

SCRABBLE Snob

Board Game Offers Insight into Robot-Human Interactions

■ Byron Spice

Victor plays a mean game of SCRABBLE.

The trash-talking Carnegie Mellon robot is showing how machines and humans interact through playing a classic board game.

You can call him a gamebot, but don't use it during game play because the word is not in the official SCRABBLE dictionary.

Victor is obsessed with SCRABBLE. Seated in a corner of a student lounge on the third floor of the Gates Center, Victor plays anyone who pulls up a stool. He's ready with a taunt — "Is that all you've got?" — as well as a brag — "This one is going to be good." And he has plenty of excuses — "Dude, I let you win."

His edgy personality was developed by an interdisciplinary group of researchers led by Reid Simmons, research professor in CMU's Robotics Institute. The project is investigating questions such as whether changes in mood or emotions affect the desire to interact with robots and how personalization, such as the robot remembering a person's play from previous games, might affect the willingness to interact over time.

The research team includes collaborators from such varied disciplines



VICTOR AND RESEARCH PROFESSOR REID SIMMONS PONDER A SCRABBLE MOVE.

as robotics, computer science, drama, design and entertainment technology.

Victor moves his tiles electronically on a table-size touchscreen, but has a torso and mobile head on which a video screen displays his animated face, designed by Anne Mundell, associate professor of scene design.

During a game, the robot will bow

his head in concentration and look a player in the eyes when critiquing a move. A light over his heart can change color and pulsate at different speeds depending on his mood. Eventually, the researchers will enable him to recognize previous players and to calibrate his play to the level of his opponents.

Victor has a voice to address his opponents, and people converse through keyboards.

Institute, and numerous undergraduate and graduate students.

With Victor, Simmons and fellow researchers hope to better understand what it takes to get people to not only engage with a robot, but to enjoy doing it.

"We believe that for autonomous robots to be accepted, they will have to conform to the social conventions of people, rather than the other way



VICTOR AND RESEARCH PROFESSOR REID SIMMONS PONDER A SCRABBLE MOVE.

PLAY TIMES

WANT TO MATCH WITS WITH VICTOR? 1-3 P.M. MONDAYS, WEDNESDAYS AND THURSDAYS; AND 3-5 P.M. TUESDAYS.

Michael Chemers, now an associate professor of theater arts at the University of California, Santa Cruz, designed the character — the precocious son of a pair of Detroit industrial robots attending CMU on a SCRABBLE scholarship — and wrote much of his dialogue. He also maintains Victor's Facebook page, www.facebook.com/victor.gamebot.

Other contributors include Maxim Makatchev, a post-doctoral fellow in robotics, Greg Armstrong, senior research technician in the Robotics

around," Simmons said.

Though people can't see Victor's letter tiles, they can see each other's tiles on the touchscreen. One consequence is that people tend to gang up when playing against Victor, Simmons said.

"They don't care if they lose to each other, but they don't want to lose to a machine," he said.

This research was supported in part by a grant from the Qatari National Research Fund.

University Renews Pledge To Aid Qatar's Future

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level, they come out on top. Thanks to Carnegie Mellon, Qatar now boasts four Google Anita Borg scholars. This is just one example of our success," Kamlet said.

The partnership between Qatar Foundation and Carnegie Mellon Qatar continues to thrive. The university's goals as a global higher education and research institution align closely with the



ONLINE: WATCH THE 10-YEAR CELEBRATION AT [HTTP://CMU.LI/VDGDH](http://cmu.li/vdGDH)

vision and mission of QF.

"The dream of Qatar Foundation was to build a center of academic and research excellence for the country and the world, to build bridges across continents

and cultures, bringing internationally established teaching and research institutions to our front door," said Engineer Saad Al Muhannadi, president of Qatar Foundation.

"As the foundations for the Carnegie Mellon facility were being laid in Qatar more than a decade ago, we turned this dream into a reality, brick by brick. Through hard work, dedication and the vision of Her Highness Sheikha Moza bint

Nasser, chairperson of Qatar Foundation, our partnership with Carnegie Mellon Qatar has yielded great results and has grown from strength to strength."

Education City partners also include Virginia Commonwealth University, Weill Cornell Medical College, Texas A&M University, Georgetown University School of Foreign Service, Northwestern University, HEC Paris and University College London.



the PIPER

CMU'S NEWS SOURCE FOR FACULTY & STAFF

4/14 ISSUE

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Award Winners To Be Honored April 22

■ Piper Staff

When teaching centers on making connections and students become fearless in asking questions to push boundaries, lives are changed.

This year's winners of Carnegie Mellon's Education Awards include the first recipient from Carnegie Mellon in Qatar, alumni and professors whose outreach goes beyond CMU's boundaries to impact lives in the communities where they live. They will be honored at a Celebration of Education beginning at 4:30 p.m., Tuesday, April 22 in Rangos 1 and 2 of the University Center. The event is free and open to the public.

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Greeks Sing for Kids' Sake



PHOTO BY FABRIENNE HUDSON (A'14)

PI KAPPA ALPHA AND KAPPA ALPHA THETA PERFORMED A CARNEGIE MELLON-THEMED ADAPTATION OF THE 1950S HIT MUSICAL "GREASE" AT THIS YEAR'S GREEK SING. A BUGGY STOOD IN FOR THE ICONIC "GREASED LIGHTNIN'" CONVERTIBLE. THIS YEAR GREEK SING RAISED MORE THAN \$90,000 FOR THE CHILDREN'S INSTITUTE OF PITTSBURGH, WHICH BRINGS ITS FOUR-YEAR TOTAL IN DONATIONS TO MORE THAN \$250,000. READ MORE ABOUT CMU'S COMPETITIVE SINGING CULTURE ON PAGE ELEVEN.

Room To Breathe



A NEW COMPUTER PROGRAM CAN IDENTIFY PATIENT CLUSTERS WHO HAVE SIMILAR SUBTYPES OF ASTHMA. THIS MAY LEAD TO MORE TARGETED TREATMENTS IN THE FUTURE. READ MORE ON PAGE THREE.

Spring Carnival Turns 100

■ Kelly Solman

Spring Carnival has had many ups, downs, starts and stops during its first 100 years — and that doesn't just refer to the Ferris wheel.

In a nostalgic look at the century-old Carnegie Mellon tradition, carnival goes this year will be treated to the "Best of the Best" from days gone by, as the university honors the event's most memorable booth themes, traditions and more.

Spring Carnival's history will be on display in the University Center, from photos taken through the decades to models of buggies past and present.

"From its humble 'Qualification Day' beginnings in 1915 to today's sleek buggy designs and multi-level booths, Spring Carnival has seen loads of

creativity over the years," said Jackson Gallagher (A'14), co-chair of the Spring Carnival Committee along with Emily Hrin (DC'14). "It seems only right to honor the creativity of generations of CMU students as we reach this special milestone."

The origins of Spring Carnival can be traced back to Carnegie Institute of

Technology's "Qualification Day" — the official acceptance of freshman plebes — and the May Festival of the Margaret Morrison Carnegie College. In 1920, the tradition grew into "Campus Week" and the first Buggy Sweepstakes with crates and rain barrels on wheels. A "Campus

CONTINUED ON PAGE SIX

Q&A: Deborah Stine Primes the Pump for the Scott Institute

■ Heidi Opdyke

Deborah Stine joined Carnegie Mellon in the fall of 2012 as a professor of the practice in engineering and public policy (EPP) and associate director for policy outreach for the Wilton E. Scott Institute for Energy Innovation. The Piper recently caught up with Stine to discuss her dual role.

What is the Scott Institute?

The Scott Institute is a virtual umbrella for the many centers related to energy at the university. We integrate information on major issues from research and partners across the university to create a centralized message about CMU's energy activities to those outside the university.

What is your role with the Scott Institute?

My job is to create a story and make a relationship between energy-related research and the challenges faced by decision makers in government, universities and foundations. In addition, the institute works in partnership with other organizations on energy activities at a local, regional and national level.

My initial activities were to create policymaker guides on shale gas and the environment and another on managing variable energy resources such as wind and solar power to increase the contribution of these resources to the nation's electricity supply.

Policymakers focus on broad challenges such as how best to respond to new technology such as hydraulic fracturing to produce gas from shale. So you need something that's integrated and easy to understand but that's still based



DEBORAH STINE

on scientific and technical knowledge.

CMU faculty and graduate students help develop the guides. The guides currently under development focus on the energy technologies developed at CMU and transportation.

Once the guides are ready, the Scott

I've known some of CMU's Engineering and Public Policy people for a long time. Ed Rubin, was on my first National Academy of Sciences committee and worked on a climate change study. I also knew Granger Morgan and Baruch Fischhoff and other CMU faculty involved with PCAST studies on education and information technology policy.

CMU produced so much good research that really did not have the visibility in D.C. that I thought it should given its importance to public policy.

You talked a little about your PCAST work. What did you learn that is applicable to your CMU role?

I learned what it takes to get a policy in place and that the policymaking process takes a long time. I also have a good understanding of who you need to get buy-in from to move forward with an idea.

I worked in the Congressional Research Service, so I understand policymaking from a congressional perspective. The members of Congress who chair the energy committees have a big

When should faculty members reach out to you?

I'd be interested in hearing from faculty members producing energy-related papers that help the public make better decisions. It really is important to the Scott Institute to connect people with CMU for its great energy research.

Figuring out what's happening can be challenging, because it's constantly changing and people are focused on their work. But publicizing that work will create more impact for the research activities, and eventually we hope, provide more funding for research at CMU.

What changes do you expect with President Emeritus Jared L. Cohon becoming Scott Institute director July 1?

I was thrilled that Jerry would be working on this, and Andy Gellman — who has been doing a great job — will stay on as co-director.

Jerry is the initial brain behind the Scott Institute. I met with Jerry when I first came to CMU, and he helped link me with local experts working on energy issues, particularly shale gas, where he has done a great deal of work including co-chairing the Pitt Institute of Politics roundtable on the topic and as chair of the board of directors for the Center for Sustainable Shale Development. He also is on the board of the Health Effects Institute, which provides him with a national view of energy and environmental topics. These connections helped when I began writing the shale and environment policymaker guide.

With his academic background in environmental engineering and the volunteer work he's done focused on enhancing public policy, he's somebody who really understands the relationship between CMU's energy-research activities and public policy.

I've been here about a year and a half and have been developing different mechanisms to enhance CMU's visibility and outreach. We're at the stage now where we need to determine what is the best strategy moving forward. In policy analysis, there are four criteria: Is it effective? Is it economically efficient? Is it equitable? And is it responsive to the needs of policymakers? During this next stage, these criteria can help the Scott Institute leadership decide what are the best next steps for the institute's outreach activities.



ONLINE: DEBORAH STINE RECENTLY PARTICIPATED IN A CANADIAN PAN-PRAIRIE ENERGY TOUR. FOLLOW HER PERSONAL ACCOUNT OF THE TRIP AT [HTTP://CMU-ENERGY.BLOGSPOT.COM](http://cmu-energy.blogspot.com)

Institute hosts an event in D.C. We share CMU research with as many key players as possible by talking to agencies, congressional and White House staff and other interested parties. States are major players, and we also talk to the National Governors Association, National Conference of State Legislatures, nongovernmental organizations and trade associations, depending on the issue.

I also look for ways to encourage implementation or next steps based on the recommendations from CMU researchers.

In some cases, an individual research paper can provide "news you can use" for consumers. For those papers, we have produced some YouTube videos.

Who is going to D.C. for these discussions?

I bring senior and junior faculty and a graduate student. People in D.C. don't understand the relationship between research and the support of graduate students. It's important for them to know they're not just funding a professor — maybe not even funding a professor — but the next generation of great ideas.

What drew you to CMU?

I was in D.C. for nearly 30 years and spent three years prior to CMU as executive director of the President's Council of Advisers on Science and Technology (PCAST) for the Obama Administration.

influence. The chair of the U.S. Senate Committee on Energy and Natural Resources is Mary Landrieu (D-La.). She's from an oil and gas state, which changes the politics from someone who's from Oregon as was the previous chair — even though both are Democrats.

What are some of the classes that you teach?

I try to interface my activities for the Scott Institute in class. I taught my first shale gas policy class in fall 2013. Course materials included teaching policy analysis and system analysis techniques, and I brought in speakers from CMU and outside the university.

I am currently teaching environmental politics and policy, and I also teach classes on innovation as well as science and technology policy that focus more on how decisions are made.

A project-based course I developed is on new technology commercialization with a focus on non-market factors such as policies that encourage or inhibit a product entering the marketplace. The students are looking at four CMU inventions: an autonomous car, a smart traffic light, edible electronics and a small robotic boat to monitor water quality.

Overall, my goal is to teach engineers how to analyze public policy as neutrally as possible based on scientific and technical information.



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Correction

The March issue of the Piper story titled "Academic Idol" incorrectly identified Suchitra Ramachandran as being male.

In the caption for the knitting photo on page 7 of the March Piper, Jamie Rossi's title is incorrect. Her correct title is assistant director of Graduate Student Initiatives.

CMU-Q Marks 10-Year Anniversary

University Renews Pledge To Aid Qatar's Future

■ Piper Staff

Carnegie Mellon has traveled far in just 10 years and recently celebrated the first decade of its Qatar campus in Doha.

To mark this significant milestone, the university welcomed a number of distinguished international guests to its official anniversary ceremony on March 18.

Key leadership from Carnegie Mellon and Qatar Foundation for Education, Science and Community Development (QF) gathered at the university's campus in Education City, alongside alumni, students, faculty and staff. The celebration highlighted key achievements.

"Higher education and governments are awakening to need for greater educational opportunity, and many are taking action. But I can think of no other nation that has responded as vigorously and imaginatively as has Qatar," said Carnegie Mellon President Subra Suresh. "The story of Education City has been a powerful example for the entire world, and the world has taken notice of this success."

One way international recognition



HER HIGHNESS SHEIKHA MOZA BINT NASSER (LEFT) GREETES ALUMNI, INCLUDING AYA ABUJARBOU (TPR'13) AND MOHAMMED KAMAL (TPR'12).

has come has been through the high-profile visitors who have spoken at Carnegie Mellon in Qatar including Bill Gates, Hillary Clinton, former U.S. Secretary of Energy Steven Chu and Founder and Chairman of Virgin Group Sir Richard Branson to name a few.

President Suresh renewed the university's pledge to help shape Qatar's future through nurturing the next generation of

young leaders.

"We look forward to new opportunities to build on this success, by expanding student and faculty interactions and creating new opportunities for collaboration among Qatar and Carnegie Mellon's other campuses and programs around the world. It is a joy to be here today to celebrate what Carnegie Mellon in Qatar — and its young graduates —

are accomplishing."

Among the attendees was Her Highness Sheikha Moza bint Nasser, chairperson of Qatar Foundation, whom President Suresh called "inspirational in the evolution of collaborative efforts."

"Her deep and abiding belief in opening up new educational opportunities has been realized at Education City, which is a model for the world," he said.

Carnegie Mellon in Qatar joined Education City in 2004 and began teaching 41 students in two academic programs. Today, it offers five top programs to 400 students from 42 countries in a truly multicultural environment.

To date, almost 300 men and women have graduated from the university. Provost and Executive Vice President Mark Kamlet said that Carnegie Mellon Qatar graduates are highly sought. More than 90 percent of the university's alumni are either in graduate programs or employed in top organizations such as HSBC, Google, Microsoft, Qatar Petroleum, Qatar Shell and Sidra Medical and Research Center amongst others.

"When CMU-Q students and graduates compete on the international

CONTINUED ON PAGE TWELVE

Breathing Room

Research Analysis Could Lead to Better Asthma Therapies

■ Byron Spice

So many variables can contribute to shortness of breath that no person can keep them all straight. But a computer program, capable of tracking more than 100 clinical variables for almost 400 people, has shown it can identify various subtypes of asthma, which perhaps could lead to targeted, more effective treatments.

Wei Wu, a Carnegie Mellon computational biologist who led the analysis of patient data from the federally funded Severe Asthma Research Program, said many of the patient clusters identified by the computational methods are consistent with subtypes already recognized by clinicians. Those include types of asthma related to allergies, sinus disease or environmental factors.

But the analysis also identified clusters of patients that suggest new subtypes, including one in which frequent, severe asthma symptoms appear to be associated with poor quality of life or depression in some obese women.

The findings by Wu and her collaborators, including physicians at nine major medical centers, have been published online by the Journal of Allergy and Clinical Immunology.

"The ultimate goal is to develop treatments that are based on the biologi-



WEI WU

cal mechanisms underlying each cluster of patients, rather than simply treating the symptoms," said Wu, an associate research professor in the Lane Center for Computational Biology. To that end, she and her collaborators now seek to analyze genetic and genomic factors associated with each of the patient clusters, which promises to identify specific targets for drug treatments.

To identify these patient clusters, Wu used machine learning algorithms, which are computational techniques that are capable of finding patterns in

the data as well as learning from data and improving their performance with experience. The analysis was based on 112 variables, such as those measuring various lung functions, immune factors, family history, environmental factors and medical history, for each of 378 people with and without asthma.

Other researchers have used statistical techniques to cluster asthma patients, but none has been able to account for as many variables for each patient as this new study.

"This approach has implications not just for asthma, but for all complex diseases, which include most chronic diseases," said lead co-author Dr. Sally E. Wenzel, director of the University of Pittsburgh Asthma Institute at UPMC and the University of Pittsburgh School of Medicine. Like asthma, such diseases as osteoporosis, Alzheimer's disease, kidney disease, Parkinson's disease and autoimmune diseases are caused by combinations of numerous genetic, environmental and lifestyle factors.

Wenzel said physicians might be able to integrate 10 clinical variables as they evaluate patients with complex diseases, but tracking 100 variables across a large patient population is a near-impossible task. Moreover, physicians have biases that can cloud their analyses.

"Only a few years ago, we were persuaded that medications worked for everyone and that the only reason people had severe symptoms was that they weren't taking their medications," Wenzel said. But that has proven not to be the case, as underscored in this latest analysis, which identified a cluster of patients who were heavily medicated with corticosteroids to reduce airway inflammation and who had biological evidence for using them, yet continued to suffer severe shortness of breath.

The study identified several patient clusters that correspond with clinically recognized patient subtypes, but it also identified a new group composed largely of female Hispanics who were obese and reported low quality of life. Though they had normal lung function with little inflammation, they suffered frequent and severe symptoms. Wu said more investigation is needed to identify what is causing asthma symptoms in this patient cluster. Conceivably, this finding could encourage doctors to screen some patients for depression, she added.

This research was sponsored by the National Institute of General Medical Sciences and the National Heart Lung and Blood Institutes of the National Institutes of Health.

Award-Winning Educators Offer Number of Firsts

CONTINUED FROM PAGE ONE

The Celebration of Education consists of five main awards, all of which will be given this year: the Ryan Award, the Gelfand Award, the Doherty Award, the Academic Advising Award and the Barbara Lazarus Award.

In addition to the awards noted above, seven up-and-coming junior faculty members will receive Wimmer Faculty Fellowships, faculty will receive College Teaching Awards and graduate students will be presented with the Graduate Student Teaching and Graduate Student Service awards.

The Robert E. Doherty Award for Sustained Contributions to Excellence in Education

As an educator and administrator Michael Murphy (HNZ'86) has helped shape every part of the CMU educational experience.

Murphy, who has been a part of CMU for more than 30 years, is this year's winner of the Robert E. Doherty Award for Sustained Contributions to Excellence in Education.

Nominators, who include CMU President Emeritus Jared L. Cohon, former Vice Provost for Education Indira Nair, and Amy Cyphert (DC'01), called Murphy a "total educator" who has contributed substantively to CMU's excellence in intellectual, professional and personal development.

"It is impossible to itemize all that Michael has done for our university and our students," the nominators wrote. "Mentor, educator, visionary, catalyst, true teacher and student, Michael has been instrumental in transforming the educational experience of all Carnegie Mellon students."

Murphy spends hundreds of hours each year working with students both



MICHAEL MURPHY (HNZ'86)

within and outside of the classroom. Through numerous letters of nominations students and colleagues shared stories of Murphy's dedication and commitment to students and their growth and well-being. In addition, he led development of the university's master plan, and he has been involved in strategic planning, university accreditation and crisis management.

Murphy started at the university as an area coordinator and also served as director of Residence Life, student ombudsman, associate dean of Student Affairs, dean of Student Affairs and assistant vice president. He currently is vice president for Campus Affairs.

Megan Larcom (TPR'10) wrote that Murphy's role as a mentor was defined by his ability to guide without directing and listen without expecting.

"His ability to relate learning and student life to life and professions outside the ivory tower was incredibly valuable during a transition from student to alumnus, and nonetheless impressive given his career inside the tower," she wrote.

In addition, Murphy built the current Division of Student Affairs, which has been recognized nationally for its work in improving the quality of life and inspiring and supporting students "to engage in a transformative university experience that shapes their evolving understanding of self, community and their contributions to a global society." A number of staff members under Murphy have gone on to become deans of student affairs or similar positions at CMU and elsewhere.

The William H. and Frances S. Ryan Award for Meritorious Teaching

Anne Mundell sets the scene for her students to explore new ideas.

Mundell, an associate professor of scenic design, is this year's winner of the William H. and Frances S. Ryan Award for Meritorious Teaching.

She has worked tirelessly to provide opportunities for students of all ages in an environment in which students are inspired to approach problems in new ways. Mundell's students have gone on to diverse careers on Broadway and in films, television, regional theater, corporate events and theme park design.

Dick Block, associate head of the School of Drama, has been a colleague of Mundell's for 25 years. Among her accomplishments, he cited the Growing Theater Outreach course, a yearlong class in which CMU students mentor grade school students to write and perform their own plays.

"The value for these young students cannot be overstated," he wrote. "They learn not only about story telling but so much more in the area of self confidence, the ability to create and the excitement of performing in front of a live audience."

Despite beginning at 8 a.m. on Fridays, the course is a favorite. Devrie Guerrero (A'13) spent two years as a mentor. The experience was among the most influential she had while at CMU.

"Because of Growing Theater, I found my passion of working with children at a young age to help improve their future," she wrote. "I hope to one day start a program like Growing Theater."

This fall, Guerrero will work as an elementary school teacher as a resident in the Baltimore City Teaching Residency.

Mundell also reaches across boundaries to work in other disciplines.

Reid Simmons, a research professor and associate director for education in Robotics, has worked with Mundell for more than a decade on character-based social robots such as Tank the Robo-receptionist and Victor the Gamebot. Simmons and Mundell also are creating

a course on intelligent environments as part of the new IDeATe program.

"Over the years, Anne has designed about a half dozen faces for our various robots," Simmons wrote. "She also has helped develop the approach of creating backstories and evolving story lines for character-based robots. Anne is the perfect embodiment of a CMU faculty member — dedicated, passionate, visionary, interdisciplinary, collaborative."

The Award for Outstanding Contributions to Academic Advising and Mentoring

When Marion Oliver (S'72) arrived at Carnegie Mellon as a graduate student in 1967, he probably had no idea that nearly 50 years later he'd be working for the university halfway around the world from Pittsburgh.

Oliver, Carnegie Mellon in Qatar's First-Year Student Adviser and teaching professor of mathematical sciences, has been named this year's recipient of the University Advising Award for his contributions that span decades and continents.

After completing his master's and doctoral degrees in mathematics in 1972, Oliver joined the faculty and became part of the Carnegie Mellon Action Project (CMAP), which provided academic, personal and career development programs and services to minority students. In 1974, he was named the program's director.

"As acting dean of our Qatar campus, I had the opportunity to observe and to appreciate the depth of his concern for, and knowledge about each student, where they came from, and what their concerns and interests were. I cannot imagine an individual more committed to the successful integration of students into the Carnegie Mellon community," said G. Richard Tucker, the Paul Mellon University Professor of Modern Languages.

Oliver has served as provost and vice president for Academic Affairs at Millersville University, vice dean at the University of Pennsylvania's Wharton School and manager of training in the Middle East for Mobil Oil Corp.

His experiences and knowledge of Middle Eastern culture made Oliver an ideal fit for CMU-Q. He joined the faculty in Doha when the campus opened, teaching first-year calculus and advises approximately 100 students each year.

Students who were part of the CMAP program in the '70s and CMU-Q students today supported Oliver's nomination with letters remarkably similar, stating that Oliver was an important role model. Many credited academic, professional and career suc-



ANNE MUNDELL TALKS TO SAM FRENCH (A'14), A SENIOR DIRECTING MAJOR, DURING A PRODUCTION SHOOT FOR CLASS ON LOCATION IN BRADDOCK, PA.

CELEBRATION of EDUCATION

College Teaching Awards

Below are this year's recipients.

CARNEGIE INSTITUTE OF TECHNOLOGY

Benjamin Richard Teare Jr. Teaching Award

Alan J.H. McGaughey
Associate Professor, Department
of Mechanical Engineering

COLLEGE OF FINE ARTS

Henry Hornbostel Teaching Award

Nancy Galbraith
Professor of Composition,
School of Music

DIETRICH COLLEGE OF HUMANITIES & SOCIAL SCIENCES

Elliott Dunlap Smith Award for Teaching and Educational Service

Jeria Quesenberry
Associate Teaching Professor,
Department of Information Systems

H. JOHN HEINZ III COLLEGE

Martcia Wade Teaching Award

Jonathan P. Caulkins
Steuer Professor of Operations
Research and Public Policy

MELLON COLLEGE OF SCIENCE

Julius Ashkin Teaching Award

Robert H. Swendsen
Professor, Department of Physics

SCHOOL OF COMPUTER SCIENCE

Herbert A. Simon Award for Teaching Excellence

Michael Erdmann
Professor, Departments of Computer
Science and Robotics

TEPPER SCHOOL OF BUSINESS

Gerald L. Thompson Teaching Award in the B.S. Business Administration Program

Lars-Alexander Kuehn
Assistant Professor of Finance

Richard M. Cyert Teaching Award in the B.S. Economics Program

Christoph Mueller
Assistant Professor of Economics

George Leland Bach Excellence in Teaching Award in the MBA Program

R. Ravi
Andris A. Zoltners Professor of
Business and Professor of Operations
Research and Computer Science

GRADUATE STUDENT TEACHING AWARD

Skyler Speakman
H. John Heinz III College

GRADUATE STUDENT SERVICE AWARD

Rebecca Balebako
Department of Engineering & Public
Policy

Wimmer Faculty Fellows

These fellowships are made possible by a grant from the Wimmer Family Foundation and are designed for junior faculty members interested in enhancing their teaching through concentrated work designing or redesigning a course, innovating new materials or exploring a new pedagogical approach. Fellows work in close collaboration with Eberly Center colleagues and receive a stipend to acknowledge the work it takes to improve one's effectiveness as an educator.

Below are the 2013-2014 fellows:

Steven M. Chase
Assistant Professor, Center for the
Neural Basis of Cognition and
Department of Biomedical Engineering

Charles Garrod
Assistant Teaching Professor,
Institute for Software Research

Wolfgang Gatterbauer
Assistant Professor, Tepper School
of Business; Courtesy Assistant Profes-
sor, Department of Computer Science

Zico Kolter
Assistant Professor, Department
of Computer Science and Institute
for Software Research

Brian K. Kovak
Assistant Professor, H. John Heinz III
College

Meagan S. Mauter
Assistant Professor, Departments of
Chemical Engineering and Engineering
& Public Policy

Peter Scupelli
Assistant Professor, School of Design

director of the Wilton E. Scott Institute for Energy Innovation.

His nomination for the award was supported by many letters, one of which was from Marvin Sirbu, a professor in EPP, industrial administration and ECE. Sirbu, who also founded the Information Networking Institute, wrote that he was in the unusual position of being able to speak to the role Granger played in his own mentoring and in the mentoring of his wife, the late Barbara Lazarus.

"Throughout my time at CMU, Granger has been a constant support, whether advising on bureaucratic issues at the Information Networking Institute, brainstorming new research ideas or simply being a sounding board when I had questions," Sirbu wrote.

Morgan is the first and only head EPP has ever had. James H. Garrett Jr., dean and the Thomas Lord Professor for the College of Engineering, wrote "the scope of Granger Morgan's positive influence is impossible to quantify." He said an extraordinary testament to Morgan's accomplishments is the successful promotion, tenure and career prominence of EPP faculty as it stands today.

Morgan also has touched the lives of hundreds of graduate students.

"A decade after finishing my Ph.D. in the Department of Engineering and Public Policy, Granger remains a strong role model, both for me and other members of my cohort," wrote Elizabeth Wilson (E'04), associate professor at the University of Minnesota. "We often joke among ourselves, 'WWGD?' (What would Granger do?) when we find ourselves in an extremely tricky or challenging situation. He embodies the ideal academic: intellectually honest and probing, driven by the love of knowledge coupled with a deep sense of personal integrity and humanity."

CONTINUED ON PAGE NINE

Morgan is the Thomas Lord University Professor of Engineering and head of the Engineering and Public Policy Department (EPP). He also is a professor in the Electrical and Computer Engineering Department (ECE) and Heinz College, director of the Climate and Energy Decision Making Center and



MARION OLIVER (S'72) WAS ONE OF THE FIRST FACULTY MEMBERS TO JOIN CARNEGIE MELLON IN QATAR.

cess to his advice and teaching.

"Marion was simultaneously an adviser, role model, confidant and friend for the students who participated in CMAP," said Russell Walker, teaching professor of mathematical sciences. "And it is much the same today for our students in Qatar. Marion Oliver's contributions to the success of Carnegie Mellon students are unique in university history."

The Barbara Lazarus Award for Graduate Student and Junior Faculty Mentoring

M. Granger Morgan has spent nearly 40 years at Carnegie Mellon, much of that time mentoring graduate students and young faculty members.

It is because of his untiring support since arriving at the university in 1974 that he is being recognized with the 2014 Barbara Lazarus Award.



M. GRANGER MORGAN HAS IMPACTED HUNDREDS OF STUDENTS AND FACULTY DURING THE PAST FOUR DECADES.

Spring Carnival Turns 100

CONTINUED FROM PAGE ONE



ABOVE: CARNIVAL ATTENDEES GATHER TO ENJOY A GAME IN THE LATE 1940S. RIGHT: STUDENTS IN THE SCOTCH'N'SODA THEATRE GROUP PERFORM "MISS STARS N STRIPES" FROM THE 1963 PRODUCTION.



Queen” was voted on annually for several decades.

The last “Campus Week” took place in 1929, after which Carnegie Tech Dean Arthur Tarbell wrote the Student Senate saying the faculty moved to abandon the festivities. The motion caused a campus-wide stir and ultimately led to an agreement on new programming in 1930.

Float parades, which began in the 1930s, became Booth in the 1950s, the same decade that the popular canoe tilt evolved into plank jousting. The canoe tilt involved teams of two standing in canoes in Panther Hollow Lake and each attempting to knock the other team into the lake. Similarly, plank jousting involved using a pillow to knock the other team off a wooden plank into a mud pit.

The last Campus Queen was crowned in the 1970s, a decade that saw a shift in focus to more entertainment-based programming. An Activities Board was established, which began organizing concerts. Performers included B.B. King and Carlos Santana.

The '70s also saw the advent of “gazorching,” a combination of shot put and water balloon launching.

Victor, a 650-pound bear that enjoyed drinking 7-Up, arrived on the scene in 1981 to wrestle five fraternity men in that year’s carnival. The bear’s record? 5-0.

One tradition making a comeback this year is chain-link stamping. Prior

to the 1940s, each class beginning with 1908 had their class year stamped into the link of an iron chain, now kept in University Archives. The chain represents the unbreakable bond of the individual classes as well as all students who pass through CMU’s doors. The tradition was lost when the university’s forge was dismantled during World War II.

Pittsburgh Mayor William Peduto and Councilman Dan Gilman (DC’04) will be on hand to proclaim April 10 “Carnival 100 Day,” commemorating the anniversary.

Other highlights include:

Thursday, April 10

Alumni — Faculty & Staff Breakfast

(invitation only)

8:30-10:30 a.m., Alumni House
The Office of Alumni Relations & Annual Giving invites more than 1,000 alumni faculty and staff to a breakfast in honor of their continued commitment and service to their alma mater. For more information, contact Dawn Gianotti at 412-268-2024.

Sweepstakes Buggy Design Competition

10 a.m. – 2 p.m., Wiegand Gym, University Center (UC)
Bigger and better than ever, the design competition includes Buggy history and an interactive display for kids.

Carnegie Tech Radio Club 100th Anniversary Celebration

5 – 8 p.m., Singleton Room, Roberts Engineering Hall
Join current members and fellow alumni at a reunion event celebrating 100 years of the Carnegie Tech Radio Club.

Friday, April 11

Preliminary Sweepstakes Races

8 a.m., Schenley Park
Mayor William Peduto will serve as Grand Marshal.

Alumni House Open House

10:30 a.m. – 2:30 p.m.
Tour the newly renovated Alumni House; learn about its history and what the Alumni Association has to offer alumni, students, parents and friends.

Naming Ceremony for the Jared L. Cohon University Center

Noon, Kirr Commons, UC
Please join President Subra Suresh and members of the Board of Trustees for a special ceremony naming the University Center in honor of President Emeritus Jared L. Cohon, University Professor, Civil and Environmental Engineering and Engineering and Public Policy.

Dunk a Cop for Special Olympics

New to the Midway, carnival goers can try their luck at dunking a CMU police officer to benefit charity.

Zero Waste BBQ

Noon – 2 p.m., Merson Courtyard, UC
Celebrate campus sustainability while enjoying the Zero Waste All Campus BBQ. Students from CMU’s Solar Splash, Engineers without Borders, Project Greenlight, Sustainable Earth and the Carnegie Mellon Community Garden Group will share projects, demos and hands-on activities. (Loyal Scots: Wear your Loyal Scot pin to gain access to the “fast-pass” lane and bypass the crowds.)

JGC60: A Celebration of the Life and Work of Jaime G. Carbonell

4:30 p.m., 4401 Rashid Auditorium, Gates and Hillman centers
CMU will celebrate the 60th birthday of University Professor Jaime G. Carbonell, the Allen Newell Professor of Computer Science and director of the Language Technologies Institute, by hosting a symposium honoring his life and work, April 11-12, in Rashid Auditorium of the Gates and Hillman centers.

Celebration of Hugh Young’s Life and Legacy

6 – 8 p.m., Kresge Theatre and Great Hall, College of Fine Arts
Hugh D. Young’s 52-year career at CMU left an indelible mark on generations of students, colleagues and alumni.

Larry Cartwright Celebration

6 – 9 p.m., Singleton Room, Roberts Engineering Hall



ABOVE: IN A 1950s PLANK-JOUSTING MATCH, A DELTA TAU DELTA BROTHER KNOCKS HIS COMPETITOR INTO THE MUD. RIGHT: WOMEN AT THE UNIVERSITY IN THE EARLY 1920s STARTED A SWEEPSTAKES EVENT OF THEIR OWN AND COMPETED IN SCOOTER RACES.

CHAIN-LINK STAMPING IS BEING REINTRODUCED. BETWEEN 1908 AND THE 1940s, CLASSES FORGED A LINK AND STAMPED THEIR YEAR. THE CHAIN, WHICH INCLUDES THIS LINK FROM 1925, IS KEPT AT UNIVERSITY ARCHIVES.



Celebrate the impact Larry Cartwright, teaching professor emeritus, has made on the Civil and Environmental Engineering department and CMU over the past 35 years.

Saturday, April 12

Sweepstakes Final Races

9:15 a.m., Schenley Park
Following Final Races, a special alumni Grudge Match is new this year, so be sure to cheer on your favorite team! Watch the Buggy Alumni Association website for updates and announcements regarding additional alumni races.

Decade Reunions (1970s, 1980s, 1990s and Young Alumni)

Join classmates and friends in a celebration for all alumni from each decade. Check the schedule for specific times.

Scotch'n'Soda Gala

6 p.m., Rangos Ballroom, UC (Adults: \$25; Students: \$15). The evening will feature a one-night-only dinner theatre performance of Scotch'n'Soda's 100th Carnival Show, "The 25th Annual Putnam County Spelling Bee," as well as the world premiere of a new documentary about Scotch'n'Soda Theatre. Attendees will have a chance to bid in a silent auction and share their favorite S'n'S memories to be stored in a 100th Carnival time capsule.

For updates and the full schedule of events, see www.cmu.edu/alumni/carnival.

National Robotics Week Coincides with Carnival

■ Piper Staff

Carnegie Mellon will celebrate National Robotics Week April 10-11 during Spring Carnival with lectures, project demonstrations and the annual Mobot Races.

Marc Raibert, chief technology officer and founder of Boston Dynamics, will deliver the annual Teruko Yata Memorial Lecture in Robotics at noon on April 10, in Rashid Auditorium. Pre-registration is required.

His talk, "Walk, Bound, Gallop, Climb," will discuss dynamic robots with advanced control. Some of the robots being developed at Boston Dynamics — recently purchased by Google — include LS3, the DARPA-funded follow-up to BigDog; Cheetah, a fast-running quadruped; and Atlas, an anthropomorphic robot designed to explore real-world tasks.

Boris Sofman, co-founder and CEO of ANKI, will deliver a special Robotics Institute talk at 2 p.m., April 10, Room 1507, Newell-Simon Hall.

The School of Computer Science will host a satellite performance and screening of the Robot Film Festival at 8 p.m. that evening, Rashid Auditorium.

On April 11, the Robotics Institute will host tours and demonstrations from noon to 4 p.m. in the Planetary Robotics Laboratory on the first floor of the Gates and Hillman centers. Tours of two additional labs are available for a limited number of participants who pre-register.

The School of Computer Science will host the 19th annual Mobot Races from noon to 2 p.m. on April 11. Participants, including undergraduates and alumni, will race small autonomous vehicles through a slalom course on the paved walk outside Doherty and Wean halls. The award ceremony is at 3 p.m. in Rashid Auditorium.

More information on CMU's National Robotics Week events is available at www.ri.cmu.edu/rinrw.

University Center To Be Named for Jared L. Cohon

■ Bruce Gerson

The university community is invited to a special ceremony at noon, Friday, April 11 in the University Center's KIRR Commons, where the University Center will be officially named the Jared L. Cohon University Center in honor of Carnegie Mellon's distinguished eighth president.

In keeping with CMU's tradition of naming buildings for former presidents, this fitting honor recognizes President Cohon's university citizenship, his dedication and commitment to the CMU community, and to improving the quality of life on campus. In many ways, Cohon's 16-year tenure as president transformed and strengthened the university by fostering a culture of interdisciplinary collaboration. Similarly, the University Center has promoted collaboration and a sense of community, serving as a prominent and popular meeting place for all students, faculty, staff and alumni to come together to work and play.

The timing of this special ceremony also is very appropriate, as it will take place during the 100th anniversary of Spring Carnival, one of the most anticipated traditions at Carnegie Mellon, when alumni, students, faculty and staff gather to celebrate our university and our community.

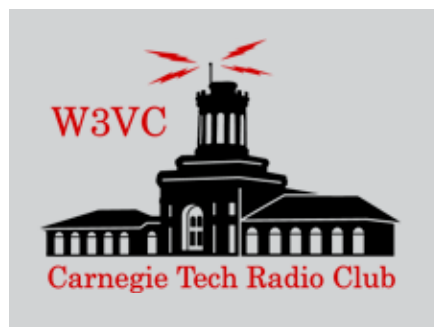
Radio Club Celebrates Centennial, Too

■ Kelly Solman

Carnegie Tech Radio Club is celebrating 100 years of fostering amateur radio enthusiasts on CMU's Pittsburgh campus and promoting the hobby in the surrounding community.

For some, amateur radio is an opportunity to tinker with electronics. Others have used it to talk with astronauts in space or to make friends in other parts of the world. Often, amateur radio operators — known as “hams” — help in disaster situations when other communications systems have failed, as in 9/11 and Hurricane Katrina.

Known by its current call sign, W3VC, the Carnegie Tech Radio Club on CMU's Pittsburgh campus has over 30 active members today. The club has



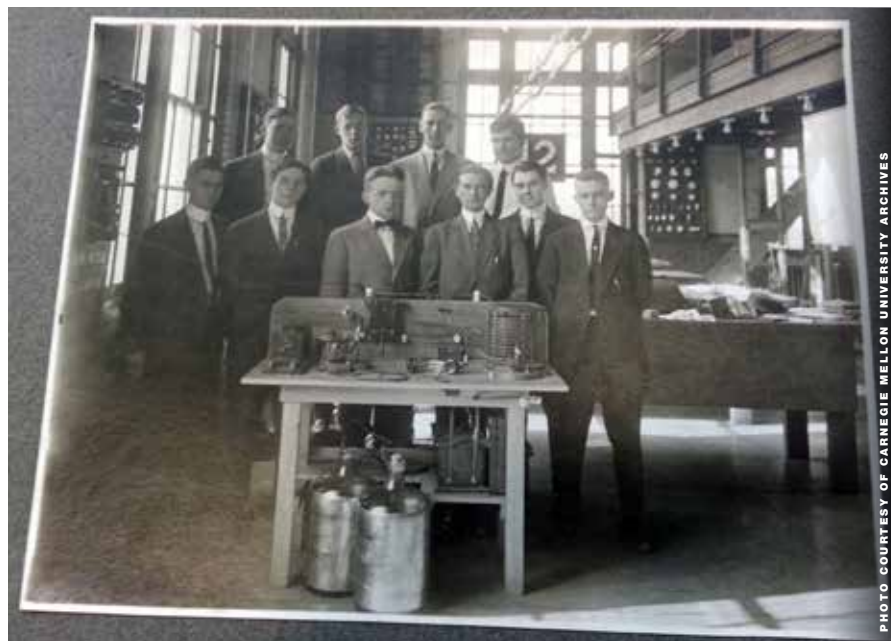
been a longstanding part of Buggy at Spring Carnival, assisting with course safety by relaying important information around the course during practice rolls and on race days.

The club owns and operates two radio transmitters. It also provides visual and digital live weather information and hosts monthly licensing test sessions for students and community members who want to obtain or upgrade licenses.

A similar club for hams recently was formed on the West Coast, which is a hotbed of radio activity that includes new research into mobile technology, connected embedded systems and smart communities.

This Wireless Innovators Club, with the call sign W6CMU, supports Carnegie Mellon Silicon Valley students, faculty and affiliates in their experiments with radio as they develop novel uses combining wireless technology with computers and sensors.

Ham radio operators, like members of the Carnegie Tech Radio Club and Wireless Innovators, have had impact extending far beyond the field. Alex Hills, a distinguished service profes-



THE CARNEGIE TECH RADIO CLUB IS SEEN HERE IN AN EARLY PHOTO. TODAY'S RADIO CLUB MEMBERS VOLUNTEER AT SPRING CARNIVAL.

sor in the departments of Electrical and Computer Engineering and Engineering and Public Policy, has said that what he learned as a ham radio operator led him to conceive and create CMU's Wireless Andrew network, the first Wi-Fi network anywhere.

In celebration of the club's 100th an-

niversary and its continued commitment to promoting amateur radio, the Carnegie Tech Radio Club in Pittsburgh will host a Centennial Celebration from 5-8 p.m., Thursday, April 10, in the Singleton Room, Roberts Engineering Hall.

All past and current members of the club are encouraged to attend.

People Make the Times

Pileggi Threads History of College of Engineering

■ Bruce Gerson

Children's book author, personal essayist and blogger Leah Pileggi never intended to write a history book.

But while interviewing retired engineering professors for what she thought would be a series of articles, she began to see “a common thread”; a bigger picture developed and she's weaved a new genre into her literary repertoire.

“As I was talking to them, I realized they were part of a larger story,” said Pileggi, a professional assistant for the Electrical and Computer Engineering Department. “I went to Pradeep [Khosla, then dean of the College of Engineering] and said I could do some articles, but it feels like there's more of a story here. It felt like a book to me. And Pradeep said go for it.”

“How to Design a World-Class Engineering College: A History of Engineering at Carnegie Mellon University” was published by Carnegie Mellon University Press late last fall after 18 months of writing and research.

Pileggi, who called the information she found in University Archives crucial and her interviews with emeriti professors Steven Fenves, Angel Jordan and Wil Rouleau most instrumental, said the 99-page, light and easy-to-read paperback is not your typical engineering history book.

“It's a narrative. It's not a technical book or a series of lists,” said Pileggi,

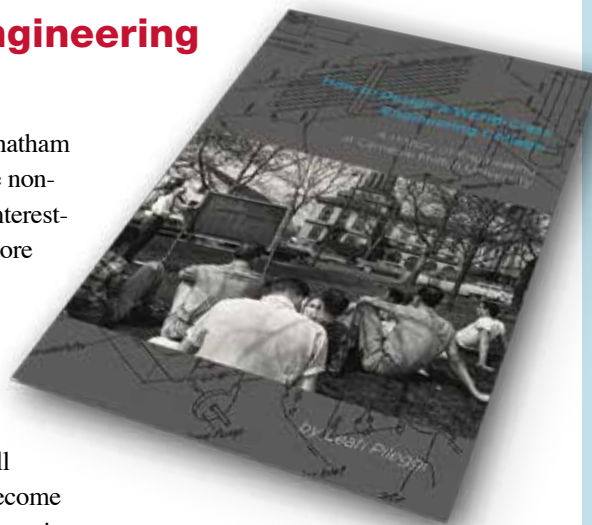
who studied creative writing at Chatham University. “My goal was to write non-boring, nonfiction — to make it interesting for people going to the bookstore and asking if they had anything about the basic history. It's one thread with a few key people along the way who really championed the cause.”

Of course, the story of a small technical school that evolves to become a world-renowned college of engineering begins with Andrew Carnegie, who felt the key to success was choosing the right people at the right time. And his first choice was Arthur A. Hamerschlag.

“He was the first everything, president, dean and instructor. He hired people and he worked with the architects,” Pileggi said. “If it hadn't been for him the school wouldn't even be here. He gave his heart and soul to this place. He died at a young age (55).”

Hamerschlag laid the groundwork for the early Carnegie Technical Schools — the School of Science and Technology was said to be the “guts of the operation” — and in 1912 led the transformation to university status as the Carnegie Institute of Technology.

Following Hamerschlag, Pileggi traces the contributions of President Thomas Baker and President Robert Doherty, an electrical engineer who brought the Carnegie Plan of Professional



Education — a problem-solving, hands-on, learn-by-doing approach — to the university curriculum.

Doherty modeled the curriculum from his days at General Electric, where he helped to create GE's Advanced Engineering Courses, which taught students to apply their engineering knowledge and collaborate on team projects to solve real-world problems.

The Carnegie Plan also encouraged students to take both technical and liberal arts courses, to be socially responsible and to be productive members of the community.

“The capstone classes in engineering is the epitome of the Carnegie Plan,” Pileggi said. “Students use their knowledge to build and create things.”

Other key milestones in the College of Engineering's history include the first female student, Julia Randall, in the 1940s; the emergence of comput-

UNIVERSITY ARCHIVES A TREASURE CHEST

Carnegie Mellon University Archives has thousands of items from the university's past, but it is always on the hunt for memorabilia with historical value, particularly old university photos, athletic game programs and academic publications.

If you have such materials and are willing to donate them to help preserve CMU's history, Gabrielle Michalek would love to hear from you.

Michalek, head of Archives and Digital Library Initiatives, requests materials be brought to the University Archives' Hunt Library office at 4909 Frew St. The archive is open from 9 a.m. to 5 p.m.

ing courses for freshman engineers in the 1950s; and the university merger with the Mellon Institute of Research in 1967.

“After the merger, the dean of engineering became a much more focused position,” Pileggi said. “It moved from the president being in charge of engineering to the dean being in charge.”

Engineering Dean Herb Toor, a “Toor de Force” following the merger, launched an effort to recruit more women and minority students and faculty into the

CONTINUED ON PAGE TEN

Bird Bonanza

Families Flocked to Children's School Festival

■ Shilo Rea

There is much to learn about birds. They fly, come in an array of colors, are able to sing in a range of tones and pitches and have many different personalities.

It's because of this that Carnegie Mellon's Children's School dedicated its annual Family Festival to birds. Students and their families played games and learned about different specimens that visited from the National Aviary.

"Birds are easily accessible to study, and with Pittsburgh's National Aviary's help, we introduced environmental issues of pollution, habitat loss, pesticide use and climate change," said Sharon Carver, director of the Children's School.



ABOVE: CHILDREN'S SCHOOL EDUCATOR CHARLENE TOMER HELPED DAVID KIM PLAY "PIN THE WING ON THE CROW." RIGHT: EMMA TOMA EXAMINES A BONE SHE FOUND WITHIN AN OWL PELLET.

Celebrating Graduate Students

■ Piper Staff

The recipient of this year's Graduate Student Service Award is Rebecca Balebako, a fourth-year Ph.D. candidate in the Department of Engineering and Public Policy (EPP).

Balebako, who gave birth to two daughters while she has been at CMU, has been working to create more support for graduate students with children, including advocating for new policies for family leave and child care, and re-invigorating a community of student parents. She also has been a Graduate Student Association representative for EPP.

The recipient of this year's Graduate Student Teaching Award is Skyler Speakman, a Ph.D. candidate in information systems at Heinz College with a focus on applying pattern detection algorithms to public policy issues such as disease surveillance. He received a master's degree in machine learning from CMU in 2013.

Speakman has been involved with mathematics and statistics secondary education for more than 10 years. Last fall he was the head instructor for Heinz College's Statistics for IT Managers course. During the summers of 2011, 2012 and 2013, he taught an algebra refresher course for students with conditional acceptances into Heinz College. Speakman was awarded Heinz College's Teaching Assistant of the Year (2012) Award for his communications skills, knowledge and enthusiasm in the classroom. Additional courses he has taught at Carnegie Mellon include Empirical Methods for Policy and Management, Large Scale Data Analysis and Data Mining.



REBECCA BALEBAKO



SKYLER SPEAKMAN

Award-Winning Educators Offer Number of Firsts

CONTINUED FROM PAGE FIVE

Mark Gelfand Service Award for Educational Outreach

In his own work, award-winning author, poet and filmmaker Jim Daniels does not shy away from difficult subjects.

But Daniels, the Thomas Stockham Baker Professor of English, goes beyond putting words on paper to engage with the world. Since his arrival at Carnegie Mellon in 1981, he has been deeply involved in outreach efforts.

For this commitment and his work over the past 15 years with the Martin Luther King Jr. Writing Awards and his Advanced Poetry Workshop Class, Daniels is the recipient of the 2014 Mark Gelfand Service Award for Educational Outreach.

Detroit born and raised, Daniels often explores the culture of working-class life and his personal experiences. His upbringing left him with a long-standing interest in race and class issues. In 1999, he founded CMU's Martin Luther King Jr. Writing Awards to help Pittsburgh-area students better understand King's legacy of combating racial inequality. The program has

received more than 2,000 entries from high school and college students.

"Everybody thinks the MLK Writing Awards program is a good thing, but those of us committed to creating a meaningful set of MLK Day activities at CMU know it to be a fabulous thing," President Emeritus Jared L. Cohon wrote. "Jim has invested a huge amount of time and effort into this community outreach — time and effort that he could have used in many other ways. Our community and the institution are better for it."

Daniels also incorporates service learning into his curriculum. Since 2001, students in his Advanced Poetry Workshop mentor literary arts majors from the Pittsburgh High School for the Creative and Performing Arts (CAPA). CMU students create lesson plans for the CAPA students, and they jointly publish the literary journal "Boundary Street" and perform a poetry reading.

Madeleine Barnes (DC'12) met Daniels as a high school student. She enrolled at CMU after he invited her to attend student readings and sit in classes.

"Professor Daniels guided me



JIM DANIELS OUTREACH PROGRAMS INCLUDE PARTNERING CMU STUDENTS WITH STUDENTS FROM THE PITTSBURGH HIGH SCHOOL FOR THE CREATIVE AND PERFORMING ARTS.

through my first teaching experiences, taught me the happiness and excitement of collaborating on poetry projects with younger writers and motivated me to pursue writing and teaching poetry as a lifelong career," wrote Barnes, who is

pursuing an MFA at New York University. "I felt very connected to the CAPA students I was partnered with, and to this day, I still exchange poems with them via email."

Drama School Takes a Bow in NYC



100-YEAR-OLD EDWARD PALKOT (A'35) AND HIS GUEST ALICE PAVIS ATTENDED THE SCHOOL OF DRAMA'S 100-YEAR CELEBRATION IN NEW YORK CITY AT STEINER STUDIOS IN MARCH.



PRIOR TO THE CELEBRATION, A NUMBER OF CMU LUMINARIES MET INCLUDING (L-R) SCHOOL OF DRAMA HEAD PETER COOKE, BOARD OF TRUSTEES MEMBER AND ALUMNA PAULA WAGNER, COLLEGE OF FINE ARTS DEAN DAN MARTIN, TONY AWARD-WINNER BILLY PORTER (A'91), CMU PRESIDENT SUBRA SURESH, MARY SURESH, PATRICK WILSON (A'95), DAGMARA DOMINCZYK (A'98) AND STEPHEN SCHWARTZ (A'68).

Pileggi Threads History of College of Engineering

CONTINUED FROM PAGE EIGHT

school, and he hired Helen O'Bannon as assistant dean of engineering.

In 1976, under Toor's tenure as dean and Richard Cyert's term as university president, the interdisciplinary Engineering and Public Policy (EPP) Department was formed to study the effects of engineering on society. Granger Morgan became the first head of the department, and he recruited Indira Nair to become associate head.

Many other interdisciplinary firsts and influential professors and administrators followed, including the Engineering Design Research Center, the Data Storage Systems Center, the Information Networking Institute and the Department of Biomedical Engineering. New programs were established in Silicon Valley, Portugal, China and Rwanda.

Engineering deans following Toor who brought distinction to the college were Angel Jordan (1979-83), James Williams (1983-88), Paul Christiano (1989-91), Stephen Director (1991-96), John L. Anderson (1996-2004), Pradeep Khosla (2004-12) and James H. Garrett Jr. (2013-present).

"Some histories of academe can be dry and uninviting, but Pileggi's approach is personal," said CMU Press Editor Cynthia Lamb. "She encompasses the entire history of the college, all the while adeptly bringing in the various qualities and disparate backgrounds of those key personalities — the deans and individual department heads, not to mention Carnegie Mellon presidents at various stages — who worked diligently and methodically to create the institution."

Lamb said the book will appeal to past and current faculty, staff and students "because it is easy and enjoyable to read, all the while offering an overall understanding of the complex and multi-faceted field of engineering, and its relevance to all of our lives."

Jim Garrett Jr. (E'82, '83, '86), dean and the Thomas Lord Professor of Civil and Environmental Engineering, is one of those current faculty members who

have liked the book.

"I enjoyed hearing how our SWE (Society of Women Engineers) Chapter, now very large and having much impact on our campus, got started," Garrett said. "I also enjoyed reading the details of how EPP came to be; I did not know it was almost named EPA (Engineering and Public Affairs). That was around the time I was an undergraduate at CMU.

"Learning more about Arthur Ham-

erschlag and the many roles he played in the early days of Carnegie Tech was very interesting, too."

The book is available at the University Store.

There will be a reception to celebrate the history of the College of Engineering for engineering alumni, faculty and staff from 3:30 – 5 p.m., Friday, April 11 in the Tung Aug Lab on the first floor of Porter Hall.

NEWS BRIEFS

@CMU_FMSAnnounce Tweets Campus Advisories

Follow @CMU_FMSAnnounce on Twitter to get up-to-the-minute information about shutdowns, outages, structural impediments and repairs happening at Carnegie Mellon's Pittsburgh campus. Tweets are sent by CMU_FMSAnnounce every time FMS issues an advisory notice. Each tweet gives a brief description and a link to the full notice on the FMS website. If you prefer to see full notices in your email, see the instructions on joining the email lists at www.cmu.edu/fms. Follow the link to FMS Shutdown Notices.

Social Media and the Mexican Drug Wars

The recent arrest of Joaquín "El Chapo" Guzmán has cast the spotlight on the Mexican drug cartels and the violence associated with them. But, what is less talked about is how over the past decade increased access to the Internet, cellphones and other digital media has drastically changed the landscape of the drug wars in Mexico.

In a new article published in "Latin American Perspectives," Paul Eiss examines how both sides of the drug war — the cartel operatives as well as government and

security forces — have used and responded to digital and social media. Eiss, associate professor of anthropology and history in the Dietrich College and director of the Center for the Arts in Society, explores the nature and implications of what he calls the "narcomedia," forms of digital messaging that have become central elements of, and even motivations for, the horrific acts of violence that have become commonplace in Mexico.

Take Our Children To Work Day is April 24

The national Take Our Daughters and Sons to Work program is marking 20 years. This year's theme is "Plant a Seed, Grow a Future."

Faculty and staff are encouraged to bring their children between the ages of 8 and 15 to the university on Thursday, April 24 to give them a glimpse of the wide range of CMU's career and learning opportunities. After a group lunch program, the children can attend two activity sessions for which they have pre-registered. For more information about the program visit www.cmu.edu/staff-council/committees/tdaswd/.

Dry Cleaning Services Offered

Housing Services offers professional dry cleaning for members of the campus community. Faculty and staff can have dry cleaning picked

up and then delivered to their office when completed. Students are asked to drop off and pick up their items at the Margaret Morrison laundry room between 11 a.m. and noon, and 1 and 2 p.m., Monday through Friday.

Please call 412-268-6939 or email dry-clean@andrew.cmu.edu to arrange for dry cleaning services. For rates, visit www.cmu.edu/housing/utilities-and-services/dry-cleaning/index.html.

Alice 3 Software Now in Arabic

Carnegie Mellon's popular educational software tool, Alice 3, is now available in Arabic thanks to a four-month translation project that involved university students across Jordan working with CMU and the Oracle Academy.

"Alice has been running successfully in all countries in the Middle East for many years, but we were conscious that we could reach more students if the program were in a language with which they were more familiar," said Jane Richardson, EMEA Director of the Oracle Academy. "We were delighted when Carnegie Mellon University — the creators of Alice — gave us an opportunity to approach universities in the country to enlist the help of student volunteers to drive the translation process."

Vocal Competitors

Students Take Stage for Philanthropy and Fun

■ Heidi Opdyke

Music competitions seem to make Carnegie Mellon students stand up and sing.

From the annual massive fundraiser Greek Sing to winning national competitions and appearances on reality shows, singers are stepping up to the microphone and delivering.

Two recent performances showcased talent from across the Pittsburgh campus in March.

“Competitive singing is cool,” Daniel Nelson (S’14) said. “It doesn’t take a lot of expensive resources to make it happen, and it’s easier to get people together to sing together.”

Nelson and Kevin Karol (BXA’16) were this year’s co-chairs of Greek Sing, one of the largest philanthropic events at CMU. The event showcases members of the fraternity and sorority organizations on the Pittsburgh campus in a competition featuring their skills in singing, choreography, set design and dancing.

Greek Sing, which has been a tradition at CMU for decades, has ramped up its philanthropic efforts. Since 2011, Greek Sing has raised more than \$250,000 for the Children’s Institute of Pittsburgh. Previous partners have been Lustgarten Foundation and St. Jude’s Children’s Research Hospital, and next year, Gilda’s Club will partner with the effort.

“For Greek Sing, it’s less about the performance and it’s more about the idea and concept that it brings people together,” Nelson said. “It’s the idea that people can get together and create

something better than themselves.”

The competition also builds skills needed in the workplace. Nelson said he’s learned about managing people and events in putting this year’s show together. Volunteers solicited donations and sponsorships, and the 12 performing groups learned about teamwork.

“As a Greek community, it’s great to be able to apply the skills we learn in the classroom to making a difference in our local community,” Karol said. “At CMU we love to do work well, but with Greek Sing we get the benefit of doing good.”

CMU also is involved in intercollegiate competitions. Earlier this spring, Deewane A Capella, Carnegie Mellon’s South Asian all-male a cappella group, earned first place in the University of Iowa’s sixth annual Gathe Raho, one of the nation’s largest South Asian interest collegiate a cappella competitions.

Deewane’s winning performance included a mash-up of Adele’s “Someone Like You” and “Abhi Mujh Mein Kahin” from the 2012 Bollywood film “Agnepath.”

Rishabh Alaap Singh (E’14), Deewane president, said CMU has allowed him to pursue a wide variety of interests.

“College — and specifically CMU — is an excellent ground to exercise your hobbies and learn new hobbies on the way,” Singh said. “I’ve been singing all my life, but besides that I learned DJ’ing while at CMU, and hosted a dance music festival last fall and also opened for Lupe Fiasco last Carnival.”

Singh, who studies electrical and computer engineering, is minoring in

music technology and said courses have helped him continue to improve his knowledge in music.

“I have not only learned conventional knowledge such as beginning music theory, I also learned how to use the recording studio and be proficient at Pro Tools under Riccardo Schultz,” he said. “I’ve also studied interdisciplinary courses with computer science by taking classes like Computer Music Systems and Information Processing.”

Deewane, which translates to mean “madly in love” or someone who is a fan, was one of the CMU a cappella groups that performed at “No Instruments Allowed.” The event was hosted by The Originals, CMU’s all-male a cappella group.

One of The Originals members is Ethan Crystal (A’15), who performed on NBC’s 2011 season of “The Sing-Off” with Soul’d Out, a group from his hometown of Wilsonville, Ore.

“I spent all of high school competing with Soul’d Out, so I had already caught the bug by then. I wouldn’t have come to CMU if there were no a cappella,” he said.

Crystal said being at CMU has exposed him to a wide variety of music and given him a better ear. His classes and voice teacher, Daniel Teadt, have helped him with his vocal technique.

“There’s something about harmonizing that just catches people’s ears — if you’re a singer and find one or two people to harmonize with, you can wow people already,” Crystal said.

EQT Fund To Support ProSEED

The EQT Foundation, the charitable arm of the EQT Corporation, has announced a \$1 million gift over a five-year period to support innovative ideas through the newly announced ProSEED seed-funding grant program at Carnegie Mellon.

The EQT Foundation’s gift will sponsor university-wide seed grants through ProSEED for basic research, technology development, computational modeling and simulation, and energy policy in a number of closely interconnected theme areas that encompass energy exploration, extraction and use, the environment, water and related topics, particularly those dealing with natural gas.

“This inaugural gift from the EQT Foundation to support seed funding through ProSEED will enable our innovative faculty and students to develop new approaches that address important technological and societal issues,” said CMU President Subra Suresh.

ProSEED will select projects through a peer-review process available to the entire campus community, and it will engage relevant on-campus centers and activities in the selection of the grants.

Read more about ProSEED at www.cmu.edu/proseed/.

Schneider Elected Institute Fellow

James W. Schneider, a professor of chemical engineering and biomedical engineering, has been elected to the College of Fellows of the American Institute for Medical and Biological Engineering (AIMBE) for leading-edge research on the development of novel materials for biosensing.

He was honored in March by AIMBE at the National Academy of Sciences in Washington, D.C. Schneider’s work focuses on the development of synthetic DNA-like materials for bio-analytical devices, pharmaceutical processing and drug delivery.

Grover Awarded NSF CAREER Award

Pulkit Grover has been awarded a five-year, \$600,000 National Science Foundation (NSF) CAREER Award for research aimed at reducing the amount of energy consumed by large data center communication networks by 30 to 50 percent.

“This award will help us arrive at radically new strategies to reduce energy in communication and computation networks. These include big-energy networks in data centers, but also smaller-energy indoor communication networks and those in brain-machine inter-

faces,” said Grover, an assistant professor of electrical and computer engineering at CMU.

Grover reports that his team is developing novel energy-efficient protocols and circuits that can reduce energy consumption by including the right patterns of “redundancy” for correcting errors in communication links of big data centers.

Air Force Selects Singh For Research Funding

The Air Force Office of Scientific Research has announced that Aarti Singh, assistant professor of machine learning, is one of 42 scientists selected this year to receive research funding for three years through the Air Force’s Young Investigator Research Program (YIP).

The YIP is open to scientists and engineers at research institutions across the United States who received a Ph.D. or equivalent degrees in the last five years and who show exceptional ability and promise for conducting basic research.

Singh’s research proposal was “Compressive and Adaptive Measurement Design for Inference Problems in Multi-Attribute Large-Scale Graphs.”

Last year, Singh was the recipient of a National Science Foundation CAREER Award.

Sarett Awarded NCAA Postgraduate Scholarship

Matt Sarett, a senior midfielder on the Carnegie Mellon men’s soccer team, has been awarded a \$7,500 NCAA Postgraduate Scholarship. The scholarship is awarded to student-athletes who excel academically and athletically and who are in their final year of intercollegiate athletics competition.

Sarett holds a 4.0 GPA as a double major in electrical and computer engineering and biomedical engineering, and is planning to pursue a master’s degree at CMU in electrical and computer engineering while minoring in business administration and computer science. Sarett is a two-time Capital One Academic All-American, a two-time All-University Athletic Association selection, and has been named to the All-Great Lakes Region and ECAC South Region all-star teams.

Data Supercell: Storage Available for CMU Users

CMU users with data storage needs have a local resource available — the Data Supercell at the Pittsburgh Supercomputing Center.

The Data Supercell is a Petabyte-scale, disk-based storage system that facilitates rapid data transfer and incorporates high reliability and security features for optimized data replication, safety and movement.

For more information about the Data Supercell and its advantages over conventional archival systems, visit www.psc.edu/index.php/projects/data-supercell.

Student Startups Earn Investment Capital

Innovation and entrepreneurship took center stage at the 2014 McGinnis Venture Competition, a cross-campus challenge in which students compete for \$60,000 in investments for their startup companies. Five winners were announced in March.

Two MBA students in the Tepper School Class of 2014, Jason Cahill and Neel Kishan, claimed the top prize of \$25,000 in the graduate student division. Their startup company, Impaqd, has created a real-time, GPS-enabled app that connects shipping customers directly to freight carriers, allowing them to identify and fill empty cargo space.

The \$4,000 first prize among undergraduates was secured by an interdisciplinary team representing three CMU schools. Their startup, Tailored Fit, is an online shopping service that learns an individual’s preferences over time and makes personalized shopping suggestions, providing products and services from multiple retailers on one website. Sharing the prize are Kate Vogt (CS’14), Nathaniel Eliason (DC’15), Heidi Yang (TPR’14), Zach Bush (TPR’16) and Matt Baker, Soloman Benjamin, Zach Piekut and Leanna Verderese.