ventura was hired as the team’s director of hockey research.

The Houston Astros recently won their first World Series Championship. On their staff is Adam Brodie (DC’16), who received his Ph.D. in philosophy and a master’s degree in machine learning from CMU. Brodie is an analyst of research and development for the Astros.

Alumnus Named MacArthur Fellow

Cybersecurity expert Stefan Savage (DC’91) is one of 24 winners of MacArthur Foundation Fellowships, often known as “genius grants” this year. He will receive $625,000 over the next five years.

Savage, who earned his bachelor’s degree in history from CMU, is a computer scientist at the University of California at San Diego. His undergraduate coursework also included cognitive psychology, computer science and other history courses. He said his time at CMU prepared him well for graduate school.

“I realized that my courses in history and cognitive psychology gave me a huge unfair advantage over my peers. They had learned to solve differential equations while I had spent the time having to write, speak and argue — precisely the tools needed in graduate school.”

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Sounds of Success

Steve Martocci (DC’04) is a software developer who loves music. In 2010, he merged his passions to create an app to locate his friends at a crowded Disco Biscuits concert. Named GroupMe, the idea took off as thousands of other groups used the smartphone app to organize social events and establish meeting places.

A year later, Martocci and his cofounder sold the company to Skype for a reported $85 million.

Today, Martocci is combining his love of software and music in a more direct way. Splice, the company he co-founded in 2013, is a cloud-based music creation platform with a library of more than two million sound samples, from kick drum beats to bird calls, which can be used by musicians, sound designers, sound editors for film and anyone else.

Splice has more than 750,000 users and is currently earning nearly $10 million in annual revenue. It is no wonder the 35-year-old Martocci recently was named to “Crain’s New York Business” 40 under 40 Class of 2017.

Martocci credits his degree in information systems for giving him the computing chops and problem-solving tools to be a serial entrepreneur. Growing up in Long Island, he tinkered with computers. But it was not until he enrolled at CMU that he learned how to program, which he said helped him to flourish.

Five CMU Friends Keep the Connection

In 1964, five freshmen arrived at Carnegie Institute of Technology and became close friends. More than 50 years later, the women’s bond that was forged over studying and becoming young adults together remains strong...as does their connection to what is now Carnegie Mellon University.

Marilyn Ackerman Posner (MM’68) and Karen Rossi Schnakenberg (MM’68, DC’96) were close friends in high school but decided not to room together so they would be pushed to make new friends. The plan worked well, and their circle soon expanded to include Marjorie Rein Schlosberg, who was Schnakenberg’s freshman roommate; Patricia Raab Schuetz (MM’68), whose father was Schnakenberg’s father’s boss; and Fredda Simon Unangst (S’68, ’70), whom Schnakenberg met in calculus class.

“College friendships are important because they help you form who you are as an adult,” said Unangst. “As time goes by, these long-term friendships are important because these people know your history.”

The women credit each other for some of their fondest college memories. One memorable example is how Posner and Schnakenberg ran a laundry service in the dorm to make extra money. Seeing that many young women had never learned to do their laundry and were ruining their clothes, the two made a plan to wash and iron oxford-cloth shirts for a fee — and learned a little about pricing strategies in the process.

“Marilyn and I were close enough friends by that time that there weren’t many surprises,” said Schnakenberg. “But we had plenty of business because we charged significantly less than the dry cleaners down the block. Underpricing your service brings in customers, but then you end up working more than you intended for really pretty low wages.”

Many everyday experiences and extended ties to the campus community helped cement their friendship. They even share a favorite classical music piece that was introduced to them by an acquaintance of Unangst’s from home who was also in their freshman class.

“We all loved Carl Orff’s ‘Carmina Burana.’ We would listen to it in the music room of the library while we studied and gave each other copies for our birthdays,” said Schuetz.

Unangst added, “To this day, whenever I hear that piece of music, I think of CMU and my friends there. It is our song.”
Atkinson Takes Talents, Passions to Iconic Chautauqua

As visitors descend upon the thriving lakeside educational community of Chautauqua, New York, CMU creative writing alumnus Atom Atkinson (DC’05) thinks about how to transform the group’s literary arts experience.

Atkinson is the director of literary arts for the Chautauqua Institution — a new position with the mission of using education to inspire conversations of national importance.

“We could not be more excited about the gifts, experiences and supreme qualifications that Atom will bring to Chautauqua’s extraordinary literary arts tradition,” said Michael Hill, president of Chautauqua. “Atom is helping us to dream about an elevated role for the literary arts in the distinctive Chautauqua mix.”

Chautauqua is a 750-acre lakeside community and education center founded in 1874. During each summer’s nine-week season, more than 100,000 visitors attend public events that feature theme-based lectures, literary and visual arts, symphony, opera, theater, dance and visual arts, while more than 8,000 youth and adults enroll in summer courses in art, music, dance, theater, writing skills and more.

As director of literary arts, Atkinson provides administrative leadership as well as hands-on involvement.

“It represents the culmination of work combining teaching experience with program design, grant writing and arts outreach,” Atkinson said. “I’m overjoyed that a job like this exists, let alone that it’s mine.”

Helping Companies Win by Treating Customers Right

As consumers have better access to information than ever before, companies can gain a competitive edge by improving the experiences customers have every day.

Peter Kriss (DC’12), lead research scientist at Medallia, applies research based in behavioral economics to help many of the world’s largest companies learn about their customers faster and create better experiences. Kriss joined Medallia immediately after earning his doctorate from the Department of Social and Decision Sciences in behavioral decision research.

“For large corporations, it’s not easy to deliver the right information and communication to the right people at the right time. Enormous value can be realized in solving even a small part of the equation,” said Kriss.

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— Peter Kriss
Public Health Communicator Makes a Global Impact

When researchers in Latin America and the Caribbean needed to collaborate on HIV/AIDS, Tim Ryan (DC’96) conceptualized and developed an information and communication system. At the time, he was “only” a technical writer associated with the Mexican National Institute of Public Health.

Ryan had gained the skills to make it happen as a graduate of the English Department’s Master of Arts in Professional Writing (MAPW) program.

“There was a specific need for an efficient information network that would facilitate the collaboration among health professionals and other stakeholders. I saw an opportunity to use my writing skills to help solve this problem. I approached the project with a multidisciplinary approach, involving stakeholders from different fields. This experience was instrumental in shaping my career path.”

Globetrotting began for Ryan in graduate school when a CMU alumna, Nicole Vecchi (DC’86), offered him a summer coop at the Swiss Scientific Computing Center near Lugano. Since then, the Massachusetts native has lived in five countries and visited more than 40, all while building up a public health communications career that has fueled his travel.

Today, after eight years in Thailand that included communications work for the U.S. Centers for Disease Control and Prevention, Ryan works for Unitaid, a global organization helping defend the world against devastating infectious diseases by facilitating projects such as improving treatments for children with tuberculosis and promoting self-testing for HIV.

Psychology Alumna Receives Highly Competitive NSF Fellowship

Maya Schumer (DC’16) has been accepted to the National Science Foundation’s (NSF) highly competitive Graduate Research Fellow Program. Schumer, who graduated with a degree in psychology, was one of 2,000 to receive the award from a pool of over 13,000 applicants.

Schumer’s exposure to cutting-edge research began during her first year at CMU when she joined Associate Professor of Psychology David Creswell’s Health and Human Performance Laboratory. She worked under his supervision for her Dietrich College Senior Honors Program thesis as she investigated the effectiveness of brief mindfulness training. She also was part of a brain imaging study that assessed self-affirmation as an intervention for stress, funded by a Small Undergraduate Research Grant (SURG). After graduation, she continued to work in the lab as a post-baccalaureate research assistant.

“Maya Schumer is a bright and enthusiastic student with such a bright future,” Creswell said. “I’m delighted to see that the NSF recognizes her star potential.”

Vishwas Prabhakara Doesn’t Hold Back

Vishwas Prabhakara (DC’02), general manager of Yelp Reservations, gave students on the verge of entering the workforce a wealth of information at an interactive talk and a roundtable discussion for the Dietrich College Entrepreneurs Speaker Series, co-sponsored by CMU’s Swartz Center for Entrepreneurship.

In “What They Don’t Want You To Know,” Prabhakara, an information systems and economics double major, emphasized the power of assertiveness. He gave highlights from his 15 years of entrepreneurial and product development experience, in which he has held senior positions at ESPN and Digg, founded Fanvibe and was CEO of BeRecruited, prior to leading Yelp Reservations.

Instilled with optimism, Prabhakara stressed three main points:
• Start Doing and Learn As You Go
• Get Feedback
• Don’t Let Them Hold You Back
Making an Impact on Issues That Matter

As a Coro fellow, Satvika Neti (DC’16) is learning the ropes of non-profit fundraising, event logistics and consulting at the YWCA Greater Pittsburgh and Homewood Children’s Village. And she is building her own non-profit organization, WE Education, with Zora Gilbert (DC’16).

Through WE Education—which Neti founded when she was a senior at CMU—high school students from Pittsburgh’s Homewood neighborhood are trained in modules where they learn basic software and coding skills, create a financial plan and gain an understanding of issues affecting their communities. With the guidance of a mentor, the fellows will apply these skills to a community development project of their choice – from executing an event to building an app.

“WE Education is dedicated to giving our fellows the agency and skills they need to become change makers in their own communities,” she said.

Driven to Succeed

Emily Duff Bartel (DC’06), who is based in Pittsburgh, is a product manager for Uber’s Advanced Technology Group (ATG), the research and development hub of Uber’s engineering team. ATG is dedicated to self-driving technologies, mapping and vehicle safety, and is at the forefront of the company’s pilot program that is testing self-driving cars. Duff Bartel majored in information systems with a minor in film and digital imaging.

Basketball Star Turns Pro

Lisa Murphy (DC’17) is the first Carnegie Mellon alumna to play professional basketball. As of early November, she is the leading scorer with 19.2 points per game for Lemvig Basket, one of the premier teams in Denmark. While at Carnegie Mellon, Murphy was a psychology major with a concentration in child development.
ALUMNI SPOTLIGHTS

"It’s OK to not know where you’re going. After all, a conventional career path is a myth.”

— Faryal Khan

There’s More Than One Way to Get From A to Z With a History Degree

For Faryal Khan (DC’09), the path to her current career has been anything but a straight line – and she wouldn’t have it any other way.

Khan, a history and policy major, is a transcreation director at World Writers – part of Williams Lea Tag, a large marketing and communications agency in New York City. In this role, she manages operations and business development, cultivates client relationships and ensures that international marketing initiatives resonate with audiences worldwide.

Previously, Khan worked as a project manager at TransPerfect Translations, where she was asked to train a new hire within her first year. From there, she jumped at chances to train and form larger teams in Hong Kong and Barcelona and discovered a talent for managing staff. She credits her success to saying “yes” to opportunities as they arose and following her interests, even when they diverged from her past experiences.

Using an English Degree To Do What You Love

“When students graduate with a degree in English from CMU, they walk away with skills and knowledge that can give the opportunity to work as writers or communication specialists in a variety of professional environments, from Apple and Google to the Wall Street Journal,” said Andreea Deciu Ritivoi, head of the Department of English.

After graduating from CMU with a degree in English, Maureen Rolla (DC’75) landed her dream job at The Viking Press, a publishing house in New York City. Ten years later, while completing her master of arts degree in English and comparative literature at Columbia University, she began working in admissions at Columbia’s Graduate School of Business, where she eventually became the assistant dean of student affairs.

Rolla reached a crossroads after seven years working with students and faculty at the J. Paul Getty Trust’s Leadership Institute: She was offered a new position with the Getty in Los Angeles, but she turned it down to care for her ill parents in Pittsburgh, where she began an extensive job search.

“One piece of advice that served me well is this: When faced with a choice, take the opportunity that’s the biggest stretch,” said Rolla.

She did – and it paid off. For 13 years, Rolla worked as deputy director of Carnegie Museum of Art. The role helped her develop skills that she continues to use today as the director of strategic initiatives for all four Carnegie museums. Rolla works alongside the museums’ president on projects like program development, planning, consulting, fundraising and collaborating with external partners – including CMU’s International Film Festival and IDEATE.

The emphasis on reasoning, analysis and continuous learning was central to the appeal of CMU for Peggy Doyle (DC’84).

“I think the humanities and the arts are so important, now more than ever. We have a compassion deficit in this country and these subjects help us develop empathy,” said Doyle, who majored in professional writing and was the first CMU student to declare self-defined minors in theater and dance.

Doyle also credits CMU with showing her the potential of technology, which she has woven throughout her career.
**Going Places with a Ph.D. in Neural Computation**

**Gustavo Sudre** (DC’12) spends his days in the National Human Genome Research Institute at the National Institutes of Health. With an overall goal to work at the intersection of genomic, neuroimaging and behavioral data in order to better understand complex, polygenic psychiatric disorders, such as attention deficit and hyperactivity disorder and Alzheimer’s disease, Sudre uses a combination of machine learning techniques, genomics and neuroimaging to study brain systems.

**Kubra Komek’s** (DC’14) degree comes in handy every day as a regional clinical research manager for the Middle East, Africa, Central Asia and Turkey. Komek manages the execution and regional strategy of clinical studies at Medtronic and plays a role in connecting local commercial teams with clinical teams to disseminate the clinical evidence of their therapies more effectively. She also develops expertise in cardiovascular, neuromodulation, diabetes and surgical therapies.

**Shreejoy Tripathy** (DC’13) is a postdoc in the Pavlidis Lab at the University of British Columbia, studying neuropsychiatric disorders such as schizophrenia and autism. “The most exciting part of research for me is the act of scientific discovery,” Tripathy said. “I love the feeling of nervous anticipation I get right before I look at the results of a data analysis to see if my hypothesis is confirmed. It’s exciting knowing that I’m the first person to learn something about how the brain works, and I enjoy communicating that knowledge to others.”

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**Alumna’s Guide for Social Entrepreneurship**

**Meg Brindle** (DC’92), who received a Ph.D. in applied history, left a tenured position at George Mason University to go to Africa to explore and address root causes of poverty rather than just the symptoms.

Brindle began work with the Maasai women of Kenya and Tanzania, known for their quality shea butter, and discovered that they receive much less for the export than retailers make from consumers. With the help of a $1.25 million grant from the United States Patents and Trademarks Office, she developed workbooks and training materials in Maa, the Maasai language, to get the women thinking more like entrepreneurs. The training has been rolled out in Kenya, Tanzania, and Ethiopia.

Later, Brindle distilled her years of knowledge and training into a new textbook. Published by Routledge, “Social Entrepreneurship for Development: A Business Method,” describes “a six-step model for developing an IP business positioning strategy that allows developing country producers to position themselves better as owners of retail brands in foreign market countries.”
Kevin González, assistant professor of English, was one of 36 named to the National Endowment for the Arts (NEA) 2017-2018 Class of Creative Writing Fellows—a highly prestigious honor that comes with a $25,000 grant. The fellowships aim to give writers from across the country the freedom to create, revise and conduct research for ongoing writing projects. For González, this means working on a new novel called “Statehood.”

“It’s a book that spans three generations and examines, among other themes, the shifting social and political landscape of Puerto Rico from the 1940s to the present,” said González, who added that the grant will allow him to do further research and fund potential writing retreats.

Danielle Wenner has been selected to participate in the Brocher Summer Residency Program in Geneva, Switzerland, where she will spend July 2018 working on a project titled “Non-Domination and the Limits of Relational Autonomy.” She will examine autonomy in transnational gestational surrogacy agreements and in international clinical research, and the relationship between autonomy and the role of social determinants of health—including socioeconomic status and education level—in public health policy. The residency is sponsored by the Brocher Foundation, a Swiss non-profit that supports research on the ethical, legal and social aspects of medical developments and public health policies. The foundation hosts scholars from disciplines including law, anthropology, history, bioethics and philosophy.

The American Association for the Advancement of Science’s (AAAS) recently released a scientific freedom and responsibility statement that supports its mission to promote scientific freedom. This release coincided with this year’s International Human Rights Day. Jay D. Aronson, associate professor of science, technology and society in the Department of History and director of CMU’s Center for Human Rights Science, serves on the AAAS Committee on Scientific Freedom and Responsibility (CSFR), which is an Advisory Committee to the AAAS Scientific Responsibility, Human Rights and Law Program. CSFR developed the statement, which was also rolled out online resources for scientists, human rights advocates and policy makers.

U.S. Secretary of Defense James N. Mattis has appointed Kiron Skinner, founding director of the Institute for Politics and Strategy and the recently appointed Taube Professor of International Relations and Politics, to the Defense Policy Board. The board provides the secretary, deputy secretary and under secretary for policy with independent, informed advice and opinion concerning matters of defense policy.

Rob Kass, the Maurice Falk Professor of Statistics and Computational Neuroscience, believes brain research is in desperate need of cutting-edge statistics, which can and should supply a crucial link between new, highly complex data and the thorough scientific explanations the research aims to generate. As the Committee of Presidents of Statistical Societies’ 2017 R.A Fisher Lecturer, Kass outlined his case in “The Importance of Statistics: Lessons From the Brain Sciences.”

Timothy Verstynen, assistant professor of psychology, has been named a 2017 Young Scientist for the World Economic Forum.
Using key lessons learned from the Ebola outbreak in West Africa, a new report from the National Academies of Sciences, Engineering and Medicine has outlined how to improve the speed and effectiveness of clinical trial research while an epidemic is occurring. Prepared by the Committee on Clinical Trials During the 2014-15 Ebola Outbreak, which includes Alex John London, the report states that “mobilization of a rapid and robust clinical research program that explores whether investigational therapeutics and vaccines are safe and effective to combat the next infectious disease epidemic will depend on strengthening capacity in low-income countries for response and research, engaging people living in affected communities and conducting safety trials before an epidemic hits.”

Steven Schlossman, professor of history, won the Dietrich College’s 2016-17 Elliott Dunlap Smith Award for Distinguished Teaching and Educational Service. Schlossman has distinguished himself as a scholar in a wide range of social and political history studies including homework in American schooling, juvenile courts and delinquency and the rise of modern golf. He also helped to co-found the ethics, history and public policy major, offered jointly with the Department of Philosophy.

Vicki Helgeson, professor of psychology, was named a fellow of the Society for Personality and Social Psychology for her extraordinary, distinctive and longstanding contributions to the science of personality and social psychology. Helgeson’s research focuses on how people adjust to chronic illness and how gender-related traits impact relationships and health.

The Federation of Associations in Behavioral & Brain Sciences honored Psychology Professor Brian MacWhinney and Robert Siegler, the Teresa Heinz Professor of Cognitive Psychology, as scientists who have made important and lasting contributions to the sciences of mind, brain and behavior.

Four faculty members received chair professorships:

Ken Koedinger, professor in the Human-Computer Interaction Institute and Department of Psychology, accepted the Hillman Professorship of Computer Science. Koedinger’s research aims to understand human learning and create educational technologies that increase student achievement.

Alex John London has been appointed the Clara L. West Professor of Ethics and Philosophy. A prominent ethicist who is frequently called upon to address critical problems nationally and internationally, London researches foundational ethical issues in human-subjects research, issues of social justice, the ethics of autonomous technologies and methodological questions in theoretical and applied ethics.

Kathryn Roeder was named the UPMC Professor of Statistics and Life Sciences. Roeder, who is also CMU’s vice provost for faculty, has played a pivotal role in developing the foundations of DNA forensic inference. Her current research focuses on statistical genomics and the genetic base of complex disease, with an emphasis on autism.

Larry Wasserman, who received the UPMC Professorship of Statistics and Data Sciences, researches both theoretical and applied statistics. On the theoretical side, he focuses on the intersection of statistics and machine learning, which is becoming increasingly important in the era of big data as both deal with analyzing data for high-dimensional problems. In application, Wasserman works in astrophysics. He developed methods to estimate the equation for the state of dark energy and to analyze the cosmic microwave background radiation.
NEWS AND NOTES

Faculty Book Highlights

Jim Daniels, the Thomas Stockham University Professor of English, published his 15th and 16th books of poetry. In “Rowing Inland,” Daniels circles back to his life in Detroit, writing about the last meals his mother is able to cook and joy rides to Canada to childhood and the end of it. “Street Calligraphy” was also inspired by Daniels’ upbringing in blue-collar Detroit and follows themes of addiction and economic disenfranchisement.

Felipe Gómez co-edited a book on the celebrated Colombian writer Evelio Rosero. The Spanish-language volume, “Evelio Rosero y los ciclos de la creacion literaria” (Evelio Rosero and the Cycles of Literary Creation), consists of essays that focus on the points of contact between Rosero’s work and themes of cultural representation, subjectivity and power struggles. Gómez is an associate teaching professor of Hispanic Studies.

David Kaufer, the Mellon Distinguished Professor of English, co-authored the book, “Memories of Lincoln and the Splintering of American Political Thought.” In the aftermath of the Civil War, republicans and democrats who advocated conflicting visions of American citizenship could agree on one thing: the rhetorical power of Abraham Lincoln’s life. This volume examines the debates over his legacy and their impact on America’s future.

Naoko Taguchi, professor of second language acquisition and Japanese Studies, co-authored, “Second Language Pragmatics” from Oxford University Press. The book presents pragmatics in the context of multilingual societies and diverse contexts of language use, offering a broad perspective on how second language learners develop abilities to achieve communicative goals in a social context.

Citizen science is not a new concept. The Smithsonian Institute relied on the practice to gather data for a weather project in the mid-1800s. But the digital age has vastly expanded its potential and usefulness. James Wynn, associate professor of English and rhetoric, explores the rhetoric, science and public engagement of it in the new book, “Citizen Science in the Digital Age: Rhetoric, Science and Public Engagement.”
News and Notes

Sharon Dilworth, associate professor of English and director of the Creative Writing Program, had her play, “A Reason for Moonbeams,” debut at Threadbare Theatre’s New Play Reading Series.

Ayana Ledford has joined the Dietrich College of Humanities and Social Sciences as director of diversity and inclusion. Ledford has spent more than 10 years designing, executing and evaluating programs to increase the diversity of leadership and talent in academia, nonprofit and corporate sectors. She is the founding executive director of the Heinz College’s Program for Research & Outreach on Gender Equality in Society (PROGRESS), which develops programs that create a culture of excellence for all employees. Ledford continues to lead PROGRESS on a part-time basis.

RoboTutor Named Global Learning XPRIZE Finalist

Led by CMU’s Jack Mostow, RoboTutor is educational technology that incorporates cognitive tutors pioneered by Dietrich College researchers. The goal is to increase basic literacy and numeracy for children.

Each of the five finalist teams received $1 million. XPRIZE will now conduct an independent 15-month, large-scale study to field-test the finalists’ Swahili apps, pre- and post-testing thousands of children in nearly 200 Tanzanian villages on literacy and numeracy. A $10 million grand prize will be awarded to the team whose app achieves the highest learning gains.

Two New Minors Launched

Students interested in studying Arabic language and culture now have the opportunity to earn a minor in Arabic Studies. While the Department of Modern Languages has offered courses in Arabic Studies since 2008, this is the first time that students have a chance to gain more depth in this area.

Humanities Analytics (HumAn for short) is a six-class minor based in the Department of English with classes across the university. It will provide technical training to humanities students — e.g., classes like “Machine Learning in Practice” — and humanistic training to technical students — e.g., “Intro to Critical Reading” — in the growing field of digital humanities.

Simon DeDeo, assistant professor of social and decision sciences, published two pieces in Nautilus. “Is Tribalism a Natural Malfunction?” is a meditation on a series of computer experiments in the study of Prisoner’s Dilemma. His second piece was titled, “When Did Tribalism Get To Be So Fashionable?”

FOX News Channel (FNC) signed Kiron Skinner, director of the Institute for Politics and Strategy, as a contributor. In this role, Skinner will offer both foreign policy and political analysis across FNC and FOX Business Network’s daytime and primetime programming.

GovTrack, a nationally recognized civics site that explains the daily activities of the United States Congress, teamed up with the Program for Deliberative Democracy to develop and implement an enhanced voter-input feature.

With a gift from CMU alum Judith Wright (CIT ’69), the program developed a “Congress-Citizen Virtuous Loop” as a model for a more informed democracy.

Associate Professor of English Kathy M. Newman, a popular and mass culture expert primarily interested in the relationship between television, film, radio and print media and social and political formations, joined a panel discussion on “BANNED: Art, Censorship and the First Amendment,” at the Casey Droege Cultural Productions.

Rémi Adam van Compernolle, assistant professor of second language acquisition and French & Francophone Studies, won the 2017 First Book Award from the American Association for Applied Linguistics (AAAL). “Sociocultural Theory and L2 Instructional Pragmatics” was published by Multilingual Matters and was immediately well received, with one reviewer calling it “remarkable.”
Neurons to Neighborhoods Focuses on the Teen Brain

While adolescence is often thought of as a time of turmoil and poor decision-making, it is also an exceptional time of discovery. Adolescence sensation seeking is driven by heightened reactivity to rewards and emotion and can lead to risk-taking, including peaks in car accidents, and experimentation with drugs, unprotected sex and crime. However, this is a necessary time of enhanced learning and exploration that are critical to the transition into adult independence.

Those were some of the main messages to come out of a day-long seminar at CMU on the teenage brain, sponsored by the Heinz Endowments and by CMU’s BrainHub, a research institute combining the university’s expertise in neuroscience, biology, psychology, computer science, statistics and engineering.

**Julie Downs**, associate professor of psychology, social and decision sciences, spoke at the conference about her work on teenagers, risky behavior and decision-making.

**Joanna Wolfe**, director of the Global Communications Center and teaching professor of English, won the 2017 Conference on College Composition and Communication Technical and Scientific Communication Award in the category of Best Article on Pedagogy or Curriculum in Technical or Scientific Communication for “Teaching Students to Focus on the Data in Data Visualization.”

**Jason England**, a visiting assistant professor of creative writing, believes that professional sports are far more than just games. He’s written extensively about sports and the overlap between sports and societal issues for national publications, such as Sports Illustrated.

“It’s impossible not to write about both: these are billion-dollar entertainment industries in a culture that increasingly prizes spectacle and celebrity over introspection and discourse. As someone who played sports at a high level, I learned that an astoundingly small percentage of spectators understand the games they watch,” England said.

**Wilfried Sieg**, the Patrick Suppes Professor of Philosophy, lectured at four conferences in Europe on Hilbert’s axiomatic method, the concept of computation, and the automated search for proofs in logic and mathematics. During a two-week research visit at the New University, Sieg also gave a mini-course of four lectures on Proof Search. He also gave the Inaugural Lecture of the Polaris Colloquium at the University of Lille and gave talks at the Mathematics Department of the University of Notre Dame and also at the Green Center for Systems Biology of the UT Southwestern Medical Center.

In collaboration with scholars in Iran and Germany, **Naoko Taguchi**, professor of Japanese and Second Language Acquisition in the Department of Modern Languages, is launching a new journal, “Applied Pragmatics” with **John Benjamins**. The journal aims to enhance research on acquisitional pragmatics and accepts studies, which have strong implications for teaching, learning and assessing second language pragmatics. The first issue will appear in Spring 2019.

**English Professor Jon Klancher** won the Jean-Pierre Barricelli prize for his book “Transfiguring the Arts and Sciences. Knowledge and Cultural Institutions in the Romantic Age,” which was published by Cambridge University Press.
**An Anthropologist in the 21st Century Classroom**

Educational tools can make all the difference to the learner, but despite the availability of excellent new options, many of the best technology enhanced learning (TEL) resources are being left on the shelf. CMU researchers have been working to understand this quandary.

“We know more about teaching and learning than ever before, and yet, for the most part, the new tools and practices proven to be effective are not adopted. The overarching question that sparked the grants and related projects is, ‘Why?’” said Lauren Herckis, a research scientist for the Simon Initiative.

Through a $1 million, two-year grant from Carnegie Corporation of New York in 2015, Herckis and her team members are working to better understand and develop strategies around the obstacles blocking the way to best-in-practice teaching techniques.

As an anthropologist with an archeological focus, Herckis applies a unique perspective to the project. She gains an understanding of culture and behavior through human interaction with the material world.

Herckis and Dietrich College Dean Richard Scheines presented on some of her findings at the 2017 Global Learning Council meeting. Their talk on “Walking the Talk – Overcoming Barriers to Implementation of Best Practices in TEL for Higher Education” immediately made headlines. Times Higher Education published “Academics ‘Fail to Change Teaching Due to Fear of Looking Stupid,’” which was then picked up by Inside Higher Education, e-Literate and many other blogs and outlets and sparked an intense conversation about why professors do not use TEL tools. To respond to the article, Scheines, Herckis and Joel Smith, distinguished career teaching professor of philosophy, wrote an opinion piece for Times Higher Education on “Failure to Embrace New Teaching Techniques Not Just About Fear of Embarrassment.”

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**Emily Half**, academic program manager, and **Ryan Tibshirani**, associate professor of statistics, were recognized at the Celebration of Education Awards. Half received the Academic Advising Award for her work as an adviser for the undergraduate students in global studies and international relations and politics. Tibshirani was honored with the Teaching Innovation Award for developing the concept of a “course conference” to structure students’ final projects in the Convex Optimization class. This is modeled on the structure of real, high-profile conferences in machine learning, computer science and statistics, encouraging students to improve communication about their work.

Assistant Professor of Statistics **Edward Kennedy** received the American Statistical Association’s (ASA) David P. Byar Young Investigator Award. The award is given annually to a new researcher in the ASA Biometrics Section who presents an original manuscript at the Joint Statistical Meetings. Kennedy was recognized for his manuscript, “Robust estimation and inference for the local instrumental variable curve.”

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**Paul Eiss**, associate professor of history, received the 2017 Humanities Essay Award from the Mexico Section of the Latin American Studies Association. He was recognized for his article, “Playing Mestizo: Festivity, Language and Theatre in Yucatán,” published in the fall 2016 edition of Latin American and Caribbean Ethnic Studies.

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FUTURE DISCOVERIES IN PROGRESS

Tomorrow’s breakthroughs cannot happen without funding. Here are a few notable research grants that were recently awarded.

DARPA Grant to Forecast the Flow of Information Online
$6.7M
The Defense Advanced Research Projects Agency (DARPA) has allocated more than $6.7 million to a team of researchers, including three from Carnegie Mellon University, to fund research to improve the understanding of how social information travels and transforms online.

Christian Lebiere, a research psychologist, is the principal investigator for the CMU project. Additionally, Coty Gonzalez, research professor of social and decision sciences, and David Plaut, professor of psychology, will work with experts in computer science, cognitive science, economics and sociology from Virginia Tech, Stanford, Claremont, Duke, Wisconsin, USC and the Institute for Human and Machine Cognition on “Homo SocioNeticus,” a key component of DARPA’s new SocialSim Program.

NSF Science of Learning Grant
$751K
Anna Fisher, associate professor of psychology, has received a four-year National Science Foundation grant to study the effect of pictures in books for beginning readers. Fisher, associate professor of psychology, will work to understand whether design of reading materials for beginning readers can be optimized taking into account children’s developing attention regulation skills.

NIH Funds Study on Alcohol’s Effects in Young Adults
$1.9M
The National Institute on Alcohol Abuse and Alcoholism, part of the National Institutes of Health (NIH), has awarded Kasey Creswell a five-year, $1.9 million grant to study the effects of alcohol in young adults.

“People respond to alcohol differently, and these differences may tell us something important about individuals’ risks for developing alcohol use disorder. By having participants consume alcohol in a tightly controlled laboratory environment, we will be able to examine alcohol’s effects on cognition and emotion,” said Creswell, assistant professor of psychology.
NIH Renews Predoctoral Training Program in Behavioral Brain Research

Funding Increased by $1.6M

The National Institutes of Health (NIH) renewed B-squared, a predoctoral training program in behavioral and brain research. Offered through the Center for the Neural Basis of Cognition (CNBC), a joint program through CMU and the University of Pittsburgh, B-squared trains students to incorporate neuroscience and behavioral research to advance the understanding and treatment of many health issues.

The grant renewal, B-squared’s second since its inception in 2007, provides increased funding totaling more than $1.6 million to support eight students each year until 2022. To date, 39 CMU and Pitt Ph.D. students have received funding through the program. Psychology Professor Lori Holt co-directs the program with Pitt’s Julie Fiez.

Open Society Foundations Supports Center for Human Rights Science

$100K

Technology is rapidly changing the landscape of human rights advocacy. The Center for Human Rights Science (CHRS) is uniquely positioned to explore how new technologies could be harnessed in efficient an effective ways to advance accountability, transparency and justice without jeopardizing the mandate, sustainability or safety of the practitioners and organizations involved.

“Support from Open Society Foundations will enable us to advance our understanding of how emergent technologies can have a positive impact on human rights practice while limiting potential negative impacts,” said Jay D. Aronson, associate professor of science, technology and society and CHRS director.

Andrew W. Mellon Foundation Grant To Plan Platform for Digital Scholarship

$60K

The Andrew W. Mellon Foundation awarded CMU and the University of Pittsburgh a grant to research the development of a standardized platform for digital scholarship. The funding will support “Digits,” a project that will explore how new technologies that make it increasingly easy to publish, share, reproduce and archive complex digital materials can be sustained in a unified and flexible way.

NSF Grant for Brain Research

$1M

Max G’Sell, assistant professor of statistics, will work with the University of Pittsburgh’s Avniel Ghuman to understand how the brain perceives and understands the actions, emotions and communications of others. The grant will allow the researchers to understand brain circuits in a real-world setting. They will record electrical brain activity in patients undergoing neurosurgical treatment for epilepsy while they have natural interactions with friends, family, doctors and hospital staff. Ultimately, they hope to provide much greater insight into neural processes that become dysfunctional in debilitating brain disorders such as autism and post-traumatic stress disorder.

MURI Grant Funds Cybersecurity Project

$6.2M

CMU’s Cleotilde (Coty) Gonzalez, Christian Lebiere and Lujo Bauer are part of a team that received a Multidisciplinary University Research Initiative (MURI) grant from the Department of Defense to prevent cyber attacks.

The project, “Realizing Cyber Inception: Towards a Science of Personalized Deception for Cyber Defense,” will develop deception tactics based on theories from cognitive science, computational game theory and computer systems engineering. These new tactics are expected to leap ahead of attackers by moving towards active defense, where new cyber environments will make it impossible for attackers to determine what is real and what is deceptive. This new approach to cybersecurity is called “Cyber Inception.”

NIH Award To Focus on Autism Genetics Research

$7M

Five organizations—including CMU—received a major grant from the National Institutes of Mental Health (NIMH) to extend the work of the Autism Sequencing Consortium (ASC) through 2022. Established in 2010, the ASC collects and shares samples and genetic data from individuals diagnosed with autism spectrum disorder (ASD).

Kathryn Roeder, the UPMC Professor of Statistics and Life Sciences, is a principal investigator.
EVERY GIFT MAKES A DIFFERENCE

Whether it’s the next groundbreaking discovery, a cultural artifact that could inspire millions, research that improves lives and impacts policymakers or an event that brings together different communities, the Dietrich College of Humanities and Social Sciences is home to a thriving faculty, bright and eager students and accomplished alumni in nearly every field and industry who are poised to change the world.

The Dietrich College appreciates its alumni, donors and friends who have shown support through giving gifts, volunteering and staying connected.

Legacy Scholarships Leave Lasting Imprints

When Peter Brady (DC’17) arrived at CMU, he was used to working while going to school and thought that would continue during college. However, Brady, who graduated with degrees in economics and international relations and politics, was awarded an Andrew Carnegie Society Legacy Scholarship.

The news left Brady feeling very honored — and relieved. He said the scholarship allowed him to focus on the academics, and when it came time to find a job, focus on that.

Gift Creates Global Languages and Cultures Room

Patti Kenner (MM’66) and the Indian Trail Charitable Foundation gave CMU $1 million to create a global languages and cultures room in the new David A. Tepper Quadrangle. The interactive learning space will create a space for the Dietrich College and Department of Modern Languages in the new campus building as well as heighten the importance of languages, cultural awareness and the university’s global profile.
Bequest from Steinberg Estate
Four Pittsburgh nonprofits received a generous bequest from the Estate of Erwin R. and Beverly Steinberg. The couple, who passed away in October 2012 and November 2016, respectively, planned to leave one last gift, naming Carnegie Library of Pittsburgh, Carnegie Mellon University, Greater Pittsburgh Community Food Bank and WQED as the recipients of a $1 million dollar donation split among the organizations.

Erwin Steinberg was a faculty member in the English Department for 60 years and also served as a dean and vice provost. A technical writing expert and James Joyce Scholar, he played a critical role in implementing several programs including the Bachelor of Science Degree Program in Technical Writing and Editing, Master of Arts in Professional Writing (MAPW) Program and the Ph.D. in rhetoric.

Beverly Steinberg, shared a similar passion for education, and served as an early childhood educator at CMU’s Children’s School for 21 years.

Nathan Healy Receives Steinberg Award
Since 2007, the Department of English has recognized a third semester Master’s in Professional Writing (MAPW) student with the Steinberg MAPW Scholarship. The award is given to a student who has excelled in the program’s style course and exemplifies integrity, intellectual curiosity and citizenship—values that characterized Steinberg’s legacy in scholarship, teaching and administration.

The 2017 winner was Nathan Healy.

By the Numbers
During fiscal year 2017, the Dietrich College received an increase in gifts:

25% from individuals, corporations and foundations.

51% in annual giving.

Shaw Intern Reunion
Ten years ago, Dan Shaw and his son Michael (DC ’07, HNZ ’08), created the Shaw Internship Fund to provide support to students for transformative internship experiences. The college held a reunion for Dan Shaw and the former Shaw Interns. As a thank you, Dan Shaw was presented with a memory book highlighting each of the students who have been helped through his family’s philanthropic support.
DIETRICH COLLEGE IN THE NEWS

Wall Street Journal
In a Divided Nation of Big Cities and Small Towns, Caity Cronkhite Thought She Knew Where She Belonged

Consumer Reports
Kids Menus Aren’t Getting Healthier

Fox News
Did Trump’s Asia Trip improve US standing on world stage?

MarketWatch
Spending too much money (or too little) can cause different kinds of emotional pain

History
For the First Time, Central Park Will Honor Real-Life Women

The New York Times
Why So Many People Choose the Wrong Health Plans

The Incline
These Carnegie Mellon students want self-driving cars to help underserved areas of Pittsburgh access public transit

NPR
Brain Patterns May Predict People At Risk Of Suicide

Wall Street Journal
Finally, More Women Are Asking for Raises. But There’s a Catch.

Car and Driver
Autonomous Cars: How Safe Is Safe Enough?

Wall Street Journal
Does Your Gut Always Steer You Right?

The Incline
This Carnegie Mellon class will make you question humanity

NPR
The Painful Side Of Positive Health Care Marketing

NPR
Want Change In Education? Look Beyond The Usual Suspects (Like Finland)

Education Week
How ‘Intelligent’ Tutors Could Transform Teaching

USA Today
Alleged Russian political meddling documented in 27 countries since 2004

Fox News
Researchers developing computer program to read people’s minds

CNBC
Why the secret to your success is who you marry

Reuters
Nasty parental divorce may leave a mark on adult immune system

Huffington Post
Why Abraham Lincoln Is An Icon For Republicans And Democrats Alike

NPR
Activists Build Human Rights Abuse Cases With Help From Cellphone Videos

WESA
Chinese Food Is “Communication,” Connecting Cultures In Pittsburgh

NBCNews.com
Mindfulness Meditation May Help Students Combat High Levels of Stress, Depression

Slate
Why Do Drug Reps Give Doctors Free Pens?

Forbes
In Today’s Business World, Confronting Information Avoidance Is A Must

Pittsburgh Post-Gazette
The many ‘Faces of Identity’ at CMU’s International Film Festival

Pittsburgh City Paper
Poet Jim Daniels continues fruitfully mining memories of his youth in a blue-collar town

Reuters
Stress hormone may help explain health advantages of marriage

Quartz
The psychology of why 94 deaths from terrorism are scarier than 301,797 deaths from guns

New York Times
New Path to the N.H.L.: Crunching Numbers, Not Opponents

CBS Pittsburgh
CMU Honors Young Writers With MLK Writing Awards

Dietrich College faculty, staff, students and alumni are in the news nearly every day. Coverage spans from local stories on how the college’s research and events impact Pittsburgh to features in national and international outlets. Here is a small sample from 2017.
TEN (MORE) THINGS TO LOVE ABOUT THE DIETRICH COLLEGE

As you can see, Dietrich College of Humanities and Social Sciences students, faculty, staff and alumni do a lot. And the sky really is the limit.

Here are 10 more of the many things to love.

1 Scholars Programs for Inquisitive Minds

Dietrich College values questions and ideas—and the students who come up with them. Creative thinkers get the extra support they need to thrive through the Humanities Scholars Program (HSP) and the Quantitative Social Science Scholars (QSSS) program.

These programs prepare qualified students with the mindset to one day be the researchers and innovators in the humanities and social sciences. Participants gain extra opportunities outside the classroom and become part of close-knit cohorts.

“The classes would be intriguing to any humanities major. Tim Haggerty, the HSP director, taught a course about the universal truths of war. I like the program because it encourages us students to learn about different disciplines in the humanities, which we may not have learned otherwise,” said Lauren Kelly, who is majoring in professional writing and creative writing.

2 Putting Decision Science Into International Relations

Directed by Kiron Skinner, the Institute for Politics and Strategy serves as a center for research, undergraduate and graduate education, and university-wide initiatives in the fields of political science, international relations, national security policy and grand strategy.

IPS took a step to distinguish itself when Baruch Fischhoff, the Howard Heinz University Professor, joined its faculty. Adding Fischhoff to IPS made it the first international relations program at a top research university with decision science as a core part of the discipline.
Languages are complex, with patterns and rules that can seem unpredictable. Linguistics provides us with tools to help crack the code that underlies many languages, enhancing our understanding of communication.

Students who learn linguistics at CMU are not constrained to studying language from a single point of view. Instead, they are able to draw on perspectives from the Departments of Philosophy, English, Modern Languages and Psychology, as well as the School of Computer Science’s Language Technologies Institute (LTI).

The Dietrich College has created the first and only undergraduate major in behavioral economics. The Bachelor of Arts degree in behavioral economics, policy and organizations (BEPO) trains students to apply psychological insights to human behavior to explain and predict economic decision-making.

“We have a large group of top-notch faculty in behavioral economics, and I am delighted that they will channel this expertise into this exciting, forward looking program,” said Dietrich College Dean Richard Scheines.

Independent civil society in Cuba has been excluded from virtually all official governing processes for over 50 years. But since the U.S. lifted travel and commerce restrictions between the two nations and the death of Fidel Castro, Cuba is poised for continued political change.

The Program for Deliberative Democracy is participating in a working group on deliberative democracy with key figures from Cuban pro-democracy groups. The group’s goal is to promote mutual learning between independent, Cuban civic leaders interested in the practice of deliberative democracy and proponents of these techniques in the U.S.
6 Pairing Students With Alumni Mentors

What if a mobile device could tell how you’re feeling?

Natalya Buchwald and Rebecca Kern posed this question to develop a winning mobile app for an Information Systems Program (IS) class competition. Sponsored by Capital One, students in the Mobile Application Design and Development course teamed up with eight IS alumni who work for the Capital One Technology Group. Twenty-one teams competed for $1200 worth of prizes.

Buchwald and Kern designed their first-place app with children on the autism spectrum in mind as a way for them to develop skills in conveying and understanding emotions. As children follow a story, the app responds when they make a facial expression.

7 Behind the HistoryMakers

With stories from President Barack Obama, Gen. Colin Powell, B.B. King Langston Hughes’ assistant and more than 2,700 others, The HistoryMakers is the largest African-American oral video archive in the world.

Thanks to a longtime partnership with Carnegie Mellon University, the online database is searchable and available for students and scholars at subscribing institutions including CMU, Harvard, Yale and Princeton, among many others.

8 Learning From the Best and Brightest

Dietrich College faculty members guide students—as well as mentor each other, staff and alumni—to dream big, push hard and innovate.

Michael J. Tarr, head of the Psychology Department, said that the department’s faculty members have a knack for making real-world impact in areas such as artificial intelligence, public health and the science of education. Researchers contribute to university-wide efforts in brain research and learning through BrainHub and the Simon Initiative.

“We are thriving,” Tarr said. “We are not just ‘heads in the clouds’ scientists. Unique to Carnegie Mellon, we worry about real-world implications and applications. We are risk-takers. We develop ideas and methods that lead and change the field and expect our faculty and students to continue this tradition of innovation.”
Teaching (and Learning) Shakespeare

As Shakespeare’s work continues to be woven through modern storylines, these re-inventions give CMU faculty and students new challenges when faced with the iconic playwright’s work. And students flock to English Professor Peggy Knapp’s classes to learn from one of the masters.

Knapp, who finished her 47th year of teaching Shakespeare at CMU, is even still learning from her students. When discussing “The Winter’s Tale,” her students offered suggestions that supported the constant transformation of Shakespeare.

“My first experiences with teaching Shakespeare, I felt I was privileged, and this morning when I met my students, I felt that way also,” said Knapp. “Everybody thinks about ‘The Winter’s Tale’ as a play about sexual misconduct or the lack of it, and in fact it’s really about Leontes as a tyrant. Recently, my Shakespeare class came up with two wonderful suggestions about ‘The Winter’s Tale.’”

CMU Statistics: 50 Years and Still Significant***

What’s the best job in America? According to Glassdoor, it is a data scientist. This is no surprise to CMU’s top-rated and fastest-growing Department of Statistics and Data Science, which celebrated its 50th anniversary.

Statistics Professor Joel Greenhouse believes that statistical thinking is the “bedrock of data science.”

“Current excitement about statistics and data analysis is due in part to our ability to generate, manage and use massive amounts of data (Big Data) for scientific discovery and make predictions about future events,” Greenhouse wrote in the Huffington Post.

What began as a plan between mathematics and business faculty has grown into one of the largest departments of its kind for undergraduates.

Whether they seek a basic foundation in statistics or aspire to advanced methods of data analysis, CMU students simply benefit from the ability to present persuasive arguments—in any discipline—through the numbers. They can couple statistics with other studies. The department offers joint majors in the areas of economics and machine learning, as well as a statistics and neuroscience track.

Beyond academics, the department is also a big player in national and international research and public policy.
Carnegie Mellon University’s Dietrich College of Humanities and Social Sciences is no ordinary liberal arts school. From creative writing and neuroscience to behavioral economics and bioethics, the Dietrich College is home to eight departments as well as many programs and research centers that often cross disciplines to solve real-world problems.