

THE TARTAN

Carnegie Mellon's student newspaper since 1906



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Sexual assault policy changes

ANNA WALSH
Contributing Editor

Gina Casalegno, Dean of Student Affairs, presented a draft of Carnegie Mellon's revised sexual harassment and assault policy at a Town Hall meeting last Tuesday. She reviewed the history of these policies and explained some of the more significant changes to the policy, including the new evidentiary standard for sexual assault and changes in the rules for confidentiality.

As Casalegno explained at the beginning of the Town Hall, there are currently two separate policies for sexual assault and sexual harassment. The sexual harassment policy was created in 1981, and the sexual assault policy was created in 1991; neither policy has undergone any revisions since their creation, save for an addendum to the sexual assault policy in 2011.

Since the sexual harassment policy is so old, Casalegno explained, it is not geared as much toward contemporary concerns: "[It] is constructed very much to think about the workplace environment, and while one could think about applying it in other contexts, like in the classroom ... it doesn't really resonate with today's rhetoric about how we think about sexual harassment."

An impetus to revise the policies came in April 2011, when the U.S. Department of Education Office for Civil Rights issued a Dear Colleague Letter (DCL) to universities regarding the requirements of Title IX of the Education Amendments. Although most people associate Title IX with providing equal access to athletics for university women, it more broadly advocates gender equity in education through increased access to math and science fields for women; protecting the rights of pregnant and parenting students; and preventing and addressing sexual harassment.

The DCL focused specifically on sexual harassment: It clarified that sexual violence — including sexual assault and sexual coercion — are forms of sexual harassment covered under Title IX, and it outlined the obligations of universities to respond to sexual violence.

"The statistics on sexual violence are both deeply troubling and a call to action for the nation," the letter says, citing a report prepared for the National Institute of Justice that said about 1 in 5 women and about 6 percent of men are victims of completed or attempted sexual assault while in college.

Carnegie Mellon added short-term fixes to its sexual assault and sexual harassment policies in spring 2012, with a note saying, "the University recognizes that it must adjust certain substantive and procedural provisions in its current policy statements to comply with particular mandates," and promised to fully up-

See **ASSAULT**, A1

Campus weighs in on stress culture



Kate Groschner/Photo Editor

Vice Provost for Education Amy Burkert discussed how the university has been trying to curb student stress in the past year.

BRIAN TRIMBOLI
Assistant News Editor

Dean of Student Affairs Gina Casalegno, Vice Provost for Education Amy Burkert, and leaders in the student government hosted a Town Hall on Carnegie Mellon culture last Monday.

The meeting, held in Rangos 1 in the University Center, was highly attended — the auditorium was filled to capacity.

At the door, every participant was handed a sheet of paper that reminded them to respect their peers' opinions and right to speak, and pro-

vided discussion prompts, asking questions such as, "We are in the midst of a presidential transition, which allows for a unique opportunity to reflect upon who we are and who we wish to become as a university community. How would you describe our culture to the incoming president?"

The Town Hall came partly as a result of the death of Henry Armero on Dec. 7 and an editorial published five days later by The Tartan, "The happy mask: Carnegie Mellon must address stress culture," written by Katie Chironis, a senior creative writing and human-computer interaction

double major who graduated in December.

In her editorial, Chironis wrote about the bravado that Carnegie Mellon students often use to disguise their personal struggles and heavy workloads: "The terrifying thing is that emotional and mental suffering doesn't show on the skin. It's often the happiest students, the ones who chuckle at their workload, who feel that pain most keenly. And it's those students who need help. Clearly not all of them are getting it or feel comfortable seeking it."

Referring to this "happy mask" that students put on to

cope with their heavy workloads, Chironis wrote, "A more serious question, then, is why is the university ignoring the elephant in the room?"

In an email sent out on Jan. 21 to notify students of the upcoming Town Hall, Casalegno wrote, "Many of you have already read the editorial published by The Tartan, which has sparked an important campus dialogue about our culture and its impact on our well-being. In the days and weeks following the article's publication, I have heard from many students, faculty, and

See **STRESS**, A3

Kosher dining graces campus

JOSEPH WHITE
Junior Staffwriter

Carnegie Mellon's newest dining establishment, the Pomegranate, is an attempt to accommodate students with religious dietary restrictions.

However, the push for diet-specific food predates this semester. For years, the different communities at Carnegie Mellon have pushed for eateries on the Carnegie Mellon meal plan that meet specific dietary requirements, leading many to see the Pomegranate as the first step.

Despite the university's past records of a high Jewish student population — 1999's *Hillel Guide to a Jewish Life* advertises the joint undergraduate and graduate Jewish population at 16 percent — some of today's students, including sophomore mathematics major and orthodox Jew Nathan Oshlag, see a dearth of these numbers. "CMU doesn't have a large Jewish population for a university," Oshlag said.

The Pomegranate opens an avenue for students, specifically first-years, to get food they otherwise could not obtain at Carnegie Mel-

See **JEWISH**, A3

Reports reveal allocation of university spending

BRENT HEARD
News Co-Editor
ANNA WALSH
Contributing Editor

Since last week's announcement from the university regarding an increase in tuition for the next academic year, questions were prompted by the student body over the university's current spending and revenues.

The tuition increases were announced last Thursday in an email from Vice President for Campus Affairs Michael Murphy.

There will be a 4 percent increase in new undergraduate tuition rates and a 3 percent increase in tuition for current students in the upcoming 2013–14 academic year.

Using publicly available 2010 tax data and Carnegie Mellon's own figures released through the Institutional Research and Analysis Factbook, The Tartan compiled calculations of where the university's main sources of funding are, and of the most notable sources of spending.

As per the university's 2010 tax returns of Carnegie Mellon's revenue, tuition is calculated to account for approximately 43 percent, while government grants and contributions are the second biggest contributor at around 28 percent.

With respect to the university's expenditures, the largest portion goes towards wages, accounting for approximately 46 percent of spending.

Carnegie Mellon employs 12,539 people, meaning that the average amount spent per year, per employee — on salaries, benefits, taxes, and other items — is calculated to be \$45,703.17.

In terms of monetary contributions to its students,

Carnegie Mellon recorded giving scholarships to 5,393 recipients at approximately \$17,911.20 per person.

In 2010, the university declared a total revenue of \$1,153,711,410, with \$441,715,065 coming from "contributions and grants."

The recorded total expenses were \$1,009,517,543, with \$573,072,018 going to "salaries, other compensation, [and] employee benefits."

As recorded in the uni-

versity's 2013 Institutional Research and Analysis Factbook, a total of \$79,301,315 was given in donations to the university in 2012 from a combination of alumni, foundations, corporations, and other individuals.

This figure is similar to the amounts given in 2010 and 2011, but is a significant increase from the donated \$57,929,733 in 2009.

For the 2012 — 13 school year, the First Year Under-

graduate Total Estimated Cost of Attendance is stated to be \$59,710, which is part of a trend of \$1,000 to \$3,000 increases in total cost of attendance over the past 10 years.

Carnegie Mellon's operating expenses totaled \$966,321 in 2012, part of a steady trend of increasing costs.

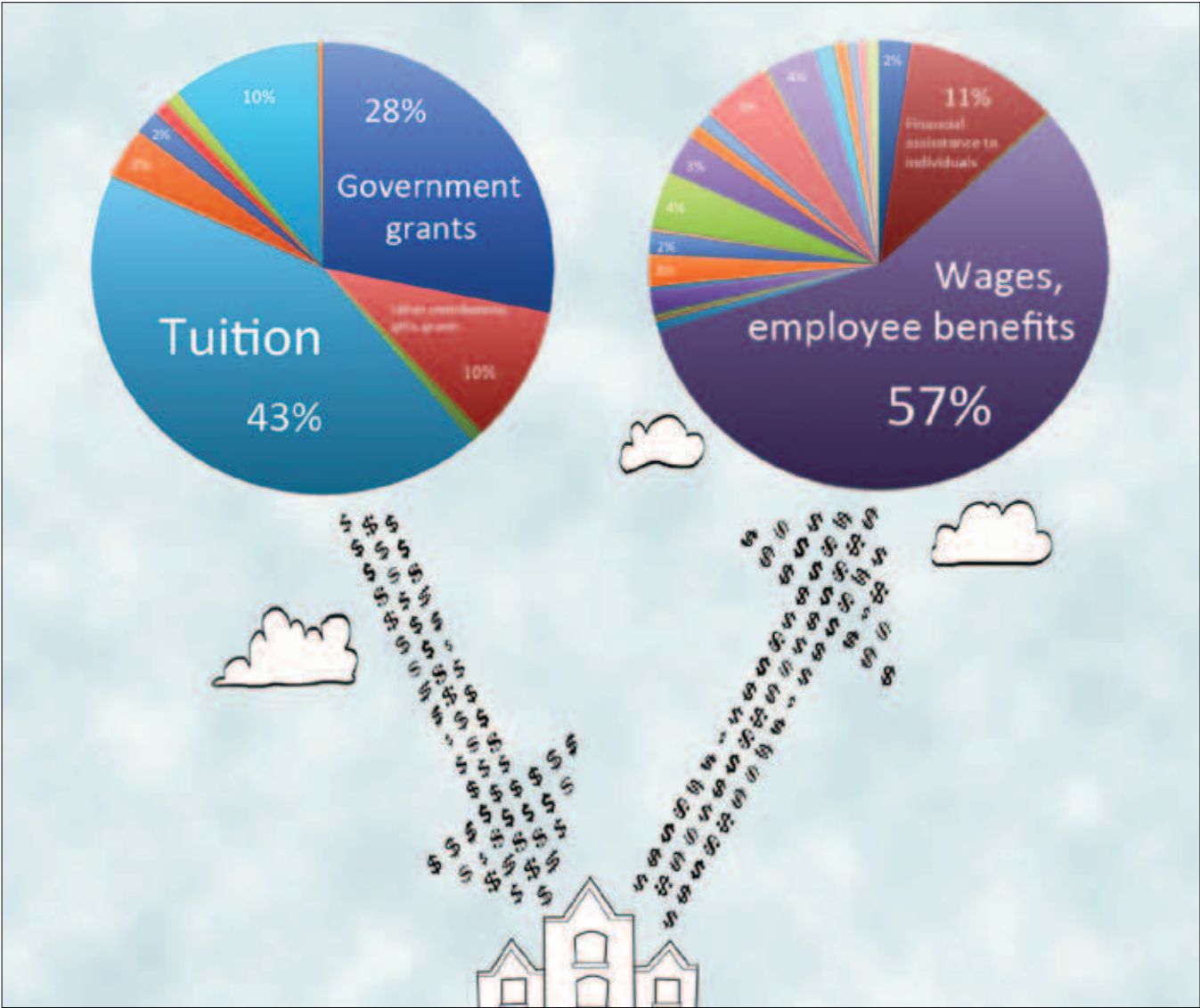
The majority of 2012's operating expenses were devoted to salaries, at 52.7 percent, followed by "supplies and services" at 16.4 percent, and

"benefits" at 12 percent.

The university's endowment currently stands at a market value of \$987,054,000, a decrease from 2011's value of \$1,017,338,000.

Carnegie Mellon also reported that the majority of its federal research funding is provided by the National Science Foundation at \$75,536.

This is closely followed by the funding from the Department of Defense, which totals \$71,220.



Annette Ko/Art Editor

Data according to Carnegie Mellon's own figures and the Institutional Research and Analysis Factbook.

FEATURE PHOTO

SCS holds Founders’ Day celebration



The School of Computer Science (SCS) held its second-annual Founders’ Day celebration last Thursday in the Gates Hillman Complex. The event featured a presentation by SCS Dean Randy Bryant and the presentation of multiple staff awards for teaching and research accomplishments.

NEWS IN BRIEF

Tepper optimizes Oakland meter parking

The use of parking spaces, the ones near Schenley Park in particular, fluctuates with the seasons. Many parking spaces, which cost \$2 per hour, often go unused.

Mark Fichman, associate professor of organizational behavior and theory, and Stephen Spear, professor of economics, are spearheading a project to help optimize the use of parking spaces by allowing the parking rates to depend on the time of year.

The cost of the parking spaces will be \$1 per hour during times of the year when parking is freely available and \$2 per hour during the busier seasons. Through research studies, Fichman and Spear will monitor parking meter usage in order to determine which seasons are busier than others.

According to a university press release, the two Carnegie Mellon professors will use economic principles to research the “ideal” rate.

Fichman said in a university press release, “Ideally, slightly more than three quarters of available parking spaces should be utilized during normal business periods.”

“A few years ago, when parking rates were 50 cents per hour, it was difficult to find an open parking space around campus,” he continued.

Fichman contrasted this with the current situation, adding, “when parking rates rose to their recent high of \$2 per hour, many commuters quit using the street parking all together. The ideal rate is somewhere in between these numbers.”

Architecture professors given NSF award

Carnegie Mellon’s School of Architecture and the Center for Building Performance and Diagnostics (CBPD) won the National Science Foundation’s (NSF) 2013 Alexander Schwarzkopf Prize for Technological Innovation for its research and contribution to technological innovation.

The winning team, which consisted of Carnegie Mellon architecture professors and researchers, was selected by the Industry/University Cooperative Research Center (I/UCRC) Association Committee.

Volker Hartkopf, professor of architecture and director of the CBPD, led a team that also included architecture professor David Archer (who passed away in 2010 at 82); senior researcher Azizan Aziz; architecture professor Khee Poh Lam; Head of the School of Architecture Stephen Lee; and architecture professor Vivian Loftness.

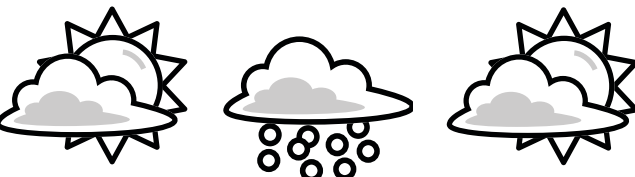
Carnegie Mellon’s CBPD’s most notable work this year includes the construction of the Robert L. Preger Intelligent Workplace (IW) in 1997.

According to a university press release, the IW is the premier living and lived-in laboratory focused on energy, the environment, economics, human health, organizational productivity, and building systems integration practices.

The Alexander Schwarzkopf Prize is a prize awarded annually to provide the recipient with opportunities to partner with other leading universities, and also with recognition as an NSF research center so that it may gain access to additional resources.

Compiled by
NOËL UM

WEATHER



TUESDAY High / Low 27 / 26	WEDNESDAY High / Low 29 / 19	THURSDAY High / Low 36 / 33
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FRIDAY High / Low 38 / 27	SATURDAY High / Low 39 / 34	SUNDAY High / Low 43 / 38
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Source: www.weather.com

Campus Crime & Incident Reports

Marijuana Possession

Jan. 25, 2013

A Carnegie Mellon security guard on foot patrol observed multiple individuals using what he believed to be marijuana near the Cut. Police responded to assist and confirmed that at least one of the individuals was in possession of marijuana. Officers confiscated the marijuana and informed the student that he would be cited.

Alcohol Amnesty

Jan. 25, 2013

University Police and CMU EMS were summoned to Margaret Morrison Street to tend to an intoxicated male. EMS requested that city medics also be summoned to the scene. The student was then transported to a hospital for

further treatment. Alcohol Amnesty applies to this incident.

Noise Complaint

Jan. 26, 2013

University Police and Pittsburgh Police responded to a residence on Beeler Street in reference to a noise complaint. Officers cited multiple individuals for offenses that include underage drinking and disorderly conduct.

Underage Drinking

Jan. 26, 2013

University Police responded to a noise complaint on the second floor of the Shady Oaks Apartment. Officers found the room occupied by several Carnegie Mellon students. One student was cited

for underage drinking. Multiple containers of alcohol found in the room were confiscated.

Underage Drinking

Jan. 27, 2013

Three males, one of whom was visibly intoxicated, were observed by a Carnegie Mellon security guard traveling to Mudge House. The security guard requested police assistance to check on the males’ well-being. University Police interviewed the three males at Mudge House. Two of the males stated they were assisting to get the intoxicated student to his residence. The student was cited for underage drinking.

Vending Machine Theft

Jan. 28, 2013

University Police responded to Stever House in reference to a vending machine that had many of its products removed from the machine. Officers found no sign of forced entry to the inside of the machine. This investigation is ongoing.

Theft

Jan. 30, 2013

A Carnegie Mellon student entered the University Police Station to file a theft report that occurred on Jan. 27–28 between 9:00 p.m. and 2:00 a.m. The theft occurred from the student’s work area in Room 200 in the College of Fine Arts. University Police are investigating this incident.

STUDENT SENATE MEETING MINUTES

Academic Affairs

The Student Senate aims to accomplish three key objectives with respect to academic goals.

First, efforts will be made to connect with Carnegie Mellon’s sister campus in Qatar; second, to be in contact with the new dean for media technology to talk about Senate’s goals; third, to host a networking event at the conclusion of the semester.

Campus Life

Student Senate conducted a meeting with the poster policy administration — a subsection of Student Senate that deals with posters — in which they discussed processes that could improve efficiency.

They was also discussion on adding benches at the center of the Cut in order to encourage people to sit outside in the spring and how to expand the current Arts Pass

program. One suggestion was to have buses running to the Aviary, the Mattress Factory, and the Andy Warhol Museum in order to encourage students to explore Downtown.

Finally, the topic of fines and warnings to organizations over poster violations was also discussed.

Communications/ Town Hall Week

Discussion was held regarding last week’s Student Senate Town Hall Week, as well as the possibility of hosting forums and meetings for different parts of the university.

Also discussed was the creation of a blog to serve as a centralized web page for students to submit questions and concerns.

Ex-Officio Report

Student Body President Will Weiner presented a brief update on the Senate’s role with respect to the ongoing dialogue on campus about mental health.

Weiner and the Senate are pursuing multiple paths to try to address the issues raised, including a possible peer-mentoring and support system.

Compiled by
BRENT HEARD

Jewish community pleased by options

JEWISH, from A1

lon outside of refrigerated, premade meals.

“Its an amazing step forward with so much more room to grow,” sophomore biological sciences major Danielle Schlesinger said. “Just having more programming for the kids on campus looking for ... a culturally Jewish community.”

Those who face the strictest dietary restrictions are orthodox Jewish students; they follow the Va’ad-defined Kosher laws, which require every step of the food-preparation process to be checked by a member of the Va’ad, a certain council of rabbis. Because of the intensity of the supervision process, such Kosher foods tend to be on the pricier side.

The Pomegranate itself is not certified by the Va’ad, but the food is made in the Kosher kitchen at Congregation Beth Shalom and the food preparation process is supervised by Rabbi Michael Werbow.

For many Jewish students who follow a conservative level of Kosher rules, this is considered sufficient. According to senior Bachelor of Science and Arts student Brian Alderman, one of the Jewish students who pushed for such an eatery, the next step is to have a place on campus to serve the “20 or 30 who can’t eat at the Pomegranate.”

Even those who cannot eat at the Pomegranate see it as “a step in the right direction,” Oshlag said. He initially opposed the Pomegranate since

it did not serve the students who needed a Kosher eatery the most, but he considers it an encouragement, as he and other orthodox Jewish students “are not done pushing for a Va’ad Kosher food vendor [that] would cater to the entire array of Muslims and Jews on campus.”

Yet even in the same schools of Kosher there are differing opinions.

“I don’t expect [Va’ad Kosher] is feasible, since there isn’t a strong observant Jewish community on campus,” said Daniel Davis, a junior chemistry major.

He believes that keeping costs sufficiently low would make food quality suffer, and a Kosher eatery needs to attract non-Kosher customers to stay in business.

A simpler method to solve the food dilemma — not only for Jews, but also for Muslims, Hindus, and vegetarians — would be to eliminate the required meal plan for first-years.

Currently, according to Davis, Jewish students who can eat at the Pomegranate can eat at other campus locales, like Evgefstos.

Increasing options for them is a good thing, in his opinion, but unfortunately the total number served has not increased by much.

Even for Jewish students who do not keep Kosher, just having a place with Middle Eastern food provides a taste of home.

“Its our comfort food,” Tsachor said, “we can’t get mom’s cooking, but it makes you feel at home.”



Courtesy of Juan Fernandez

CMU summer school funding restored

NOËL UM
News Co-Editor

The Pennsylvania Governor’s School for the Sciences, a summer enrichment program hosted by the Mellon College of Science for gifted high school students, will resume this summer after a three-year hiatus.

The Pennsylvania Governor’s School for the Sciences (PGSS), which was cancelled in 2009 due to state budget cuts, effectively instigated the closing of other Governor’s Schools across Pennsylvania.

In response, Carnegie Mellon alumni raised funds amounting to \$150,000, which were then matched by

the state education department. Fundraising was largely successful due to the help of PGSS alumni.

According to the PGSS Alumni website, members believe that it is important to promote the teaching of evidence-based science, mathematics, and computer science at the secondary school level and to encourage students who demonstrate an aptitude for mathematics and science to pursue science-based careers.

Barry Luokkala, professor of physics and director of PGSS, said in a university press release, “The alumni of the program pushed to get the funding restored. So many

of the alumni have said that The Governor’s School was lifechanging. They wanted the school back so that other students could have the same experience.”

All of the students who have attended PGSS later attended college, with 90 percent of them pursuing careers in math, science, or technology.

The program will accept 56 students from over 500 applications.

Those accepted will receive full tuition, room, and board for the five-week program, which will run Jun. 30 through Aug. 5. Selected students must demonstrate excellent academic records,

evidence of sustained interest and outstanding performance in science and mathematics, and high standardized test scores, according to the PGSS website.

The purpose of the school is to advance an overall general participation in the sciences. During the summer program, chosen students will be able to study biology, chemistry, computer science, math, and physics.

They will also complete a team research project, with the help of a faculty member, by the end of the program.

The application deadline for PGSS is Feb. 15. More information can be found at www.pgss.mcs.cmu.edu.

New policy prioritizes community safety

Notable policy changes

- Once treated as different policies, sexual assault and harassment policies are now one policy.
- The new policy defines sexual violence and sexual assault as forms of sexual harassment.
- It clarifies that sexual harassment can occur in many different contexts.
- It says the university has an obligation to pursue an investigation or take disciplinary action, even if that goes against the victim’s wishes.

- It can no longer promise complete confidentiality to survivors who file reports.
- There is a shorter timetable for the processing of a formal complaint.
- It specifies that the Title IX coordinator and sexual harassment process coordinators will create an annual confidential report about sexual harassment on campus.
- Title IX coordinators has the ability to review every report that is filed.

ASSAULT, from A1

to fully update its policies in the 2012–2013 school year. Carnegie Mellon thus created a committee last semester to draft new policies. Student Body President Will Weiner, a fifth-year senior economics and statistics and decision science double major, explained, “I am the undergraduate representative [on the committee] — there’s also a graduate student who sits on there, and then there’s a bunch of other university-official types ... Dr. Michael Murphy, Dean Casalegno, faculty council, staff council, that type of people, so a mix ... across the board.”

One of the biggest changes mandated in the DCL was that universities are obligated to investigate all reports of sexual harassment and must take action if they decide that community welfare is at risk. As a result, the university can no longer promise complete confidentiality for people who filed such reports.

“This is an area that has caused a lot of concern, I’ll be quite frank,” Casalegno said. “Our message has largely, for many, many years been to support at all costs what the victim or survivor’s wishes are. So that is to say if someone comes forward and tells their story about a way that they

were fundamentally violated and how power was taken away from that individual, our teachings in the field of sexual assault prevention and education and response has always been to defer to the wishes of the victim or survivor in terms of what they want done.”

“We’ve been really anxious about how this would play out since our implementation last year,” Casalegno continued, “and I will say anecdotally ... that I am really proud how thoughtfully and how compassionately we have handled that review of every case that comes forward.”

Jeannine Heynes, Carnegie Mellon’s coordinator of gender programs, agreed in an interview that the obligatory action has so far been effective. “If there was something where the survivor said, ‘I don’t want to go forward with it, I don’t want to get this person in trouble’ — they say that a lot, ‘I don’t want to ruin this person’s life’ — but we’ve seen the name pop up before ... then [Casalegno and Title IX Coordinator G. Richard Tucker] usually say to me, ‘try to get in front of the survivor, go through the SAA, and say it’s really important that we proceed with this,’” she said. “So, I mean, they’re all complicated emotionally, but sort of administratively, the sur-

vivors who haven’t initially wanted to go forward have been really cooperative, and I think once you sit down and say, ‘we’re all here for you, here are the resources, we’re on your side’ ... I think they feel much more calm and willing and they understand the process to go forward.”

While obligatory action may be one of the more significant changes to the new policy, there are numerous other changes, including two policies being combined into one.

This reflects “a shift in our policy to acknowledge that sexual harassment is no longer limited to employment relationships, and that sexual assault is no longer something to be considered in the student domain,” Casalegno said.

Also, the evident standard for disciplinary action is now a “preponderance of evidence,” so that it only needs to be deemed more likely than not that an incident of sexual assault or harassment occurred.

Title IX Coordinator G. Richard Tucker, who is a professor of applied linguistics, now reviews all complaints or reports filed by the campus community and looks at systemic ways in which Carnegie Mellon’s administration could improve its adherence to Title IX. There are four newly

appointed deputy Title IX coordinators who will support him as necessary in specific cases. “My responsibility is to make sure that I am regularly in touch with each of [the staff members involved], that I’m available to them, that I’m there to review recommendations they’re making or review the reports they’re receiving, and to decide on the appropriate course of action,” Tucker explained in an interview.

After Casalegno finished presenting the changes, there was a Q & A session involving the approximately two dozen attendees.

One student asked whether the lack of confidentiality in reporting would apply to Counseling and Psychiatric Services or Health Services, and Casalegno clarified that both of those services would still be confidential.

There was also a discussion about the difficulties in preventing and reporting assault involving intoxication, as well as the necessity of educating students about diminished capacity and a lack of consent during sex.

Casalegno will present the proposed policy to Student Senate, Faculty Senate, Graduate Student Assembly, and Staff Council at their respective meetings throughout the month.

Increased communication one solution to academic stress

STRESS, from A1

campus dialogue about our culture and its impact on our well-being. In the days and weeks following the article’s publication, I have heard from many students, faculty, and staff about their reflections on CMU’s culture and their aspirations for creating a greater community commitment to wellness.”

At the Town Hall, Casalegno said that “it is clear there is a passion sparked on this topic, and we really want tonight’s event to be an opportunity to inform one another and inform us as we think about where CMU, where Carnegie Mellon, will head in the future as we think about our community well-being.” She said that last spring a survey called “CMU Says” was taken, co-sponsored by her and Burkert, in which one-third of the questions were about personal well-being.

Over half of graduate and undergraduate students participated, and the results — which have already been presented to the academic

deans, president, and provost — will be presented to the Student Senate and Graduate Students’ Association later in the semester. Discussion was active throughout the Town Hall; at one point there were about 30 students waiting to speak.

Students had many suggestions, including the creation of a three-unit Caring@Carnegie Mellon course, structured similarly to the required mini Computing@Carnegie Mellon, and more ways for students to relieve stress and blow off steam.

Another idea was to reconsider the way that class units are calculated: “I think maybe we should have a way to re-evaluate the idea of units.... I know that the way the unit system is supposed to work is that you’re supposed to work nine hours for the week, but I know that I spend a little bit more than nine hours per week on that class.... If maybe there’s a better way to evaluate our courses, evaluate the way we view success, and then also how we better allocate our time, I think students will

be in a much better place,” said Joe Frick, a senior economics major.

Will Weiner, student body president and fifth-year senior decision science and economic and statistics double major, was also in attendance.

“I think it was almost like a very nice cathartic moment for the campus community to be able to have people get these stories off their chests, and in some ways among the silent I’m sure there are more stories like that and it’s comforting to see there’s this other community,” Weiner said.

Vivek Nair, a sophomore electrical and computer engineering major, said after attending the Town Hall meeting, “Yes, I do feel there definitely is something the university needs to do to address this issue. I guess there are some resources out there, but they may not always be the most approachable or most visible.”

According to Nair, “CMU consists of a lot of bright people.... So they feel they have this inertia of success that they feel they need to keep going,

and sometimes they don’t all fully appreciate this place as different. It’s a lot more difficult than things they may have experienced.”

“A lot of people were saying that [their workload] just kind of all a sudden hit them, that they couldn’t do everything,” said Luke Sampson, a first-year biology major.

“I think it’s more on the students than it is on the school. Because the school is here to educate us and give us this challenge, and then it’s on us as students to accept the challenge and take it in stride.”

At the Town Hall, Frick also spoke about the heavy burden that Carnegie Mellon students put on themselves. “Maybe people need to re-evaluate how they view their extracurricular activities,” he said. “I don’t know of a single Carnegie Mellon student who does nothing besides academics, goes to office hours, does everything else, and struggles with school.... We’re doing a lot of different things, but we view those not as leisure time, but additional tasks.”

Sophia Kim, a first-year

business administration major, echoed Sampson’s sentiments.

“There is a lot of stress culture, but I also feel like in a sense it’s our part, also, to budget our time wisely, because we can easily get distracted by social networking sites and stuff,” she said.

William Elmore, a junior civil engineering and engineering and public policy

double major, emphasized the importance of communication between the administration and the student body and the role that the Town Hall played in that dialogue. “I think communication with the student body is necessary, reassessing the way CAPS is designed and utilized is also probably necessary and there are infinite ways of approaching this problem,” he said.



Photo by Jonathan Carreon/Contributing Editor

Gina Casalegno discussed community well-being at the forum.

Science & Technology

Student uses power of grammar to crack passwords

LIGIA NISTOR
Staffwriter

Ashwini Rao, a software engineering Ph.D. student in the Institute for Software Research, recently made important discoveries in the field of password security. She determined ways that make cracking a long password easier; in doing so, she identified grammatical structures that may add further security to longer passwords.

Generally, there are two types of password attacks: online and offline.

An online attack occurs when the attacker sits at a computer terminal, has a web page open (such as a bank site), and tries to guess a user’s password. What usually happens is that, once the attacker makes two or three guesses, the account is locked and the attacker is unsuccessful.

Offline attacks typically deal with hashed passwords used in most websites. Each plain-text password has a generated number associated with it — known as a hash — and that number is the one that is stored. When this data set of hashed passwords is leaked, like what happened to professional networking website LinkedIn recently, attackers can use an unlimited amount of computing power. Hackers will generate a huge number of plain-text guesses, hash them, and compare them to the leaked hashed passwords. If it is a match, they

have found the plain-text passwords.

Rao’s research has focused on this kind of offline attack for long passwords (16 characters or more.) “Currently there is a trend toward longer passwords and those are usually called pass phrases, where instead of choosing a word with lots of special characters and numbers you tend to just increase the length of the password and try to decrease the number of restrictions you put on a user,” she said.

Rao and the other students on her team looked at a data set of about 1,500 passwords. When users were asked to come up with long passwords without any restrictions, 18 percent of those had phrases in them, or contained postal addresses or email addresses. The structure of the passwords influenced their security. When current password crackers — which are algorithms used to determine the hashed passwords — tried to figure out these codes, only 6 percent were cracked. The password crackers didn’t work because they were not meant for long ones and did not take into account the possible grammatical structure of passwords.

For example, the passwords “Shehas3cats” and “Danhas3cats” have the same length, but the second one is more secure. This is because the security of long passwords is influenced by their component parts of speech. The noun “Dan” is more difficult to guess

than the pronoun “she.”

Rao understood that current password crackers don’t look at structure. “They are for conventional passwords, shorter passwords, maybe 12 characters or less. They are not built for these kind of [long] passwords,” she said. She tried to assist the security of these passwords by improving the algorithms that are used to crack them. The idea, in a sense, is to remain one step ahead of hackers. She improved the crackers in two ways.

First, she built an improved password cracker. Current crackers are dictionary based: they have a dictionary of words called “base words” (taken from a thesaurus, short phrases from Wikipedia, movie titles, music lyrics, etc.) and “mangling” rules. Such mangling rules could be “take a word from a dictionary and capitalize the first letter” or “concatenate the same word twice.” These rules are limited to working with maximum two words. The problem was that, in the long password dataset, people were using three, four, or five words.

Rao and her team wanted to build a new password cracker that could “come up with phrases — longer sequences of words,” she said. For this, they defined grammar to be a sequence of parts of speech such as nouns, verbs, and adjectives. Next, they wanted to construct a phrase automatically using the Brown

corpus — a famous collection of annotated words. They took the 1,000 most common sequences of parts of speech and assigned concrete words for each part of speech. Thus they ended up with phrases, or long passwords. For each part of speech, they created a dictionary. For example, they created a noun dictionary that included all of the nouns from the Brown corpus.

Their new cracker takes the sequence of parts of speech, a dictionary for each part of speech, and the maximum guesses the cracker can make as inputs. It will generate a number of sequences and will answer how many of the passwords from a test data set it can crack.

For example, for the sequence of parts of speech “noun, adjective” — and a dictionary containing 20,000 nouns and a different dictionary containing 1,000 adjectives — the cracker will generate 20 million sequences of words. If the maximum number of guesses is only 10,000, it will take the first 10,000 sequences of words, in order by the length of the sequences, and try to see how many of those sequences match the passwords from the data set it is trying to guess.

The second improvement to the current password crackers was using the Google corpus instead of the current dictionaries. The Google corpus contains frequently used sequences of words from web



Ph.D. student Ashwini Rao utilized grammar to crack particularly long passwords.

pages on the Internet. By using this corpus instead of the current dictionaries, Rao’s team was able to crack 20 percent of longer passwords, much more than predicted 6 percent.

They were able to crack an additional 10 percent of the passwords by combining the Google corpus with the new and improved cracker.

“This is the most important result. We were able to crack new passwords that otherwise couldn’t be cracked,” Rao said.

Rao will present the findings on Feb. 20 at the Association for Computing Machinery’s Conference on Data and Application Security and Privacy (CODASPY 2013) in San Antonio, Texas.

HOW THINGS WORK

Powering homes with heat from Earth

DESIREE XU
Staffwriter

Pollution and global warming, caused by burning oils and fossil fuels, are the most talked about issues in the world of energy. However, scientists have found a new source of energy that lies right under our feet: geothermal energy.

Geothermal energy is not only clean, renewable, and efficient, but it is also more cost effective and readily accessible. It releases a fraction of the amount of carbon dioxide that fossil fuels emit, and it produces smaller amounts of nitrous oxide and sulfur gases. Geothermal plants are also more reliable, running 24 hours a day, 365 days in a year. It’s no wonder that the world consumes 7,000 megawatts of geothermal energy a year. The United States produces 2,700 of that total, according to the Geothermal Education Office.

Still, before geothermal energy is given too much praise, it’s important to find out what exactly geothermal energy is, where it comes from, and how it’s used.

Geothermal energy literally means energy from the

Earth. It is heat — the energy of steam and hot water heated by the Earth’s core, which lies about 4,000 miles beneath Earth’s surface and can reach temperatures of 7,600°F or higher. Such heat can melt surrounding rocks, turning them into magma that rise toward the Earth’s surface (considering they are less dense than the surrounding rocks.) After reaching the surface, the magma heats nearby rocks and water that is trapped within them. As a result, some of the water escapes through the surface to form geysers and hot springs. The remaining water becomes geothermal reservoirs, which are pools of water under the Earth’s surface.

There are several ways to acquire this energy according to www.howstuffworks.com; these include accessing it directly from the ground and using a geothermal pump to heat and convert the energy to electricity. To access the heat directly, a building merely needs to be built near the source — hot springs and reservoirs — so that hot water can be piped directly through a heat exchanger that transfers the heat from the water

into the building’s heat system. Afterward, the used water is returned to the reservoir via a well to be reused again.

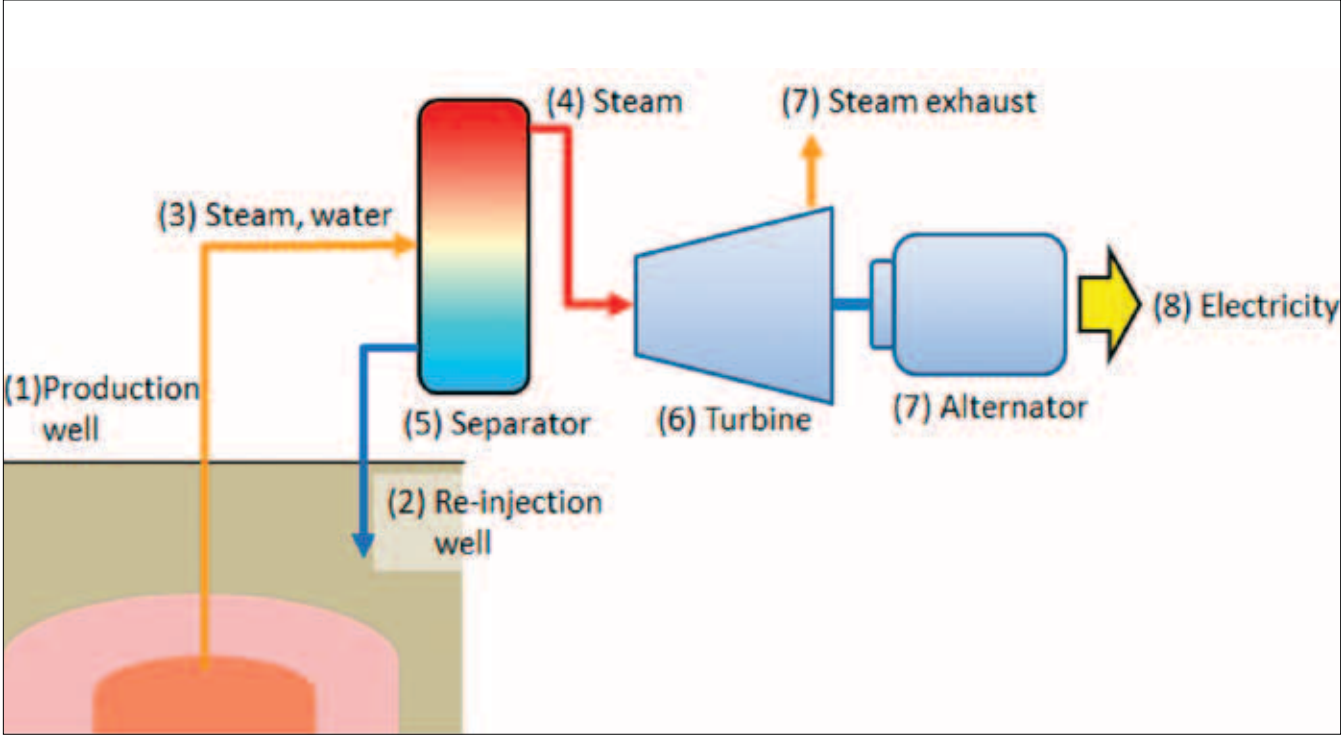
The geothermal pump uses the heated soil and water near the source differently. Pipes connecting to a building are built beneath or around the heated soil and water; fluid circulates these pipes and picks up the heat from the surrounding source. The heat within the pipe is then sucked out by an electric compressor and heat exchanger, which sends the heat through a duct system throughout the building. At hotter temperatures, the opposite process occurs; The pipes pull the heat out of the building and sends it to the ground or water outside.

The geothermal power plant generates electricity by piping hot water and steam throughout underground wells. There are three kinds of plants: dry steam plants, flash steam plants, and binary cycle plants. In dry steam plants, hot steam is piped directly from geothermal reservoirs to spin turbines located in the generators to produce electricity. In flash steam plants, wells bring up water between 300°F and 700°F. Some of

this water turns into steam to drive turbines. The steam then cools, condenses, and goes back into the ground. In binary cycle plants, moderately hot geothermal water passes through a heat exchanger to transfer its heat into a liquid that boils at a lower temperature than water. After the heated fluid becomes steam, it spins turbines to generate electricity.

Geothermal energy can be expensive at first: Drilling wells can cost between \$1–4 million per drill, and installing home pumps can cost up to \$30,000. However, the home geothermal pumps can decrease energy bills by 30 to 40 percent and will pay for themselves within five to 10 years. After all, geothermal energy perpetually replaces heat, as removed water can be returned to the ground after the heat is used.

Geothermal is an energy source that is clean and renewable. Some countries like Iceland utilize geothermal energy as one of their main sources of power, with the capital city of Reykjavik getting 95 percent of its energy from the source. The U.S. may soon follow in their footsteps.



This schematic shows the harnessing of energy from within the Earth. A production well captures heat from within the Earth’s core that produces steam and water. Water is sent back into the Earth while the steam spins turbines that produce electricity. Geothermal energy is becoming an increasingly important energy source for the United States.

SCITECH BRIEFS

America’s house cats more violent than thought

A new analysis conducted by the Smithsonian Conservation Biology Institute found that domestic cats have been killing more wild birds than scientists thought. America’s domestic and feral cats kill between 1.4 billion and 3.7 billion birds per year, a number that is drastically larger than the previously estimated 500 million.

These numbers were determined by studies assessing the hunting habits of cats in the United States. The result from calculating the percentage of cats that live outdoors, the percentage of household cats that are occasionally allowed out, and the amount of hunting a cat will normally do when outside was “alarming.” Conservationists have tried capturing and neutering wild cats, but the process has been too time consuming and expensive.

Source: *Science News*

South Korea launches first successful satellite

After three failed attempts in the past four years to launch a civilian rocket, South Korea launched its first space rocket carrying a science satellite last Wednesday. While previous launches failed within minutes, this rocket, named Naro, successfully entered orbit.

However, South Korea is still far behind its rivals, China and Japan, in space efforts. While South Korea is capable of producing satellites, it has relied on other countries to put them into orbit. South Korea plans to build a rocket on its own by 2018 and eventually send a probe to the moon. South Korea’s rocket program is an issue of contention with neighboring North Korea, which is included in the United Nations’ sanctions for launching long-range rockets.

Source: Reuters

Wristwatch to help combat sexual violence in India

In response to the string of violent gang-rapes of female bus passengers in New Delhi and Gurdaspur, Indian officials are developing an innovative wristwatch that can help protect women. The watch’s main feature is a button that sends a text message to close relatives and the nearest police station.

A GPS inside the watch will determine the wearer’s location and a small camera will record for 30 minutes after the button is pressed. The prototype for this wristwatch is due to be released in half a year. While rape-prevention technology is a step in the right direction, some are skeptical on how effective it will be.

“I don’t think this will make any difference in controlling rape cases,” said Sehba Farooqui, a women’s rights activist in Delhi.

Source: *Discovery News*

Storm on Saturn travels the globe; then swallows self

Scientists from NASA’s Cassini mission recently published a paper detailing a 267-day-long storm on Saturn. The storm was tracked by Cassini’s radio and plasma wave subsystem and imaging cameras. It erupted at the 33 degrees north latitude and moved west, covering 190,000 miles and wrapping around the planet. Unlike terrestrial storms that run into mountains and other topographic features, causing them to die out, Saturn’s storm traveled all the way around the planet — unimpeded by any land features — until it reached where it began. At this point, the storm ran into itself and mysteriously dissipated, putting an end to one of Saturn’s longest-running storms.

Source: *Astronomy Magazine*

SCIENCE AND TECHNOLOGY CAMPUS NEWS IN BRIEF

ECE professor receives Intel Early Career Faculty Award

Every year, Intel gives an Early Career Faculty Award to a young faculty member who shows great potential for achieving groundbreaking advancements in his field. The \$40,000 award is meant to help the recipient with research and travel costs. The 2012 Intel Early Career Faculty Award was given to Carnegie Mellon’s Onur Mutlu, assistant professor of electrical and computer engineering.

Mutlu received his bachelor’s degrees in computer engineering and psychology from the University of Michigan in 2000. He then received his master’s degree for electrical and computer engineering in 2002 from the University of Texas at Austin and his Ph.D. in computer engineering in 2006, also from the University of Texas at Austin. Before becoming a professor at Carnegie Mellon, Mutlu worked at Microsoft Research.

“I am honored and humbled to receive this award as I work with my students and collaborators to develop fundamental breakthroughs to enable future computer systems that are much more efficient, resilient, predictable and economical,” Mutlu said in a university press release.

Mutlu’s research focuses on developing microprocessors, computer memories, and platforms that are more efficient and reliable. His research group, known primarily as SAFARI (for safe, fair, robust, and intelligent computer architecture), is part of the Computer Architecture Lab at Carnegie Mellon (CALCM) and conducts research to improve computer systems.

SAFARI’s major research interests focus on hardware

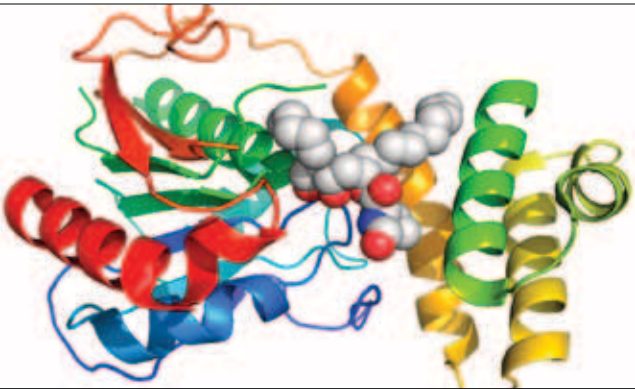
and software interface and improving parallel computing, the process of computation by which multiple calculations are carried out simultaneously. “We have been developing many new ways to solve efficiency, predictability, and robustness problems and combat denial of service attacks so endemic in today’s computer systems. My group aims to rethink the ways in which we design three fundamental functions of all computers: computation, storage, and communication,” Mutlu said in the press release.

An interesting application of SAFARI’s work is in biocomputing: Mutlu’s group is working on designing systems and devices that can improve applications such as DNA sequencing.

“We are very pleased to be able to recognize the tremendous contributions that Professor Mutlu is making to the advancement of the performance of computer systems. His work is widely recognized and impacting this field in numerous ways,” said Ed Schlesinger, head of Carnegie Mellon’s department of electrical and computer engineering, in a university press release.

Besides the Intel Early Career Faculty Award, Mutlu’s work has received numerous other recognitions, such as various best-paper awards and “Top Pick” paper selections by the Institute of Electrical and Electronics Engineers’ microjournal. Mutlu also received the Young Computer Architect Award from the Institute of Electrical and Electronics Engineers and was recognized with the George Tallman Ladd Research Award from Carnegie Mellon.

Professor receives inaugural AkzoNobel chemistry award



Courtesy of Wikimedia Commons
Matyjaszewski’s lab works with macromolecules like shown above.

From cosmetics and adhesives to potential medical devices, Krzysztof Matyjaszewski has made his mark on the field of chemistry and the world.

Matyjaszewski, the J.C. Warner Professor of the Natural Sciences in the Mellon College of Science, has recently been awarded the AkzoNobel North America Science Award. He is the inaugural recipient of the honor, which is jointly presented by the American Chemical Society (ACS) and the paints and coating company AkzoNobel. The award comes with a prize of \$75,000.

Matyjaszewski’s research focuses on polymer, or “molecular,” chemistry. One of his largest contributions to the field has been the development of atom transfer radical polymerization (ATRP). ATRP is helpful to chemists because it can allow them to build complex polymeric materials from building blocks, known as monomers, piece by piece. The process allows chemists to use a catalyst to add a few monomers together at a time, eventually creating a complex polymer.

ATRP was conveniently created during a time when chemists were searching for an easier way to create poly-

mers. Technological limitations made it difficult to build specific and uniform polymers, and chemists were looking for a possible way to control radicalization to create the polymers in a less expensive manner. Matyjaszewski published the paper on ATRP in 1995. The process took off, as it only required typical laboratory instruments.

Additionally, his use of catalysts enabled the process to be shut down and restarted just by adjusting controls such as temperature. His 1995 paper has had over 3,000 citations, and scientists have used his method to create products as diverse as cosmetics and inkjet printing.

As director of Carnegie Mellon’s Center for Macromolecular Engineering, Matyjaszewski has written 17 books, 80 book chapters, and over 770 peer-reviewed articles. According to a university press release, Matyjaszewski has been cited over 50,000 times during his career.

Matyjaszewski, who has received numerous other awards, will be officially honored for his achievements at the ACS 245th National Meeting and Exposition, which will be held April 7–11 in New Orleans.

David Brumley appointed to new ECE faculty position

David Brumley has recently been named the Gerard G. Elia Career Development Professor in the department of electrical and computer engineering (ECE). Brumley, who received his Ph.D. from Carnegie Mellon in 2008, also has positions in the computer science department and Carnegie Mellon’s CyLab.

Brumley’s research focuses on the areas of computer security, applied cryptography, program analysis, compilers, and verification. “My goal is to make computer software and systems safe,” Brumley said in a university press release.

“Attackers only need to find a single flaw to break into a system. Defenders have the much harder job of plugging all holes,” he added.

In his pursuit of safer computing, Brumley has focused some of his research on computer privacy. According to Brumley, there is currently an impasse in the world of computer privacy: Users wish to remain anonymous for fear of having a stolen identity, and service providers need a way to track accountability to protect against abusive users. Brumley and his colleagues’ goal is to develop a system that would allow users to understand exactly when their identity would be revealed.

To solve this problem, Brumley has based his research on the idea of contracts. When users accept a contract, their identities are placed in an server that runs a program called Flicker. Flicker proves to both the user and service provider that the user’s identity will be revealed only if the user breaks the contract. This solution is designed to be fast and fair to the user.

In addition to his security

research, Brumley teaches multiple courses in the ECE department, such as Introduction to Computer Security, and is the mentor of Carnegie Mellon’s Capture the Flag team, which has won three international competitions. Capture the Flag is a computer security game where a team of competitors solve a series of problems to determine a source key of information.

“David Brumley is widely regarded both on campus and in the wider community for his cutting-edge contributions to addressing the challenges associated with computer malware as well as his dedication to teaching. His commitment to teaching and demonstrated leadership inspires our students to become world-class problem solvers,” said Ed Schlesinger, the David Edward Schramm professor and head of the department of electrical and computer engineering, in a university press release.

Brumley also contributes some of his success to the environment at Carnegie Mellon. “I am very grateful to my students and colleagues for helping me push the boundaries to improve cyber security,” he said in a university press release.

During his tenure, Brumley has been the recipient of numerous awards, including the 2010 United States Presidential Early Career Award for Scientists and Engineers from President Barack Obama. He received his undergraduate degree in math from the University of Northern Colorado and his master’s degree in computer science from Stanford University.

Compiled By
MICHAEL SETZER, BROOKE KUEI

Carnegie Mellon University
Dietrich College of Humanities
and Social Sciences

Dean's List Fall 2012

On behalf of the faculty and staff of the Marianna Brown Dietrich College of Humanities and Social Sciences, we congratulate the DC, SHS, and BHA undergraduates listed below for earning a place on the Fall 2012 Dietrich College Dean’s List.

— Dietrich College Dean’s Office

HIGH HONORS	Jason Ha Kamal Abdulrazaq Juan Acosta Anna Albi Benjamin Alderoty Gregory Allen Tristan Ammond Jenna Asperslag Victoria Baggio Sophie Batton Halley Bayer Ryan Billings Austin Bohn Michael Bove Vanessa Branch Zachary Branson Marisa Breitfeller Emma Bright Jillian Brinberg Timothy Broman Stephanie Brown Hailey Bryant Andrew Butko Kathleen Cameron Paul Carboni Katharine Carlson Sheila Chan Bradley Charna Sherry Chen Linda Cheng Kevin Chiu Stephanie Chiu Hoon Choi Jennifer Coloma Allison Cosby Stephen Crawford Rachel Crown Samantha Davies Sarah DeJulius Wyatt D'Emilia John Devine Shivika Dhar Samantha Dickinson Nicole Dimascio Kristin Diesk Ryan Donegan Colleen Eagan Arielle Etchells Emily Etzel Hannah Evans Michael Ferraco Matthew Finlay Rosa Floreack Caroline Flowers Joseph Frick Seijeann Gahng Leila Garcia Nancy Geronian Zora Gilbert Ian Go Elana Goldberg Jordyn Greenberg Adam Gruber	Olivia Ha Rubini Naidu Manojit Nandi Amy Nasr Daniel Nesbit Allison Ngo Kaytie Nielsen Tennley Noble Akiode Dzifa Oduntun Nathan Oh Adetunji Olojede Mei Huey Ong Ryan Ott Diana Pacilio Kang Jun Park Sung Jin Park Gabriela Pascuzzi Olivia Paul Sarah Peko-Spicer Sarabeth Perry Julia Petrich Ariel Polakoff Emily Pond Alicia Pottmeyer Brianna Pritchett Michael Probbert Anna Pyzel Hayley Rahl Chanamon Ratanalert Angelique Rein Adriana Rodriguez Stephen Rosnick Barnik Saha David Sandor Marissa Savino Kevin Schaefer Sara Schenker Emily Schlossman Colin Shaffer Isaac Shamic Ahmad Shamsuddin Molly Shanley Katarina Shaw Daniel Shlyuger Gabriel Shoglow-Rubenstein Mark Slabinski Natalie Smith Elizabeth Snyder Ashley Sobhani Jessica Stayton Jordan Stephenson Adria Steuer Laura Stiles Jichao Sun Kristine Swarts Peeya Tak Ariel Tan Julia Teitelbaum Christopher Tham Katherine Thomas Estelle Tian ChuYing Tsai Hsin-Lien Tsou	Jennifer Tuttle Kavita Varadarajan Matthew Vela Thomas Vielott Kathryn-Mary Wakim Kayla Walker Anna Walsh Samuel Walters Xiyu Wang Nancy Wei Agnes Won Chris Won Ema Woodward Hannah Wornall MingYan Wu Bingying Xia Diandian Xiao Lori Yamashita Kristine Yeh Stephanie Yim Catharine Youngs Weixian Yu Ronald Yurko Laurel Zelnik Maggie Zhang	HONORS Faiz Abbasi Siriana Abboud Aderinsola Akintilo Laura Anderson-Lehman Marie Avilez Chelsea Bartel Michael Joseph Bautista Jenna Blake Jonathan Blake James Bogie Vladislav Bouchouev Raina Bradford-Jennings Erin Breen Akwasi Brefo Jennifer Brown Jahque Bryan-Gooden Avery Calkins Laura Caton Robert Cayne Samuel Cedarbaum Dominic Germinara Connie Chan Jae-Eun Chang Jason Chen Joanna Chen Kevin Chen Shannon Chen Xi Chen Joshua Choi Michelle Chyr Emily Clark Joshua Claudio Rebecca Cobotto James Colmar Julia Constantine	Rachel Contopoulos Shane Copelin Dylan Corwin John Cusick Kristina Dacosta Lily Daigle Deanna Daly Joseph Delaney Hannah Dellabella David Demerson Kelsey Dietz Emily Dobler Micaela Dudley Jonathan Durstenfeld Julien Eckstrom Mehmet Erbug Nicholas Fittingler Stephanie Falsone Sara Faradji * Mariem Fekih Zguir Katharine Flaherty Inez Foong Jordan Friedlander Ronald Fudala Sana Ghazi Natalie Giannangeli Henry Gifford Aditya Goyal Kristen Grauer Dillon Grove Nicholas Guesto Oliver Haimson Nicole Hamilton Lucy Havens Amber Hekler Marcy Held Lydia Hendricks Alexandria Hernandez Christa Hester Charlotte Himeles Jennifer Hirsch Sung Jin Hong Xinyue Hong Jacob Housen Stacey Hsi Tahsin Islam * Tasneem Jahan Radhika Jhunjhnuwala Ka Young Joung Becker Jung * Sama Kanbour Nicole Kawakami Ilyas Kenzhegaliyev Radwan Khan Irene Kim Jac-Won Kim Junghyun Kim Stanley Krasner Ela Kulkarni Hannah Kumar MeiChun Kuo Nicholas Lam Louis Lamanna	Samantha Landen Emily Larosa Hyejin Lee Lauren Lee Lek Heng Lee Tae Hyung Lee Winnie Leung Elizabeth Li Matthew Limbu Elizabeth Lorenzi Anthony Lorubbio Tianyi Lu Chloe Lula Christian Manoli Johnrobert Marshall Alvin Mathew Michelle Mathew Allison McGugan Colin Meret Jonathan Miller Anna Molosky John Montgomery Jennifer Moreci David Moss Daniel Muller Alexander Murray-Watters Moses Musaelian Benjamin Muzi * Ali Naqi Tiffany Nguyen Matthew Nielsen Samantha Olson Ahmed Osman Carina Paliocha Joseph Pane Michael Pane Abhinav Parameshwar Roy Park So Yun Park Song Park Yeon Soo Park Jennifer Patel Martha Paterson Anwesha Patnaik Julia Pattison-Gordon Emily Peel Louisa Pendergast Maircad Pettit Carson Quiros Sachin Rajpal Regena Reyes Alejandro Reyes-Morales Tyler Rice Corinne Rockoff Enrica Rosato Eunhyun Ryu Adhip Sacheti Katharine Saidkhanian Rintaro Sato Marielle Saums Kristina Schiffhauer Vira Shao Sanum Sheikh	John Shields David Shorr Taylor Smith WonWoo Sohn Leonard Sokol Charles Stein Stephanie Stern Eric Summers Joshua Swanson Irene Tai Marco Talabacu * Humaira Tasnim Chloe Thompson Kelsey Thompson * Haya Thowfeek Noel Um Serh Vargo Gabriel Vegh-Gaynor Alexandra Venegas Vani Vijayakumar Vinay Viswanathan Abigail Volynsky Samantha Walker Jessica Wallach Mallory Wang Michael Wang Xun Wang Rebecca Warshofsky Logan Watanabe Alexander Webster Shayna Weiss-Perea Kathryn Wells Gabrielle West Samantha Wilson Marisa Wiltzie Von Wise Jaclyn Wolf Emily Wright Yuting Xiang Jasmine Xie Nina Xu Heewon Yang Sandra Yeh Lydia Yi Mark Yount Catherine Yu Deahan Yu Jonathan Yu David Yun Siyan Zhao Quan Zhou	* Information Systems Program Qatar	BACHELOR OF HUMANITIES AND ARTS Nicole Anderson Nicole Anderson Harrison Apple Sam Barton	Charles Burlingham Daniel Campos Zamora Sarah Ceurvorst Laura Contero Molly Cook Rosalyn Denton Danielle Dong Emily Faber Madalyn Gryger Kayla Heglas Cole Heiner Elizabeth Imas Sara Keats Jacob Klingensmith Alexander Lee Katherine Lee Talia Levin Joshua Levitin Eleanor Lewis Melody Lu Esther Michaels Anna Nelson Emma Olsen Alexandra Ossowski Liza Otto Catherine Paquette Tyler Porten Taylor Preston Sarah Read Gina Smith Carolyn Supinka Molly Swartz Julia Sweater Aimee VanVarick Samantha Ward Isabella Weiss Minnar Xie Nicole Yoon Yu Zhao Matthew Zurcher	SCIENCE AND HUMANITIES SCHOLARS HIGH HONORS Riddhima Agarwal Stephanie Blotner Abigail Burton Vivian Chang Rebecca Chen Yaoran Chen Ernest Kin Hoe Chiew Madeleine Clute Yidan Cong Charlotte Darby Daniel Davis Zachary Dell Wendy Du Emily Feenstra Emily Furnish Naomi Gunawardena Adrian Hagerty	Kelsey Hallinen Linus Hamilton Kimberly Josephson Sneha Kannoth Gi Hyun Kim Justine Kim Leslie Kim Kathleen Kupiec Jessica Laubach Hannah Loo Spencer Luther Brendan MacNabb Nicole Marrow Michael Matty Alexandra McCluskey Kathryn McKeough Danielle McKinney Jeremy Meza Lauren O'Neil Keisuke Osumi William Peterson Caitlin Selvaggi Kelly Shibuya Christopher Sickler Rishi Sonthalia Anthony Spadaro Wan Xin Teo Jennifer Tharp Alice Tripp Sophia Wu Fan Yang Fan Yang Brandon Yee Matthew Zaccardo Sophie Zucker Nicolas Zuniga-Penaranda	HONORS Andrew Armstrong Zachary Auerbach John Foo Nathaniel Fruchter Yao Kang Lazar Lalone Amy Li Like Li Amritha Mallikarjun Purumeh Nam Tsutomu Okano Salim Peshawaria Jennifer Soong Lanya Tseng Rachel Walsh Chen Wu Tammy Ying David Zimmerman
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Forum

FROM THE EDITORIAL BOARD



Courtesy of Juan Fernandez

Town Hall a good first step for university discussion

In response to the conversation sparked by the loss of Henry Armero and Katie Chironis’ recent op-ed piece regarding Carnegie Mellon’s culture of stress, Dean of Student Affairs Gina Casalegno, Vice Provost for Education Amy Burkert, and Student Body Vice President Meela Dudley hosted a Town Hall meeting for students, faculty, and staff “to explore CMU culture and our well-being as a community.”

We thank the University for addressing our campus’ stressful culture. The Town Hall meeting was a step in the right direction, and a large number of campus community members showed up to demonstrate their interest in the discussion. Furthermore, we look forward to Carnegie Mellon’s future actions regarding this issue — but we must highlight the flaws of the Town Hall that were apparent.

The first half hour of the Town Hall was spent enumerating the university’s efforts to establish a positive

community. The hosts wasted valuable time that could have been spent listening to students. While their speeches were well articulated, they could have been more concise.

These speeches contributed to a second notable flaw: Attendees that wished to voice their opinions were not given enough time to speak. At least 20 people did not get to talk during the meeting. For future Town Halls, a website could be created for students to sign up in advance to speak. A predetermined time limit for speeches could also be instituted, so that everyone would be guaranteed an opportunity at the podium.

Many students also shared narrative-driven stories at the Town Hall. While the stories were admirable, many were only tangentially related to Carnegie Mellon’s culture and prevented some students from speaking.

Despite these flaws, the Town Hall was highly attended, and it successfully increased community involvement in regards to the stress

culture. The people that spoke during the session offered a variety of discussion topics and solutions. While the Town Hall was meant to identify the problem in our campus and the sources of stress, some students voiced solutions to specific aspects of our community. The solutions they voiced were valuable as well. Sophomore Kelsey Dietz recommended a three-unit course called “Caring@Carnegie Mellon,” which would teach students how to remain emotionally healthy while balancing university life. This type of course would be helpful for first-year students adjusting to a new life without parental guidance and would remain relevant to them throughout their time at the university.

Given how important this discussion is to the campus, and to students’ general health, we hope Carnegie Mellon continues this discussion and we look forward to what will inevitably be a gradual but important change.

Let Carnegie Mellon’s mythical mascots be known

Carnegie Mellon isn’t known for school spirit. People generally attribute this to grueling academics, the almost equal undergraduate-to-graduate student population, and students’ inherent apathy on the subject. In order to enhance Carnegie Mellon’s pride, the university should promote the mascots of each school, just as the School of Computer Science does with its dragon.

On the banners at commencement, creatures and flowers are displayed with the names of other Carnegie Mellon schools: The College of Fine Arts banner displays a lion or chimera, Tepper’s banner sports a griffin, and Dietrich College of Humanities and Social Sciences depicts a unicorn.

Admittedly, the banners for Heinz

College, the Carnegie Institute of Technology, and the Mellon College of Science exhibit different types of plants, not creatures — but it would be simple to establish mythical creatures as mascots for these departments. The students in MCS would probably trade a phoenix mascot for their current bluebell any day.

Having official mascots for each school — preferably mythical creatures like those of SCS and Dietrich — would not only induce playful competition between schools, but also encourage pride for one’s school and the university as a whole.

Establishing multiple mascots to instill competition and camaraderie is hardly a novel concept: Yale has been doing it for a long time. Each of Yale’s residential houses has its own

mascot, from a walrus to a thunder chicken. These may seem like quirky choices for the faces of schools, but they’re no quirkier than Carnegie Mellon’s plaid emblem. Students across campus would no doubt enjoy having school-specific mascots that they could call their own.

If mythical mascots like the Tepper griffin were well-known, Carnegie Mellon could even incorporate them into its University Store merchandise. New merchandise would be a welcome change from the numerous and relatively boring realizations of Carnegie Mellon attire.

Pride is important at any university. Mascots could help to achieve the increased sense of pride and school spirit that is in need at Carnegie Mellon.

Music-streaming services need to focus on artists

The music industry has had to adapt to the Internet. Industry leaders have been forced to figure out how to best utilize the Internet and stop piracy due to increased access to music and music-sharing. Solutions include easy-to-use systems to purchase songs, such as iTunes. However, Spotify and the recent proliferation of music-streaming platforms have changed the business model once again, according to a recent article in *The New York Times*.

The concept of having free access to a large portion of popular music is appealing, not only to the cash-strapped college crowd of Carnegie Mellon but to anyone who wants

more for less. However, the business model of unlimited free music access for users needs to be re-evaluated due to a minimal payout for artists.

Music-streaming platforms, such as Spotify and Pandora, pay the record companies on a per-listen basis. According to *The New York Times*, the payment artists receive from Spotify per play is between 0.5 and 0.7 cents, or between \$5,000 and \$7,000 per 1 million listens on the service. If this were an artist’s only source of income, it would not be sustainable, according to Hartwig Masuch, chief executive of BMG Rights Management.

The dynamic that artists, record

companies, music distributors, and music listeners have with each other must be redefined in a world where streaming seems to be the future of not only the music industry, but the realm of personal information and content as well.

As a consumer, streaming music with no up-front cost is a great deal, since it allows people to easily discover new music and thus increase the consumer bases of individual artists. However, artists need to receive fair payment for the music they produce. If that remains the case, the system needs to change or people have to become more aware of the ethics of how they consume music.

Time to end the Twinkie

Chloe E Thompson

CHLOE THOMPSON

Last week, Apollo Global Management and C. Dean Metropoulos & Co. started the bidding over who gets to resurrect the Twinkie. The two private-equity firms aim to achieve this act of necromancy with a joint offer of \$410 million. This means that somebody, somewhere, is going to pay a ridiculous amount of money to continue clogging America’s collective arteries.

After Hostess filed for bankruptcy last November, I thought that the Twinkie had hauled itself to some sugary grave to die in peace like it should have.

I looked forward to the days when the stale, decrepit snack cakes would be worth twice their weight in gold, as relics of an ancient and golden past. (Can Twinkies even get stale when they’re vacuum-packed in plastic?) The Twinkie was supposed to be over, finished. To everything there is a season.

Now Apollo Global Management and C. Dean Metropoulos & Co. want to drag the Twinkie back from the brink, to restock the shelves of America with the oblong cakes of our childhood. They are not the only ones to seek the revival of Hostess’ varied brands comprised of sugar and solid fat. In the beginning of January, Flower’s Food decided to buy Wonder Bread, Nature’s Pride, and other Hostess bread brands. Though all of these products evoke America’s imminent heart failure, it is the Twinkie that stands as king of

all products cobbled together from flour, sugar, and plastic.

For the love of God, let the Twinkie die.

Let it limp into its last sunset. Let it pull its high fructose corn syrup-filled corpse over that final horizon. One Twinkie has over 39 ingredients crammed into four inches of cake, and that’s not natural. Haven’t we suffered enough from its chemically-sweetened presence for the last 80 years?

Seriously, we’ve still got McDonald’s, Entenmann’s, and Little Debbie’s to keep us fat, though. It is true that none of these brands exemplify America the way the Twinkie did.

The Hostess snack cake is iconic. It sat in our lunch boxes and got squashed in our back pockets. It even provided the basis for one of the most ridiculous defenses in American legal history — the “Twinkie Defense.” In the 1979 trial of Dan White, accused of assassinating San Francisco Mayor George Moscone and supervisor Harvey Milk, White’s lawyers argued that his excessive junk food consumption was evidence of his underlying depression, which in turn provoked him to murder the two men. Nothing says “murderous depression” like snack cakes.

The point is, the Twinkie has had its run. Yes, it was a part of American childhoods, and American history as a whole, but its time is over. We should bid it a fond farewell.

But, of course, everyone involved in this particular business deal has got at least 410 million reasons to ignore me on this one.

Chloe Thompson (cet@) is personnel manager for *The Tartan*.



Braden Kelner/Forum Editor

LETTER TO THE EDITOR

Past student talks stress

I read with great interest of the forum that was conducted on campus pursuant to the suicide of a student and the issue of the pressure and competitive nature of the institution rising to the fore.

It is obvious to me that nothing has changed at Carnegie Mellon since I attended from 1974 through 1977.

Perhaps my first mistake was to have attended the school out of a sense of duty to my late mother, Gloria Siegle Spiegler, a distinguished 1943 alum from the School of Music, who enjoyed a wonderful and gratifying career as piano performer and teacher. Mother treasured her days at what was then Carnegie Tech.

I was accustomed to being one of the students that excelled in elementary and high school, but found that at Carnegie Mellon, I was no longer anything special as one forgotten member of a group of brilliant individuals.

I was taken aback by the lack of individual instruction, attending lectures with many times the

number of students as there were in my high school classes. It was easy to get lost among the masses in these huge lecture classes. I also had great difficulty in comprehension and absorption of material delivered by teaching assistants that had poor English skills, something to which I was not at all accustomed.

I felt that there was little, if any, help for the student that found the atmosphere at Carnegie Mellon to be as challenging and intimidating as I did.

I went on to attend and graduate from Robert Morris University with a degree in Business Administration and to a successful career in the public sector which continues after almost three decades. I have a soft spot in my heart for the school predicated upon what it meant to my beloved mother (and I donated her two prized pianos to Carnegie Mellon upon her death in 2005), but CMU was not a factor in any of my achievements.

Oren M. Spiegler

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THE TARTAN

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Transfer payments are legal form of robbery



KYLE HENSON

It is a dark and stormy night. You and a friend find yourselves walking home through an unfamiliar set of alleys. Twisting and turning in darkness, you trudge through the rain, gradually overtaken by the panic of being lost. A shadow emerges from the dark. You see an elderly man succumbing to arthritis, yet somehow still able to confront you with a .45-caliber pistol. He doesn't ask you for anything now, but he knows where you live and will kidnap you if you don't meet his future demands. As an ailing senior, he needs no more than a percentage of every paycheck you earn to pay for his daily expenses and healthcare. In return, he says, when you age, you'll be able to rob younger and abler people as well.

Many agree that, in the situation above, the geriatric mugger is wrong. He's using force to rob you. Despite being comically delivered, this is exactly what Social Security and Medicare do. Remembering that government simply serves the people, by eliminating the middleman we see a situation in which elderly people are committing generational theft against younger citizens.

Transfer payments follow this logical thought process. They are robbery from one group of citizens to another group, backed by force and with the guarantee that if you found yourself in the same situation, you'd be able to rob others in a similar manner. Obamacare transfers money from the healthy to the sick; Social Security and Medicare take money from the young and give it to the old; welfare transmits money from the rich to the poor. Yet if any of these programs were to be broken down into the individual transactions they represent, like the elderly man in the alley, we would call these actions immoral.

Actions impermissible at the individual level should not be permissible at the mob level.

If these transfers are truly the will of the people as a whole, then charitable programs with voluntary participation would theoretically fill the same void with the same amount

of money. If the peoples' will is truly being represented, we don't need to be coerced into participating in this transfer. Yet if coercion is the only means of achieving these types of transfers, then they are not the will of the people.

Charities exist to augment these programs, and people give to them. Most hospitals have charity funds to cover people in need. There are voluntary support programs for the elderly, as well as families who support their parents and grandparents when they become too old to support themselves.

We see a situation in which elderly people are committing generational thefts against younger citizens.

One counterargument to this point is that people won't be able to keep track of donating to the individual charities that fill the voids that transfer payments currently occupy. Yet, should the government step out of this area, conglomerate charities would emerge that distribute money to all of the areas that government has left behind.

One advantage of having charities fill this void is the efficiency gain that competition would bring to the field. Having the bureaucracy of government replaced with the efficiency of markets and private enterprises would ensure that more of the money put toward these causes would not fuel inefficiency.

The entitlement programs that these transfer payments perpetuate are major drivers of the deficit. Eliminating them would make our government more solvent. This proposed system is functional and workable. A lack of government interference would bring efficiency gains that would help those in need more than transfer payments, which don't necessarily reflect the will of the people.

Kyle Henson (kahenson@) is a staff-writer for The Tartan.

Comment wars don't start change



CATHERINE SPENCE

The Carnegie Mellon community has found a new outlet for complaining, trolling, and messing around on the Internet in the Facebook page "CMU Confessions."

The page now has over 900 likes and hundreds of posts ranging in length from a short phrase to short stories.

Besides wasting time reading all the posts, some people start online wars by commenting about racism, sexism, and other issues plaguing our campus. Although it's admirable to care about your beliefs, posting your opinions on CMU Confessions is a waste of time. You are not addressing the original author of a post, nor do you know what the original intent of the post was.

For those of you smart enough to avoid the page all together, the way it works is simple. The person running the page has created an anonymous Google Survey that students can fill out. Barring some very extreme cases, all confessions will be posted to the Facebook and Twitter feeds of the account within a few days.

The biggest problem is that any-

one can post anonymously, and readers of the page have no idea if they are addressing a fellow student, some random person, or their best friend. This uncertainty is what makes commenting on posts such a colossal waste of time.

The Internet is full of websites that are victim to "trolling," defined by *urbandictionary.com* as "the art of deliberately, cleverly, and secretly pissing people off, usually via the Internet, using dialogue." CMU Confessions is a prime example of a page that attracts people who do just that. Many anonymous posts to the group are understood, and rightfully so, as racist, sexist, or just plain mean.

Does replying to these anonymous posts actually do anything? In my opinion, the answer is no. By getting worked up about posts made anonymously, all you are doing is making someone more likely to post something obnoxious again.

CMU Confessions should continue to be a place that people feel safe offering their opinions, secrets, or anything else they want to share anonymously with other students, but I don't think paragraph-length replies are necessary or worthy of anyone's time.

Next time you see a post that upsets you, stop and realize that by posting a long reply berating the anonymous author of the original

post, you are giving that person the satisfaction they want. Take a minute and realize it's probably more constructive to become involved in an organization that works to end the kind of discrimination that upset you. Use the anger you feel toward these ill-informed and anonymous cowards to do some good.

CMU Confessions definitely isn't all bad though. The page is full of well-intended compliments, gripes people identify with, and tragic stories of unrequited love (I'm looking at you, green-eyed Indian girl). I think reading the page is a lot of fun, and even leaving a word or two of encouragement here or there for someone struggling with their academics, self-esteem, stress or other issues is definitely a nice thing to do. However, beware of wasting your time when something makes you mad.

Getting into heated arguments does nothing to change the underlying problems, and instead perpetuates a cycle of offensive posts. In the wise words of Maya Angelou, "If you don't like something, change it. If you can't change it, change your attitude. Don't complain." Instead of complaining about ignorant comments, be proactive and do something about it.

Catherine Spence (cspence@) is a staffwriter for The Tartan.

EDITORIAL ART



Courtesy of Juan Fernandez

LEADERSHIP PERSPECTIVE

Student Government addresses recent Town Hall on stress culture

Fellow Tartans,

On Monday, Jan. 28th, 300 students, faculty, staff, parents, and community members joined us in Rangos 1 for a Town Hall intended to address Carnegie Mellon culture. The Town Hall, which was hosted by Dean of Student Affairs Gina Casalegno, Vice Provost Amy Burket, and the leaders of student government, was intended to spark conversation amongst its attendees regarding stress, mental health, and well-being at Carnegie Mellon.

The Town Hall was an important first step in what we hope will be a long period of feedback, reflection,

and eventual change. We were overjoyed to see so many members of our community and administrators come together to express their concern regarding these important issues.

We wanted to quickly mention a few of the larger issues that we identified from the discussion that occurred at the Town Hall. In the next couple of months, we will be working hard to gather more information and hopefully make some progress on issues related to how we define success, extracurricular involvement on campus, professional development, stress and time management, general student well-being and recreational activity, preparation for incoming

freshmen, health services, and the stigmas regarding mental health in our community. While this scope is broad, we feel that there is a great energy on campus dedicated to addressing these issues, and we can serve as a central point to coordinate the multiple efforts to solve these problems.

That being said, one of the most important points we were able to extract from the conversations that were had at the Town Hall is that these conversations need to continue. We are very interested in working to develop some kind of system to increase feedback and conversation similar to what was experienced during the Town Hall — whether it be

more Town Halls, some sort of online forum, or both.

We have been so excited by the amount of enthusiasm surrounding the Town Hall and the dedication students are showing to find solutions post-conversation. One thing we want to stress to the Carnegie Mellon community is that we will be able to achieve more if we work together. If you are an individual or involved in a group that has ideas regarding these topics or is currently planning a project or plan that helps tackle any of these issues, please contact us. We want to help you in your endeavors, connect you to resources as well as gain a holistic perspective on all the

efforts on campus as we work to tackle this issue together. The enthusiasm regarding these issues is incredibly exciting, but it can also become chaotic at times — we want to ensure that groups are not overlapping in their initiatives or programs.

In the next couple of weeks, we will be ironing out the details of our proposed solutions. Please feel free to contact us at sbp@andrew.cmu.edu or sbvp@andrew.cmu.edu if you are at all interested in participating or have feedback.

Will Weiner and Meela Dudley
Student Body President and Vice President

A PERSON'S OPINION

Compiled by Jonathan Leung

Yesterday was the Super Bowl. So we asked,

What were your plans for the big game?



Julie Kim
International Relations & Politics
Senior

"Nursing a throat infection."



Daniel Glaser-Garbrick
Computer Science
Senior

"I forgot it was this weekend."



Sarah Menio
Chemistry
Senior

"Going to a friend's place to watch it."



Brian Ip
Computer Science & Math
Sophomore

"Watching it."



Debbie Lin
Civil Engineering
Sophomore

"Eating lots of food."



Companies at Employment Opportunities Conference 2013

TUESDAY, FEB. 5

*Addepar
Adobe Systems, Inc.
Alcoa
AllianceBernstein
Amazon.com, Inc.
Andreessen Horowitz
A venture capital firm established in 2009 that provides funding to new tech startups, Andreessen Horowitz was a sponsor at this year’s TartanHacks hackathon. Andreessen Horowitz has invested in companies including Airbnb, Apptio, Box, Fab, Foursquare, GitHub, Jawbone, Lytro, Pinterest, and Twitter.
Ansys, Inc.
AOL
Astrobotic Technology, Inc.
Based in Pittsburgh, Astrobotic Technology, Inc. was developed from Carnegie Mellon University’s Robotics Institute in 2008. Its goal is to create affordable space robotics technology and enable planetary lander and rover missions.
athenahealth
Avencore
Avere Systems, Inc.
Bechtel Marine Propulsion Company
Bechtel Plant Machinery, Inc.
Blend Labs
Bloomberg
Branding Brand
Founded by Carnegie Mellon graduates Chris Mason, Joey Rahimi, and Christina Koshzow — and based in Pittsburgh, PA — Branding Brand powers mobile commerce sites and apps for leading brands, including American Eagle Outfitters, Crate & Barrel, Ralph Lauren, Dick’s Sporting Goods, General Nutrition Centers, and Sephora. Its work is regularly noted by independent research firms including L2 and and Forrester.
Bridgewater Associates, LP
Broadcom Corporation
*Capital One
Carnegie Learning
Caterpillar, Inc.
*Central Intelligence Agency
Cisco Systems
Compunetix
comScore, Inc.
comScore, an Internet analytics company that provides marketing data to other companies, is looking for internship applicants. comScore was founded in 1999.
Cooper Tire & Rubber Company
Counsyl
Credit Suisse
CustomInk
Decisive Analytics Corporation
Deloitte & Touche
Deloitte & Touche, or DRT International, specializes in professional services and focuses on a worldwide market. Some of its services include tax advising, consulting, and financial advising.
Dropbox
*eBay Inc.
Epic
Expect Labs
Expedia
Explorys
Facebook
Factset Research Systems, Inc.
Financial Industry Regulatory Authority
Fino Consulting
General Dynamics Advanced Information Systems
General Dynamics C4 Systems
Global Computer Enterprises
Green Hills Software, Inc.
HGST
Hyland Software
IBM Corporation

Indeed.com
Intel Corporation
Intuitive Surgical
IXL Learning
*Johnson & Johnson
*Knewton
Lab126
*LGS Bell Labs Innovations
Life Technologies
LinkedIn
*Liquidnet Holdings, Inc.
Lutron Electronics
M.C. Dean, Inc.
ManTech International Corporation
*MasterCard
Maya Design, Inc.
Maya Design, Inc., which was founded in 1989 by three Carnegie Mellon University colleagues, is primarily a design consultancy firm and technology research lab that strives to assist its clients in designing useful technology products.
McAfee, Inc.
McMaster-Carr
*Medallia, Inc.
MemSQL
*Meraki
Microsoft
MIT Lincoln Laboratory
*ModCloth, Inc.
Morgan Stanley
National Instruments
National Security Agency
NetApp
NetSuite
Next Jump, Inc.
Oak Ridge Institute for Science and Education
Oracle Software and Hardware Development
OSIssoft, Inc.
*Palantir Technologies
*Pitney Bowes
PS Solutions
Raytheon BBN Technologies
ReliabilityFirst Corporation
Riverbed Technology
Robert Bosch LLC-RTC
Rockwell Automation
rue21
Salesforce.com, Inc.
Samsung Austin R&D Center
*Sandia National Laboratories
SanDisk
Schlumberger
Schlumberger is an “oilfield services” company — a company that provides services such as evaluation, testing, and information management to petroleum companies. Schlumberger is looking for full-time and internship applicants.
*Sentrana, Inc.
Shutterfly, Inc.
Spiceworks
Spot Trading
Synacor, Inc.
Tagged, Inc.
Tandent Vision Science
*Target Chip Ganassi Racing
Texas Instruments
The Mathworks, Inc.
The MITRE Corporation
TripAdvisor
Tumblr
Ultimate Software
Union Pacific Railroad
Vertica
Victory Media, Inc.
*VistaPrint
*VK Technology
VMware
Wayfair
WhaleShark Media
Wolverine Trading LLC
Yahoo!
Zynga

WEDNESDAY, FEB. 6

Accenture
*Addepar
American Eagle Outfitters
Axcient
Blackstone
Booz Allen Hamilton
Bossa Nova Robotics
Carnegie Mellon spinoff Bossa Nova Robotics specializes in personal robotics. Their mission: to put robots in people’s lives. Located in Pittsburgh’s Strip District, their robots are designed for physical, verbal, and visual interaction with people, and have the ability to navigate through crowds of people with ease.
*Capital One
*Central Intelligence Agency
Cyan, Inc.
Dow Agrosciences
*eBay, Inc.
Endless Mobile
Evrax
Federal Reserve Board
General Dynamics Electric Boat
General Motors
Google, Inc.
Gorbel, Inc.
Grant Street Group
Inflection
Inflection is a startup company that focuses on distilling information to users through new and innovative methods. The company’s name was inspired in part by the Internet, as it is “a metaphor inspired by the rapid growth of technology and the Internet’s transformative impact on the world.”
Informatica
Institute for Physical Sciences
*Johnson & Johnson
*Knewton
KnowledgePath Solutions, Inc.
Koryak Consulting
Koryak Consulting is a local consulting firm that advises clients in business, operations, and information technology strategy. It is seeking full-time and internship applicants.
Leanplum
*LGS Bell Labs Innovations
Liberty Mutual Insurance Group

*Liquidnet Holdings, Inc.
LORD Corporation
*MasterCard
McGraw Hill Financial
*Medallia, Inc.
Meraki
Founded by two Ph.D. students, Meraki is one of the first cloud-managed network infrastructure companies. It aims to provide the world with cloud-managed products. Cisco acquired them in December 2012.
*ModCloth, Inc.
MokaFive
MSA
NVIDIA
Opower
Originate, Inc.
*Palantir Technologies
Parsons
PDT Partners, LLC
*Pitney Bowes
PlaceIQ
PPG
Raytheon Company
Rhiza Labs
Rite Aid
*Sandia National Laboratories
*Sentrana, Inc.
ServiceLink
Sourcefire
SpiralGen
Founded in 2009 by Carnegie Mellon students and professors, SpiralGen is a Carnegie Mellon spin-off company built around Spiral technology, which enables software to write computer code libraries. SpiralGen is looking for full-time and internship applicants.
Square, Inc.
*Target Chip Ganassi Racing
The Bank of New York Mellon
The Johns Hopkins University Applied Physics Laboratory
Two Sigma Investments
US Patent and Trademark Office
USAA
Vallourec & Mannesmann
*VistaPrint
*VK Technology
Workday

* Companies marked by an asterisk will be present at the EOC on both Tuesday and Wednesday.



Sports

Swim team competes fiercely at Pitt

ELIZABETH MARTIN
Junior Staffwriter

The Carnegie Mellon men’s and women’s swimming teams competed at the University of Pittsburgh last Saturday against Pitt, Clarion University, and Grove City College to finish off their regular season. The women’s team also competed against California University of Pennsylvania.

They defeated Clarion 152–143, Cal U 235–48, and Grove City 194–93. For the men, the Tartans’ best finish of the day went to sophomore Andrew Yee, who won the 1,000-yard freestyle with a time of 9:55.74, his season-best time. First-year Adam Pinson also had a season-best time at the competition of 1:54.62 in the 200-yard freestyle, finishing second in the event.

Sophomore Michael Kellman gave the Tartans another second-place finish with a time of 1:58.67 in the 200-yard backstroke. Two Carnegie Mellon athletes finished back to back in the 200-yard breaststroke; first-year Peter Podniesinski finished second with a time of 2:11.20, out-touching sophomore Roy Sung.

Junior Terrence Wong’s time of 52.16 in the 100-yard butterfly gave the Tartans another second-place finish, followed by sophomore David Campbell’s time of 1:58.22 in



Jonathan Leung/Assistant Photo Editor

First-year Peter Podniesinski competes in one of his signature breaststroke events.

the 200-yard individual medley.

In the 500-yard freestyle, first-year Matthew Nielsen finished third with a time of 4:48.20. Sophomore Christopher Ball competed on the three-meter diving board and tallied 54.41 points and tallied 109.95 points on the one-meter board. First-year teammate Ioannis Michailidis tallied 98.75 points on the three-meter board and earned 113.41 points on the one-meter board.

For the women, in the 200-yard butterfly, junior Megan Garvey finished second for the Tartans with a time of

2:12.35, and junior Vivian Wong competed in the 200-yard breaststroke and finished with a season-best time of 2:29.01.

First-year Kira Singhaus’ time of 1:00.95 placed her third in the 100-yard backstroke; she also earned third place in the 200-yard backstroke with a time of 2:13.59. Sophomore teammate Kristin Dlesk finished with a 1:01.63, placing fourth.

Junior Soleil Phan placed third in the 100-yard butterfly with a 59.84 time and fifth in the 200-yard freestyle with a 1:57.23 time. Finally, in the diving event, first-year Wi-

nona Li represented the Tartans in two events where she recorded 175.95 points on the one-meter board.

Overall, the meet was a success for the Tartans, who will head to the UAA Championships in less than two weeks. “I felt that overall it was a very good championship meet for those who finished their season in Pitt and a very promising indicator of how the UAA team will perform in Chicago,” said first-year business major Felicia Ruiyi.

The next event for the men’s and women’s teams is the UAA Championships in Chicago from Feb. 13–16.

Ravens conquer in Super Bowl

CARL GLAZER
Staffwriter

It’s funny to think that the final offensive play for the Super Bowl-winning Baltimore Ravens was their punter madly scrambling around the end zone, trying to avoid a hit in order to run out the clock before taking the inevitable safety to stop the game. But that final play perfectly summed up the this game for Baltimore, going up 28–6 before a 34 minute power outage at the start of the third quarter robbed them of their momentum and allowed the 49ers to mount a feverish comeback, falling just short on a controversial fourth down in the end zone with under two minutes to play. The final score, 34–31, was much closer than the rest of the game. But the game, which seemed to be a sealed deal for the Ravens after their receiver Jacoby Jones returned a 108-yard kickoff for a touchdown, turned into a nail biter after the 49ers mounted at 28–6 comeback following the power outage.

The Ravens came out and dominated the 49ers in the first half, with quarterback Joe Flacco connecting with receivers Anquan Boldin, Dennis Pitta and Jones for his three touchdown passes. They tried, even trying for a fake field goal when they were already up by 11, and made the most of two 49ers turnovers, a fumble by running back LaMichael James, and a thrown interception by quarterback Colin Kaepernick.

Following Beyonce’s stunning halftime show with Destiny’s Child, Jones returned the kickoff to start the second half and it seemed the Ravens had put the game out of reach. But the Mercedes-Benz Superdome had other ideas, when half of the lights in the stadium suddenly went out due to a power surge. After a 34-minute delay where the players were forced to stay on the field and remain warmed up, play finally resumed with the 49ers facing a third down and 13 yards.

By the time the Ravens’ offense finally regained the field, 84 real-time minutes had passed since they last touched the ball, before halftime and the power outage. That time off really disrupted the first-half rhythm Flacco had with his receivers and forced the Ravens to punt on their first two possessions af-

ter the outage and succumb to a fumble by running back Ray Rice on their third. The 49ers strung together four straight scoring drives after they punted immediately following the outage. Kaepernick scored touchdowns both with his legs and with his arm on a touchdown pass to receiver Michael Crabtree, and running back Frank Gore added one on the ground.

Flacco did finally managed to wake up his offensive leading them on back to back drives of 71 and 59 yards. But each time came up short, settling one for two Justin Tucker field goals. This all culminated with Kaepernick and the 49ers getting the ball back with just over four minutes remaining, down by five, needing a touchdown to take the lead. Kaepernick then threw three incomplete passes to Crabtree, burning a timeout after nearly taking a delay of game penalty.

On fourth down, the 49ers blitzed and got immediate pressure on Kaepernick to just toss up the ball in Crabtree’s direction. Jimmy Smith, the Ravens cornerback on the play, appeared to grab and hold Crabtree after the ball was in the air, but the referees didn’t throw the flag for holding or pass interference, making the pass incomplete.

This made it difficult for the Ravens’ punter, Sam Koch, who was in the end zone with 12 seconds left on fourth down before taking the eventual safety that sealed the game. This was after 49ers receiver Ted Ginn Jr. harmlessly returned the punt just past midfield as time expired both on the game and the NFL season.

In the end, all of the built-up story lines did not matter anymore. Ravens linebacker Ray Lewis, finished an outstanding 17-year career with another Super Bowl, and Raven’s Coach John Harbaugh defeated his younger brother Jim in the matchup of head-coaching brothers. The game belonged to Joe Flacco, who was awarded the MVP for his three-touchdown, no-interception performance. Coming into his final season before free agency, Flacco called himself an elite quarterback much to chagrin of the Raven faithful who routinely blamed him for their team’s playoff woes, but this season established both him, and the Ravens as the crème de la crème of the NFL.

Women’s basketball suffers losses away

VINAY VISWANATHAN
Junior Staffwriter

The Tartans women’s basketball team lost two major conference games this past weekend. The first loss was against Washington University in St. Louis last Friday, and the second against the University of Chicago yesterday.

These two losses brought the Tartans’ season record to 11–9 and their UAA conference record to 3–6.

The first loss of last week, a 85–54 game against the Washington University Bears, came after a 73–57 loss against Washington University two games prior.

The Bears scored the first 10 points of the game, and rounded out the first half of the game with a score of 49–21. The Tartans attempted a late-game comeback, but the Bears easily retained their victory.

In offense, the Bears dominated the game through team

effort, holding a continuous lead in the game that reached 41 points at its maximum. Of the 85 total points scored, 46 came off the bench, with 15 different Bears putting points on the board.

“Traveling and away trips are something we need to overcome in order to become a great team.”

Mathea Tenwalde
First-year forward

The Tartans were successful at defense, with four more rebounds than their opponent.

Key players on the Carnegie Mellon side included sophomore Gabrielle West and senior Emily Peel, whose efforts in cutting the point deficits in the second half of the game unfortunately came up too short.

In offense, however, the Tartans struggled, dropping

31 turnovers and giving just nine assists in the entire game, which was half of the total of the previous match against Washington University.

The game on Feb. 3 against the University of Chicago

was essential to the Tartans’ victory, as the team gained 23 more rebounds in this second game.

Away games are always more difficult than home games, as first-year forward Mathea Tenwalde suggested when she said “Traveling and away trips are something we need to overcome to become a great team.”

West scored 15 points against Washington University and 10 against UChicago, with junior Jacquie Shaw attaining 17 points in the match against the Maroons.

But the Tartans are looking forward to finish the season on a high note.

Team captain, senior Tori Baggio, said, “This weekend wasn’t our easiest, however, we are excited for our last home weekend of the season coming up.”

Editor’s Note: Gabrielle West is Sports Co-Editor for The Tartan.

ATHLETE PROFILE

Mike McDermott jumps and vaults to UAA success



Kate Groschner/ Staff Photographer

ABBY SMITH
Sports Co-Editor

Sophomore Mike McDermott, deemed an “Australian kangaroo” by one of his teammates, is a critical member of Carnegie Mellon’s men’s track team, specializing in the jumping and pole-vaulting events.

McDermott was recently named the University Athletic Association (UAA) Athlete of the Week after helping the Tartans win the Lid-Lifter Invitational held at Denison University on Saturday, Jan. 26.

McDermott recorded three personal career records in his signature events, coming in first overall in the pole vault after clearing a height of 4.25 meters.

He then placed fourth in the long jump with a leap of 6.20 meters, while throwing a distance of 10.23 meters in the shot

put.

“I was particularly excited by my jump,” McDermott said. “It was a great way to start off the season.”

The track season comes with high expectations, as the Tartans took second at the indoor track UAA championships last year.

“My goal for the team this year would be to sweep the UAA indoor and outdoor championships,” McDermott said. “I think that we could do this as long as we stay focused.”

McDermott is no stranger to the mental preparation that is essential to track and field, after struggling to jump and vault while sustaining multiple injuries.

Although he joined pole vaulting and jumping a senior in high school as a “joke”, it has clearly grown into “much more.”

“I found that I was actually good at it,” McDermott said. “I love the fear factor

[of pole vaulting]. It’s truly unique.”

McDermott also commented on the team as a major asset. “We are not just a team, but a family,” he said.

“Not many people get the chance to charge with a 15-foot pole and fling themselves into a pit.”

—Mike McDermott

His teammates could not agree more.

Sophomore business administration major Sasha Spalding was not short of praise. “[Mike] is very dedicated and very supportive of the overall success of the

team. He is a great friend and he knows how to play hard and work hard. [Mike] started with a new personal best and was back training the next day. No matter what pain he is in he does not give up,” Spalding said. “He is a role model and a great guy.”

“He is one of the best athletes on the team and contributes in many events. On his personal level, his toughness is inspiring and the way he deals with injuries is unreal,” said senior materials science major Daniel Cardenas Rivero, who specializes in pole vaulting and jumping.

McDermott noted that the team loves to have fun too, and just “goof around.” “Both me and [Cardenas Rivero] have a special dance that we do before we vault,” he said.

“Even more important than the dance is what I think about on the runway though. The last thing I

think about before I vault is the last country song I listened to before we got off the bus, and then my mom,” he added.

Overall, McDermott’s focus proves to contribute greatly to his success, both in the pole vault pit and in the classroom.

The biomedical engineering and materials science double major is also part of the pre-med program, where he hopes to revise a burn therapy treatment and get his research project funded in order to move toward a patent this summer.

For now, McDermott, the “Australian kangaroo”, sets his sights on making it to nationals and embracing every moment he gets to vault, which is “at home” out on the field.

“Not many people get the chance to charge with a 15-foot pole and fling themselves into a pit,” he said. “I’m thankful for it.”





Campus fashion

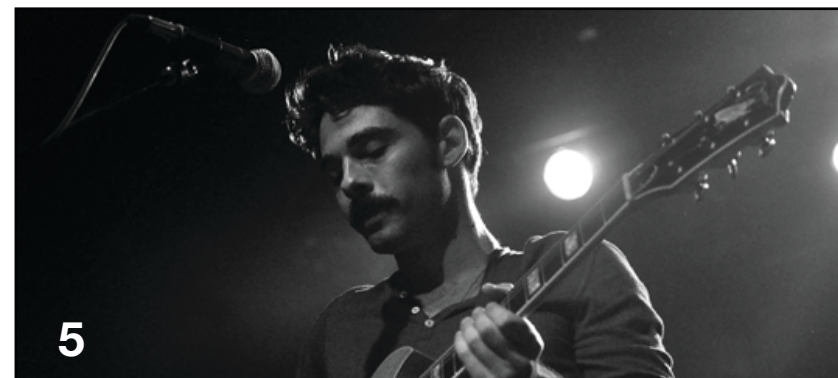
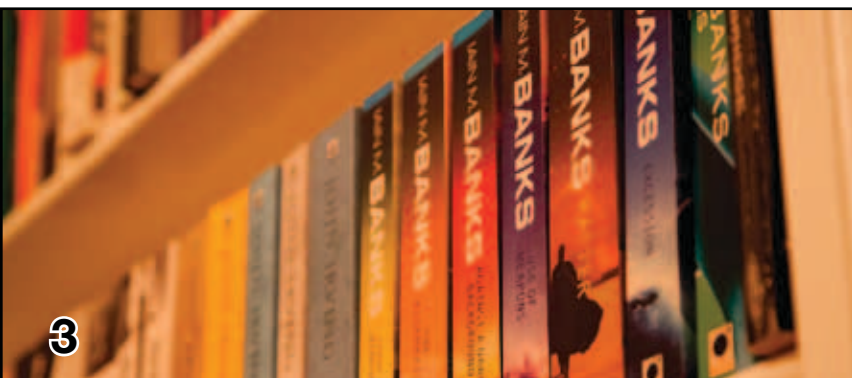
Get your best fashion inspiration from fellow Carnegie Mellon students • B6

02.04.13 Volume 107, Issue 16

...this week only



- 3 **Iain M. Banks**
The Hydrogen Sonata is better suited for longtime readers of the *Culture* series.
- 4 **LEGO LotR**
The most recent LEGO video game presents an imperfect but compelling digital world.
- 5 **Hummingbird**
The Local Natives' newest album incorporates elements from other indie releases.
- 6 **Fashion**
Carnegie Mellon students find fashion muses in their peers on campus.



regulars...

- 3 **Advice**
Everything you need to know about accidental stalking and plotting revenge.
- 4 **Dollar Movie**
AB Films presents three top-notch animated movies this weekend in McConomy.
- 5 **Did You Know?**
Did you know that research at Carnegie Mellon explored whether tweets are worth reading?

...diversions

- 8 **Comics**
Check out this week's comics by a Carnegie Mellon alumna.
- 9 **Puzzles**
Give these puzzles a shot to keep your brain alert.
- 10 **Horoscopes**
Will you get that interview at the EOC? Find out in this week's horoscopes.
- 11 **Calendar**
Consult the calendar for events happening on and off campus this week.

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Iain Banks lays on inside jokes

The Hydrogen Sonata appeals to long-term fans of series

Iain M. Banks is a Scottish author who is renowned for his series of space opera novels about “the Culture.” The Culture is a galaxy-spanning civilization that’s solved most of its problems. Everybody can have any material thing they desire; people can take on inhuman appearances and change sex at will over the course of a month; and for the most part, people only die if they choose to, usually after 400 years or so.

The Culture isn’t populated just by humans: There are also drones — floating sentient robots that glow different colors to indicate their emotions — and the Minds, clever, surprisingly human, artificially intelligent beings that run the ring-shaped space stations and kilometer-long starships that make up the Culture’s territory. To justify living in a utopia, the people of the Culture often help younger civilizations find a way to their level, or at the very least prevent interstellar wars. These interactions are the main focus of the Culture novels.

One of the best things about Bank’s series of novels about the Culture is the undercurrent of inside jokes. The war that serves as the backdrop to the earliest entry in the series is frequently referenced in later books. The ships of the Culture are all given cheeky names: In one book, we meet a ship named *Who’s Counting* and in another book we meet the *Me, I’m Counting* — a real treat for longtime readers.

Unfortunately, these inside jokes hold back the latest entry in the series, *The Hydrogen Sonata*. Most of the previous novels would only be enhanced if you had read the earlier ones, but *The Hydrogen Sonata* requires them. If you know about the Interesting Times Gang, the Azadian Affair, and the Excession, you’ll likely have a lot of fun with this book, but those unfamiliar with the series will find themselves lost in a maze of references and previously established concepts that aren’t adequately

explained in the text itself.

The scenario Banks sets up is pretty exciting. The Gzilt, a civilization on par with the Culture, is days away from ascending to a higher plane of existence. For this to work correctly, nearly all Gzilt people need to agree to do it at the same time, but the happy occasion is threatened by the revelation of an ancient secret.

Our protagonist is Lieutenant Commander Vyr Cossont, a young woman who has grown an extra set of arms to play the titular song on the intentionally complicated string instrument, the “bodily acoustic Antagonistic Undecagonstring.” She has been tasked with discovering the truth about the Gzilt’s past, and does so by contacting a friend of hers, a man from the Culture who has been alive for thousands of years. Standing in her way is a Gzilt politician who wants his society to “Sublime,” no matter the cost.

Banks changes the formula a bit from prior works, with the protagonist being more passive and a Ship’s avatar playing a larger role than most of the humans and drones. The action feels a little clunkier than it did in the previous novel, *Surface Detail*.

If all this piques your interest, then you’re either intrigued by this world of technical wizardry with godlike machines and people whose main purpose in life is to enjoy it, or you’re already a fan. If you fall in the latter category, you’ll probably enjoy *The Hydrogen Sonata*, but everybody else should start at the beginning with *Consider Phlebas* or peruse the two strongest entries in the series, *Use of Weapons* and *The Player of Games*.

Justin McGown | Online Editor



Courtesy of Tom Page via Flickr

Iain M. Banks’ new sci-fi novel, *The Hydrogen Sonata*, might lose new readers with its plethora of references to previous books in the series.

Advice for awkward people

About accidental stalking and getting revenge

Dear Patrick,

I think a girl in some of my classes thinks I'm stalking her. (Before we get started, I'm not.) We had a couple of classes together at first, but I switched up my schedule and now she's in every one of my classes. How can I prove I'm not a stalker? She lives on the sixth floor of Morewood in D-Tower.

Thanks, Ignorantly Trailing Schoolmate And Need A Convincing Cover Idea; Despite Exterior, Not Trying It; She's Worried; Eagerly Awaiting Response

Dear ITS AN ACCIDENT I SWEAR,

Don't worry, we've all been there. When I was a first-year in E-Tower, I used to watch people out my window, which some people thought was kind of creepy. I guess watching through a newspaper with eyeholes cut in it didn't really help. My point is, I wasn't intentionally trying to creep people out, and neither are you.

With all that in mind, you should totally start stalking her. My life motto is “in for a penny, in for a pound.” That's why I black out every weekend. She already thinks you're a stalker, so you might as well stalk her. You seem to be doing a pretty good job already.

A restraining order's a great excuse for skipping class,
Patrick Hoskins

Dear Patrick,

Some friends of mine threw a party last week, and they didn't invite me! Apparently I'm banned from their apartment for life. All I did was puke all over their kitchen at the last party! And their bathtub. I mean, I even left two dollars for cleaning stuff. What can I do to get back at them?

Thanks, Unfortunately Need To Avenge Complete Taboo I Cannot Accept, Lifetime Castigation Hurting Unfairly Now, Despite Elapsed Ralphing

Dear UNTACTICAL CHUNDER,

You are the worst kind of person. Is it so hard to puke in the bathroom? You know it's coming. No one is ever really surprised by vomit. You always feel it welling up in your stomach, bubbling like a witch's cauldron. And you only left two dollars!?!? What did you do after that, kick their puppy on your way out? You can't even buy Lysol for two bucks.

If you insist on getting back at them, you can try throwing a counter-party in protest. Same night, same time, with all the other people who were banned. And go to an ATM. Two dollars? Seriously? You're like a real-life Britta.

Community's comin' back!
Patrick Hoskins

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

Take a LEGO adventure through Middle Earth

Despite bugs, *LEGO Lord of the Rings* is an enjoyable game with an open world to explore

When LEGO started producing video games with *LEGO Island* in 1997, it was an exciting moment for video game fanatics everywhere. LEGO's foray into gaming continued with mostly its own games (i.e., non-licensed material) for the next eight years. Then, in 2005, LEGO teamed up with the British TT Games to create the first of many in a series of movie-based LEGO games, *LEGO Star Wars: The Video Game*. Fast forward almost eight years, 10 LEGO-themed licensed games, and great strides in every aspect of the LEGO-based game worlds, and we have *LEGO Lord of the Rings*.

LEGO Lord of the Rings is unlike any of TT Games' LEGO games released to date. In the first *LEGO Star Wars*, the player experiences the first three movies (Episodes 1 – 3) in an episodic manner: There is a central hub from which the player selects an "episode" within a movie and plays through it.

LEGO Lord of the Rings, on the other hand, features an almost entirely open world, in which one actually travels across a (slightly smaller) Middle Earth and plays sequentially through each of the three movies. At first, this change seems a bit annoying — more of a hindrance than an improvement. There doesn't seem to be an easy way for fast travel, and the characters move just a

bit too slowly to make backtracking, something that is emphasized in the TT Games' LEGO games, a viable option.

After further exploration, however, it's clear not only that there are ways to fast-travel between places, but also that the open world gives the game a bit of a *Grand Theft Auto* feel: Most of the objects in the world, including people, can be destroyed and will give the player money. The destructibility of the landscape has always been a feature in the LEGO games, but the open world gives a new perspective to it.

In addition to playing through the movies sequentially, TT Games has also managed to nab licensing to the original soundtrack and audio clips from the actual movies themselves. This feature will surely win over *Lord of the Rings* fans: Although certain scenes were omitted or changed to make the game more kid-friendly, seeing LEGO figurines quoting scenes line-for-line adds new depth to the game. There is nothing more rewarding than riding Shadowfax across the plains of Rohan as a LEGO Gandalf. The voice clips are clearly ripped straight from the movies themselves, so you can pick out certain movie sounds in the background if you try.

While *LEGO Lord of the Rings* continues the TT Games tradition of backtracking and replaying levels, it is not as repetitive as other games are, thanks to the ability to

explore an open world (even though dastardly invisible walls get in the way now and again). There are also a handful of bugs that, if not handled carefully and correctly, result in having to quit the level and start again. The new inventory system could also use a bit of work, as could the awful platforming sections, and there are plenty of fetch-quests, but these are only slight annoyances overall. The game keeps up the usual slapstick comedy and even incorporates a few memes into the game. For example, there's a wounded soldier who "took an arrow to the knee" in the battle of Helm's Deep, and there's an achievement for walking into Mordor.

Overall, *LEGO Lord of the Rings* is not as polished a game as it could be — though when TT Games is turning out more than one game a year, that may be expected. However, it is by far the most visually stunning and emotionally compelling LEGO-licensed game that exists to date, and it's certainly worth picking up if you like LEGO or *The Lord of the Rings*. It's not game-of-the-year material, but it is good fun, and that's what a game is supposed to be.

7.5/10 bricks; will beat to completion.

Ryan Black | Junior Staffwriter



McConomy Auditorium, University Center

Matthew Zurcher | Staffwriter

Monsters, Inc.

Thursday, Feb. 7

8 10 12

AB Films begins a week of top-shelf animation with *Monsters, Inc.* If you ask people what their favorite Pixar movies are, they probably won't answer with *Monsters, Inc.* — but if you remind them about it, they will surely gush about its charm and hilarity. Billy Crystal and John Goodman turn in unforgettable vocal performances as two professional monsters who scare children to power their metropolis. This is a movie that's hard to dislike; it may be Pixar's most imaginative effort.

Wreck-It Ralph

Friday, Feb. 8

8 10 12

Many tend to forget that great animation can be made outside of Pixar's juggernaut studio, and *Wreck-It Ralph* is definitively proof of this. John C. Reilly voices the titular character, a video game villain who rebels against his archetype and dreams of being the hero. Disney studios produced an imaginative, glorious design, frequently referencing and paying homage to video game culture.

The Incredibles

Saturday, Feb. 9

8 10 12

The Incredibles is the best flick Pixar has made yet, and it has a strong claim to the best-superhero-movie-ever award. It is at once a family drama, a comedy, a thriller, and an action/superhero movie. Its structure is radical and its villain is almost unthinkable. It's the riskiest Pixar film — and who does risk better than Pixar? *The Incredibles* tells the story of a family of superheroes, each with a special power. Relationship troubles and typical family struggles are woven effortlessly into Pixar's inimitable fantasy and action universe. The animation is bold and insane: Remember the shot of Dash running across the water? This is a movie that's never worth missing.



Reinventing reverb in rock

Local Natives' *Hummingbird* reuses indie material

When the Local Natives announced the imminent release of their second album *Hummingbird*, amongst the wild cheers of twenty-somethings in skinny jeans everywhere, two questions arose.

The first question: How would the band function in the studio setting without former bassist Andy Hamm? The Local Natives have had a successful tour and are set to perform at Coachella in April, but how would a more transcendental and less-grounded sound fare against inevitable comparisons to the smash-hit first album *Gorilla Manor*? (Answer: Very, very well. But more on this later.)

The more far-reaching question remains. In 2010, critics at *Pitchfork*, *Rolling Stone*, and elsewhere took great pains to compare the Local Natives' debut album *Gorilla Manor* to every popular indie band out there. And who can blame them? That year was indie rock's renaissance, with The Black Keys' *Brothers*, Vampire Weekend's *Contra*, and Arcade Fire's *The Suburbs*, which won the Grammy for Best Album. But the fact is that *Gorilla Manor* sounded as if it had taken all the good aspects of every popular indie band and made it into an album — a great one, to be sure, but nothing wholly original.

This is not to say that the Local Natives consciously take ideas from other indie bands and incorporate them into songs like “Bowery” — which, since we're already talking about comparisons to other bands, sounds like something from a Shins album. Okay, a really good Shins album. But with *Hummingbird*, did the Local Natives create something fresh and new?

Yes, they did — but not in the way you'd expect.

Like many popular alternative rock albums of the 21st century, the Local Natives' new effort sounds very much as if it were produced in a studio, with an ample amount of reverb on tracks like heart-wrenching “You & I” and dense rock-out session “Wooly Mammoth.” But indie rock is such a vague category, with such a broad spectrum, that there are no telling aspects of the genre: One can only compare certain types of sounds among bands in the genre, and the studio-produced feel of popular albums is one of the few general staples of the modern incarnation of the genre.

The sound in *Hummingbird* is slightly brighter and at times more rhythmically complex than that in *Gorilla Manor*: It's richer, rounder, more somber, and more subtle. Kelcey Ayer's vocals ride the tracks like gulls on thermals, proving especially powerful in thickly orchestrated songs like “Black Spot” and “Wooly Mammoth.” However, the band saves the better lyrics for songs where you can actually hear them, like in “Colombia.” But the band's philosophy



Courtesy of Derrick Austinson Photog via Flickr

Taylor Rice, shown here performing in Minneapolis in 2010, is a vocalist and guitarist in Local Natives.

has ultimately remained unchanged: Listeners can easily make the same comparisons to Arcade Fire and Animal Collective that they could make with Local Natives' previous album. And that is perfectly all right.

Much of the new album's smooth powerhouse aesthetic and sweet production quality can be attributed to the band's unofficial new fifth member: Aaron Dessner of The National. While not a replacement for Hamm in any respect, Dessner brought some songwriting muscle to the table and, more importantly, helped record and produce *Hummingbird* in his Brooklyn apartment.

Hummingbird presents positive proof that, yes, there's nothing new under the sun. But a band can use that knowledge to their advantage. The Local Natives show that they don't need to pull the Animal Collective card out and change their sound every album in order to sell out venues internationally.

Evan Kahn | Copy Manager

Did you know?

100
years ago

Jan. 16, 1913

The Fulcrum Club elected its newest officers to serve the club until January 1914. The club also held its business meeting to make sure all of its affairs were in order. To finish out the meeting, the Glee Club joined the engineers and presented several songs to get everyone excited about engineering.

50
years ago

Feb. 13, 1963

Carnegie Tech lost its chance at second place in the Pittsburgh Intercollegiate Rifle League to Washington & Jefferson. The team lost its next match to Geneva, which was particularly upsetting because the men lost by only six points, finishing the match at 1387–1381.

25
years ago

Feb. 2, 1988

One student chronicles his love affair with codeine, specifically in the form of Robitussin. The entire article is a bit random, a fact he blames entirely on the loopy effect of the cough syrup. He urges other students to find a reason to give codeine, specifically Robitussin, a try.

10
years ago

Feb. 3, 2003

Pillbox explores the best pancakes Pittsburgh has to offer. DeLuca's Restaurant in the Strip District takes first place in taste, and Ritter's Diner in Bloomfield offers the most bang for your buck. For the frugal, directions on how to make Jiffy pancakes at home are also included.

5
years ago

Feb. 4, 2008

Jonathon Hurst, graduate student in the Robotics Institute, is working with a professor at the University of Michigan to explore the running mechanism in robots. The end goal is to offer military personnel a resource to carry heavy bundles and to assist people with limited mobility.

1
year ago

Feb. 6, 2012

Researchers at Carnegie Mellon, MIT, and Georgia Tech claim that Twitter users think only a third of the tweets they see every day are worth reading. They use an algorithm to figure out what people deem “worth reading” so Twitter can improve user experience.

Catherine Spence | Staffwriter

Students put personal spin on fashion trends

Runway fashions are adapted to suit Carnegie Mellon’s style, Pittsburgh’s weather

by **Nikita Mishra** | Staffwriter

Fashion trends usually take off when they’re first introduced to the world on the runway. From there, courageous celebrities who are willing to make a statement adopt the trend, prompting the general public to join in on the fad.

But people are generally inspired by the trends they are surrounded by, as opposed to those they have read about. The explosion in popularity of social media sites like Pinterest, Tumblr, and Instagram is a clear indication that people have a tendency to look to their peers for new trends — especially on our own campus.

Students at Carnegie Mellon are commonly characterized by their diverse backgrounds and talents, and this diversity is reflected in the variety of approaches to fashion seen on campus. Despite the



Peter Leeman | Junior Photographer

number of individual styles, there are certain trends, such as denim shirts and military-style jackets, that most students seem to have embraced and incorporated into their personal styles. Of course, these items of clothing are popular off campus as well. However, not only do they seem to be emphasized here, but they are also worn in unique ways by Carnegie Mellon students.

Denim Shirts

Denim shirts, as previously mentioned, have long been in style. Considered a staple by some, this trend more recently became popularized in 2010 and has stayed popular since. Denim, or chambray, shirts can be found in a variety of colors or patterns. Urban Outfitters has several, including the BDG Chambray Button-Down Shirts, which can be found printed with white polka-dots or flowers. To manage walking to class in 10° F weather, many Carnegie Mellon students layer a sweater or cardigan over the denim shirt for added warmth. Longer sweaters, especially those with a cozy cable knit, generally look great with a denim shirt.

Students also tend to wear brightly colored infinity scarves over chambray shirts. The collar of the shirt would be hidden from view, but the denim shirt has the same effect. Some like to wear their denim shirts with jeans, but if you want to avoid the denim-on-denim look, opt for a pair of leggings or jeans in a different color.

Military Jackets

Prior to the drop in temperature that caused most people to switch to their warm, puffy jackets, the green military-style jacket had been a common choice for many students at Carnegie Mellon. This trend can be adjusted to the colder weather by layering it over warm sweaters. There are several military-style jackets available at Forever 21, some of which are embellished with studs and faux leather sleeves. These jackets look great when paired with either an oversized sweater and leggings or a shorter sweater and jeans.

One of the advantages of this trend is its versatility. Complete the outfit with a pair of boot socks that peek out over the top of your favorite boots. Continue the trend with military-style boots, such as the Steve Madden “Camarro” boots, which have been seen all over campus. For someone whose style isn’t as edgy, the olive green military-style jacket looks great over a dress

Left: Deren Guler, a master’s student in Tangible Interaction Design, adds texture to her outfit with patterned tights. **Top Right:** Celine Berger, a junior cognitive science major, layers a sweater over a button-down for added warmth.



Peter Leeman | Junior Photographer

with tights, boot socks, and boots. Another option is a military-style vest, which looks exactly like the jacket but without the sleeves. Vests may not be the best option for this type of weather, but students at Carnegie Mellon sometimes opt for them on slightly less frigid days. Like the jacket, this vest, worn over a large sweater and leggings, makes for a stylish outfit.

Accessories

Speaking of making statements with legwear, wearing patterned tights is another common trend seen around campus. They are also very versatile; they can be worn with dresses, skirts, and even shorts. Patterned tights,



Peter Leeman | Junior Photographer

Left: Eylul Engin, a master’s student in architecture, wears an infinity scarf for added warmth. **Center:** Daniel Tyler Mathews, a master’s student in costume design, evokes old military style with a coat with epaulets. **Right:** Sophomore computer science major Celine Nguyen stays warm in a velvet skirt with tights.

which are available in most stores, can add another dimension to an outfit that may initially have seemed boring. If you’re not sure where to start, check out the website modcloth.com to choose from a variety of tights.

While some students accessorize with tights, others complete their outfits with statement jewelry. Necklaces are a common choice because they are easy to throw on over an outfit and are not as uncomfortable as chandelier earrings. The J. Crew bubble necklace gained a great deal of popularity toward the end of last year and inspired the statement necklace trend.

The bubble necklace can be found in a variety of colors, and similar necklaces can be found in several locations. Francesca’s Collections in Shadyside carries a seemingly endless supply of statement necklaces. Brighten up a simple cream-colored sweater with one of these necklaces. Layer a shirt under the sweater, with the collar of the shirt visible to give this outfit a preppy vibe; a statement necklace provides the finishing touch. This combination looks great with a pair of jeans, or even

with a skirt if you’re willing to put in the effort.

For more unique jewelry, try the website etsy.com, where handmade, one-of-a-kind items are sold. You can either search for something specific or browse through the jewelry section of the website. The benefit of Etsy is that there is more variety in the style of jewelry available. Bubble statement necklaces are available on this site, but there are other types of necklaces as well.

Some prefer making a statement with simpler necklaces, and such jewelry could be found through the “Rare Bird” shop on Etsy. Some Carnegie Mellon students have been following the Chevron pattern trend, and necklaces of this type, such as the “Geometric Gold Triple Chevron Necklace,” are also available at this Etsy shop.

Skirts

Necklaces are an easy way to dress up an outfit, but there are other ways of achieving this as well. It’s tempting to choose the most comfortable clothes before

you leave for class in the morning. However, on those days when you want to dress up a little, a skirt or dress is the obvious option. Skater skirts have been seen around campus quite often. On days that are slightly warmer, pair the skirt with a button-up shirt. Otherwise, switch the shirt for a sweater and add a scarf and tights for extra warmth. A skater skirt in a floral pattern is a great way to accommodate for the weather as it moves towards the strange period between seasons; the skirt is a reminder that spring is on the way, but it will still look appropriate for the winter when paired with warm-weather clothing.

Considering that we’re at Carnegie Mellon, most of us don’t have the time to pay attention to what celebrities are currently wearing, or what different sources are saying is in style. Moreover, people are more likely to gain fashion inspiration from their peers. Though this school isn’t especially known for its fashionable student body, there are many students who fall under this category, and they are a great source of inspiration when you’re stuck on what to wear.





jjfernan@andrew

crinkledcomics.com



Sudoku Puzzle: Very Hard Difficulty

7		2	3				8	
4				2				5
	5		8			9		
		3		9			5	
2			7		6			9
	7			3		2		
		7			2		6	
8				7				4
	6				3	7		2

Sudoku courtesy of
www.opensky.ca/~jdhildeb/software/sudokugen/

Kakuro Puzzle: Easy Difficulty

	19	39	9			4	37	
7					12			
				3	16			4
41								
			10			7		
12			10			4		
		14			4			
		8			7			
	11			11	8			17
			4			16		
3			4			9		
42								
					7			

Kakuro courtesy of www.krazydad.com
Fill all empty squares using numbers 1 to 9 so the sum of each row equals the clue on its left, and the sum of each column equals the clue on its top. No number may be used in the same row or column more than once.

Solutions from Jan. 28

1	2	3	4	5	6	7	8	9	10	11	12	13
G	A	L		S	H	A	P	E		S	C	A
E	T	A		T	I	A	R	A		E	A	M
E	A	C	H	O	T	H	E	R		A	R	U
S	L	E	E					N	O	U	N	S
E	L	S	E		S	T	R	E	P		Y	E
				L	A	B	O	R	E	R		M
T	E	S	S	E	R	A	E			E	P	E
O	P	E	N	A	I	R		I	M	P	I	N
N	O	N	O	S				P	R	E	L	A
O	D	E		T	H	R	O	A	T			
F	E	S			T	O	R	S	O		S	A
			C	L	A	S	S			A	K	R
S	P	E	E	D			A	R	M	A	D	I
P	A	N	D	A			R	A	T	I	O	E
A	R	T	S	Y			Y	E	A	R	S	N

Crossword

9	8	3	6	4	2	7	5	1
2	7	4	9	5	1	6	3	8
5	6	1	8	3	7	9	2	4
4	3	2	5	7	8	1	6	9
7	9	5	3	1	6	8	4	2
8	1	6	4	2	9	5	7	3
3	5	7	1	8	4	2	9	6
6	4	8	2	9	5	3	1	7
1	2	9	7	6	3	4	8	5

Medium Difficulty

		5	30					
		17	12	9	2	7	9	
22	8	2	3	9	22	17		
10	9	1	10	5	14	6	8	14
		17	30	6	7	8	9	30
		12	3	9	12	30	17	
				12	16			

Medium Difficulty

EOC-scopes

aries

march 21–april 19

taurus

april 20–may 20

gemini

may 21–june 21

cancer

june 22–july 22

leo

july 23–aug. 22

virgo

aug. 23–sept. 22

libra

sept. 23–oct. 22

scorpio

oct. 23–nov. 21

sagittarius

nov. 22–dec. 21

capricorn

dec. 22–jan. 19

aquarius

jan. 20–feb. 18

pisces

feb. 19–march 20

That tie with that shirt? Yeah, right.

Good thing the EOC is this week, because it looks like the stars are aligned for you.

Just be patient; you'll find what you're looking for.

Proofread your résumé. Yes, again.

Your overconfidence might make a bad first impression, so watch out.

You're going to get a huge opportunity; don't be afraid to seize it and move forward.

You know what you want, but you aren't good at communicating it. Practice in the mirror before the EOC.

Ask for more. You might just get it.

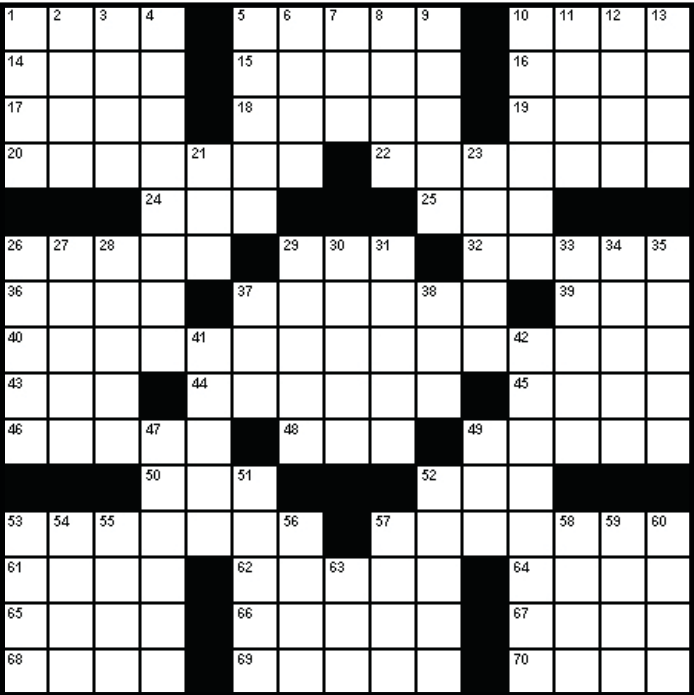
You need to be more focused and stop trying to squeeze so many things onto your résumé.

The decisions you make at the EOC are going to affect your whole career, so tread carefully.

Your persuasion skills will be put to the test this week.

Don't go to the EOC angry. Release any pent-up energy before, or else you'll do something stupid.

Kairavi Chahal | Comics Editor



Crossword courtesy of *BestCrosswords.com*

ACROSS

- 1. Slave
- 5. Gentle ones
- 10. Eye sore
- 14. Switch ending
- 15. Dreadful
- 16. Excellent, slangily
- 17. Banned apple spray
- 18. Oil source
- 19. In this place
- 20. Souvenir
- 22. Decapitates
- 24. Floors
- 25. Hole goal
- 26. Rise to one's feet
- 29. Where some vets served
- 32. Affirmatives
- 36. ___ account (never)
- 37. Having a wavy margin
- 39. Lilt syllable
- 40. In spite of
- 43. DDE's command
- 44. Cylindrical
- 45. Not a dup-
- 46. Actress Berger
- 48. Employ
- 49. Amble
- 50. Entirely
- 52. Junkyard dog
- 53. Transfer data, to a peripheral device
- 57. Honcho
- 61. Roy's "singin' pardner"
- 62. Bowling alley button
- 64. When said three times, a 1970 war movie
- 65. Teheran's country
- 66. Mesa ___ National Park
- 67. K-6
- 68. Immediately following
- 69. Sign of spring
- 70. Soccer legend

DOWN

- 1. Thin stratum
- 2. Author ___ Stanley Gardner
- 3. Wander
- 4. Foresee
- 5. Wears well
- 6. Horton Hears ___
- 7. Juilliard deg.
- 8. Future tulip
- 9. Bed down
- 10. Globe
- 11. Take ___ Train
- 12. American football measure
- 13. French summers
- 21. Tacit assent
- 23. "Surprise Symphony" composer
- 26. Loudness units
- 27. Govt. security
- 28. Composer Bruckner
- 29. First prime minister of India
- 30. Church areas
- 31. Dull surface
- 33. Agitates
- 34. Bert's buddy
- 35. Tending to sag
- 37. Numbered rd.
- 38. Scot's refusal
- 41. Author Calvino
- 42. Threshold
- 47. Aptitude
- 49. Drinking cup
- 51. Insect stage
- 52. Quotes
- 53. Sleipnir's rider
- 54. Payment for travel
- 55. Linen source
- 56. Antlered animal
- 57. "Venerable" English monk
- 58. Gap
- 59. Baseball's Hershiser
- 60. Domesticate
- 63. Hindu title



MONDAY2.4.13

School of Architecture Lecture: Isaac Campbell.

Carnegie Museum of Art Theater. 6 p.m.

Portland-based architect Isaac Campbell, co-founder of multidisciplinary design firm Office 52, will give a lecture at the Carnegie Museum of Art Theater. Campbell's firm is designing Carnegie Mellon's new Sherman and Joyce Bowie Scott Hall.

TUESDAY2.5.13

Brown Bag Chamber Music Concert. McConomy

Auditorium. 12 p.m.

The School of Music is putting on an hour-long concert featuring student soloists and chamber music ensembles. The event is free and open to the public, and audience members are encouraged to bring their lunch.

School of Art Lecture: Shana Moulton.

Kresge Theater. 5 p.m.

Performance and video artist Shana Moulton will give a lecture as part of the Carnegie Mellon School of Art Lecture Series. More information on Moulton's work can be found at cmu.edu/art/lectures.

WEDNESDAY2.6.13

Open Mic Night. Skibo Café. 6 p.m.

AB Skibo will present a free open mic event during which student performers can showcase their talents.

Hannah Dobbz. Big Idea Cooperative Bookstore & Café (4812 Liberty Ave.). 7 p.m.

Author and Pittsburgh resident Hannah Dobbz will speak at the Big Idea Cooperative Bookstore about her new book *Nine-Tenth of the Law: Property and Resistance in the United States*. Dobbz, a former squatter, will speak about squatting and property struggles in the United States from colonial times to the present. More information is available at www.thebigideapgh.org.

THURSDAY2.7.13

[En]coding Architecture. Various locations (Carnegie Mellon). Through Feb. 9.

The [En]coding Architecture conference covers a range of topics including the autonomy of architecture, code, fabrication, material, robots, machinic desire, and computational theory. The conference includes a number of workshops, lectures, and exhibitions. It is free, but participants must register beforehand. More information, including a schedule of conference events, can be found online at encodingarchitecture.org.

Kishi Bashi. The Underground. 7:30 p.m.

Singer and multi-instrumentalist K Ishibashi (also known as Kishi Bashi) will perform at The Underground. Kishi Bashi creates unique sound environments through looping vocals and violin samples. The concert is hosted by AB Underground and is free and open to the public.

FRIDAY2.8.13

Dirty Charms. brillobox. 10 p.m.

Pittsburgh-based garage rock band Dirty Charms will perform at brillobox. The Williams Band and Johnny Naples Trio will open the concert. The concert is for ages 21 and up, and more information can be found at brillobox.net.

SATURDAY2.9.13

Out of Order: Shawn Rudiman. Belvedere's Ultra-Dive. 9 p.m.

Techno DJ Shawn Rudiman will perform a live, three-hour set. Local DJs Paul Fleetwood and Relative Q will open with a back-to-back set. The event is for ages 21 and up and costs \$5 at the door.

ONGOING

Cartoon Nihilism. 707 Penn Gallery. Through Feb. 17.

Cartoonist Craig Freeman presents new works that explore themes of nihilism, depression, and suicide. The gallery is open Wednesday through Sunday.

Inventing the Modern World: Decorative Arts at the World's Fairs, 1851–1939. The Carnegie Museum of Art. Through Feb. 24.

This exhibit features works ranging from jewelry to furniture that showcase changing tastes in aesthetics and design within the span of nearly nine decades.

Power Pixels. Wood Street Galleries. Through April 7.

The Wood Street Galleries is hosting an exhibit by visual artist Miguel Chevalier that features two self-generative video installations. The exhibit also includes the world premiere of Chevalier's latest work, "Pixels Wave." More information and gallery hours are available at woodstreetgalleries.org.

Feminist and... The Mattress Factory. Through May 26.

This exhibit features works by six female artists from around the world, aiming to show that feminism is a multivocal, multigenerational, and multicultural movement, not a single-issue set of political beliefs. The exhibit was guest-curated by Hilary Robinson, a former professor of art theory and criticism at Carnegie Mellon.

UPCOMING

Lunar Gala: Venin. Wiegand Gymnasium. Feb. 16.

Carnegie Mellon's annual student fashion show is coming up on Feb. 16. Student designers will be showing off their work in Wiegand Gymnasium. More information is available at cmulunargala.com.

Compiled by **Allison Cosby** | Contributing Editor

Want your event here?

Email calendar@thetartan.org.

 PITTSBURGH SYMPHONY ORCHESTRA

PNC POPS!

my **FUNNY VALENTINE**

THURS, FEB. 7 @ 7:30 PM SAT, FEB. 9 @ 8:00 PM
FRI, FEB. 8 @ 8:00 PM SUN, FEB. 10 @ 2:30 PM

Just in time for Valentine's Day, Broadway stars Rebecca Luker and Doug LaBrecque as well as the All-Star College Chorus join your Pittsburgh Symphony Orchestra for a night of laughs, tears and—most of all—romance. Snuggle to "I Could Have Danced All Night" from *My Fair Lady*, John Williams' love theme from *Superman*, Marvin Hamlisch's hit song "What I Did for Love" from *A Chorus Line* and more!

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a cappella.



Kate Groschner | Photo Editor

Fifth-year senior decision science and economics and statistics double major Will Weiner hosted a “perk-off” between vocal percussionists from the eight participating a cappella groups at the Varsity Vocals ICCA Great Lakes Quarterfinal on Saturday night in McConomy Auditorium. Carnegie Mellon groups Counterpoint and The Originals participated, with The Originals placing first overall and advancing to the semifinals.

