Carnegie Mellon's student newspaper since 1906

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Kamlet steps down

Contributing Editor

Carnegie Mellon announced a series of senior leadership changes over the past week, marking four transitions in key university positions. University Provost and Executive Vice President Mark Kamlet stepped down, and will be replaced in the interim by Associate Professor of Biological Sciences Nathan Urban as provost and Dietrich College of Humanities & Social Sciences Dean John Lehoczky as executive vice president. Additionally, the School of Computer Science announced last week that Google Vice President Andrew Moore will become dean beginning this August.

Moore is founding director of Google's engineering office in Pittsburgh, which has strong ties with the university.

"Ever since college I have been inspired by the world-changing ideas and technologies that come out of CMU. I'm privileged to return to the School of Computer Science in this new role," Moore said in a university press release, adding, "I have had a wonderful eight years at Google Pittsburgh, a place which I believe has the most creative and driven gang of computer scientists in the world."

In the press release, University President Subra Suresh said, "Andrew Moore combines an expansive vision, scientific expertise, and leadership strength that make him extraordinarily well suited to be dean of the School of Computer Science.... As computing grows ever more critical to our global society, the scope of SCS and its importance to the world will continue to expand and its impact on the human condition will be more evident. Andrew is particularly well-positioned to lead the school at this time."

Kamlet joined Carnegie Mellon's faculty in 1976 as a professor of economics and public policy. He went on to serve as the head of the Social and Decision Sciences Department and associate dean of the College of Humanities and Social Sciences (now Dietrich College). Kamlet also served as dean of the H. John Heinz III School of Public Policy and Management for eight years before being appointed provost.

Kamlet was appointed as university provost in 2000, and was named senior vice president when he was reappointed as provost in 2005. When former University President Jared Cohon announced that Kamlet was becoming executive vice president, as well as accepting a second five-year term as provost, he said, "In our administration, the provost plays a central and especially important role in both day-to-day operations and long-term strategy. Mark has been nothing short of brilliant in filling this role. His reappointment is a great thing for the university."

Kamlet's academic re-

See TRANSITIONS, A4

MacGillivray, Chadderton give First Lectures

Penguins struggle in early





Senior biological sciences and psychology major Lindsay MacGillivray (left) and senior civil and environmental engineering and engineering and public policy double major Colin Chadderton (right) spoke about their Carnegie Mellon experiences as part of Student Senate's "The First Lectures".

CHLOE THOMPSON

Senior Staffwriter

Senior biological sciences and psychology major Lindsay MacGillivray and civil and environmental engineering and engineering and public policy double major Colin Chadderton gave lectures on the meaning of success last Thursday. The talks took place in Porter Hall, and were part of a series called "The First Lectures," an initiative hosted by Student Senate and spearheaded by first-year economics and statistics double maior Vaasavi Unnava. "The First Lectures" were meant as a homage to Randy Pausch's The Last Lecture, which talked about achieving your childhood dreams. The topic of both Chadderton and Mac-Gillivray's speeches was the meaning of success.

Chadderton spoke first, and took the stage dressed in a dark blue onesie, which he took off during his introduction to reveal a more conventional button-down shirt. "We're just gonna roll with it. It's gonna be fun," Chadderton said. His lecture relied on PowerPoint slides that illustrated his talking points, the most salient of which were a series of "peaks and valleys" Chadderton experienced during his time at Carnegie Mellon.

Chadderton described how his first year of school was academically overwhelming, and he struggled to keep up with his classes. He stated that he

compared himself to his classmates and found himself lacking. However, he eventually found his footing by asking for help and getting more organized. He said "I learned how to survive here. But to thrive here, I needed to change my definition of worth." He went on to describe the importance of doing your best and not only comparing yourself to others. Soon after, he became an RA. Chadderton said that being part of Student Life taught him the importance of being comfortable even in uncomfortable situations and that life is a fishbowl and people are always paying attention. Therefore, it is always important to be mindful of one's behavior.

Chadderton's lecture also

included a game of BINGO - or COLIN, in his version to engage the audience. The terms included "comfortable in the uncomfortable," "passion," (the importance of which Chaddderton discussed), and "Colin sings," (which he did, a brief line from a Les Misérables song.)

Chadderton's final point in his lecture was the importance of accepting change, because people become extremely different over the course of a single day. Chadderton framed that as a good and natural thing, saying, "If you're the same person you were three months ago, you

aren't doing it right." Fifth-year scholar

See LECTURES, A4

CMU appoints Jahanian VP of Research

Staffwriter

Farnam Jahanian has been selected as Carnegie Mellon's first vice president for research. As vice president of research, Jahanian will oversee all of the university's research endeavors, including government relations and technology transfer.

For the past three years, Jahanian has served as the assistant director for the computer and information science and engineering directorate at the National Science Foundation, where he oversees a research budget of over \$850 million. Jahanian also has hands-on experience with technology transfer. In 2000, he founded Arbor Networks to reduce denial-of-service attacks. Since then, the company has grown into a leading provider of network security, which, according to its website, protects 70 percent of Internet traffic

"We are excited to have Dr. Jahanian join us," said Jim Garrett, a co-chair of the vicepresident-for-research search advisory committee, and the dean of the College of Engineering. "As vice president for research, he will represent, promote, and help to increase the research activities at Carnegie Mellon."



Farnam Jahanian, assistant director for the computer and information science and engineering directorate at the National Science Foundation, will become Carengie Mellon's vice president of research this summer.

Garrett explained that Jahanian will seek to help create major research initiatives spanning the university. This initiative is similar to the role that Gary Fedder, Howard M. Wilkoff professor of electrical and computer engineering,

currently holds as associate dean for research in the College of Engineering.

Fedder perceived early on the importance of additive manufacturing, better known as 3-D printing, and recognized that Carnegie Mellon

had a number of key researchers across the college doing fundamental research in the field. Fedder played a key role in establishing the National Additive Manufacturing

See RESEARCH, A3

StuGov votes on pay for executives

NOËL UM Assistant News Editor

Student Senate recently discussed a line item in the Joint Funding Committee (JFC)'s budget for the upcoming fiscal year regarding supplying an honorarium for student government officials — a line item that was voted down by Student Senate, but will be either confirmed or denied at a joint JFC ratification meet-

ing this Thursday. JFC's published slate read that each member of the student government executive committee, which includes the student body president (SBP), student body vice president (SBVP), student body vice president for finances (SB-VPF), and student body vice president for organizations (SBVPO), will be granted a \$1,000 honorarium per semester.

Student Senate voted 7:12:3 on the issue — seven senators were for including the line item in the budget, 12 were against including the line item, and three abstained from voting.

In order for the provision of financing the student government executive committee's positions to pass, Student Senate and the Graduate Student Assembly (GSA) need to approve of the budget - a motion that will occur at the joint ratification meeting this week.

Senior chemistry major and Chair of Student Senate Lukas Ronner said, "It has been a contentious issue. What happened in Senate was that we knew it would be controversial and we wanted to bring it up as a point of discussion before the actual point on the slate so Senate would be better prepared to act one way or another."

At Thursday's Senate General Body Meeting, senators argued for and against the inclusion of the line item in the budget.

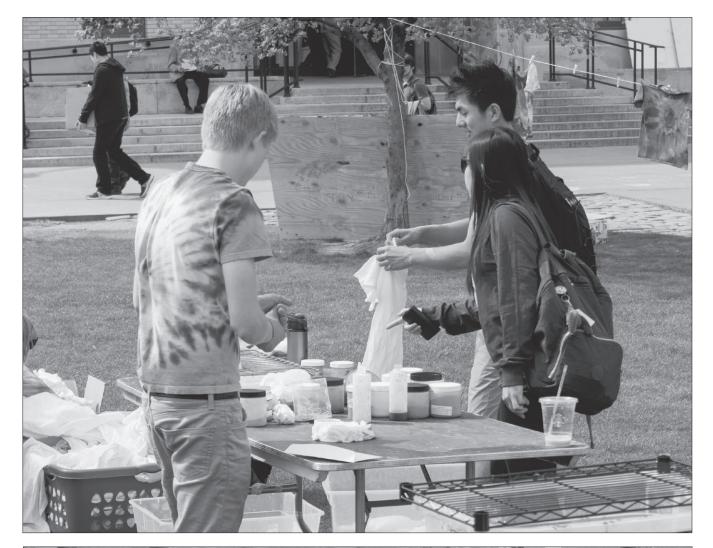
Those who were in favor of financing the positions of student government executives asserted that student government executive positions require a great time commitment, and providing an honorarium might open up the position to those who would not otherwise be able to involve themselves with student government because of part-time jobs.

According to the American Student Government Association, 77 percent of student government officials at American universities are paid.

Junior statistics major and current SBVPF Jalen Poteat said, "I'm for paying student government executives because being in this position, and seeing the amount of time we put into our roles and the type of tasks we have to do in this position justifies an honorarium. With the sort of things we deal with on a day-to-day basis - working with the administration and being the face of the student body - a small token of appreciation would alleviate some of the stress of day-to-day expenses we

See PAYMENT, A3

Peace, Love, and Tie-Dye brings color to CMU





Sigma Nu and Tri Delta hosted Peace, Love, and Tie-Dye last Friday on the College of Fine Arts Lawn. As part of the event, students could buy a white T-shirt to tie-dye or tie-dye their own items of clothing.

Campus Crime & Incident Reports

Underage drinking

April 11, 2014

University Police, CMU EMS, and Pittsburgh city medics responded to the Mall outside of Baker Hall to treat an intoxicated student. The student was cited for underage

University Police and city medics also gave medical assistance to an intoxicated woman at the Spring Carnival concert. The woman was visibly in need of assistance and confirmed to be under the legal drinking age. The woman and three other students were cited for underage drinking at the concert.

Public drunkenness

April 11, 2014

University Police cited a Robert Morris University student for public drunkenness after he fell in front of Doherty Hall and hit his face on the sidewalk. The student declined medical treatment, and was taken to the University Police station until he could

be released into the care of a sober adult.

Underage Drinking

April 12, 2014

University Police and CMU EMS responded to the intersection of Forbes Avenue and Margaret Morrison Street to help an intoxicated student, who was then cited for underage drinking.

Another Carnegie Mellon student was cited for underage drinking after walking through a medical scene at the intersection of Forbes Avenue and Margaret Morrison

University Police also cited a student for underage drinking after he walked through the Greek Quadrangle visibly intoxicated. The student then received proper medical care.

A Carnegie Mellon student was cited for underage drinking after becoming physically ill at the corner of Fifth and Morewood Avenues. The student was given proper medical care.

A student was also cited for underage drinking in Morewood Gardens after police received reports that he was knocking on doors throughout the building.

Domestic Situation

April 12, 2014

University Police responded to a Carnegie Mellon residence hall after receiving a domestic disturbance call. When the police arrived, they found that a male Carnegie Mellon student had initiated a physical and verbal altercation with his girlfriend, who is not a Carnegie Mellon affiliate. After a brief struggle with the police, the student was arrested and taken to Allegheny County Jail. The student has been charged with aggravated and simple assault, underage drinking, and resisting arrest.

The Simpsons cutout theft

April 13, 2014

University Police responded to the Greek Quadrangle after reports of three people stealing cutouts of characters from The Simpsons at 1091 Morewood Avenue. A member

of the AEPi fraternity took pictures of the people who stole the cutouts, and University Police are working on identifying the thieves.

Suspicious Activity

April 14, 2014

University Police responded to the parking lot near Hamburg Hall after receiving reports of a man selling food out of his vehicle. The police escorted the man off of Carnegie Mellon property, informing him that solicitation is not permitted and further incidents will lead to further action.

Lab Theft

April 18, 2014

University Police are investigating thefts from a lab in Doherty Hall that occurred over the last six weeks, resulting in the loss of \$700 worth of equipment.

NEWS IN BRIEF

Ticking metronome causes bomb scare

Police closed down a section of Fifth Avenue between Shadyside and Squirrel Hill on Friday after a resident of the 5600 block called 911 to report a package in her building making an "audible ticking" sound. When the resident found the ticking package, she tossed it out the window of the apartment building.

Lillian Reape, a senior electrical and computer engineering major, said that the police did not let her leave her Fifth Avenue apartment building during the incident. "There is a man yelling through a megaphone at people who go outside or are too close to the window," Reape said during the scare, which took place around 1 p.m.

The package, which was a gift, turned out to be a metronome. The police did not find any explosives.

Kedia, Tayur donate \$1 million to CMU

Alumna Gunjan Kedia (TSB '94) and her husband, Ford Distinguished Research Chair and professor of operations management in the Tepper School of Business Sridhar R. Tayur, recently gave \$1 million to Carnegie Mellon. The pair's donation will support the construction of the David A. Tepper Quadrangle, an expansion of campus stemming from a \$65 million donation from David A. Tepper announced last November.

In a joint statement quoted in a university press release, Kedia and Tayur said, "Our 20-plus years of association with the Tepper School and Carnegie Mellon have been rewarding, both professionally and personally. We are excited to contribute toward and to be a part of the new Tepper Quadrangle, and we look forward to many more decades of being engaged with the university."

Bob Dammon, dean of the Tepper School of Business, said he was thankful for Kedia and Tayur's gift. "In terms of business and entrepreneurship, Gunjan and Sridhar are highly accomplished professionals. In terms of education, they have been outstanding supporters of the school over the years, and we appreciate their commitment to the future of business education," Dammon said in a university press release. "I feel privileged to have had Gunjan as a student in my class and to watch the success that she has earned throughout her career. Sridhar is a wonderful faculty colleague and a highly respected and accomplished researcher and entrepreneur. They are both an inspiration to me and the entire Tepper School community."

Kedia earned her MBA from Carnegie Mellon with distinction at the Tepper School in 1994. She currently serves as executive vice president of State Street Corporation's Investment Services division. Previously, Kedia worked at the Bank of New York Mellon and McKinsey & Company, as well as at PricewaterhouseCoopers. Kedia is also on the Business Board of Advisers for the Tepper School.

Tayur has worked on the Tepper faculty since 1991 and, in 2000, he founded SmartOps, a supply chain management company. He served as its CEO until 2012.

> Compiled by **BRIAN TRIMBOLI**

WEATHER







TUESDAY High / Low

WEDNESDAY High / Low 56/37

THURSDAY High / Low 71 / 49







FRIDAY High / Low 73 / 50

SATURDAY High / Low

SUNDAY High / Low 68 / 44 66 / 48

Source: www.weather.com

Corrections & Clarifications

In last week's issue, it was incorrectly printed that CIA won the Chairman's Choice award for booth. The Math Club actually won Chairman's Choice; CIA did not build a booth.

If you would like to submit a correction or clarification, please email The Tartan at news@thetartan.org or editor@thetartan.org with your inquiry, as well as the date of the issue and the name of the article. We will print the correction or clarification in the next print issue and publish it online.

STUDENT SENATE MEETING MINUTES

Special allocation: Raasta

Student Senate allocated \$752 to Raasta. Junior information systems major Andrew Schwartz spoke about the unexpected cost that the funding was meant to cover; when attending a competition, the Raasta team had to find new hotel rooms after

being displaced from their original hotel. 18 senators voted for the allocation, none voted against, and five abstained.

Special allocation: Mock Trial

Senate allocated \$1,465 to Mock Trial. The funding will compensate Mock Trial for a deficit incurred by missing registration fees from teams who couldn't attend a Carnegie Mellon-hosted competition at the last minute due to weather difficulties. 19 sena-

tors voted for the allocation, none voted against, and five abstained.

Points of discussion

Senate spent the majority of its meeting discussing the issue of paying student government executive members. Senators brought up various points of discussion for and against the issue of including the line item in the slated budget. Senate concluded

the discussion with a motion to send the JFC Proposal to junior statistics major and Student Body Vice President for Finance Jalen Poteat for revision and reexamination.



Farnam Jahanian to become CMU's vice president of research

RESEARCH, from A1

Innovation Institute (NAMII) in Youngstown, Ohio, of which Carnegie Mellon is a member.

"Gary saw an opportunity for Carnegie Mellon engineering researchers and was proactive in organizing and linking our researchers with that opportunity," Garrett said. "As our new vice president for research, Dr. Jahanian will connect researchers across

the university with national and international research opportunities."

Carnegie Mellon is not the first university to recognize the benefits of a high-ranking research official. The Massachusetts Institute of Technology (MIT) currently has a vice president of research; Harvard University has a vice provost of research; and Princeton University has a dean of research. The mission statements for these offices often include the promotion of interdisciplinary work and advocacy on behalf of the university's researchers.

Dan Siewiorek, Buhl University professor of electrical and computer engineering and computer science, has known Jahanian for over 20 years and believes Jahanian will address unmet needs within Carnegie Mellon. In an interview, Siewiorek noted that Carnegie Mellon has

lagged behind some peer institutions in raising funds for large research endeavors.

For example, in the field of interdisciplinary energy research, Carnegie Mellon's Scott Institute has raised roughly \$50 million while MIT's Energy Initiative has raised more than \$500 million. "That kind of thing takes high-level coordination," Sieworiek said. "People lower in the hierarchy are focused on funding students and smaller projects."

Sieworiek explained that while working for the National Science Foundation, Jahanian orchestrated joint projects between the National Science Foundation and the National Institutes of Health. "That showed his ability to bring together groups in Washington," Sieworiek said. Given that Carnegie Mellon has many health-related technologies, the question according to Siewiorek is "how can we [Carnegie Mellon] parlay that into something bigger?"

In addition to his governmental and entrepreneurial activity, Jahanian is currently the Edward S. Davidson collegiate professor of electrical engineering and computer science at the University of Michigan; he has been on leave since 2011 to serve at the National Science Foundation.

Senate debates whether to pay student government executives

PAYMENT, from A1

make throughout the year."

Those in Senate against adding the honorarium to the budget brought up three points: the student government executive's lack of accountability, the variability of each student government executive's responsibilities, and the usability of the student activities fee to finance the honorariums.

The first argument raised regarding accountability mentioned the difficulty of removing officials once they are elected to office. The last time Student Senate tried to remove the SBP from office was in 2012, when the student government moved to impeach Jake Flittner (CIT '12) because he had ceased to perform his presidential duties.

Although Flittner was impeached, he was not removed from office.

Ronner said, "In that case, even if he was impeached, he would still be getting paid money to do that position because he wasn't removed from office. The people who we hire can be fired very easily if someone's not doing their job. Student government-elected officials do not have that sort of accountability; removing someone from office is a lengthy process and rarely happens."

"It's much harder to hold student government officials accountable if they aren't doing their job," he continued.

Other senators against the inclusion of the line item argued that out of the four student government positions, SBVPF was the only position that should be financed because his or her position requires the most work. A point was brought up in discussion about paying each member of the executive committee equally.

"There's another issue about weighing each member of student executive in monetary values. If these positions are so time consuming, instead of paying somebody

for their time, perhaps the job needs to make it restructured so that it is not so time-consuming," Ronner said.

relations and politics and French and Francophone studies double major Ariel Lee said, "I don't think student government executives should be paid positions because the work each person does in those positions is not can do more work but see less results in a given term. I think the people who really do care about our school and want to enact change will be people incentive to do so."

One of the biggest arguments against financing the positions was that the honorariums would come straight out of the student activities fee. At \$1,000 per semester per senator, the JFC would be using \$8,000 of student finances to give the student govern-

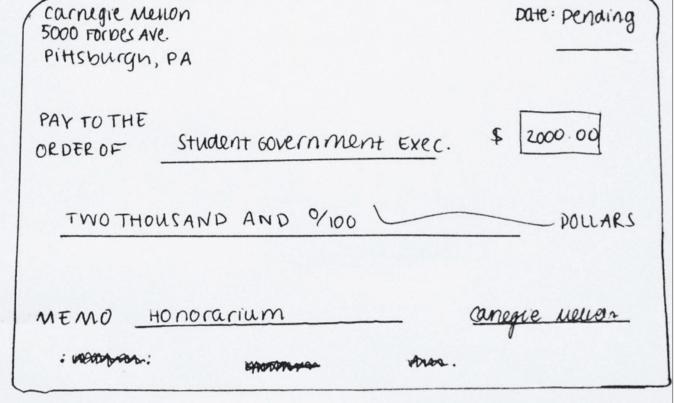
Ronner said, "Senate chose to fund the Arts Pass program last year, but at \$5,000 less than what they asked for. It seems contradictory to not fund five grand to a program that benefits all students and then turn around and pay eight grand to fund a pool of four people. Is paying student executives a reasonable thing to do with student activities

Poteat said, "I think that in the grand scheme of things, if the JFC's task is to effectively allocate student activity fees as well as possible, giving \$2,000 to each student body [executive] — whose role it is to keep the student body happy and maintain the relationship between the students and the administration — is definitely worth it. In the grand scheme of things, the \$8,000 is only a small dip into the bucket of money that the JFC has to allocate."

Sophomore international quantifiable — one person who do not need a monetary

ment executives honorariums.

Those who had mixed feelings about the issue thought that more time was needed in order to promote transparency among the student body,



Michelle Wan/Art Editor

which is currently uneducated

Junior biological sciences major and SBVP-elect Shalini Ray said, "This topic, like any other major change, has many reasonable pros and cons to it. It was a decision made by the JFC and VPF to put in the proposed budget for next year, but there is still a long way to go and much more to discuss before anything gets approved or denied by student government."

In an email sent to members of Senate's Communications Committee, third-year architecture major and French and Francophone studies double major Travis Rozich wrote, "I think the promotion of general awareness is of greater priority than a campaign whose goal is to take advantage of an inherent bias and skew opinions in our favor. Despite what Senate may think (which, though it was largely against the proposal, was still divided on the issue and by no means unanimous), in my responsibility our opinion [sic]

as the Communications Committee is to ensure the proper information is understood by the students, and to open up an avenue for dialogue so that student government as a whole can listen to what their constituents believe."

Many senators felt that the issue of whether or not to give an honorarium to student government executives should be polled via a student referendum.

This is not the first time student government has tried to pass this sort of line item in the budget.

In 2010, a referendum to pay student executive members was attempted, but it did not pass. In that poll from 2010, 473 students supported the line item, 1,029 did not support it, and 509 did not respond to the poll.

"Personally, I am very opposed to paying student government executives," Ronner said. "Restructuring the roles rather than paying people to do them makes more sense."

"I also think that in terms

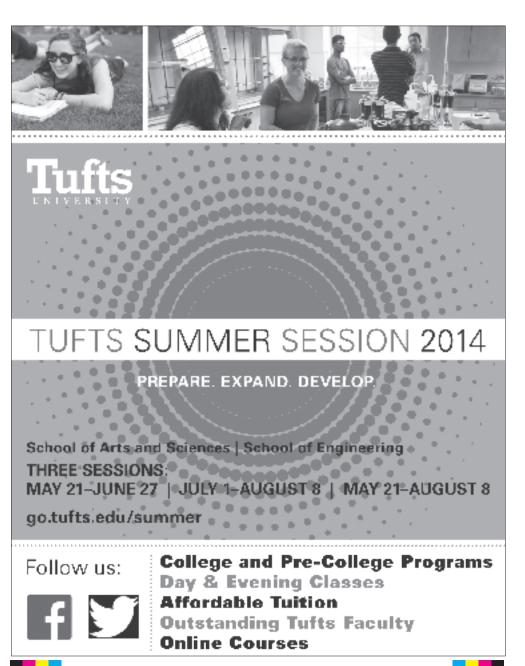
of looking at the function of each role, it makes a lot more sense to pay the VPF and VPO, rather than the SBP and SBVP because they have more nebulous roles in executive. I certainly understand that there are valid reasons for paying exec but I think it needs to be done in a way in which the student body understands and is okay with," he continued.

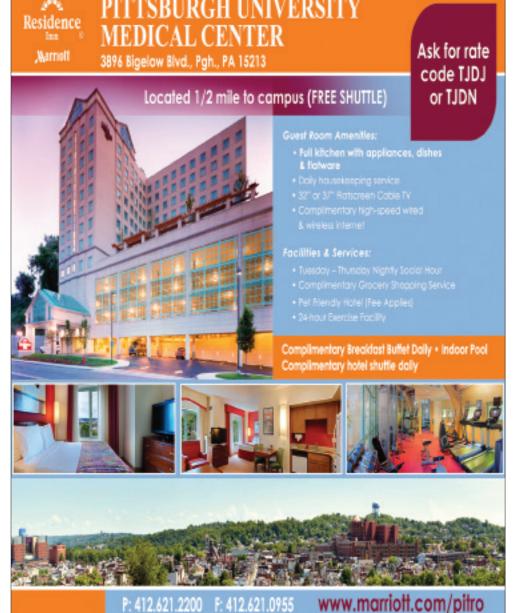
At the joint JFC ratification meeting this Thursday, the budget including the line item which grants honorarium to student government executives will be up for approval by the GSA, Student Senate, and

Poteat, although in favor of the honorarium, said he will not push the issue if it is clear that it will not be approved. "I am in no way going to try to force this to pass if I know it's not," Poteat said. "The Senate meeting was insightful because it let me know how Senate felt about giving student execs honorarium. If we are going to approach this again, we need to lay out all the different options and flesh out all the questions, such as are we against paying student execs in general, getting paid the same amount, getting paid using the student activities fee?"

"As VPF, my overall purpose is to make sure the budget gets slated, so I don't want this to be the issue holding it back," he added. "It's not fair for other organizations not to get their budgets through just for the sake of me and other student execs not getting an honorarium, so I am by all means ready to let it go if it gets to that point."

Student Senate will be making greater efforts to communicate with the student body about this issue, if brought up again in the future. If Senate and the GSA vote to remove the line item this Thursday at the joint ratification meeting, the issue will be closed for this fiscal year. If they do not vote to remove the line item, the issue will be discussed again and voted on, potentially separately from the existing budget.





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Moore to serve as Dean of SCS

TRANSITIONS, from A1

search has largely focused on health care economics, and he has sat on the Board on Health Promotion and Disease Prevention of the Institute of Medicine.

When he announced Kadeparture, University President Subra Suresh wrote that Kamlet, "has been a consummate university citizen in taking on numerous assignments in addition to his primary role as the chief academic officer," adding, "I am enormously grateful to him for agreeing to extend his long and devoted service to the university during the past year in order to ensure a smooth transition of leadership during my first year as president."

Kamlet plans to take a sabbatical after his departure and then return to the university as a faculty member.

Regarding finding a longterm replacement for these positions, Suresh said in his announcement, "I will be developing the plans for a national search to identify academic leaders as we examine the roles and responsibilities of the provost and executive vice president. As is common practice during leadership transitions, we will also have an opportunity to assess the evolution of the university over the past decade or more in light of the current opportunities and challenges faced by the global CMU community. We will also evaluate various internal and external factors influencing the university and higher education."

Nathan Urban, the Dr. Frederick A. Schwertz distinguished professor of life sciences, and head of the department of biological sciences, will serve as interim provost. According to Carnegie Mellon's website, the provost is "the chief academic officer of the institution" whose job is

to be "committed to advancing the university's academic agenda and works closely with deans and department heads, research centers and institutes to ensure the university is implementing programs that foster the academic vision and mission of the organization."

Urban joined the university as a faculty member in 2002 and, in 2005, was named one of the top 50 leaders in science and technology by Scientific American.

Urban said via email, "It is a great honor to be selected by President Suresh for this position. The rise in CMU's reputation in research and education has been one of the great success stories in higher education in the last few decades. This rise has been achieved largely because of the incredible energy and creativity of CMU's faculty and students." He continued, "As the landscape of higher education in the US and across the globe changes, I hope that even in this interim role, I can contribute to creating the conditions that allow CMU's faculty and students to achieve even more in the years to come."

Current dean of Dietrich College John Lehoczky is stepping up as interim executive vice president.

Lehoczky has served as head of the statistics department and helped lead the Dietrich College's Humanities Initiative. He is also a member and fellow of numerous mathematics and statistics associations.

Lehoczky said he was "stunned" when he learned of his appointment to the position and was happy to be "ioining a team that's trying to lead the university." Lehoczky aims to work with Carnegie Mellon's leadership during his time in this position to "keep the university on the meteoric path it's on."

Lehoczky also spoke well of Kamlet, saying, "I would want the campus to know how outstanding Mark Kamlet was in these roles," adding, "he's been an outstanding force in the development of this university."



Current Dean of Dietrich College John Lehoczky will serve as the interim executive vice president after Kamlet steps down.

CARNEGIE MELLON SCHOOL OF MUSIC 2013-14 CONCERT SERIES CMU Philharmonic Andrés Cárdenes, Artistic Director Kryzsztof Rucinski, violin Wednesday, April 23, 8pm Carnegie Music Hall, Oakland Free with a CMU ID music.cmu.edu f

Seniors share CMU experiences

LECTURES, from A1

computer science Afnan Fahim said "I thought it was awesome. It was nice to see [Chadderton] put it all together. Nice to see that culmination."

MacGillivray took a slightly different approach to the topic of success. She opened her presentation with various pieces of advice she'd received in her life, such as, "you learn the most from your friends," which one of her friends told her, and "always undercook your brownies," which her mother told her.

MacGillivray also discussed her academic troubles at the inception of her career here at Carnegie Mellon. She struggled, but thought that her difficulties meant that she should be at a different school. She described taking a particularly difficult calculus exam, and then crying after the test. "I thought I didn't belong here because I couldn't ace that calc exam," MacGillivray said.

Unfortunately, this became a circuitous problem. As a former mechanical engineering major, MacGillivray was unhappy with her coursework. She said "I didn't like what I was studying, so I didn't work very hard, so I didn't do well, which meant I didn't like what I was studying." Ultimately, MacGillivray changed her major to biology and psychology, with a minor in biomedical engineering,



Senior biological sciences and psychology major Lindsay MacGillivray explained her definition of success in "The First Lectures" on Thursday.

and more successful in her

The next point in MacGillivray's lecture was a more scientific examination of what success is. She described a process of looking at brain scans and reading a wide variety of studies on what happens in the brain when people feel successful. She came to the conclusion that success begets success — as the feel-

and became much happier ing of success makes one part of the brain light up, these chemical signals can travel to different parts of the brain, which continues the cycle. MacGillivray emphasized that an important part of feeling successful is checking on one's endeavors more frequently.

The New Year only comes once a year, and for many people, their resolutions fall by the wayside by February. GPAs, MacGillivray said, are slightly better, because those checks happen at the end of a semester, but are still too infrequent. "We're checking after ... the numbers have been set in stone," MacGillivray

MacGillivray instead urged her audience to break success down into more manageable sizes. "I propose we look at success in smaller pieces," she said.

MacGillivray also stressed the importance of changing tactics that are not effective. "If you haven't been successful once, you can't just try harder."

The audience remained engaged throughout both speeches, and their reactions were generally positive.

Fourth-year architecture major Katy Marino said, "I really liked how both of them were defining success.... It was great to see them speaking in a formal setting. They were both really well done, and well organized."

Sophomore electrical and computer engineering and engineering and public policy double major Evan Wineland said, "I thought it was really insightful. Vaasavi saw a need for something on campus, and she took charge of the entire process. It was cool hearing from seniors in this capacity, and it's a conversation we don't have quite enough."



Michelle Wan/Art Editor

Senior civil and environmental engineering and engineering and public policy double major Colin Chadderton had audience members play COLIN, a twist on BINGO.



Chadderton asked the winners of COLIN questions and then offered to take them to their favorite meal.

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Science & Technology

Dangerous Heartbleed bug may bleed your online accounts

NIVEDITA CHOPRA Assistant Copy Manager

It's likely that you have heard of the Heartbleed bug, which recently made headlines in the technology community.

Although the bug began as a simple code mistake that occurred two years ago, its consequences have propagated across the Internet and have only recently been independently discovered by Neel Mehta of Google Security and a team of security engineers at Codenomicon, according to heartbleedbug.com.

The bug had such farreaching consequences that a number of private and public companies hurriedly deployed the bug patch, and sent their customers emails urging them to change their passwords because their accounts may have been compromised. The campus community also received an email from Official Communications, informing them that Computing Services was looking into the issue and that Andrew passwords did not need to be changed because the university's web login at login.cmu.edu was not affected by the bug.

a serious vulnerability in OpenSSL, a library that is widely used to encrypt private data, such as passwords and financial information, that is protected by the Transport Layer Security (TLS) and Secure Sockets Layer (SSL) cryptographic protocols. This bug allows hackers to steal protected information without leaving a trace, and, thus, threatens security and privacy over the Internet.

The Heartbleed bug takes advantage of the heartbeat option in the SSL protocol, which is a way for a client computer (e.g. your computer) to check if the connection to the server is still at the other side of the connection, because sometimes the connection is dropped if a computer is inactive for too long. The client computer sends the server a message containing three things: a request for confirmation, a randomly chosen word, and the number of letters in that word.

The server sends back a message containing the same word, confirming that it is still on the other side of the connection.

The following slightly simplified conversation, from The Heartbleed bug is xkcd.com, highlights how the



Eunice Oh/Assistant Art Edito

heartbeat operation works:

Client: "Server, are you still there? If so, reply 'POTATO' (6 letters)." Server: "POTATO"

The Heartbleed bug lies in the fact that the server does not check that the word it has been asked to repeat is of the same length as the number specified by the user. For example, in the above exchange, the computer didn't check that the word "POTATO" is actually 6 letters long and trusted that the user provided the correct information. A malicious user can provide a large number and then get access to private information about other users, which is stored in the server state. The following is another simplified conversation, this time a malicious one, from xkcd.com:

Client: "Server, are you still there? If so, reply 'HAT'

(500 letters)." Server: "HAT. Lucas requests the 'missing connections' page. Eve (administrator) wants to set the server's master key to '14835038534'"

As you can see, the malicious user now knows the master key for the server and can exploit that information. The seriousness of the vulnerability lies in the fact that the malicious user can request as many as 64,000 characters with each message and can repeatedly send these messages, getting different pieces of information each time, as the server's internal state keeps varying depending on the requests that it receives. This type of attack leaves no trace of malicious activity and is hence hard to detect.

Since a lot of major websites use OpenSSL to encrypt their data, the Heartbleed bug has made many accounts vulnerable. A survey conducted by W3Techs showed that 81 percent of websites run on web server programs Apache and Nginx, both of which use OpenSSL. A new version of OpenSSL, with the necessary bug fix, has been released. Most software vendors have promptly updated their sys-

tems to the new version, but a few have yet to do so. However, despite the fix, if hackers were aware of the bug before the fix, they may have obtained a lot of information and may be able to use this information to their advantage.

The silver lining is that you can take steps to minimize the chances of your online accounts being hacked.

Changing your password once the website has implemented the fix will secure your account because hackers will only have the old information and, thanks to the fix, can no longer get your updated password. If you receive an email from any service provider asking you to change a password, you should do that as soon as possible. According to mashable.com, you should change passwords for your Google, Facebook, Instagram, Tumblr, Netflix, Venmo, Dropbox, and Github accounts, among others, because they were vulnerable to the Heartbleed bug when it was detected, and have now patched their systems.

It may be a good idea to change passwords for your other online accounts as well, just to be sure that all your accounts are secure.

HOW THINGS WORK

Google and Facebook race to provide faster Internet

ROHAN VARMA

Assistant SciTech Editor

The United States began developing and using Unmanned Aerial Vehicles (UAVs) in the early 1900s. They have been used to spy on other countries, attack enemy bases, and even track the movement of our forces in

Sometimes, it seems especially because of recent National Security Agency (NSA) spying scandals — that we will soon see top-secret puts them outside the authorgovernment drones flying over us to monitor our lives. However, it turns out that the first drones that will be flying above our heads won't be spying on our lives; they will be bringing us faster Internet.

In the last few years, Google and Facebook have been neck-and-neck in a race to provide fast, reliable Internet to people across the world. In pursuit of this goal, both companies are looking to develop Internet drones that will fly over the world and provide Internet access where ever they go. Instead of beginning the development process from scratch, both companies have recently purchased drone companies; Google bought Titan Aerospace and Facebook bought Ascenta.

The drones themselves utilize technology that give them both sophistication and longevity. According to Motherboard, the wingspan of each drone is about 50 feet, and all 50 feet are covered with solar panels. These solar panels provide power to the drone and allow them to remain flying in the air for up to five years at a time. This ability makes them the ideal Internet provider because they can remain in the air for great periods of time without having to be serviced or closely moni-

These drones will fly at altitudes in the atmosphere of 60,000-70,000 feet, making them pseudo-satellites. Not only does this height allow them to reach a broad range of locations at once, but it also ity of the Federal Aviation Administration (FAA). The FAA has authority over all aircrafts flying at a range below 60,000 feet. By flying above this height, Google and Facebook will not be under the jurisdiction of the FAA and will have a lot more flexibility in terms of what they are able to do with their planes.

While flying above the Earth, these drones will provide Internet users with blazing fast Internet speeds that dwarf current speeds provided through landlines. According to PolicyMic, the average Internet speed in the United States is currently 8.5 megabytes per second, and Ephreta, Washington is the city with the fastest connection at an averge of 95 megabytes per second. With that in mind, it is astonishing that the drones are projected to provide a speed of 1 gigabyte per second (1 gigabyte is 1,000 megabytes).

One potential method of transmission that Facebook's Connectivity Lab is experimenting with is a new technology called Free Space Optics. This technology is essentially a laser that transmits energy through infrared light. While this technology is extremely effective at transmitting information, it has its drawbacks. For example, it requires a direct line of sight. Creating this line of sight is the equivalent of trying to hit a dime from 10 miles away. Despite this challenge, Mark Zuckerburg, founder and CEO of Facebook, believes that his company will have an initial prototype of the system up

and running soon. In addition to improving Internet connections, Google is looking to use the drones to enhance its current lineup of services. Currently, Global Positioning Systems (GPS) and weather services provided by Google are enabled using satellites in space that do not belong to Google. With drones, Google will be able to completely control the machines collecting the information and will be able to provide live updates on things like weather and traffic. Additionally, the information will be more accurate and up-todate because the drones will be closer to Earth.

While both companies are looking to monetize the skies with this new technology, the result of their work has very philanthropic benefits. Of the 7 billion people on this planet, only 39 percent of the world population uses the Internet, according to the International Telecommunications Union. With drones in the air, this number could drastically increase.

According to TechCrunch, in a recent speech, Zuckerburg cited a study from Deloitte that indicated that increased Internet usage could generate 140 million new jobs and lift 160 million people out of poverty in the United States alone. Not only does it connect people to their friends and families, but it is a vital resource that is economically empowering. The Internet allows people to find jobs, become entrepreneurs, and even have a bigger voice in their community.

If you need any more convincing on the importance of these drones, ask yourself: what would you do without the Internet?

Cryonics technology cannot yet unfreeze frozen people



ALINE NARODITSKY Staffwriter

Until recently, the topic of cryonics — freezing one's body to be thawed years into the future, presumably when medicine is more advanced — was a mythical discussion. However, today, it is becoming a reality. According to the Alcor Life Extension Foundation, the largest cryonics services provider in the world, approximately 270 people have undergone cryopreservation procedures since the idea was first introduced in 1962. Although still incredibly controversial, cryonics is no longer theoretical; it is a science with potential consequences that could weigh heavily in the upcoming

The process of freezing human flesh causes a variety of problems. Michio Kaku, the Henry Semat professor of theoretical physics at the City College of New York, argued in a Big Think video that freezing the water inside cells will cause the cells to expand, eventually causing them to

burst. Therefore, reviving a person from the frozen state is not only ethically questionable; it may be altogether impossible, Kaku said. He also argued that cryonics is merely a deception for the wealthy. If only those who can afford to be frozen have a chance at survival in the future, how will that affect future society?

Max More, CEO of Alcor Life Extension Foundation, directly responded to Kaku's claims in a publicized Alcor video. First, he explained that people can make cryonics scientifically possible if they freeze water on the outside of the cells, rather than on the inside. He then went on to say that people can pay for the process with a policy similar to life insurance, which would not be significantly more expensive than a typical life insurance plan. More even invited Kaku to visit the cryonics labs and see for himself.

One of the main debates surrounding cryonics is timing. Currently, it is legal only to freeze a body after the person has been declared dead



Eunice Oh/Assistant Art Editor

by medics. Because freezing a person who is still alive will cause his or her imminent death, freezing live people is considered assisted suicide and is not permitted under United States law. However, it is imperative that the person be frozen as quickly as possible; once the deceased is pronounced brain dead, there is no further use in freezing the body, as that person would not be able to be revived again in the future.

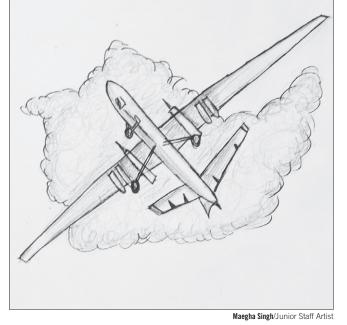
On the other hand, it may be senseless to wait until someone is pronounced legally dead. By that time, it could be too late. If cures for illnesses, such as cancer are discovered, it is unlikely they will work quickly enough to help a person who was already near death. However, if frozen at an earlier time, that person may stand a chance.

The other part of the debate assumes that cryonics will be successful and focuses on the future of men and women who will be thawed. An important question to ask

is the one of guarantee: Who will guarantee that the people who have undergone cryonics will then be defrosted at some point in the future? Supposing even that they are able to be saved, what kind of world will they experience? Many years into the future, they will not have family they know and it is likely that any money they once had will be completely devalued. Will the government be responsible for taking care of them?

Cryonics does not promise immortality now, but it may be possible to extend life permanently in the future. In that situation, will overpopulation become a more relevant question? Will people be able to sustain this larger population? Cryonics is a topic that will likely remain controversial for the coming decades.

Student Pugwash is a nonadvocacy, educational organization that discusses the implications of science. This article is a summary of their discussion on the ethics of cryonics.



A6 « thetartan.org/scitech The Tartan » April 21, 2014

Epigenetic patterns found in tumors

Staffwriter

Scientists are quickly learning that the hardwired code within the arrangement of DNA bases does not fully determine the fate of an individual organism. This current understanding is built on the idea of epigenetics — that DNA expression can vary between individuals and is not caused by specific changes to the DNA sequence itself.

Héctor Corrada Bravo, an assistant professor at the University of Maryland Institute for Advanced Computer Studies and Center for Bioinformatics and Computational Biology, gave a seminar at Carnegie Mellon last Friday, sharing his team's research exploring the epigenome — a record of the chemical changes to DNA and histone proteins - of tumor cells for detectable patterns.

Every cell in an organism is a descendant of the same original stem cell and, thus, all contain exactly the same code of DNA. The cells use the DNA to construct the necessary proteins for function. However, in each type of cell, a unique group of all the possible proteins will be made in that cell that determines the cell's specific function. Bravo explained that his team's goal is to look at the epigenome of tumor cells and identify patterns or specific regions of the DNA that are uniquely active in the cancer cells.

The challenge of studying the epigenome is that there are no specific changes in the DNA sequence that identify that a gene is activated at any given time. Bravo's team became the first group to utilize whole genome bi-sulfite sequencing to help identify these activated genes in the genome of cancer cells.

The technique is based on the idea of DNA methylation,



Courtesy of Hector Corrada Bravo

Héctor Corrada Bravo spoke at a computational biology seminar at Carnegie Mellon last Friday.

the binding of methyl groups to cytosine bases that commonly follow guanine bases within the DNA code. Simply put, high methylation has been hypothesized to contribute to a higher silencing of genes so fewer genes are expressed as proteins.

When the DNA is treated with bi-sulfite, cytosine bases that are not methylated are converted to uracil, another sugar base that is only found in RNA molecules. Cytosine that is bound to a methyl group remains cytosine. This DNA can then be sequenced and the cytosine bases in the DNA that remain are the ones that have been methylated.

For each cytosine site in the DNA, Bravo's team calculated the probability that the site was methylated in cancer cells. This analysis helped his team observe patterns in the genome to identify more active genes in the cancer cells.

First, in their analysis with colon cancer, the team initially found that the genes that were less methylated were hyper-variably expressed, meaning their expression exceeded that of a normal cell.

Bravo claimed, "Instability at the DNA methylation level leads to instability at the gene expression level."

The researchers further explored the areas of the genome that were hypervariably expressed and saw a large number of potential genes that have been linked to cancer in other research. Cancer cells are cells that are experiencing an unregulated system of growth. There are numerous proteins that, if over-expressed in the cell, could cause the cell to grow at much higher rates, causing

After seeing this correlation with their data, Bravo and his team expanded their research and explored other cancers, such as lung, breast, and thyroid cancer. Their results showed that all the tumor types lose methylation in many cancer-specific genes.

Furthermore, Bravo explained their curiosity in whether methylation levels varied in different stages of tumors. Once again, their results proved that cancers which were further along and those capable of metastasis — the ability to spread in the body — had lower levels of methylation in specific

Bravo explained that the repeated correlation that he and his team saw led them to believe that "there was something deeper at play." They felt that these patterns should be explored further in depth.

Currently, the team is looking at cancer cell populations and comparing the epigenetic expression among the different cells in the population. They are actively working on a complex algorithm that generates a directed graph of all the possible methylated sites in the genome.

The algorithm Bravo and his team developed uses the graph to find the minimum cost path from the start to the end. In doing so, it identifies patterns in the genomic data, which can be extremely useful for more efficient cancer detection.

More importantly, it will lead to a deeper understanding of the biological roots behind the causes of cancer. Identifying these hyper-variable genes will contribute to better gene therapy and drug development.

Collaborators of Bravo's work include Winston Timp, assistant professor of biomedical engineering at Johns Hopkins University (JHU); Andrew Feinberg, director of the Center for Epigenetics at JHU; and Rafael Irizarry of the Dana-Farber Cancer Institute at Harvard University.

SCITECH BRIEFS

Autism detection is quicker, easier

A team from the Children's National Health System, along with other researchers, have discovered that head circumference and head tilting reflex can identify autism spectrum disorders (ASD) in children between nine and 12 months old.

Previously, there has been no form of screening for children this young. Traditionally, ASD is identified in children between two and four years of age through the use of the M-CHAT questionnaire that must be completed by

The new screening technique gives physicians a quick, easy way to determine which infants are at risk of developing ASD, which can lead to quicker treatment of the disease.

Source: Science Daily

Nanoparticles to deliver more drugs

Researchers at the Massachusetts Institute of Technology, including assistant professor of chemistry Jeremiah Johnson, have developed new methods for building nanoparticles so that they can deliver more drugs.

Previously, building a nanoparticle involved first designing the carrier particle and then attaching the drugs to be delivered. Since one drug could be integrated inside of the particle and another drug could be attached to the outside, these nanoparticles were only capable of delivering up to two drugs. Johnson's method involves the design of building blocks that already contain drugs.

Source: Science Daily

Rat oesophagi are transplanted

Researchers at Karolinska Institutet in Sweden along with Paolo Macchiarini, the director of the Advanced Center for Translational Regenerative Medicine at Karolinska Institutet, have developed a new method for transplanting oesophagi.

The team created the regenerated oesophagi by removing all the cells from the oesophagi of rats and leaving the scaffolding, which encompasses structure and chemical properties. Bone marrow cells were then added to the scaffolding and within three weeks were observed to adhere to the scaffold and show organ-specific characteristics. These tissues were used to replace segments of the esophagus in

Source: Science Daily

New moon forming around Saturn

New studies led by Carl Murray of Queen Mary University of London suggest that a new moon might be forming around Saturn. Images taken by NASA's Cassini spacecraft on April 15, 2013 show an arc around the outside edge of Saturn's rings that is 20 percent brighter than surrounding matter.

Scientists now believe the arc is a mass of ice, at most half a mile wide, that could be a new moon. The researchers named the mass Peggy and plan to study it in more detail in 2016 when Cassini is closer to the potential moon.

Source: The Huffington Post

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April 21, 2014 « The Tartan thetartan.org/scitech » A7

Dashboard helps workers understand their electricity use

BROOKE KUEI SciTech Editor

One of the benefits of living on campus or through Carnegie Mellon housing is that you never have to worry about your electricity bill. Unfortunately, you are probably unaware of how much energy you're using and may be unknowingly wasting a lot of energy. Ray Yun, a Ph.D. candidate in the computational design program in the School of Architecture, has developed an Intelligent Dashboard that allows employees to see how much energy they use at work in hopes that they will consequently reduce their energy

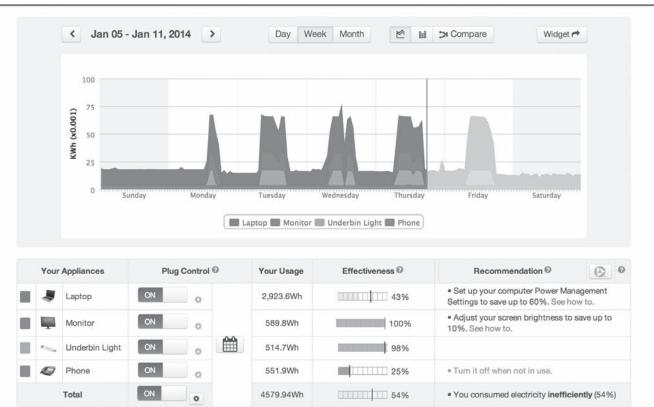
The members of Yun's team include Vivian Loftness, a current architecture professor and former head of the School of Architecture; Azizan Aziz, Bertrand Lasternas, and Chenlu Zhang, researchers in the School of Architecture's Center for Building Performance & Diagnostics; Peter Scupelli, assistant professor in the School of Design; and Yunjeong Mo and Jie Zhao, graduate students in the School of Architecture.

Yun emphasized that many projects in the Center for

Building Performance & Technology are a collaboration between individuals from many different disciplines, such as engineering, computer science, and human-computer interaction. The group is funded by the U.S. Department of Energy's Energy-Efficient Build-

"The motivation of this project is that typical office workers don't get the electricity bill, so they don't know how much energy they consume at work," said Yun. "They also don't pay the electricity bill, so they have no incentive to put effort into saving energy at work." The research team wanted to explore if there was an effective way to not only help employees understand how much energy they use at work, but also to help them manage their consumption at work in a way that can benefit the environment.

The Intelligent Dashboard is an online application that is used with a meter manufactured by Plugwise that measures electricity usage, as well as allows for remote control of the electricity. The main features of the dashboard are a graphical representation of the real-time usage of each of your electrical devices



The Intelligent Dashboard includes various features that allow its users to understand how they can improve their electricity usage

(such as laptops, monitors, and phones), a color-coded rating of the effectiveness of your electricity usage for each device, and recommendations for how to reduce your electricity usage based on your

current habits. There are also on-off switches in the application that allow users to control their devices remotely. "So if you are at home and you realize that you forgot to turn off your light at work, you can still control it remotely," said Yun.

There is also a calendar feature that allows the user to tell the system when to turn specific devices on and off. "The feature gives you a calendar, and you can make a weekly schedule on it. Based on this schedule, the system will turn devices on and off, instead of the user doing it," explained Yun. Another feature allows the user to see the impact that their behavior will have on the scale of the entire company. It shows the costs and savings to the entire organization that would result if every employee in the building behaved in the same way as the user.

To see how the Intelligent

Dashboard can impact the energy consumption within a real company, Yun's group conducted a study on 80 employees at a major Pittsburgh corporation that uses Plugwise products. The employees were divided into four groups, each of which had different versions of the dashboard. "The first group doesn't have the control and the calendar; they only have the informational strategy. The second group doesn't have the calendar but they have everything else. The third group has everything, and the fourth group was not introduced to the dashboard," explained Yun.

Before the dashboard was introduced, the research group collected 14 weeks of baseline data to understand the typical electricity usage of the company. After that, there was a 13-week system deployment of the dashboard. There

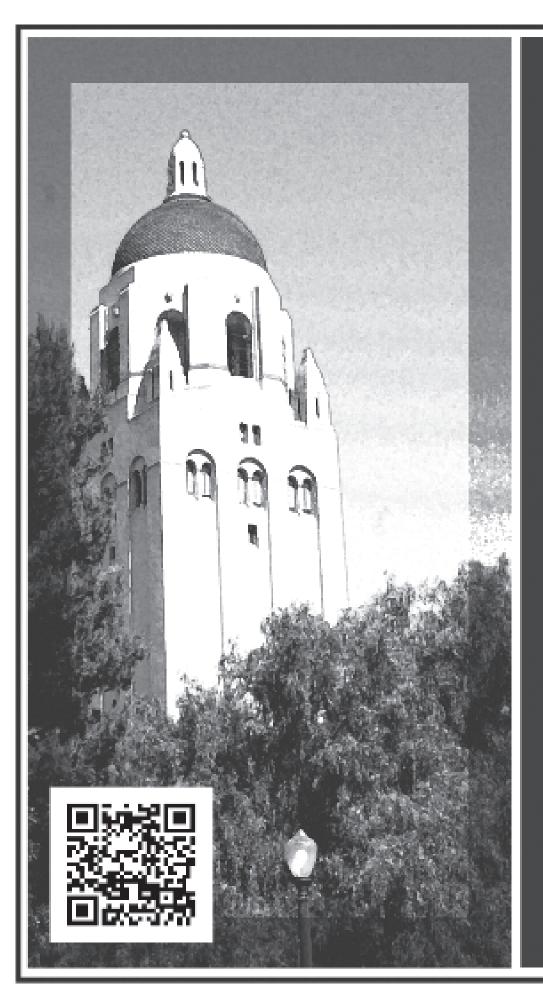
was then a third phase during which the dashboard was removed — this occurred about a month ago — to see if the savings which occurred during the dashboard implementation phase persisted.

They found that the group with only informational strategy showed a 13 percent decrease in energy usage, the group which only lacked the calendar showed a 25 percent decrease, and the group with the full dashboard had a 38 percent decrease.

According to Yun, if every individual in the company behaved like those in the group with 38 percent energy savings, the company would save 70 thousand dollars a year. "And this is only for individual devices," said Yun. "If we consider common devices like the printer or kitchen devices, there will be an even bigger impact."



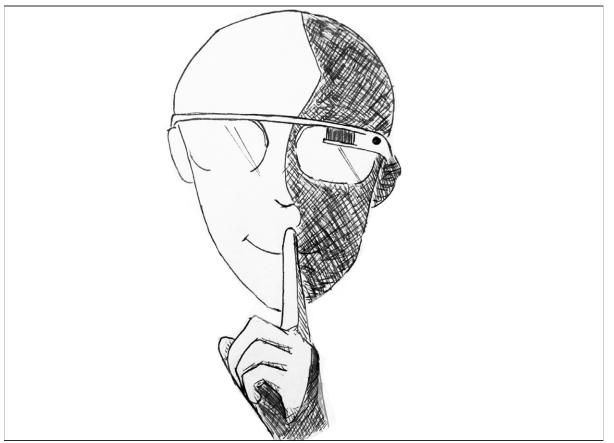
Architecture graduate student Ray Yun helped develop the Intelligent Dashboard





Horum

FROM THE EDITORIAL BOARD



Kyung Min Lee/Staff Artist

Google Glass hurts privacy, social interaction

Last Tuesday, Google Glass was available for purchase by the public for one day. As with most technological developments, this piece of technology brings new ethical and social questions to the table.

Many see the biggest issue, like most recent breakthroughs to other technological products, to be one of privacy. But in this case, a whole new dynamic between the rights of individuals is established.

People should have the right to buy a commodity such as Google Glass on the market. But what if this good allows people to record videos, take pictures, and post them to the web without allowing any indication to others who may be captured in the pictures and videos? Don't people have the freedom to control their entrance into the broader public sphere, and the freedom to enjoy a meal across the table from another person with the technology without worrying that their every word is being recorded?

Privacy is a tricky subject, but in the end Google Glass is not the be-all and end-all of privacy concerns in terms of recording private conversations or tracking a person's movements.

Those who wish to record private moments already have other means of doing so, though Google Glass does make this ability more widely available. And those who wish to track someone can already rely on the individual's cellphone.

The real issue with Google Glass is what it will do to social interactions. The world is already plagued by smartphones intruding into conversations, meals, and dates. It seems questionable whether humans can resist the temptation of constant connectivity during real-world interactions, or if technology will get in the way.

Last week, NPR reported on the effects of parents' smartphone use on their children, concluding that parents' excessive use of technology causes children to feel exhausted, frustrated, sad, and angry in fighting to get their parent's attention — a response similar to sibling rivalry. And that's just due to smartphone use. How much worse will the problem get if the device is actually put on their face?

In the end, the fallout from Google Glass will be entirely dependent on the consumer's response. Maybe one day we will realize that the upgrade isn't worth the downgrade in our social interactions and, ultimately, our quality of life.

Pulitzer right for awarding Snowden coverage

Last week, the Pulitzer Prize Board announced the 2014 Pulitzer Prize winners. The Guardian and The Washington Post won the Public Service Award for their respective pieces on the National Security Agency (NSA)'s massive surveillance programs on ordinary citizens.

The NSA scandal — especially Edward Snowden, the main informant in that scandal — is a topic of hot debate in the public forum right now. The Tartan commends the Pulitzer Prize Committee on its commitment to rewarding the augumentation of public knowledge, even when that expansion of understanding is politically inconvenient.

While very few people are comfortable with the scope of the NSA's investigations, many decry Snowden as a traitor. In fact, Snowden was forced to flee the country or stand trial for leaking highly classified information.

According to ABC News, Peter King, (R-N.Y.) said, "To be rewarding illegal conduct, to be enabling a traitor like Snowden, to me is not something that should be rewarded with a Pulitzer Prize." In contrast, the administrator of the Pulitzer Prizes and professor at the Columbia University Graduate School of Journalism Sig Gissler said that the articles "helped stimulate the very

important discussion about the balance between privacy and security, and that discussion is still going on."

While Snowden's actions were undeniably illegal, they may have been in the public's best interest. By commending The Guardian and The Washington Post for acting on the information Snowden disseminated, the Pulitzer Prize committee acknowledges that an act that began as a crime was a public service.

The relationship between criminality and morality is often a complex one. The Pulitzer Prize committee refused to shy away from that tension and should be commended for that choice.

India's new ruling advances trans recognition

Last week, India's Supreme Court ruled to accept transgender individuals as a third gender, a massive step forward in gender recognition. Now transgendered people have the option to identify as this third gender, eliminating the traditional binary gender system still used by most developed nations. This ruling seems like a natural political progression for India, whose Election Commission ruled in 2009 that voters could register with "other" as their gender. In addition to India, Bangladesh and Nepal have also officially recognized a third gender, while nations such as the United States have not.

It is important to provide a third

gender option other than the "male" or "female" identity. This binary decision forces transgender individuals to align themselves with one of two identities which they may not feel comfortable characterizing themselves as.

Other nations should adopt this system based on the simple notion of inclusion. Forcing someone to adopt a label they feel does not describe them is an unfair constraint placed on members of a group, which, unfortunately are often subject to societal marginalization as it is.

That being said, India must still revise various laws that are holding it back from universal acceptance of its citizens. In 2013, Indian courts reinstated a law, that had previously been struck down in 2009, criminalizing homosexual actions, meaning that homosexual acts currently are punishable by a 10-year prison sen-

India's Supreme Court has made an excellent step toward creating greater acceptance of transgender people within their nation. It can only be hoped that many other nations will follow in the near future. However, there is still room for improvement in accepting different kinds of people, and promoting tolerance should be an important consideration for all nations.

Election of Modi is threat to India's large democracy

MOHAMMED BURNY

Junior Staffwriter

India, the world's largest democracy, is at the polls right now.

The sheer size of India's democracy is mindboggling. Its national election, held every five years, has nine phases and occurs over five weeks. It will be the largest election in the history of the world, according to bloomberg.com. Nearly 815 million Indians are eligible to vote in this election, a number equal to the combined populations of America and the European Union. By May 16, when election results are announced, India will have spent roughly \$5 billion on this election, according to TIME magazine, second only to the \$7 billion Americans spent on the 2012 presidential election.

India's National Congress party has wielded political power since it gained independence from Great Britain in 1947. But deepening concern about rising prices and rampant political corruption has led Indian voters to look twice at the Bharatiya Janata Party (BJP) instead. In an era of tepid economic growth, the rightwing BJP is running its candidates on a savvy pro-business campaign. But this party's ideological grounding in Hindu nationalism - emphasized by the checkered political past of Narendra Modi, its candidate for prime minister of India — demands our scrutiny.

Pre-election polls indicate that Modi will likely become India's next prime minister. He has served as chief minister of Gujarat since 2001. Gujarat, unlike other Indian states, boasted a brisk 10 percent annual growth rate during these years. Today, it is one of the richest states in India. Many of its residents credit Modi's pro-business economic policies for their prosperity. They eagerly anticipate his election to the prime ministership of India so that all of India may enjoy such econom-

However, Modi's tenure as chief minister of Gujarat is not without blemish. On February 27, 2002, a train carrying several hundred passengers burned near Godhra, in Gujarat. Fifty-eight passengers, mostly Hindu pilgrims and many of them women and children, died in the fire. Rumors that Muslim arsonists were responsible for this accident triggered a rash of anti-Muslim violence throughout Gujarat. The Indian government estimated that 800 Muslims were killed in the violence. Unofficial figures estimate the number of Muslims killed was closer to 2,000.

I ask the reader to excuse me for cataloging some of these atrocities, but it is morally incumbent upon us to consider them now, when the world's largest democracy is about to elect Modi to its highest political office. In the days following the burning of the train in Gujarat, Muslim children were forced to drink gasoline and then set on fire. Muslim infants were speared, held aloft, and thrown into bonfires. Muslim women and girls were gang-raped. The bellies of pregnant Muslim women were slit open and their fetuses thrown into the streets. Hindu mobs barricaded and flooded Muslim homes and electrocuted the families inside.

While this violence was convulsing Gujarat, Modi was, at best, doing nothing to stop it. Less charitable critics, such as Human Rights Watch, have asserted that Gujarat's police officers participated in this

Arundhati Roy, India's leading woman of letters and a fierce critic of its capitalistic policies, recently described Modi in an interview with Democracy Now! as "an extremely hard and cold-blooded chief minister best known for having presided over a pogrom against Muslims in Gujarat."

While her politics necessarily predispose her against Modi's candidacy, she correctly stated that Modi has never directly expressed his regret for the 2002 Gujarat violence. In fact, the closest Modi has come to such an expression was in a Reuters interview in 2013, in which he compared his feelings to those of a driver involved in an accident: "...if a puppy comes under the wheel, will it be painful or not? Of course it is." Such a statement is needlessly callous, if not darkly revealing of the smallness of Modi's politics.

India is going to the polls right now, and there is nothing we can do to prevent Modi's election to the post of prime minister. But perhaps it is not too little to keep before us this shameful political history of the man who will preside over the largest democracy in the world. Such insistent memory may prove the strongest bulwark against the recurrence of state-sanctioned violence in India during Modi's likely tenure as prime minister, and our only way of redeeming the unprecedented act of democracy currently underway in India.



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THE TARTA



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Cut federal power, eliminate oligarchy

A recent study that's gaining a lot of attention describes the United States as an oligarchy — serving the interests of the wealthy and powerful — rather than a democracy. Is anyone actually surprised? As the scope of federal power has expanded, there's more and more that the government can do for those who have the influence and power to guide the government's actions.

The United States' pathway to democracy isn't campaign finance regulation or lobbying restrictions, but decreasing the size of the federal government by simplifying the tax code and delegating more power and responsibility to the states. The less power the government has, the less it can do for special interests, and the more democratic our society will be.

The study in question, from Princeton University and Northwestern University titled "Testing Theories of American Politics: Elites, Interest Groups, and Average Citizens," took responses from surveys conducted from the 1980s to the early 2000s, asking people questions regarding demographics and their political interests. The study then aggregated this data based on income level and found that the actual outcome of government policy matched the desires of the wealthiest Americans, and not those of middle-class Americans.

Separately, the study analyzed the fundraising of special interest groups and compared their goals to legislative outcomes, finding that the groups' interests are well reflected in federal government actions.

With the amount at stake in the decisions that the federal government makes, who can blame wealthy individuals, corporations, and spe-

cial interest groups for wanting to get involved? For a giant multinational corporation making billions of dollars, a marginal decrease in their tax rate means so much more profit than a new marketing push or a new product introduction. That's why you see giant companies lobbying so hard for special regulatory loopholes that they can indulge in. If they succeed, it's the most bang for their buck as far as making money for shareholders, which is, believe it or not, the legal duty of corporate executives and board members.

Because power corrupts and absolute power corrupts absolutely, and because lobbying is a necessary way for obscure interests to be heard. especially if government action has an unforeseen and outsized effect on a small but important group of people, there's nothing we can do about the sway of the wealthy and powerful in government. In a sense, this is a necessary evil that any people who live under a government will have to deal with. Understanding this, if we limit the power of the federal government, then special interests can only gain a small benefit from influencing the federal government and, in an ideal world, that won't be worth their time and money.

The primary way that special interests exert their power is through the tax code. Special loopholes for wealthy Americans and powerful corporations ensure that those who have outstanding wealth and influence keep it that way. Passing the FairTax plan eliminates this mechanism of corruption altogether.

The FairTax removes all existing taxes and instead levies a 23 percent sales tax on all goods and services. To make the system progressive - and more progressive than our current tax code at that — each American household receives a monthly check in the mail that refunds all money they would've lost to the sales tax if their income rested on the poverty line and they spent all of it. In plain terms, if you make the poverty line, you pay no taxes. If you make twice the poverty line, you pay an 11.5 percent tax. This payment is adjusted based on the size of your household, as well as revenue neutral with the current tax code.

If FairTax legislation is passed, the absence of corporate taxes will eliminate a huge cause for corporations to lobby or to be involved in politics at all, which will give them more money to reinvest in their company, pay higher wages, or pay dividends to stockholders, all of which would benefit everyone by boosting the economy. After the FairTax is passed, the only group that will be singularly affected by the tax code is the American people, bringing our oligarchy down to the democracy it was meant to be.

Finally, if we put more and more decisions in the hands of states such as Medicare, Medicaid, Social Security, and drug legalization special interests and wealthy people won't be able to benefit much anymore from influencing the government. Washington, D.C. will finally become what it was intended to be: a mean, lean, infrastructure-building, fighting machine.

Money will never be fully removed from the United States government, and we will never have a perfect democracy. Limiting the power of the federal government will allow our country to still serve the people just as well as it does now, and restore the democratic ideals that our country was founded upon. Given this recent report, and also that a Bush and a Clinton are considering presidential runs in 2016, now is the time to restore the federal government to its appropriate size and scope.

As Ronald Reagan once put it, "You can't be for big government, big spending, big taxes, and still be for the little guy."

Kyle Henson (kahenson@) is a staffwriter for The Tartan.

Limits on campaign funds vital to prevent corruption



Earlier this month, in the landmark ruling McCutcheon v. Federal Election Commission, the Supreme Court struck down all limits on campaign donations. Apparently, according to Chief Justice John Roberts, who wrote the majority opinion, someone who sends a \$100 million check to a candidate is not engaging in corruption. In fact, Roberts claimed this action did not even have the "appearance of cor-

Roberts asserted that Congress may only target specific types of corruption, where there is a clear agreement that a politician will act in a specific way in return for money. By Roberts's definition, only the most flagrant instances of quid pro quo would be considered corruption. This mindbogglingly narrow definition of corruption, as well as the impacts of the decision itself, has highly problematic implications for American politics.

I'll start with the obvious: someone who gives any politician huge amounts of money will exert undue influence in politics. The McCutcheon decision provides the most benefit to the select handful of individuals who can afford to donate more than \$123,000 per election cycle — the former cap on campaign contributions — namely billionaires like Sheldon Adelson and the Koch

Last month, prominent politicians including New Jersey Governor Chris Christie and Wisconsin Governor Scott Walker visited Adelson in Las Vegas to effectively court him after Adelson announced he would hold private interviews with politicians to see who he would back in 2016. How can anyone say that this obsequious political mating dance does not even have the appearance of corruption?

We don't need a cap on just campaign contributions, but also on overall campaign spending. In the past decade, the role of money in politics has grown significantly. Since the 1970s, the Supreme Court has steadily chipped away at campaign finance laws, culminating in the rise of super PACs in 2010s Citizens United v. Federal Election Commission. As a result of these decisions, campaign spending has exploded.

According to CNN, there has been a threefold increase in spending in congressional races since 1986. A run for the House today takes \$1.6 million on average, and a run for the Senate takes \$10.4 million. It is highly unlikely that anyone who is not a millionaire — or backed by a millionaire — can compete in the races.

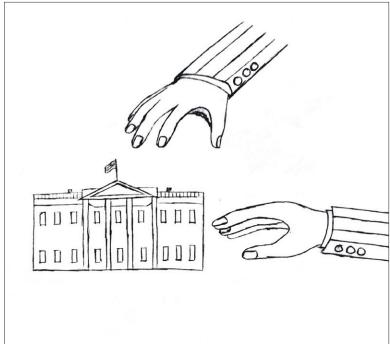
In fact, according to *The New York* Times, for the first time in history, more than half of the House and Senate are millionaires. The United States is becoming a nation run by millionaires for billionaires, and it shows in both our policies and political discourse.

Politicians will debate universal health care, immigration reform, and the extension of unemployment benefits for months on end, but billions of dollars of subsidies for large corporations are often passed without even the slightest discussion. Taxes are becoming increasingly regressive; according to Mother Jones, tax rates for highest earners are at their lowest in years, especially so for the top 400 households in the

Given this state of affairs, it may seem impossible to ever "fix" American politics. However, one of the main points in Thomas Piketty's recent book Capital in the Twenty-First Century is that "a drift toward oligarchy" can be prevented by good policy, such as a progressive tax policy and spending on public goods. Campaign finance laws are just as important as these policies.

Limits on campaign spending and contributions would not completely end corruption and plutocracy in America, but it would significantly reduce the power and influence of the super wealthy and large corporations in elections. Money speaks far louder than words, and we need to make sure that speaking with money is the exception, rather than the rule, in Washington.

Xiyu Wang (xiyuw@) is a staffwriter for The Tartan.



Alison Chiu/Staff Artist

Culture should never be an accessory



SATVIKA NETI

Cultural appropriation is the reproduction and commodification of elements of a certain culture, usually for purely aesthetic value, by those who do not belong to that culture.

For example, actress Vanessa Hudgens is known for posting pictures of herself on Instagram wearing Native American headdresses and South Asian bindis. Cultural appropriation is a huge issue in today's society, and nothing exemplifies this problem more than the Coachella Valley Music and Arts Festival that ended last weekend.

One of the reasons that cultural appropriation is problematic is that it strips away the cultural meaning and context of something. When Hudgens wears a headdress, she is taking something sacred to most Native American cultures and reducing it to mere aesthetics. This behavior turns something profoundly meaningful into an accessory.

Now, this isn't really the issue

with things like bindis and even henna because most South Asian people I know, including myself, couldn't tell you the spiritual or religious meaning behind these things. However, if I were to go outside in a bindi or with henna all over my hands, I would be othered.

I would be considered one of those immigrants that hadn't assimilated properly, or that still clung to the old ways. I'd probably get stared at and laughed at and asked to explain myself a billion times over. I've heard stories of my friends getting sent home in elementary school because they had henna and the administration thought it was a disease.

But when someone who isn't from that culture and doesn't have my brown skin wears a bindi or does henna simply for the artistic value of it, none of this discrimination happens to them. They're allowed to pick and choose the parts of my culture that they feel are good enough, and simply leave behind everything else that comes with it, because they don't see value in it. They are allowed to wear my culture as an accessory, when I — a person of that culture — am not. The othering and the rac-

ism isn't something I can walk away from; I can't just take off my skin the same way they can just take off the bindi at the end of the day and walk away from it.

So when Vanessa Hudgens posts pictures of herself in headdresses and bindis, it's harmful in two ways. One, because it strips away the meaning behind the piece of clothing or adornment, and, second, because it perpetuates the idea that the things that make up my culture are something to pick and choose from.

Besides Hudgens, there are multiple pictures of celebrities at Coachella appropriating different cultures, and countless occurrences outside of it as well. Many celebrities have appropriated cultures, from Katy Perry in her music video for "Unconditionally" where she dons a kimono, to Selena Gomez in "Come and Get It,"

where she wears a sari and a bindi. This article isn't meant to point fingers, but rather to call out the enormous number of people who have been perpetrators in cultural appropriation, and to try to explain why such appropriation is a problem.

Satvika Neti (sneti@) is a staffwriter for The Tartan.

A PERSON'S OPINION

The Tartan has been spotting plenty of admitted student tours on campus lately. So we asked,

Should students put themselves in debt in order to attend more prestigious universities?



Andy Kim Transitional CFA First-year

"It's a case-by-case basis. If you can afford to, that would be the obvious decision, but otherwise, it really depends."



Seh-Joo Kwon **Biological Sciences** First-year

"There are pros and cons for both sides ... if I were in the situation, I probably would choose not to put myself into debt."



Dominic Akerele Chemistry Junior

"Yes, because it gives you more opportunities especially in the job market. It also opens lots of



Divya Bramharouthu Material Science and Engineering, BME First-year

"I would take the debt because in the end I would be able to pay it off probably quicker if I had attended a better university."



Paul Ramirez MechE First-year

"If you look at the opportunity cost and the money you can make as a result of going to a great university, that outweighs the shorthand cost of the investment."

A10 « thetartan.org/sports The Tartan » April 21, 2014

CONGRATULATIONS

Andrew Carnegie Society Scholars



Pictured with the scholars during their stole ceremony: CMU President Subra Suresh, Mrs. Mary Suresh, ACS President Steve Price A'78, and ACS Scholars Committee Chair Mary Louise Lehoczky.

Aaron A. Anderson

Computer Science

Eric Balkanski

Mathematical Sciences/Computer Science

Ian P. Bangor

Business Administration

Katia M. Bazzi

Chemical Engineering

Andrew J. Biar

Computer Science and Music Technology

Margaret A. Bignell

Communication Design/Human-Computer

Interaction

Zachary J. Branson

Economics and Statistics/Professional Writing

Jaqueline L. Budz

Chemical and Biomedical Engineering

Jeffie L. Chang

Civil and Environmental Engineering

Joshua C. Claudio Creative Writing and Professional Writing

Madeleine R. Clute

Cognitive Science/Computer Science

Madeline C. Cramer Materials Science and Engineering/

Biomedical Engineering

Daniel R. Davis Chemistry/Linguistics Lara R. Dorko

Ethics, History, and Public Policy

Christopher O. Ejiofor

Civil and Environmental Engineering/ Engineering and Public Policy

William D. Elmore

Civil Engineering/Engineering and Public Policy

Tamar C. Feigenbaum

Decision Science

Holly L. Fitzgibbon

Materials Science and Engineering

Samuel S. French

Directing

Emily A. Gibson

History, English, and Dramaturgy

Marcy P. Held

Global Studies

Matthew Y. Ho

Architecture

Ronny Ho

Business Administration – Finance/ Human-Computer Interaction

Narjes Sadat Seyed Ali Akbar Jafarian

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Computer Science

Amritha Mallikarjun

Cognitive Science/Human-Computer Interaction

Nina W. Mast

International Relations and Politics

Emma H. McFarland

Drama

Shaina J. Mitchell Mathematical Sciences

Alexander B. Muñoz

Mechanical Engineering

Daniel J. Nesbit

International Relations and Politics

Caroline B. Record

Fine Arts/Human-Computer Interaction

Carter Redwood

Drama

Michael E. Rvan

Electrical and Computer Engineering

Rachel L. Sewell

Biological Sciences and Psychology

Shreepal N. Shah

Computer Science/Human-Computer Interaction

Emerson M. Silva

Mechanical Engineering

Niharika Singh

Electrical and Computer Engineering

Sarah A. Steranka

Music – Flute Performance

Kevin P. Tkacz

Physics

About the 2014 ACS Scholars

ACS Scholars are selected by their deans and department heads for their exemplary service and leadership. Each student receives a monetary award - made possible by Andrew Carnegie Society members - that supports academic and personal growth.

Additionally, they work as a committee to present a gift back to the university community. Through this opportunity, the students experience the joy of philanthropy first hand. This year's gift was shared by the following student organizations:

- 1000Plus
- **TEDxCMU**
- **ECE** Outreach
- The Frame Gallery
- Project Smile

Student organizations interested in applying for future grant awards should visit the Student Affairs website for more information.

Learn more about the ACS Scholars program at giving.cmu.edu/scholars

About the Andrew Carnegie Society

Since 1972, Andrew Carnegie Society (ACS) members have supported all areas of CMU from academics to athletics to research and beyond with gifts of \$1,000 or more. Last year's membership of 2,882 included 175 CMU faculty and staff. Thank you for your support!

For information about monthly gifts to join ACS, please contact Kathleen Bonte at andrewcarnegiesociety @cmu.edu or 412-268-9955.

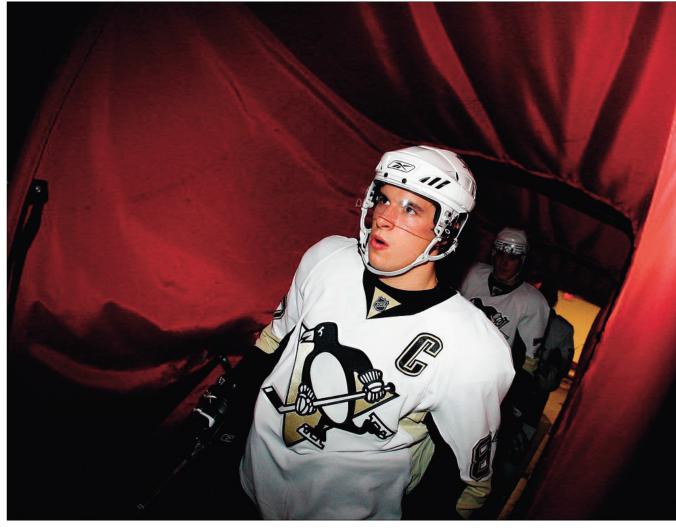


Andrew Carnegie Society

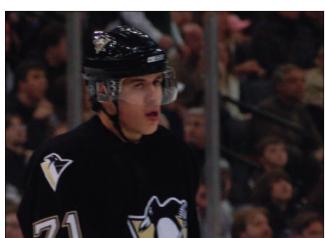
Carnegie Mellon University —

thetartan.org/sports » A11 April 21, 2014 « The Tartan

Penguins have a tougher time than anticipated for Finals







Captain Sidney Crosby (left), goalie Marc-Andre Fleury (top right), and assistant captain Evgeni "Geno" Malkin (bottom right) must pull together to lead the Penguins to Conference Finals this season.

CARL GLAZER Senior Staffwriter

It wasn't supposed to be this hard. With the new playoff system, the Penguins were supposed to have a cakewalk to the Conference Finals.

The new Metropolitan Division looked horrendous at midseason, and with the new format that has teams play within their division for the first two rounds of playoffs, Pittsburgh looked like a lock for a Conference Finals appearance.

The biggest question was supposed to be if anyone else would win a game.

Now, the Columbus Blue Jackets have put the Penguins

After two close games at home, the Penguins are lucky to only be tied 1-1 in the series and not be sitting in a twogame hole.

Their traditional playoff woes are back in full form with inconsistent play all over

Captain Sidney Crosby is a minus two through the two games — even with his three assists over the same time period — and assistant captain Evgeni Malkin is sitting a minus one with two assists.

Both players are getting dominated by the stronger, more physical Blue Jacket defensemen, which has been a trend for the Penguins over the course of their playoff

Their high-flying, highscoring offense, which has proven consistently effective over the course of the regular season, cannot stand up to the hard-nose style of play in the playoffs.

This, combined with goaltender Marc-Andre Fleury's track record of inconsistent postseason play, has led to near-perpetual playoff disappointment.

Even with the expectations of failure, the Penguins were still expected to get out of the first round, particularly when up against the Blue Jackets, who until Saturday had never won a playoff game in franchise history.

But Columbus does have the pieces in place to take the Penguins to a game seven, if not eliminate them completely.

Blue Jackets' goaltender Sergei Bobrovsky is one of the league's best, winning last year's Vezina Trophy for best goalie play.

He is one of the few goaltenders in the league that has even a prayer of stopping Crosby and Malkin when they are on their game, although he will still need to have one of the best seven-game runs of

In the regular season, the Penguins beat the Blue Jackets in all five of their matchups, another major strike against the Penguins.

Apparently, Columbus didn't get the memo and came out firing in the first period and the start of the second, taking a two-goal lead in game one on Wednesday.

They did eventually blow the lead, but showed that they would not go down without a

Game two was a role reversal, with the Penguins jumping out to a quick two-goal lead in the first period on the back of forward Brian Gibbons's first two playoff goals, 54 seconds

This time the Blue Jackets fought back, sending the game into double overtime before

forward Matt Calvert scored his first-ever playoff goal, ensuring that his team finally won their first playoff game.

The most important takeaway for the first two games is just that — it was only two

There is still plenty of time for the series to be turned around for the Penguins and go the way it was supposed to go on paper, but the Blue Jackets now have Pittsburgh on their toes.

This trip is not going to be an easy one through the playoffs, like they were expecting.

If the Penguins don't step it up, they won't be hoisting the Stanley Cup, but have time to work on their golf game.

The Bennett-McWilliams LECTURE TAKING THE UNIVERSE'S BABY PICTURE Pictures of the early universe created using data from (I-r) COBE, WMAP and Planck

4:30 P.M., THURSDAY, APRIL 24, 2014 RASHID AUDITORIUM **GATES AND HILLMAN CENTERS** CARNEGIE MELLON UNIVERSITY FREE AND OPEN TO THE PUBLIC RECEPTION TO FOLLOW



David Spergel is the Charles Young Professor of Astronomy on the Class of 1897 Foundation, Princeton University Chair, Department of Astrophysical Sciences, Princeton University

Carnegie Mellon University McWilliams Center for Cosmology

Track and field performs well

Editor-in-Chief

en's track and field teams secured victories on Wednesday at the Carnegie Mellon Tri-Meet, where the men took home 11 first-place titles and the women took home six first-place titles.

Men's Track and Field

The men dominated the competition at home against Allegheny College and Penn State Erie, The Behrend Col-

Senior Zachary Erra-Hernandez took home three first-place titles in the shot put, hammer throw, and discus. Erra-Hernandez tossed the shot put 16.01 meters for a season best, reached 52.97 meters in the hammer throw, and threw the discus 41.08 meters. Meanwhile, first-year Jacob Brooks finished first in the javelin throw with a mark of 52.63 meters.

Sophomore Brandon Hoane also took home the first-place title in the triple jump at 12.49 meters, and senior Christopher Holliday snagged first place when he reached 4.25 meters in the pole vault.

First-years Owen Norley and Andrew Chang both took first in their respective events, Norley finishing the 800-meter run with a time of 1:56.21 and Chang finishing the 110-meter hurdles with a time of 15.73.

Seniors Josh Newby and Kenneth Murphy took first in their respective events as well, Newby with a time of 9:24.23 in the 3,000-meter steeplechase and Murphy with a time of 4:04.69 in the 1,500-meter run.

Junior Thomas Vandenberg placed first in the 400-meter run at 48.61, a career best. Vandenberg was also recently named the University Athletic Association

(UAA) Athlete of the Week for his performance at the Bucknell Bison Classic on Both the men's and wom- April 12–13. Vandenberg placed sixth at the Classic in the 800-meter race with a time of 1:52.46.

Other notable Carnegie Mellon performances include senior Nathan Creek's careerbest javelin throw of 51.06 meters for third place and a 14.98-meter shot put throw for second place, as well as first-year Don Boyer's careerbest 6.29-meter long jump for third place.

Women's Track and Field

The women's track and field team also swept the competition at the Carnegie Mellon Tri-Meet, winning the event with six first-place

Senior Jacqueline Guevel placed first in both the 100-meter hurdles and 400-meter hurdles, times of 15.37 and 1:04.28, respectively. Senior Samantha Oleson

took first in the javelin throw with a toss of 27.74, a career best. She also accomplished a career best and received second place for tossing the weight throw 41.52 meters. The Tartans shined in the jumps, with junior Sasha

Spalding jumping 5.07 meters in the long jump, firstyear Rebecca Fortner jumping 1.50 meters in the high jump, and first-year Karen Irvine reaching 2.90 meters in the pole vault.

Irvine's mark was a career best. All three women placed first in their events. Firstyear Sommer Farber placed third in the long jump with a 4.58-meter jump and a career-best mark as well.

Both the men's and women's track and field teams will compete next on April 26 -27 at the 2014 UAA Outdoor Track and Field Championships at the University of Chicago.

Golf ends season

CARL GLAZER Senior Staffwriter

Carnegie Mellon saw both golf teams in action this week, with the women finishing off their season and the men playing their penultimate regular season tournament.

The women's team finished its inaugural season as a club team with a fifthplace finish at the Grove City Invitational. Playing at the Grove City Country Club, the Tartans shot a 438 for the 18-hole event and were led by senior Ali Nichols and her fourth-place overall score of 91. Junior Brooke Kuei and sophomore Yoon Hee Ha both finished strong shooting 100 and 102, respectively.

Next season, the women's team will start intercollegiate play as an official varsity sport.

Over at the Vulcan Invitational, the men came home with a second-place finish with a consistent

team effort. The tournament was hosted by eventual winner California University of Pennsylvania at Cedarbrook Golf Course. Senior Ian Bangor and first-year George Qian tied for ninth overall, each shooting 154 over 36 holes.

Sophomore Ben DuCarme and junior Cameron Low both came up big for the Tartans as they finished one and two strokes, respectively, behind Bangor and Qian. DuCarme went home tied for 12th individually, while Low tied for 14th.

The Tartans will finish their regular season on April 30, when they host the Carnegie Mellon Invitational at Longue Vue Country Club.

Editor's Note: Brooke Kuei is SciTech editor for The Tartan.

Sports

Men's and women's tennis teams have stunning weekend

CARL GLAZER

Senior Staffwriter

The Carnegie Mellon men's and women's tennis teams combined for a perfect weekend, going 3-0. As of last week, both teams are ranked top 10 in the nation, with women sitting at eighth and the men at ninth, although both candidates are likely to move up after strong showings.

The women had two games this weekend, with the first coming Friday against Division I opponent Duquesne University.

The Tartans had a 2-1 lead after doubles competition, with first-year Vanessa Pavia and junior Bryn Raschke taking their match 8–4 and senior Katie Cecil, along with sophomore Brooke Tsu, fighting back from an early deficit to claim a 9-7 victory.

The Tartans really pulled away in the singles matches, taking five of six to secure the 7–2 victory.

showing by the Tartans, as she swept her opponent in straight sets 6-0, 6-0. Pavia and fellow first-year Nicholle Torres each won 6-2, 6-4.

Junior Angela Pratt had the toughest road to victory, dropping the first set 1-6 before battling back for the win, finishing off 6-4, 10-1.

On Saturday, both teams took on Kenyon College at home. The women's team continued their domination of the competition, winning

Cecil led the impressive 9–0 and never dropping a set or even going to tie break. The three doubles pairs took Kenyon with ease, with Torres and Pratt, along with Cecil and junior Lydia Utkin, both winning

Raschke and Pavia struggled a touch more, but their 8–3 match was still never close.

In singles, it was more of the same, with only two of the 12 sets seeing a Kenyon player get three or more points. From start to finish, the Tartans outplayed the competition.

For the men, the competition was a bit more of a challenge, as Kenyon's men's team is ranked 11th in the nation.

That being said, the Tartans still cruised to an easy 7–2 victory. The men took the familiar 2–1 lead, coming out of doubles play with juniors Christian Heaney-Secord and Will Duncan winning 8-6, and sophomore Yuvraj Kumar and first-year Kenny Zheng cruising to an 8–5 victory.

In singles play, the men

pulled away, using five singles victories to seal the win. Zheng was one of four Tartans to win in straight sets as he drubbed his opponent 6–1, 6–0.

Sophomore Abhishek Alla was at the other end of the spectrum, as his first set turned into a marathon before he pulled it out 7-6 (13-11) before clinching the victory with a 6-4 second set.

Both teams will travel to Orlando this week to take place in the University Athletic Association championships.







Jason Chen/Assistant Photo Edito

Left to right: Junior Lydia Utkin, junior Angela Pratt, and senior Katie Cecil had strong performances this weekend, resulting in two significant victories against Duquesne University and Kenyon College

Jumping into the ongoing playoffs with NBA predictions

NISHANT RENIWAL Staffwriter

The regular season has officially ended and the playoff seedings have been decided. This year's playoffs have thrown some interesting matchups and are bound to ignite some long standing rivalries. So what do each team's playoff hopes look like?

Indiana Pacers

We start at the very top of the East with the stumbling Pacers. One of the best teams before the All-Star break, Indiana has tailed off miserably since they traded forward Danny Granger for guard Evan Turner and forward Lavoy Allen. They lost a veteran and defensively-sound player for an erratic sieve coming from the pathetic Philadelphia 76ers. They nearly lost the first-round seed to the Miami Heat, but gained it back through the Heat's own struggles. Their offense, long their weakest point, has been second worst only after the 76ers. Their much vaunted defense has served some cracks. The conference finals seemed a lock at a time, but the Chicago Bulls seem capable of taking that away from them. Players like All-Stars small forward and shooting guard Paul George and center Roy Hibbert need to step up, else they face a failed season overall.

Miami Heat

No one should be too worried about the Heat at this point. Their objective from the regular season was not the No. 1 seed, but more importantly, the health of all their veterans, especially superstar guard Dwyane Wade. They are wellrested and have Wade clicking into gear again for the playoffs, something that is very important for this team. They also happen to be two-time defending champions, and have an easy first round match against the Charlotte Bobcats. However, the Brooklyn Nets

in the second round. Anything but a championship will be a failure for them, but it's hard stalwarts. It would be a surto bet against a team with the best player in the world, four- further, but congratulations time MVP forward LeBron

Toronto Raptors

The surprise package from the East and the third-seeded Atlantic Division champions, the Raptors, are looking to make a name for themselves in the playoffs. They have their stars in guards Kyle Lowry and DeMar DeRozan, but it's unlikely they will be able to cross the Brooklyn Nets in the first round. The Raptors have been nothing short of sensational since the trade of forward Rudy Gay to the Sacramento Kings, but one wonders if that will be enough against a team full of playoff veterans. Their next matchup is also against the Miami Heat, so the conference semifinals are definitely the ceiling for them.

Chicago Bulls The injury to star guard Derrick Rose and the trade of key forward Luol Deng meant the Bulls were supposed to tank for a high lottery pick this season. All-Star center Joakim Noah and coach Tom Thibodeau apparently didn't get the message. The Bulls were threatening for the third seed after the All-Star break, and Noah is likely coming in third in the MVP ballots after having a career year. Much rests on the shoulders of their point center for their hopes in the playoffs, and he needs to be ably flanked by sixth man of the year favorite forward Taj Gibson and defensive wing Jimmy Butler. The conference finals seem like a real possibility.

Washington Wizards

This team is good, but almost certainly not good enough to progress even in the East. They got an unfavorable matchup against the

might pose a serious challenge Bulls, where All-Star point guard John Wall is likely to be hounded by several defensive prise to see them make it any must go out to the Wizards for ending with a higher than 0.500 record for the first time in five years.

Brooklyn Nets

The team with the highest payroll in the league is the team no one wants to play in the playoffs. Miami tried dodging them by avoiding the first seed, but got them anyway. The Nets discovered their identity under rookie coach Jason Kidd, following a disastrous 10-21 start, and currently possess matchup nightmares for any team. They are full of playoff veterans like Paul Pierce, Kevin Garnett, Joe Johnson, Deron Williams and Andrei Kirilenko. If the team stays healthy, watch out for them as dark horses to make the conference finals.

Charlotte Bobcats The Bobcats are another surprise story, as coach Steve Clifford instilled a defensive resilience in the team and elevated center Al Jefferson's game to make a playoff team. The Bobcats are not a great team, but, in the future years, we see them here more often than not. They will lose to Miami in the first round, but could have reached the second had they got the sixth seed against the Raptors, who they beat three times in the regular season.

Atlanta Hawks They have made the playoffs for seven straight seasons now and, this year, they made the playoffs without star center Al Horford too. They beat the New York Knicks to the eighth seed and hardly present a dead rubber matchup for Indiana. In All-Star forward Paul Millsap, they have one of the most underrated forwards in the league, a deadly

and a blossoming rookie center in Pero Antic. Their series against Indiana should be an exciting one, as it ended 2–2 in the regular season.

We move to the West, which had one of the deepest fields seen in years and presents some of the most exciting playoff matchups in recent history.

San Antonio Spurs

As All-Star guard Tony Parker recently said, anything but a championship will be a failure for them. Legendary coach and coach-of-the-year favorite Gregg Popovich has led this team to the best record in the league again, and this time without any player playing even 30 MPG. The first round against Dallas should be easy, but after that no one knows what's going to happen in this conference. Will forward Tim Duncan get his much-coveted fifth ring to put an icing on one of the greatest careers in basketball?

Oklahoma City Thunder

A healthy Russell Westbrook going into the playoffs means the Thunder have a great shot at making the conference finals again. This team is defensively sound and offensively explosive. Forward Kevin Durant is having a career year (again) and this time seems a lock to win the MVP over LeBron James. If they can overcome their reliance on Durant for their scoring, they could be dark horses to become the champions. But first a grueling first round series against the Memphis Grizzlies looms, who beat them in the second round last year.

Los Angeles Clippers

Gone are those days when the Lakers would be in this spot. Enter the other team from LA, currently sporting two of the top 10 players in the NBA and a top five coach in Doc Rivers. All-stars Blake

sharpshooter in Kyle Korver Griffin and Chris Paul will carry this team on their back wouldn't be a surprise to see them reaching the very top. such as sixth man of the year contender Jamal Crawford and sharpshooter JJ Reddick must step up to the cause and help out the stars, else the first round matchup against Golden State Warriors itself may not be overcome.

Houston Rockets

The addition of All-Star center Dwight Howard has propelled this team into the NBA elite, and it's no surprise. With superstar guard James Harden leading the way, this team has played some of the most exciting basketball this season and have greatly improved their defense thanks to Howard. However, the Rockets remain an excessively turnover-prone team, and in the playoffs, that can really doom you. Players like forwards Chandler Parsons and Terrence Jones and backup guard Jeremy Lin need to have a substantial impact, and they need point guard and defensive stalwart Patrick Beverly to be healthy to make progress.

Portland Trailblazers

One of the most surprising teams this season, the Trailblazers have certainly cooled off after the blistering 24-5 start. But in All-Stars Damian Lillard and LaMarcus Aldrige, they have two offensive weapons that can give any team nightmares. It's hard to see where this team will go though, as their defense remains very susceptible and its hard to imagine them overcoming Harden and the Rockets to make it any further. Let's hope their Cinderella story continues.

Golden State Warriors

It's a testament to the Western Conference that even the sixth seed is being labeled as a potential dark horse con-

tender. The Warriors at their best have been sensational. and with Doc's coaching it All-Star Stephen Curry has established himself as probably the best point guard af-But important role players ter Chris Paul, center Andrew Bogut and wing Andre Iguodala have made this team one of the most defensively sound in the NBA, and sharpshooter Klay Thompson has made huge strides from last season. It remains to be seen whether they can find their consistency though and rediscover their home form. Will the splash brothers create a huge wave in the west?

Memphis Grizzlies

They were fighting for their playoff lives until the penultimate game of the season and now they are the seventh seed, avoiding San Antonio in the first round. The Grizzlies are one of the best defensive teams in the league and have several underrated players in center Marc Gasol, point guard Mike Conley, and forward Zach Randolph. Their unity drives them forward and one should watch out for them to make some noise in the playoffs. They are the team no one wants to face and could be the ones making sure that Durant cannot add a ring to his probable MVP anytime soon.

Dallas Mavericks

All-star forward Dirk Nowitzki is back where he belongs — in the West elite. After a horrible year where Dallas struggled to even get to 0.500, they have made it back with an explosive offense carried by Dirk and star guard Monta Ellis. They have been consistent but are unfortunate to face the Spurs in the first round, as they lost the season series 4–0 to them. But no one really counted them in the race during the 2011 title run either. It'll be hard, and head coach Rick Carlisle will have to pull a rabbit out of the hat again, but let's hope the Mavericks put up a fight and show everyone why they belong.





...this week only

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Everything you need to know about looking good this summer.

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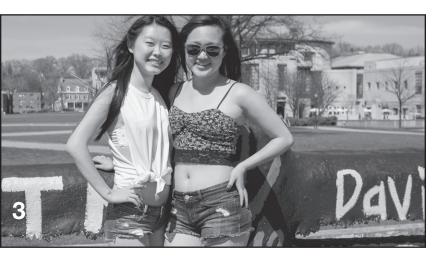
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Styles for summer wardrobes

The sun is finally out, and it's time to revamp your style

Summer is quickly approaching, and the question that everyone's wondering is: "What do I wear?" After all, it's been so cold for the past few months that it's easy to forget how to dress for the warmth. Even more likely is the possibility that you want to stray from shorts and T-shirts to something more fashionable. There are a lot of perfect summer clothing options for whatever plans you have this summer, including internships, volunteering, or doing absolutely nothing.

Though there are people who spend their summers on the couch, many try to get some type of work experience. Choosing what to wear for a job or internship can be a hassle, since the clothes people wear in warmer weather are usually more relaxed. For a work setting, choose nice shirts and blouses that are polished, but still lightweight and summery. What you wear can also vary greatly depending on how formal you have to dress. If the suggested attire is more relaxed, check out the brand Anthropologie for cute, classy blouses. These blouses can be worn with nice pencil skirts that are either black or patterned.

Maybe you're spending your summer volunteering. While there's no need to dress formally, there is probably a dress code that requires you to look polished, to an extent. White jeans are a summer staple that look clean and classy as well. Wear these with a girly floral blouse for a dressed-up look. Sundresses, especially of the floral variety, are great for volunteering as well if you're allowed to wear them. Since flip-flops or sandals are generally not allowed at places where you need to dress up, wear Sperry's, which are also called "boat shoes" by some, and are polished enough to wear for such occasions. Ballet flats are another cute spring/summer option.

Many students spend their summers frequenting

music festivals, such as the more well-known Lollapalooza in Chicago. Clothing stores have caught on to the trend as well — websites like *Tobi.com* advertise clothes that one would wear for the "festival season." This style is commonly characterized by high-waisted shorts, crop tops, and floral headbands. While I wouldn't recommend dressing as if going to a music festival on a daily basis, this style makes for great pictures!

A variety of high-waisted shorts can already be found at most stores. The best ones look like they were cut from jeans. If you're feeling particularly thrifty or creative, you can even try this approach on your own. All you need are some old-fashioned high-waisted jeans and some scissors. If you're a huge fan of dip-dyed shorts, you can make those yourself as well. There are plenty of tutorials online and videos on YouTube that teach you how to dip-dye and customize shorts. A lot of people try to cut their own crop tops as well, but I recommend buying one.

Maxi dresses are a trend that I always associate with vacations to exotic locations, though they can be worn on days where you feel like looking classy, but still casual. Maxi dresses come in a variety of patterns, and can be layered with denim jackets in cooler weather. They look best with sandals. Maxi skirts are another casual summer option, and look great with shorter T-shirts and tank tops. Brandy Melville has many choices for maxi skirts and dresses, as well as other pieces that complement them. Another variation of this style includes the thin, breezy bell bottoms that you can find at Brandy Melville or Free People, which can be paired in combinations similar to maxi skirts for a casual summer look.

Nikita Mishra | Staffwriter



Braden Kelner | Editor-in-Chief

Advice for awkward people

About chocolate eggs and course registration

Dear Josh,

To celebrate both holidays that occurred yesterday, I partook in the consumption of substances of the illegal variety and hid a bunch of Cadbury eggs around my dorm. Problem is, I can't find them, and now I'm really hungry and could go for some chocolate. Any advice on where I should search?

Sincerely,
Guy Looking Obsessively
for Round Yummy Treats/
Ornate Globular Ovals
During Intense Narcotic
Tetrahydrocannabinol
Haziness, Extremely
Hungry, Investigation
Going Harrowingly,
Everyone's Staring
Therewithal

Dear GLORY TO GOD IN THE HIGHEST,

It's important that you find the eggs ASAP because they could potentially melt quickly. That could leave chocolate stains everywhere, and if you hid any in the ventilation system, the whole dorm will start smelling like chocolate, which won't be as cool as it sounds. Often, when I'm looking for something or trying to solve a problem, I try and clear my mind and usually the answer will just come to me. Although in your case, you may want to find a different way to clear your mind.

Just make sure to spend time with your peeps, Josh Dear Josh,

Course registration is this week, and I'm really worried. I got such a late registration time, and I don't know if I'll be able to get into the classes that I need. What should I do if I can't get into those courses?

Sincerely, Finds Registration Undeniably Stressful, Tries Repeatedly, A Tediously Excruciating Debacle

Dear FRUSTRATED,

This is going to be hard advice to take, but don't worry about it. If by "need," you mean "I need it to graduate," your advisor should be making sure you can get into the class. But if by "need," you mean, "I need it so I'll have no Friday classes next semester," then you'll have to realize that not everyone is lucky in that sense. You have to find acceptance and move on.

I've never been able to get a Friday without classes either, Josh

Need advice? Send queries to advice@thetartan.org.

Lives of the Saints doesn't add up to gospel

School of Drama's final show of their centennial celebration is a questionable decision

"I thought I was going insane today. I put my eye drops in my ears, and my ear drops in my eyes. Now I feel like I'm deaf in this eye, but I've 20/20 hearing."

This line about sums up the nonsensical comedy of the latest School of Drama production, *The Lives of the Saints*. The show, a collection of seven one-act plays performed in quick succession, raises interesting questions about the way we live. But as a School of Drama production, the show falls short in a couple of key ways — both in captivating the entirety of its audience and in properly showcasing the talents of the student actors.

Like the other elements of the show, the set is colorful and nonsensical. As viewers enter the theater, they are greeted by a stage washed in white, with zany streaks and splotches of paint coloring the scene. Dripping paint cans line the edge of the stage. And upon closer inspection, viewers find that the whitewashed walls surrounding the stage aren't just walls, but whitepainted door frames and cabinet facades stacked one on top of the other.

The show itself is a seven-part series of one-act plays by playwright David Ives. Each short clocks in at about 15 minutes, allowing for a period of quickly delivered dialogue before jumping to the next mini-play, usually with a strange and somewhat psychedelic transition with eerie lighting and noise.

Every short has its own quirky backdrop. In "The Mystery at Twicknam Vicarage," all three suspects dramatically confess to killing a sex-crazed man before the victim springs back to life on his living room floor. In "Soap Opera," a Maypole repairman falls in love with his childhood washing machine. And in "Arabian Nights," a wild miscommunication across language barriers leads to a passionate declaration of love. All the while, the clever and pun-ridden dialogue moves the scenes at a rapid pace.

Though this setup makes for a thought-provoking and unusual production, it doesn't seem a particularly thoughtful choice for a School of Drama show. The characters are quirky and distinct, but hardly have time to develop in the 15 minutes they each have on stage. With this patchwork effect and without a unifying narrative, the show feels like a string of technical exercises rather than a full production. And for the actors, the show presented a one-sided set of challenges: The scenes were technically difficult, but didn't require that the actors convey any broad character change or growth — a different kind of challenge.

Furthermore, there seemed to be a split in the audience between those who stayed entertained throughout and those who, without compelling characters to latch onto, tired easily from the incessant and repetitive dialogue. A few viewers even left the theater early — an unusual event at a School of Drama show. In this way, the show seemed a hit-or-miss from viewer to viewer.

Since this production deviated so far from other School of Drama productions, the acting is hard to evaluate. There were certainly times when exchanges between actors feel like shouting matches rather than dialogue — sometimes out of necessity — and in such a precisely timed production, at times the actors' effort showed through the carefully rehearsed scenes.

Of course, in no way should the sheer amount of work that went into this production be minimized, and there are many moments during which the actors' technical skills shine. In "Enigma Variations," the actors take turns mimicking each other's gestures in almost-perfect synchronization — at times, even mouthing the words that leave the other actor's mouth. In "Captive Audience," a TV man (senior acting major Antonio Marziale) and a TV woman (senior acting major Taylor Rose) serve as the voices that emerge from a TV set, rapidly switching gears every time the viewers change the channel.

In introducing a wide array of characters, the show also highlights the actors' versatility in shifting from one role to another. Senior acting major Michelle Veintimilla gave one of the most convincing overall performances, first as a confused woman experiencing déjà vu in "Enigma Variations," as a sword-wielding businesswoman in "Babel's in Arms," and as an exasperated housewife in "Captive Audience." Her voice brings a distinct sauciness to each of the characters she portrayed.

Rose and Veintimilla achieved probably the two most entertaining performances of all in the final mini-play, "Lives of the Saints." They played Flo and Edna, old women with heavy accents who hobbled around an imaginary kitchen, exchanging nonsensical dialogue on topics ranging from urinating ducks to pickled pig's feet. This scene — as the final installment of the show — is punctuated by a bizarre reference to the Last Supper, with the entire cast of characters seated at a long table weighed down with food.

As a School of Drama production, *Lives of the Saints* has both successful and unsuccessful elements. It is an unusual choice, and perhaps not the best choice in terms of both its audience reception and its role as a student-acted production. Regardless, *Lives of the Saints* elicits more than a few laughs and showcases its actors in more than one light, making for a quirky final main stage production to end the school's centennial celebration. *Lives of the Saints* runs through April 26.

Rachel Cohen | Publisher

Enigma Variations

Bebe 1 — Bridget Peterson
Bebe 2 — Michelle Veintimilla
Bill 1 — Jimmy Nicholas
Bill 2 — John Garet Stoker
Fifi — Thomas Constantine Moore

Mystery at Twicknam Vicarage

Sarah — Rachel Keller Dexter — Mitch Marois Mona — Taylor Rose Roger — Michael Reep Jeremy — Antonio Marziale

Babel's in Arms

Gorph — Thomas Constantine Moore Cannapflit — John Garet Stoker Eunuch — Jimmy Nicholas Priestess — Rachel Keller Businesswoman — Michelle Veintimilla

Soap Opera

Loudspeaker Voice/Friend — Thomas
Constantine Moore
Maitre D'/Old Repairman — Antonio Marziale
Repairman — Michael Reep
Mother/Mabel — Bridget Peterson
The Machine — Rachel Keller

Captive Audience

TV Man — Antonio Marziale TV Woman — Taylor Rose Rob — John Garet Stoker Laura — Michelle Veintimilla

Arabian Nights

Interpreter — Bridget Peterson Norman — Jimmy Nicholas Flora — Rachel Keller

Lives of the Saints

Flo — Taylor Rose Edna — Michelle Veintimilla Assistants — Michael Reep, Antonio Marziale, Thomas Constantine Moore

A useful guide to get your butt outside

A list of low-cost options to get you out and exploring Pittsburgh before the semester ends

The weather is finally warming up — hopefully for good this time — and there are tons of fun things to do around Pittsburgh while you soak up the sun. If you have a few extra bucks in your pocket at the end of the semester, take advantage of the many events Pittsburgh has to

What: Soup Sega

When: Every Saturday from 9 a.m. to noon through June

Where: Bulgarian Macedonian National Educational

and Cultural Center 449-451 W. 8th Ave.

West Homestead, Pa. 15120

Why: If you consider yourself a foodie, this is a great opportunity to get a taste of authentic Bulgarian cuisine. This event features 14 different homemade Bulgarian soups, in addition to other specialties. People with all kinds of dietary restrictions can enjoy this event. Vegetarian, gluten-free, and dairy-free options are available in addition to the other all-natural, low sodium soups. These soups are also available in quart and halfquart frozen prepackaged containers, so you can take them back to campus and enjoy them as a nice diversion from campus food.

What: All About the Burgh, The Culture to Ketchup

When: Every Friday (12:45 p.m.), Saturday (10:00 a.m.), and Sunday (12:45 p.m.) through August

Where: Tours depart from Station Square.

125 W. Station Square Dr.

Why: Get to know the city you're living in on a guided two-hour tour. Hop aboard a vintage-style trolley and hit all of the hot spots in Pittsburgh, including Downtown, the North Shore, the Strip District, Oakland, and the South Side. In addition, enjoy a behind the scenes tour and take a ride on the Duquesne Incline. Tickets for this unique view of Pittsburgh are \$20.

What: Silk Screen Asian American Film Festival

When: April 26–May 4 (recurring daily)

Where: Screenings will be held at various theaters

around Pittsburgh.

Why: While this event is not outdoors, it still offers students a chance to get off campus and experience the more cultural side of Pittsburgh. The film festival features films and filmmakers from all over the globe, including India, China, Japan, Korea, Palestine, the Philippines, and more. Tickets come in a variety of packages and range from \$15 to \$60.

What: Beer Tasting Hike and Boat Cruise

When: April 26, 5:30-8:30 p.m. Where: Downtown Pittsburgh

Why: Get some exercise and enjoy the outdoors before tasting specialty beers. The group will hike over bridges and along river trails from the South Side to the North

Shore before boarding a Pittsburgh Water Limo to enjoy the microbrew tasting. Breads and cheeses will accompany the beer. The event is \$52 for a non-member, and \$40 for a member of Venture Outdoors. Interested in enjoying a hike on the trails around Pittsburgh, but not 21? Visit ventureoutdoors.org to find other outdoor events that are open to nature enthusiasts of all ages. This group provides safe, enjoyable outdoor events.

What: Dick's Sporting Goods Pittsburgh Marathon

When: May 4

Where: Packet pickup is located at the GNC Live Well Health and Fitness Expo in Halls D and E at the David L. Lawrence Convention Center.

1000 Ft. Duquesne Blvd

Why: Join other running enthusiasts on a run through Pittsburgh. Streets of the city will be closed for the marathon. Currently, the marathon, half marathon, and marathon relay are sold out, but the 5K and Pet Walk are still open. Registration costs \$50 for the 5K, and \$25 for the Pet Walk, with an additional \$5 cost for each additional pet.

What: 22nd Annual Susan G. Komen Pittsburgh Race for the Cure

When: May 11

Where: Schenley Park at Flagstaff Hill

Why: Get in some cardio and enjoy the outdoors with the Pittsburgh community, all while contributing to a good cause — a cure for breast cancer. Participate in the largest series of 5K run/fitness walks in the world. Runners and non-runners alike are welcome. Participants are welcome to walk the 5K or one-mile fun course, or cheer on the other participants. Runs can be completed as an individual or as a team. All participants receive an official Komen Pittsburgh Race for the Cure T-shirt and race bib. Prices vary depending on the type of race. For more information, visit komenpittsburgh.org.



Courtesy of Wally Gobetz via Flickr



Explore the wonders of nature at the Pittsburgh Zoo and PPG Aquarium.

In addition, there are lots of things to do in Pittsburgh that are open regularly.

The Pittsburgh Zoo and PPG Aquarium

Pittsburgh is home to one of the nicest zoos and aquariums in the country. Take a break from city life and watch baby elephants with their families, see the polar bears take a dip, or watch the sea lions play. Admission is \$15. If you want a more interactive experience, visit pittsburghzoo.org to check out behind the scenes tours.

PNC Park

Enjoy the national pastime at PNC Park. The Pittsburgh Pirates play almost every day with ticket prices as low as \$10 for some games. PNC Park also sometimes offers promotional features such as Free Shirt Friday, fireworks displays, and more. For more information, visit pittsburgh.pirates.mlb.com.

Pittsburgh Connections

In the mood to go kayaking, hiking, caving, horseback riding, or just enjoy the outdoors and exercise at the same time? Pittsburgh Connections is a great option for a fun, safe, and affordable day outside doing activities you might not always be able to do on your own.

Jenna Bodnar | Assistant Pillbox Editor

Take in some sunshine while munching on some CrackerJacks and enjoying a Pittsburgh Pirates game at the famous PNC Park on the North Side.

GRiZ throws the funk down at the Rex

Shared bill with Michal Menert gave everyone in the crowd something to dance about

Last Tuesday electro-funk/soul artists GRiZ and Michal Menert invaded the sold-out Rex Theater and not one person was left standing still. The two rapidly up-and-coming artists, who are currently co-headlining the nationwide "Power In Numbers" tour and have already been announced at multiple summer festivals, played energetic sets that gave the crowd a great taste of their individual styles.

Menert played first, and got the crowd grooving with his often jazzy-sounding hip-hop beats. When performing, Menert partners with a live drummer, which gives the music a distinctive human energy, as well as a high volume. Whipping his trademark long black hair around wildly while behind the deck, Menert would often grab the microphone to offer sweet words about love and life, or, at times, break out into a freestyle rap over his own song. Highlights included a killer remix of "Spirit in the Sky" and his mellow jam "Summer Love."

Certainly the loudest the crowd got the entire night was when 21-year-old Detroit native Grant Kwiecinski

— GRiZ — stepped onto the stage sporting a flatbrim hat, exclaiming "Funk You." Saxophone in hand, he started the night's set with his collaboration with fellow electro-soul artist Gramatik, "Digital Liberation is Mad Freedom," and kept it rolling from there. Highlights from the set included fan-favorite "Better Than I've Ever Been," remixes of Aerosmith's "Dream On" and Jay-Z and Kanye West's "N**** in Paris," and of course his signature tune, "Smash the Funk."

Both artists release all of their music for free. Menert disributes his music via his label Pretty Lights Music's website prettylightsmusic.com, owned and operated by popular electronic artist and close friend Derek Vincent Smith — EDM star and festival headliner Pretty Lights. GRiZ releases music through his website mynameisgriz.com. GRiZ released his second full-length album, Rebel Era, last September and blew everyone away with an album that was sonically and creatively light years past its predecessor, 2011's Mad Liberation.

As GRiZ began closing with the adrenaline-pumping anthem "Gettin' Live," which begins with blaring horns and a Tupac sample screaming, "Am I wrong if I wanna get it on 'till I die?," I looked next to me and saw a man wearing sunglasses bouncing a stick up and down.

At first I didn't pay much attention, and it took a moment to realize that he was blind.

Can you imagine being blind at a concert? Not being able to see the bright lights flash in time to the music, that ecstatic look when someone's favorite song comes on? But watching this man get down, with Tupac screaming in his ear just the same as he was mine, was a great reminder of why people come to concerts in the first place.

Music, and especially electronic music, has become wrapped up in providing an "experience" by investing in huge productions with lights and visuals and the whole nine yards. But watching this man have as much fun as I was just by hearing a long-deceased Tupac scream words that now feel like a statement of life's purpose rahter than a catchy hook for a rap song, proved that no matter how bright the lights are, what truly keeps the people coming back is good music, plain and simple. GRiZ, Michal Menert: thank you for that.

Joey Peiser | Pillbox Editor



lcConomy Auditorium, University Center

Andie Park | Staffwriter

Where Do We Go Now

Thursday, April 24 7:30, 10

Set in a small Lebanese village inhabited by both Muslims and Christians, Where Do We Go Now dives right into the religious tension amongst the civilians in the village through a female perspective. In response to the rising threat of a religious way, the town's women unite in order to keep the sectarian violence at bay through a series of borderline-comical plans (one of which includes a group of Ukrainian showgirls). Tragedy strikes, bringing the women closer together in this ruthless yet emotional film about a struggle that is all too real in the world.

Her

Friday, April 25 - 8, 10:30Saturday, April 26 - 2:30

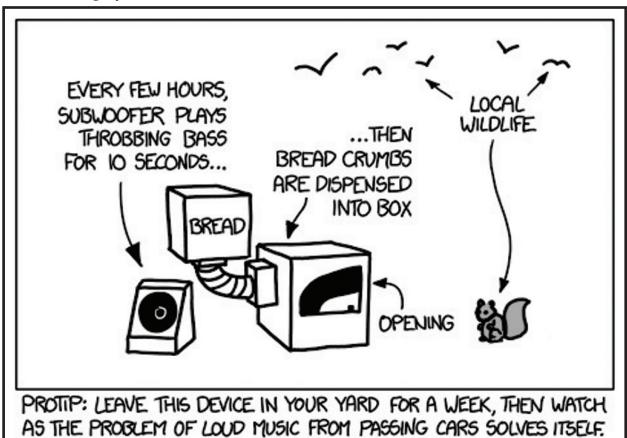
In the days of the Internet, social media, and Netflix, who isn't in love with their computer nowadays — especially if your computer has the beautifully husky voice of Scarlett Johansson? Her is the story of lonesome writer Theodore Twombly (Joaquin Phoenix), who purchases an operating system named Samantha (Johansson) who can organize his emails, wake him up in the morning with a charming voice, and have incredibly deep conversations with him in the middle of the night. Soon enough, the pair's relationship becomes more intimate, spurring an intensely romantic relationship. The story, although seemingly kooky, is incredibly believable as Sam develops a conscience and connects with Theodore on a human level. Taking place in the the slightly futuristic city of Los Angeles, Her is a dazzling film that explores relationships and the devices that are inevitably taking over our lives.

The Lego Movie

Saturday, April 26 7, 9:30, 12

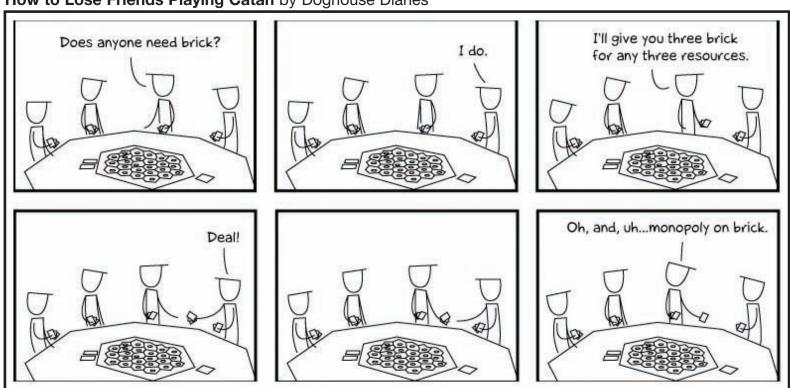
In the first-ever full-length Lego feature film, The Lego Movie takes on the movie industry by full force with its brilliant plot and imagination. When Emmet Brickowski (voiced by Chris Pratt), an ordinary construction worker, gets mistaken for the "Special" (a.k.a. the Lego Prophet), he gets recruited to join a league of superheroes to stop an evil tyrant, Lord Business (Will Ferrell), from dominating the Lego universe. The Lego Movie isn't your average family movie only targeted to make the kids laugh — it's a hilarious blast for everyone with its crazily imaginative story and characters from start to finish. It's as if the movie marvels at how amazing everything is by showing the audience that it's all right to break the rules and let one's imagination run wild. The Lego Movie is unexpectedly one of the best movies of the year and, if you don't revel in its awesomeness, you might just have a heart of plastic.

Conditioning by Randall Munroe



press@xkcd.com xkcd.com

How to Lose Friends Playing Catan by Doghouse Diaries



doghousediaries@gmail.com

thedoghousediaries.com



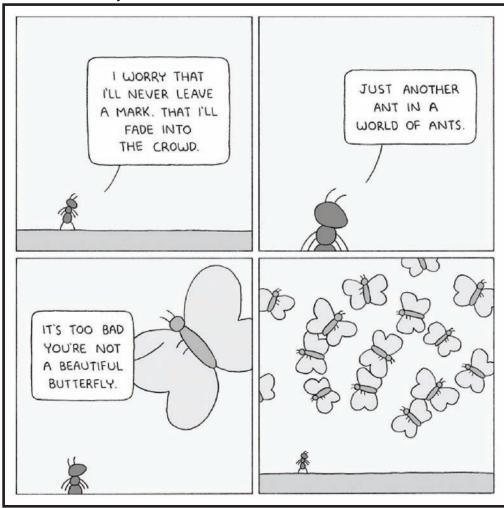
If You Love Something

by Alex Culang and Raynato Castro



buttersafe@gmail.com www.buttersafe.com

Just Another by Reza Farazmand

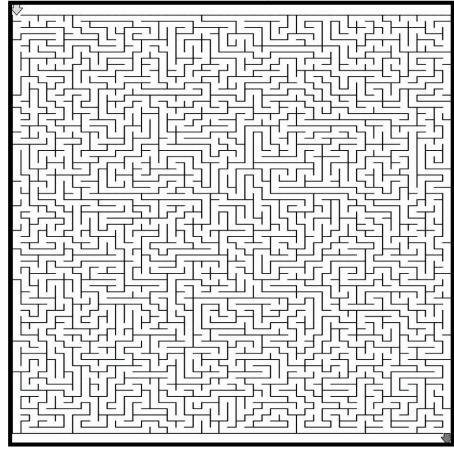


poorlydrawnlines@gmail.com

poorlydrawnlines.com

Mad Lib Puzzle: Fun Difficulty

COME TO WALMART Come__at Walmart, where you'll recieve ___ discounts on all of your favorite barnd names ____. Our and ___ associates are there to ___ you ___ hours a day. Here you will find ___ prices on the ___ you need. ___ for the moms, ___ for he kids and all the lastest electronics for the___ So come on down to your ____ ___WALMART where the ___ come first.



Maze Puzzle: Tough Difficulty

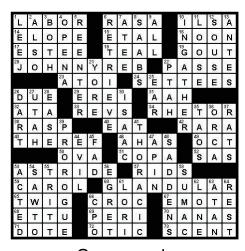
Madlib courtesy of www.madglibs.com

Fill out your mad lib to create funny adventurous stories.

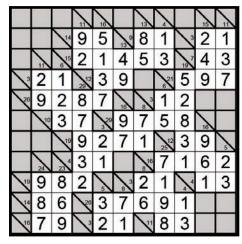
Maze courtesy of www.KrazyDad.com

Start at the left top arrow and find your way through the maze at the bottom right.

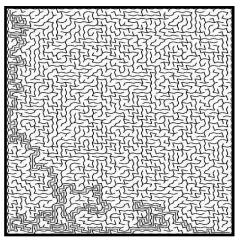
Solutions from April 14



Crossword



Tough Difficulty



Tough Difficulty



Horoscopes

aries

march 21-april 19

With the days getting hotter and work piling up, you might be a little down. Go ahead and wallow. There's nothing more comforting than a good pity party with a bucket of ice cream.

taurus

april 20-may 20

If you're feeling a little slow today, don't let it get you down. Maybe the rest of the world is just in too darn much of a hurry. Jerks.

gemini

may 21-june 21

In the business, downtime is pretty hard to come by. So today, you might want to think about how you use yours. Sure, it might sound good to sit around stuffing yourself with handfuls of Crunch 'n Munch, but that only feeds your mouth. What about your soul?

cancer

june 22-july 22

It's Monday, so you feel like you just want to relax and procrastinate a little on things. It's fine. Fall back on the soft grass.

leo

july 23-aug. 22

You have a lot on your mind today. The thoughts spinning around in your head might feel really important and heavy. Truth is, they're probably not. So you might as well think about something else, like how cute baby hedgehogs are.

virgo

aug. 23-sept. 22

Your intellectual prowess can easily intimidate others, which is normally a-okay. But today, you might want to turn it down some. You know, for the little people.

libra

sept. 23-oct. 22

Abraham Lincoln once said, "Better to remain silent and be thought a fool than to speak out and remove all doubt." But not today. Go ahead and say whatever's on your mind. I'm sure we're all dying to know.

scorpio

oct. 23-nov. 21

You know that thing I told you to do last week? Do it again. And maybe tomorrow too.

sagittarius

nov. 22-dec. 21

It's amazing what you can see and hear when you keep a low profile, and that's the kind of stuff that can come in very handy in the future. If you know what I mean.

capricorn

dec. 22-jan. 19

I'm assuming your food doesn't taste all that great. So today, try keeping it out of your mouth.

aquarius

jan. 20-feb. 18

I know that your day isn't going so well, but look on the bright side. There are worse fates. Besides, only babies throw tantrums. And you don't want to be a baby, do you?

pisces

feb. 19-march 20

Watch out for the critters today. The weather might look nice, but don't be fooled. If you sit under a tree and a bird poops on your head, don't say I didn't warn you.

Maryyann Landlord | Comics Editor

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Crossword courtesy of BestCrosswords.com

ACROSS

- 1. Discharged a debt
- 5. Toss out
- 10. Concert gear
- 14. Lhasa
- 15. To talk, usually in a pompous manner 5. With extremeness
- 16. Page
- 17. Rind
- 18. Severity
- 19. Sheltered, nautically
- 20. Agent
- 23. Aids
- 24. More pleasant
- 25. Peculiarity
- 28. Env. notation
- 30. Sea swallow
- 31. Mass
- 36. "Michael Collins" actor
- 37. Paint oil
- 39. Was in session
- 40. Foods of the gods
- 42. Exec's note
- 43. And others, briefly
- 44. Film comedian and director
- 46. Healing plants
- 49. Hoops
- 51. Tending to sleep walk
- 56. Paint layer
- 57. Gillette razors
- 58. "The Time Machine" people
- 60. 1975 Wimbledon winner
- 61. Caterpillar rival
- 62. Appear
- 63. Fleshy fruit
- 64. Computer key
- 65. Icelandic epic

Down

- 1. Baby food
- 2. Impersonator
- 3. Words of comprehension
- 4. Porpoise
- 6. Brittle
- 7. Fads
- 8. Lots and lots
- 9. Chipper
- 10. Subsiding
- 11. Pertaining to song
- 12. Pet _
- 13. Nuremberg trial defendant
- 21. Not emp.
- 22. Chipped in
- 25. Other, in Oaxaca
- 26. Consider
- 27. Dull
- 28. Aeons
- 29. Quattro minus uno
- 31. Indigo source
- 32. Govt. property overseer
- 33. I'd hate to break up _
- 34. -shanter (Scottish cap) 35. School founded in 1440
- 37. ___ luck!
- 38. This ___ stickup!
- 41. Go in again
- 42. The ___ Falcon
- 44. German emperor 45. Overhead trains
- 46. Songwriters' org.
- 47. Unfettered
- 48. City in Nebraska
- 49. Graduated glass tube
- 50. Raucous sound
- 52. Created
- 53. Bingo call
- 54. ___ Three Lives
- 55. Like some dorms
- 59. "___ Believer" (Monkees hit)

TUESDAY 4.22.14

Andrew Heath, Trumpet. Kresge Theatre, CFA. 8 p.m. Junior trumpet performance major Andrew Heath will present a recital of exclusively 20th-Century French trumpet music. This event is free and open to the public.

David Joselit. Kresge Theatre, CFA, 5 p.m. Carnegie professor of the history of art at Yale University David Joselit, who has worked on pivotal moments in modern art, will be giving a lecture. Admission is free and open to the public.

WEDNESDAY 4.23.14

Carnegie Mellon University Philharmonic. Carnegie Music Hall. 8 p.m.

The Philharmonic will perform Glinka's Ruslan and Ludmila Overture, Szymanowski's Violin Concerto No. 1 and many other pieces. Tickets are \$5, but admission is free with valid Carnegie Mellon ID.

Carnegie Mellon University Guitar Ensemble. Mellon Institute Auditorium. 8 p.m.

The Guitar Ensemble will perform several arrangements of early 20th-century pop songs, modern classical pieces, and an arrangement of Vivaldi's Concerto in G minor, RV 85. This event is free and open to the public.

THURSDAY 4.24.14

Hybrid Art Show Opening Reception. 5139 Penn Ave.

This group exhibition led by 2014 Kraus Visiting Professor of Art Suzanne Wright explores various concepts, materials, and processes used in contemporary visual art, breaking boundaries between mediums in order to invent new hybrid art forms. Admission is free and open to the public.

Poetry Slam. Kelly Strayhorn Theater. 7:30 p.m. Anyone interested in reading may attend the event and perform a three-minute poem that keeps with the theme of "the need to create communities that are built on inclusion, diversity, and fairness and free of discrimination and intolerance; and embracing citizen-driven change." Cash prizes will be awarded for first, second, and third place. Admission is free and open to the public.

FRIDAY 4.25.14

Jieun Hwang, Piano. Alumni Concert Hall, CFA. 8:30 Master of music in music education student Jieun Hwang

will present a lecture and recital on how music and movement relate to each other and how improvisation could be applied to this relationship. This event is free and open to the public.

Philip Glass. Kresge Theatre, CFA. 1 p.m.

The famed composer will be engaging in a conversation regarding his music with Carnegie Mellon assistant professor of music theory Richard Randall. The Matisse String Quartet will be performing Glass's String Quartet No. 5. Tickets are required and sold out as of this printing. A waitlist is available at www.music.cmu.edu.

Mozart Festival. Heinz Hall. 8 p.m.

The Pittsburgh Symphony Orchestra will present a night of famed composer Wolfgang Amadeus Mozart's essential works. Performances continue through Sunday, with tickets starting at \$26. More information can be found at trustarts.culturaldistrict.org.

Gallery Crawl. Cultural District. 5 p.m.

This quarterly event invites attendees to freely browse Pittsburgh's cultural offerings at their own pace. Multiple galleries will be holding opening or special exhibitions, and attendees are free to start anywhere. This event is free and open to the public.

SATURDAY 4.26.14

Arts Greenhouse Concert/Cookout. CFA. 1 p.m. The students of the Arts Greenhouse program will be performing original music created within the program. They will also screen a documentary about the project created by students. This event is free and open to the public.

One Night In Beijing. Rangos Ballroom. 7:30 p.m. The Awareness of Roots in Chinese Culture club presents a night of displays of talent and culture. Tickets are \$8 presale and can be purchased in the University Center. They will be \$10 at the door, with \$12 VIP tickets available **SUNDAY** 4.27.14 Gail Novak Mosites, Soprano. Mellon Institute

Auditorium. 2 p.m. Graduate student in vocal performance Gail Mosites will

perform a recital featuring works by Mozart, Britten, and Chausson. This event is free and open to the public.

Digital Hand. 709 Penn Gallery. Through May 25. This exhibition includes works created by Pennsylvania State University students exploring the sculptural possibilities of digital fabrications. Admission is free.

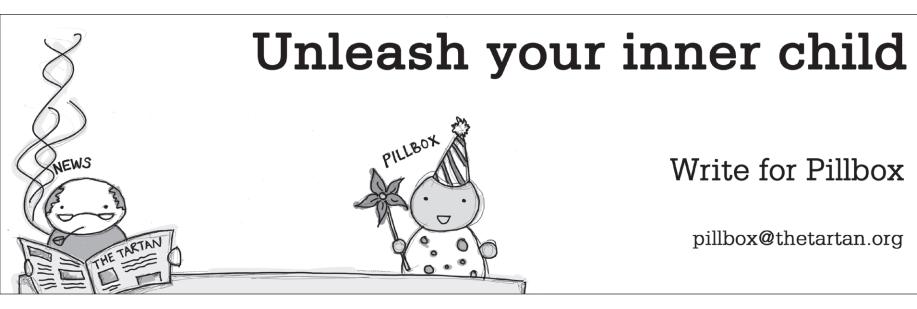
Electrified. Wood Street Galleries. Through June 22. Artists Edwin van der Heide and Alexandre Burton pay homage to the work of Nikola Tesla and his pioneering experiments in electricity, X-rays, and wireless communication in two installations seeing their North American premiere. Admission is free.

The Occasional Market. 707 Penn Gallery. Through June 22.

This art project by artist Tom Sarver turns the 707 Gallery into a communal gathering space, a place where stories are told and relationships established, featuring unscheduled activities and drop-ins from the artist himself and various drawings, sculptures, and collections of objects. Admission is free.

Compiled by Joey Peiser | Pillbox Editor

Want your event here? Email calendar@thetartan.org.



Write for Pillbox

pillbox@thetartan.org

jeff miller.





Joey Peiser | Pillbox Editor

Singer/songwriter Jeff Miller gave a free performance in Skibo Café last Wednesday, presented by the Activities Board. The Nashville native sang a collection of country-inspired tunes and used looping pedals to give the impression that he was backed by fellow musicians.