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February 8, 2016 Volume 110, Issue 16

### **Andrew Carnegie Society Scholars give** back to the Carnegie Mellon community



Some of this year's ACS Scholars gathered together in Posner Hall to discuss how they wished to divide \$5,000 among various student organizations.

**VALENE MEZMIN** 

News Editor

This year marks the 40th anniversary of the Andrew Carnegie Society (ACS) Scholars Program. Since its inception in 1975, the program aims to recognize academic intelligence, excellence in leadership and volunteerism, and involvement in student organizations, athletics, or the arts in students from the Carnegie Mellon community. Each year, the deans and department heads from each college at Carnegie Mellon choose a select group of students that they believe embody the long-standing goals of the ACS Scholars program. To this date, approximately

recognized by this program, and this year a new group of 41 students has the honor of joining the ranks of past and future ACS Scholars.

As ACS Scholars, this group of students not only has the privilege of being distinguished from the rest of their class, but they are also allotted \$5,000 to give back to their community - in addition to an undisclosed monetary award for themselves. "By empowering the Scholars with an award to support their academic growth and with the opportunity to give back to the Carnegie Mellon community as a group, the Andrew Carnegie Society continues to share the philanthropic spirit of its namesake 1,000 students have been with future generations," said Christopher Herrera, a senior

Allison Sokolowski, a University Advancement staff member who works with the ACS scholars group.

While being entrusted with \$5,000 provides a great opportunity for the Scholars to give back to their community, figuring out how to divide the money proved to be somewhat of a challenge for the students. On Jan. 23, this past Saturday, available scholars gathered in the boardroom of the Posner Center to engage in a discussion on how they wished to allocate the money to student organizations who applied for this funding opportunity. When asked about their motivation in selecting the few organizations they would be giving the money to,

civil and environmental engineering major, said "[The deans] all picked students that were willing to help, and we all wanted to make impacts individually to people's lives and the campus community. We always went back to that whenever we had a discussion or an argument."

After almost four hours of a very thorough, intense, and at times heated discussion. the Scholars were able to arrive at a final decision. They all gathered together in the Posner Center to present their decision to the deans, ACS board members, and University Advancement staff.

Herrera represented this year's ACS Scholars along

### Lecture discusses methods to combat poverty facing Haiti

Junior Staffwriter

Last Thursday at 6 p.m., Carnegie Mellon University, in collaboration with Hôpital Albert Schweitzer (HAS), hosted a series of speakers to discuss Martin Luther King Jr.'s message about the importance of receiving equal treatment despite one's socioeconomic status, and how this applies now to work that is being done in Haiti.

The first two speakers were directly involved with Hôpital Albert Schweitzer (HAS), an organization dedicated to serving the people of Haiti, a country with one of the worst poverty and infant mortality rates in the world.

HAS is set up in the Lower Artibonite Valley in central Haiti and is the only hospital responsible for providing full-time healthcare in an area of 610 square miles. They are responsible for the health needs of an estimated population of 350,000 people. To put that into perspective, there are about 29 different hospitals in Pittsburgh, all of which, together, are responsible for serving under 310,000 people. Founded in 1956, HAS has dedicated itself to providing vital resources to those who would otherwise go without them for sixty years.

The first speaker of the night was Loruchama Ostin. Ostin was born in Haiti and moved to America when she was 17 years old. Eventually becoming a nurse in Pittsburgh, she decided to volunteer at HAS for two weeks in order to learn a little bit more

about her birth country and to help those in need using her particular skill set. At the hospital, Ostin and others work to cure diseases that are rarely seen in America, such as tuberculosis or cholera. In addition to this, many also work with a mobile clinic.

The mobile clinic is perhaps the most vital part of the operation; because the area is so large, it is impossible to get everyone to the main hospital unless they are in dire need. Thus, HAS set up a mobile clinic, which  $travels \ throughout \ the \ region$ dealing with inoculations, delivering much needed vitamins, and teaching the Haitians about how to recognize the signs of domestic abuse. Ostin finished her discourse by explaining the importance of HAS and the work being done by the health care professionals who are quite literally saving lives.

The next speaker was Ian Rawson, the current Managing Director of HAS and the son of one of the co-founders of the hospital. Rawson firmly believes in the message of the hospital. While addressing how the original founders decided on Haiti to be the location of HAS, Rawson simply stated "Haiti chose us." While the Haitian population that they serve is by and large impoverished, Rawson stressed that they were never poor in "spiritual life, strength, or courage."

Through the hard work of its staff and volunteers, HAS has undoubtedly seen results. Polio, measles, and tetanus

### Pennsylvania Democratic candidates hold debate at CMU

Junior Staffwriter

The Pennsylvania Democratic candidates for the U.S. Senate took part in a debate in Rangos Ballroom in the Cohen University Center on Sunday, Jan. 31. The event was hosted by Carnegie Mellon University's Heinz College in association with the 14th Ward Independent Democratic Club. The chairman of the club, Sam Hens-Greco, kicked off the introductions for the debate, stating that, "The purpose of our forum is quite simple: we want to have a substantive, serious, and thought-provoking space and time for you ... and provide you with the opportunity to meet the candidates, to talk with them, and to hear them, and we want the candidates to have the opportunity to talk to you and tell you why you should be voting for them to be the Democratic

nominee." The debate provided the audience with insight into the policy goals and political ideologies of each individual candidate. Through timed answers to questions asked by the two moderators of the debate, Paul Klein and Krysia Kubiak, both Members-at-Large of the 14th Ward Independent Democratic Club, the candidates tried to illustrate their qualifications and convince members of the audience as to why he/she would be the optimal candidate to represent the Democratic Party in the Senate. The three candidates, John Fetterman, Katie Mc-Ginty, and Admiral Joe Sestak,



Courtesy of Wikimedia Commons Pennsylvania Democratic candidates John Fetterman (left), Admiral Joe Sestak (middle), and Katie McGinty (right) held a debate at CMU on Jan. 31.

each attempted to show that they are more than just capable of representing Pennsylvania in the U.S. Senate.

John Fetterman, distinguished from the other candidates by his scruffy goatee, shaved head, and tattoos — not to mention his large frame — held his ground and argued that he is prepared to implement change through politics at the national level. Fetterman is a Harvard University graduate with a Master of Public Policy degree and has been the mayor of Braddock, P.A. for the past decade, but regardless, he may not have as much governmental experience as his two oppo-

Katie McGinty and Admiral Joe Sestak, in their sharply dressed suits and proper professional demeanor, seemed to be more comfortable on the stage and well trained for events such as this one. They both have an extensive background consisting of largescale political involvement. McGinty has served as the former chief of staff to Governor Tom Wolf in addition to being the former secretary of the Pennsylvania Department of Environmental Protection. Admiral Sestak, on the other hand, was a three-star admiral in the U.S. Navy and formerly served as a congressman for Pennsylvania's seventh congressional district in the U.S. House of Representatives. Fetterman seemed to have the most support from the local population, which constituted for a majority of the audience in Rangos Ballroom.

The debate addressed a spectrum of countless relevant topics through a myriad of questions concerning

important policy issues. Among the topics covered were environmental concerns, health care, gun control, and the refugee crisis, just to name a few. Fetterman answered the questions in a way that drew on his personal experiences and suggested that he has strong morals, stands by his ideological beliefs, and hopes for improved bipartisan cooperation in the Senate. McGinty argued that she is a diligent and determined candidate who has had considerable experience in higher-institution politics and empathizes with

middle class families. Admiral Sestak emphasized his achievements on Capitol Hill, and used his experience in the Navy to exemplify his love and devotion to the country and the state and how these traits would affect the way he would handle varying situations as a

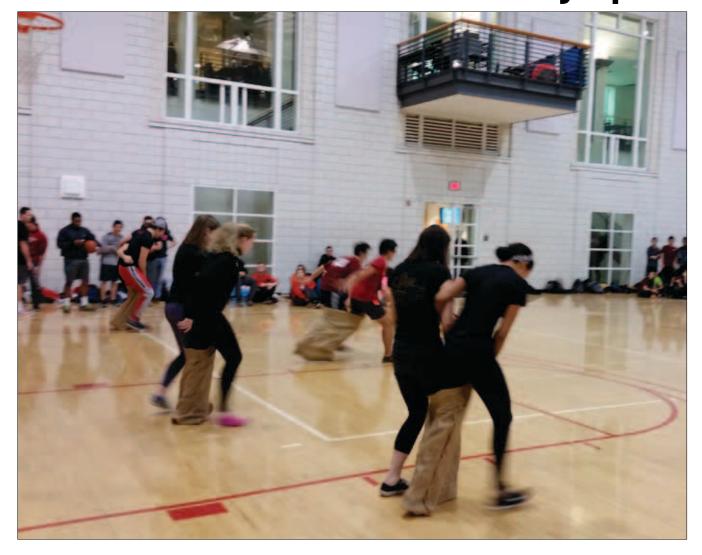
When each of the candidates were asked to speak to their respective electability and what distinguished them from the other two opponents, McGinty answered, "I have a track record of getting it done, and I have just a little bit of energy that I promise I will throw into the job." Admiral Sestak spoke about his hopes to restore the American Dream and restrain military forces in issues regarding foreign policy. Fetterman opened his answer with a comedic take on his appearance, stating, "Well I suspect it's probably harder for me to find clothes to wear." He continued, "The head of the Pennsylvania state party believes that I'd be the strongest candidate in the field to go up against Pat Toomey, and I also believe that I've never shied away from a tough election."

At the end of the debate, based on audience reactions and feedback, John Fetterman seemed to come out as the winner. This could perhaps also be attributed to his position as the most relatable candidate and his popularity from being the mayor of a local town. The 2016 U.S. Senate election in Pennsylvania will be held on Nov. 8.

The event was filmed and is available to view on YouTube.

FEATURE PHOTO

### Students have fun at Tartan Olympics





Valene Mezmin/News Editor

The ninth annual Tartan Olympics took place last Saturday throughout the Cohon Center. Multiple teams participated in events that were meant to test students' skills in a myriad of activities. Events included a tasks such as a relay race, knockout, a lip-sycing competition and an egg drop contest.

### Campus Crime & Incident Reports

**Alcohol Amnesty** 

Jan. 30, 2016

Three intoxicated Carnegie Mellon students were granted amnesty after receiving medical attention near Mudge House, Morewood Gardens E-Tower, and Margaret Morrison Street. No citations were issued.

#### Use of a Controlled Substance

Jan. 31, 2016

Two Carnegie Mellon students and a Duquesne student received medical attention after University Police received a report of two males being

An investigation is ongoing.

**Vehicle Damage** Feb. 1, 2016

An Facilities Management Services truck was struck by a passing vehicle on Margaret Morrison Street. University Police helped parties exchange information.

### Burglary

Feb. 2, 2016

Two Carnegie Mellon students reported that \$180 and \$630 respectively were stolen from their suite in West Wing between 2:30 and 6:30 p.m.

under the influence of LSD. An investigation is ongoing.

### Harassment

Feb. 3, 2016

University Police responded to reports in Scaife Hall that a staff member was repeatedly harassed via phone calls, faxes, and emails. An investigation is ongoing.

### **Underage Drinking**

Feb. 3, 2016

University Police responded to a report of an odor of marijuana in Mudge House. A Carnegie Mellon student received medical attention and was given a citation after

University Police discovered that the student had reportedly consumed alcoholic beverages while under the legal drinking age of 21.

### Harassment

Feb. 5, 2016

A Carnegie Mellon student reported being harassed in the Cohon Center. Upon further investigation, University Police found that the culprit was a non-affiliate of Carnegie Mellon. Police issued a defiant trespass warning which advises that if they return to Carnegie Mellon property they will be subject to arrest.

CAMPUS NEWS IN BRIEF

#### CMU endeavors to reverse-engineer the brain for research on artificial intelligence

Researchers at Carnegie Mellon have embarked on a five-year, \$12 million research project to reverse-engineer the brain in order to better understand neural circuitry and learning methods. They hope to eventually apply their findings to the field of artificial intelligence. The project is led by Tai Sing Lee, a professor in the computer science department at Carnegie Mellon and the Center for the Neural Basis of Cognition (CNBC), a joint program between Carnegie Mellon University and the University of Pittsburgh.

The project is funded by the Intelligence Advanced Research Projects Activity (IARPA) through its Machine Intelligence from Cortical Networks (MICrONS) research program. MICrONS is part of President Barack Obama's BRAIN Initiative which aims to revolutionize our understanding of the human brain.

"MICrONS is similar in design and scope to the Human Genome Project, which first sequenced and mapped all human genes," Lee stated. "Its impact will likely be long-lasting and promises to be a game changer in ligence," Lee said.

neuroscience and artificial intelligence."

In particular, researchers hope to discover the mechanisms the brain's visual systems use to process information. This could potentially revolutionize machine learning algorithms and computer vision, while also improving the performance of neural networks, which are computational models for artificial intelligence inspired by the nervous systems in animals. Neural networks are used today in cases where computers can learn to recognize faces, understand speech and handwriting, and make decisions for self-driving cars.

Researchers also plan to collaborate with MICrONS teams at other universities to evaluate computational and learning models of the brain, and hope to eventually build better computer algorithms for learning and pattern recognition. "The hope is that this knowledge will lead to the development of a new generation of machine learning algorithms that will allow AI machines to learn without supervision and from a few examples, which are hallmarks of human intel-

#### CMU seeks to understand why millions of Americans fail to claim their tax credit

Around seven million Americans every year, 25 percent of those eligible, fail to claim the Earned Income Tax Credit (EITC), the primary channel of government support for the working poor. These credits are worth, on average, a month of income. Saurabh Bhargava, an assistant professor of economics at Carnegie Mellon, led a field experiment with the Internal Revenue Service (IRS) in order to find out why so many people don't sign up for valuable government benefits and to identify ways to improve

participation. The study suggested that the reasons why people don't claim credit is not due to stigma or time required to apply, as predicted by traditional economic theory, but rather the result of "psychological frictions" like low

awareness, confusion regarding eligibility, and inattention to program informa-

The study estimated that a redesign and expansion of the way notices are distributed could increase the number of claimants by several hundred thousand. Since the study's completion, the IRS has circulated redesigned notification forms.

"This study demonstrates the value and need for rigorous evidence-based approaches to public policy. It also suggests that, in an increasingly complicated world, simplicity and a commonsense recognition of how individuals make decisions can play a critical role in the ultimate success of policies like the EITC," Bhargava said.

> Compiled by DERORAH CHII

#### **TUESDAY** WEDNESDAY **THURSDAY**



<u>WEATHER</u>





**35°** / 22°

**28°** / 15°

**22°** / 8°

**FRIDAY** 





**21°** / 8°

**SUNDAY** 

**22°** / 1°

Source: www.weather.com

### **Corrections & Clarifications**

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

INTERNATIONAL NEWS IN BRIEF

#### Three missing after mine collapses

SOUTH AFRICA — 87 workers were trapped underground after the entrance to the Lily Gold Mine in northeast South Africa abruptly collapsed. All of the miners were rescued with the exception of three that were working on the surface. The cause of the collapse has yet to be determined.

#### Italian student found dead in Egypt Britain in the EU

ROME — Guilio Regeni, a 28-year-old writer for the leftwing newspaper II Manifesto, based in Rome, whose articles were not well received by the Egyptian government, was found dead by a roadside in Cairo, Egypt. The body of the Italian student had cigarette burns and other signs of tor-

### Deal backs keeping

COPENHAGEN — British Prime Minister David Cameron recently backed a deal with Jaroslaw Kaczynski, the leader of Poland's ruling Law and Justice Party, to keep Britain in the European Union. It is still speculated that voters will be opposed to the continued membership.

#### **Political crisis** deepens in Haiti

PORT-AU-PRINCE — Following a botched election that left no successor for outgoing President Michel Martelly, Haiti has slipped into deep political unrest. Former soldiers were seen beating a man to death with stones. The man was accused of being a member of an unpopular army that was disbanded in 1995.

#### Pope holds historic meeting in Cuba

VATICAN CITY — Pope Francis and Patriarch Kirill, the head of the Russian Orthodox Church, will meet in Cuba on Feb. 12 to talk about the killing of Christians in the Middle East. This meeting will be the first in history between a Roman Catholic Pope and a Russian Orthodox patriarch.

Source: Reuters

#### Earthquake causes damage in Taiwan

TAINAN — An earthquake struck the city of Tainan in Taiwan resulting in the collapse of a building and damage to other structures. There were no immediate reports of death or serious injuries.

Source: Reuters

Compiled by **VALENE MEZMIN** 

Source: Reuters

Source: Reuters

Source: Reuters

Source: Reuters

February 8, 2016 « The Tartan thetartan.org/news » A3

# Capital One event "People + Money" analyzes our relationship with money discuss ending poverty in Haiti Mellon University. W

Last Tuesday, Capital One hosted its "People + Money" event in the Connan Room of the Cohen University Center. The event focused on "rethinking our relationship with money," and featured three fast-paced talks by Capital One representatives, two of whom were Carnegie Mellon alumni. The lively evening was emceed by Brandon Schauer, head of Adaptive Path, a San Francisco-based design firm acquired by Capital One, and featured music, free Jimmy John's, and prizes, including a pair of Beats headphones.

The first talk focused on credit, and was presented by Carnegie Mellon alumna Molly Johnson, who received her Master of Design, Interaction Design degree from Carnegie Mellon in 2014. Reflecting on her first day at Capital One approximately a year and a half ago, Johnson described her own confusion with understanding credit. In response to this, her team decided to find out why people fail with credit. Describing the people she came across in her research, Johnson stated, "Most of these people are extremely well-intentioned. They want to succeed, yet they still accumulate overwhelming amounts of debt."

Johnson's team discovered that most of the reasons people fail with credit deal with confusion about credit cards. She highlighted two specific aspects of credit cards that tend to confuse people: credit limits and minimum payments. Credit card spending limits for first-time users are usually around between \$750 and \$1,000, which is, most of the time, more than these people make in a month. "People rarely consider this limit in the context of what they can pay back," Johnson said. "They think that their credit card company has given them permission to spend up to the limit."

Consequently, when the bill from the credit card company comes in the mail, it's often more than they can afford to pay back in full. But the credit card company doesn't ask for the full amount they ask for only a minimum payment of \$25. Johnson's team noticed that "to a lot of our customers, paying the minimum ... means paying exactly what we ask, meeting our expectations, and even being responsible."



Jarel Grant/Assistant Art Editor

It's not hard to imagine the disastrous consequences that can result from falling into this pattern after several months. "Right now, our products are leading customers astray, yet we're treating them as if it's their fault,' Johnson said. "It's time to reconsider our products, and start designing them in a way that helps people change their behavior and step back from that tipping point." Her team has started to do this with Inform, an app that Capital One Labs designed to make statement balances (and the consequences of paying a minimum) more clear to the user. After a couple of months of testing, the design was met with "extremely positive" results, with the number of people making only minimum

payments reduced by half. In the second talk, Jacquelyn Brioux, an experience designer at Capital One, spoke about what actually drives happiness and the idea that "money can't buy happiness." Brioux spoke about hardworking parents who were so hardworking that they missed graduations and meeting grandkids, yet had no retirement savings and didn't own a home. "They believed that having more money would be the solution to all of their problems," Brioux said. "But in reality, the relentless pursuit of money is causing them to miss out on life, theirs and ours."

Brioux pointed out that "Money is emotional.... Our happiness and well-being is wrapped up in money.... we often forget it's just a tool for trade." After her own experiences seeking happiness by pursuing and attaining financial stability, she found herself still searching for happiness. "And I'm not alone," she

said. "Most of us aren't happy. A nationally representative sample of U.S. adults found that 54 percent of us are mentally healthy, but our lives lack pleasure, engagement, and meaning." So what makes us happy?

Citing a theory by psychologist Sonja Lyubomirsky, a professor at the University of California, Riverside, Brioux posited that 50 percent of our happiness is genetically determined (fixed happiness), 10 percent is determined by life circumstances (fleeting happiness), and the remaining 40 percent is based on intentional activities that are done on a regular basis (lasting happiness). While most people focus on improving their circumstances, Brioux points out that the opportunity to increase happiness lies in the 40 percent of lasting happiness. "40 percent is the portion of your happiness that is within your power to change simply by shifting how you think, and how you act," Brioux said.

Brioux suggested six things to target that 40 percent and be happy: be engaged, create and sustain close personal relationships, laugh, think positively, exercise, and feel and express gratitude. "All of these can be considered intrinsicals, which relate to the soul.... they're likely to meet innate psychological needs," Brioux said. "Extrinsicals are the opposite. They relate to worldly goals, like money, status, and fame. Research has shown that people who realize their intrinsicals have higher levels of sustained happiness than those who realize their extrinsicals."

The third talk was titled "I just want to know if I'm okay," and was presented by Carnegie Mellon alumna Sarah Calandro, who received her Master of Design, Communication Planning and Information Design degree from Carnegie Mellon in 2011. "I'm just going to go right ahead and say it.... the banking industry is the fourth most hated industry in America," Calandro said. She and her team were tasked with designing and building a Capital One 360 checking experience that people would love. "This was going to be a challenge,"

Calandro admitted. Her team decided they needed to understand what was working for people in terms of money, and what was not. After conducting an simple experiment in which they asked people to draw their money, Calandro's team concluded that "people's finances are made up of a pretty complicated web of moving parts.... when people check into their money, they're really just trying to find out if they're okay," Calandro said. "Getting the answer to that question requires a painful amount of hunting, gathering, and synthesizing, day in and day out."

Calandro described her vision for what she hoped Capital One and other banks would do. Her first point was for the bank to see its customers as humans, through understanding and building tools to help them. Secondly, instead of striving for a primary relationship with customers, the bank should strive for a strong relationship. And third, the bank should focus on holistically solving people's financial problems within Capital One, but also from bank to bank. "All this, with an end goal of being able to tell people... you are okay," concluded Calandro.

HAITI, from A1

have been eradicated in the area. Pre and post-natal care rates have risen dramatically, with 100 percent of women having at least one meeting with a healthcare professional before birth, and with 98 percent of women receiving much needed iron supplement pills post birth.

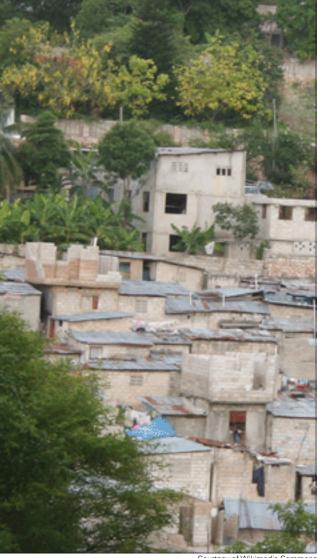
Perhaps the most important factor that they deal with is malnutrition. Living in an extremely impoverished nation, Haitian people face a simple problem: they simply do not have the money for food. Of the amount of people who go to HAS seeking medical care, half of those are children. Of those children, half of them are malnourished. It is easy to pretend that hunger isn't a problem here in Pittsburgh, but for the children in Haiti, it undoubtedly is one of the biggest issues.

The final speaker of the night was Michael West, a professor of French and francophone studies at Carnegie

Mellon University. West first took notice of Haiti from a linguistic perspective, finding the creole language spoken there a fascinating derivation of French. He and his students became interested in the Society of Providence United for the Economic Development of Petion-Ville (SOPUDEP), an organization dedicated to helping the Haitian people through education. The students who traveled to Haiti in the spring of 2014 received no financial aid from Carnegie Mellon for the trip and raised all of the expenses through various fundraisers.

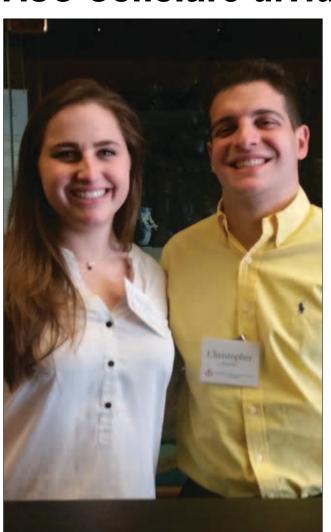
Overall, the three speakers sought to echo Martin Luther King Jr.'s message of economic justice. In the spirit of Martin Luther King Jr. day. they demonstrated the work that their two organizations have been doing in order to make his dream a reality for all people across the globe.

More information on the two organizations can be found at hashaiti.org and sopudep.org.



One of the many impoverished villages located in Port-Au-Prince, Haiti's capital, that Hôpital Albert Schweitzer is seeking to impact

### ACS Scholars divide money towards various organizations



Danae Paparis (left) and Christopher Herrera (right) represented this year's ACS Scholars by announcing the desitions the Scholars made to a room of deans, ACS board members, and University Advancement staff.

ACS, from A1

with Danae E. Paparis, a senior design major. Reflecting on the goals of the group when deciding on the organizations they would give back to, as well as the amount of money they would allot to each organization, Paparis said "We were focused on outreach, high impact, and impacting the lives of the community in positive ways." To do this, the scholars zoned in on organizations that were not able to get the funding they needed, while also focusing on the size of each organization and their ability to reach the goals they

were advocating. While dividing the \$5,000 evenly would be welcomed by each organization and would provide them with the additional funding needed to achieve their respective goals, Herrera felt it important to repeat the sentiment of this year's Scholars by noting "we can't save the world with \$5,000." He points out that instead of giving minor support to a large number of organizations, it was their mission to make a direct impact on a few organizations.

Herrera went on to list the seven organizations that the ACS Scholars decided

upon. The first organization, with the largest donation of \$2,000, was Camp Kesem, an organization that focuses on supporting children whose parents are struggling with cancer. Camp Kesem helps to motivate these children through the struggles they are facing at home by providing them with an environment where they can cope with these issues. The money given by the ACS Scholars will help the organization continue their mission of providing these children with the positive environment they need.

The next organization was The Zahra Center. The ACS Scholars will be donating \$575 towards the production of a play based on the novel Surviving Zahra. "This play is a product of attempting to meet needs across cultural communications, Muslim narratives, and the performing arts," Herrera said. The Scholars believe this production will allow Carnegie Mellon to get more involved with other cultures, adding to the diversity of the arts being produced at the school.

Next was CMU in Haiti, which seeks to strengthen the ties between Carnegie Mellon and Haiti via cultural exchange and provide education

to people in Haiti. The Scholars will be donating \$500 to this organization to help pay for the expensive travel costs that allow members to travel to Haiti. Herrera repeated the sentiment that the money they were allotted cannot save the world, but will rather allow ACS to have a positive, direct impact on these organizations. In this instance, the money will provide a concrete benefit by funding students traveling to Haiti.

Along with CMU in Haiti was Project Rwanda, which will be receiving \$500 dollars from the Scholars directed towards their Pen Pal Program. This money will help further connections between the Carnegie Mellon campus in Pittsburgh and the Carnegie

Mellon campus in Rwanda. The Carnegie Mellon Astronomy Club will be receiving \$400 from the scholars to help fund their light pollution outreach program in Pittsburgh. This program seeks to develop light shields for streetlights, among other things. "We felt like giving money to this organization would definitely help the Pittsburgh community as a whole," Herrera said.

The Global Medical Brigades will receive \$375 from

the scholars, which will be directed mainly towards getting medication for their global health outreach program. Last but not least was Inter punct, an architectural journal run by members of Carnegie Mellon's School of Architecture, which will be receiving \$350 directed towards aiding in the distribution of the journal to other college campuses. "This will make a direct impact and really help the Carnegie Mellon Architecture community expand to colleges throughout the nation," Herrera said.

Apart from discussing how the money would be allocated, the students also reflected on their experience as a part of this program where they got to meet new and different people from different backgrounds and colleges. Reflecting on what she learned from this experience, Paparis spoke about being thorough when asking for money, the importance of being punctual when turning in a proposal, and in essence simply knowing "how to be an adult."

A full list of the names and majors of each of this year's, and some of the previous year's, ACS Scholars can be found online at www.giving. cmu.edu under recognition societies.

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### Clinton slips by Sanders in historically slim Iowa Caucus

RAHEELA AHSAN Staffwriter

This past Monday, Feb. 1, the premier electoral event of the United States President nominating process occurred in Iowa. The Hawkeye State's 99 counties and 1,681 precincts voted on both the Republican and Democratic Party candidates. The famous Iowa Caucus is recognized for a 50 percent accuracy rate in determining each party's presidential nominee. While

In order to win the caucus for the Democratic Party, the candidate must have the largest number of delegates. Each of the 99 Iowan precincts divides its delegate seats among the participants. The caucus-goers stand in designated areas of the voting

the GOP winner is determined

through popular vote, the

Democratic process is a little

more complex.

site to demonstrate support it is wiser to drop out. Though for a particular candidate, and each participant spends roughly 30 minutes trying to convince friends and neighbors to join. Democrats who remain undecided on any candidate stand in a designated undecided area.

About half an hour into electioneering, the caucus officials then determine which candidates are viable.

In order to be a contestable contender, the candidate must have the support of at least 15 percent of attendees. This week, former Maryland governor Martin O'Malley often failed to meet that mark and received less than 1 percent of the total vote along with no delegates.

The Iowa Caucus often predicts each party's presidential nomination. Those who perform well in the polls still have a shot at their campaign, while those who do not realize

O'Malley has suspended his campaign, the Democratic Party is not happy with the neck-and-neck tie between former Secretary of State Hillary Clinton and former Senator Bernie Sanders

Both candidates failed to establish themselves as the clear frontrunner of the Democratic Party. This is especially a blow to Clinton who was believed to have been the favorite at the Iowa Caucus. Yet, as the results show, Clinton received 23 delegates and 49.9 percent support, while Sanders received 21 delegates and 49.6 percent of the Iowan vote. While Clinton did indeed win the caucus, she did so by a very lucky, razor-thin margin.

Allegedly, Clinton won the caucus by a flip of a coin in as many as six separate voting sites. The odds of that occurring are not only 1 in 64 and the claim is also simply

dishonest. Even if Clinton won the "Miracle Six," it barely gave her a leg up over her competitor Sanders. In fact, the tie was so close that many Iowans reported a number of tiebreakers at numerous voting sites, some of which Sanders did win. The Iowa Caucus saw the largest number of Democratic caucus-goers in caucus history, with 171,508 residents preferring either Clinton or Sanders. Though Hillary Clinton came in the lead with barely a 0.3 percent margin, it was the closest in 40 years at the Iowa Democratic Caucus.

This close race leaves a lot to be determined in the upcoming months.

New Hampshire promises even more confusion for both parties. Moreover, the congressional and state conventions in April and June will be the true determinants of the Democratic party's nominee.



India Price/Online Edito

### On the issues: Student debt

**ZEKE ROSENBERG** Senior Staffwriter

With the presidential campaign raging on, most candidates have at least put some semblance of a platform regarding student debt into public view. We at the Tartan are here to wade through all the political rhetoric to give

you the candidate's positions

Former Florida Gov. Jeb Bush

as clearly as possible.

Bush delayed on releasing a student debt plan for months, but eventually delivered a highly specific proposal. He wants to reform the incentives of college tuition. Instead of distributing large amounts of federal aid for tuition, he would give a capped \$50,000 line of credit in what he calls an Education Savings Account (ESAs). For each \$10,000 spent from this account, the federal income tax of the student will increase by 1 percent of his/her income. This add-on will happen for the first 25 years after graduation. Need-based Pell Grants would also be distributed through these accounts. Students with existing debt would be able to make use of

the ESAs as well. Bush also wants to give universities an incentive to have students pay their loans by putting universities partially on the hook for student loans after a default. This would, in theory, give universities an incentive to help students either not to have debt to begin with, or to be able to

pay off their loans easily. It's unclear what the mechanism is, but Bush also claims he will encourage innovation in education. He will also expand access to federal aid for students enrolled in vocational education and apprenticeship models among other things. He also plans to expand access to information about the outcomes of various forms of education to ensure there is a high return on investment for tuition.

#### Former Neurosurgeon Ben Carson

Carson wants to reign in interest rates by having students only be responsible for the principle on tuition while having colleges pay interest. He also wants financial incentives in place for colleges to maximize the effect of tuition money, allowing costs to shrink for students.

#### **New Jersey Gov. Chris** Christie

Christie wants to make college affordable, but believes free college is not a good goal since there is an economic return. He believes colleges should publicly disclose expenses to raise accountability. He also believes Congress needs to put more effort into making sure need-based aid is actually distributed based on need. Christie has also mentioned the idea of tax credits for donors to increase the money universities already have and the possibility of a futures market for tuition.

### Senator Ted Cruz (R-TX)

Cruz will occasionally mention his own student loans, but does not seem to have put forward a plan for student debt beyond saying he would prefer transferring loans to states. In 2014, he blocked a bill that would have allowed many students to refinance their debt.

#### Former Hewlett Packard **CEO Carly Fiorina**

Fiorina believes the federal government nationalizing student loans has created a monopoly that allowed thereby interest rates to skyrocket, expanding costs. She also believes accreditations are too stringent. To fix this, she would end national

federal aid to create a free

marketplace for tuition and roll back regulations on forprofit universities and other education options that previously were barred from accreditation.

#### **Former Virginia Governor** Jim Gilmore

Gilmore does not appear to have mentioned the issue of student debt.

#### **Ohio Governor John** Kasich

As governor, Kasich recently signed into law a bill that froze tuition at public universities in Ohio and commissioned a nine-member panel that studied how to best manage money at universities. He also expanded access to AP classes and other forms of receiving college credit in high school such as summer school to bring down costs. Further, he set aside \$120 million as a debt relief fund. He has mentioned this on the campaign trail as well as shifting tuition to being based on course completion and graduation rather than enrollment.

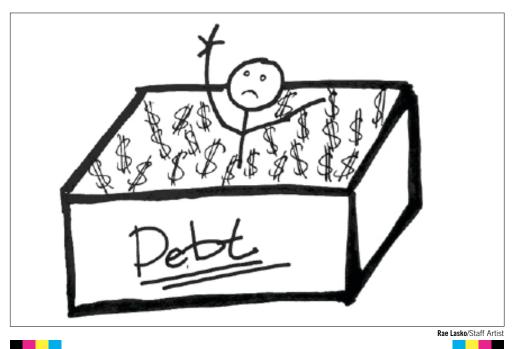
#### **Senator Marco Rubio** (R-FL)

Rubio would help expand information available to students to help them decide on things like university, major, vocational education, and other choices based on outcomes to make students more secure in their investments. He also wants to create a futures market for college tuition where a student could have investors pay for their tuition and pay back a percentage of their income as time goes on. Rubio also proposed creating one post-secondary education tax provision to simplify the deductions cur-

Rubio also wants to reform accreditation, although it's unclear how.

rently available.

See DEBT, A5



### Raise a glass: Four hopefuls end failing white house runs



Courtesy of the United States Navy via Wikimedia Commons O'Malley speaks to supporters at a naval yard rally during his successful 2000 Baltimore mayoral campaign.

IAN TANAYA

Asst. Sport Editor

The first state had its say in the 2016 primaries, and some candidates have finally begun to drop out of the race. One of the three Democrats and three of the twelve Republicans on the ballot in Iowa decided to suspend their campaigns, finally realizing that remaining in the race would be a waste

of time and resources. On Monday, former Maryland governor Martin O'Malley was the first candidate to drop out, deciding to do so early on in the night. His decision was unsurprising, given how the Democratic race quickly became big enough only for former Secretary of State Hillary Clinton and Senator Bernie Sanders (I–VT). Though he had once been considered as the potential liberal challenger to Clinton, Sanders' emergence stole all the fire from the former Maryland governor.

Former Arkansas governor Mike Huckabee also ended his presidential bid on Monday, making his decision around the time the media was able to confirm the victory of Senator Ted Cruz (R-TX). Huckabee won Iowa in the 2008 presidential primary race, and he hoped for Iowa to once again come to his aid. The evangelical Christians who once lent him their strength largely gave it to Cruz this time around, and the former Arkansas governor finally decided to leave the race.

On Wednesday morning, Senator Rand Paul (R-KY) decided to drop out of the race. The Republican considered more libertarian than conservative had once been poised as a wild card in the Republican race, boasting appeal among young voters looking for a different type of Republican. The re-emergence of terrorism as a critical issue

due to the rise of ISIS, howev- in the race might continue to er, derailed Paul's traditional draw support away from both supporters, who believed his Cruz and Trump. dovish tones would be blind to the threat to American security. Lacking the fanatical support his father Ron Paul commanded in the 2012 primary race, Paul had little sup-

port to fall back on. On Wednesday evening, Former Senator Rick Santorum (R-PA) ended his quest for the presidency. Like Huckabee, Santorum was a previous Iowa caucus winner. In 2012, the former Pennsylvania senator emerged as the single strongest challenger to eventual nominee Mitt Romney despite polling in the single digits up until a few days before that year's caucus. He was certainly hoping that he would somehow match his improbable last minute surge this election cycle, but he never gained any momentum as he was relegated to the bottom tier of GOP contenders.

These dropouts are no surprise to anyone following politics. In fact, what may be interesting is how many people have decided to stay in the race. Retired pediatric neurosurgeon Ben Carson, who finished in fourth place with 9.31 percent of the vote, cried foul at the Cruz campaign. A CNN post that said Carson was not going to go to New Hampshire and South Carolina prompted some Cruz supporters to say that Carson would be dropping out of the race, urging Iowa voters not to waste their votes. The Cruz campaign has denied any wrongdoing, though the senator himself gave an apology for not verifying his intent regarding Carson's future in the primaries. Carson still has some support among both evangelical Christians and voters looking for a complete political outsider a la former host of The Apprentice Donald Trump. His extended stay

Many of the other candidates in the race decided to focus on the New Hampshire primary rather than meaningfully attempt to appeal to Iowans. Former Florida governor Jeb Bush, once the frontrunner for the nomination, currently finds himself with 9.7 percent support in the latest Real Clear Politics average. New Jersev Governor Chris Christie stands at 5.1 percent. Former HP CEO Carly Fiorina believes she still has a chance at 4 percent. Former Ohio governor John Kasich, at 11.1 percent, is actually only 0.6 percentage points behind Cruz, and Kasich has a better shot at finishing ahead of Rubio than Bush. Christie, or Fiorina. It is likely that some of these candidates may decide to keep forging on ahead after New Hampshire, a worrying prospect for moderate Republicans who may only have Rubio left as a viable choice. The Super PACs supporting Bush may keep him afloat well into the primary season, and a strong showing for Kasich could

keep him in the race. Finally, there is one Republican in the race who, despite finishing behind "Other" in the Iowa caucus, still believes he will be president. Jim Gilmore, the former Virginia governor, said that he was pleased with his 12 vote showing in Iowa. Though he doesn't register at all in any Real Clear Politics average, Gilmore believes that somehow he will be the Republican nominee. If he gets one delegate, it is possible that he might make some magic happen should none of the candidates obtain a majority of delegates at the end of all 50 primaries. He'll need more than 12 votes to get that one delegate, though.

February 8, 2016 « The Tartan thetartan.org » A5

### Cruz pulls of shocking win, Rubio overperforms in Iowa

Contributing Editor

Last Monday, the Iowa Caucuses officially kicked off the 2016 presidential race. Candidates from the Republican and Democratic parties faced their first real tests of public opinion. For the Republicans, the night was a fight between the establishment and outsiders as well as a way to narrow the field.

politicians, namely governors, were doing well.

The moderates in the Republican race have a chance to address the issues from the autopsy — including some of the governors named in the report, like New Jersey's Chris Christie and Ohio's John Kasich — but the conservative wing that broke away after Obama's election is threatening to continue moving the Republican Party to the right.

for Rubio, whereas people who wanted an outsider mostly voted for Trump. Cruz won mediocre support from both groups, likely because he's not a complete outsider, but still doesn't have much experience.

These groupings demonstrate the split between the establishment and the ultraconservatives fairly well. It's still early in the nomination process, but it looks as though



Going into the caucus, polls had shown real estate developer Donald Trump leading the pack, as he had been for several months beforehand. At the end of the night, however, Senator Ted Cruz (R-TX) took first place, followed by Trump, Senator Marco Rubio (R-FL), retired pediatric neurosurgeon Ben Carson, Senator Rand Paul (R-KY), former Florida governor Jeb Bush, and six other candidates.

Trump, Cruz, and Carson all present themselves as outsiders, people who aren't entangled in the mess of Washington, D.C.. Trump and Carson worked in the private sector, having never held public office before, while Cruz is a senator — he was elected in the 2012 election with a grassroots campaign focused on conservative social issues.

Rubio, on the other hand. has been in politics since 1998, most recently as a senator. Along with Jeb Bush who comes from a family that includes two past presidents and a handful of others, Rubio is one of the establishment's greatest hopes to keep control of its party.

Since Senator John Mc-Cain's (R-AZ) loss in 2008, the Republican party has been split between the somewhat moderate establishment and the ultra-conservatives, many of whom align with the Tea Party movement.

In 2012, after former Massachusetts governor Mitt Romney's loss, the Republican Party ran a so-called "autopsy," and found that they weren't appealing to minorities and women, that their stances on social issues like marriage equality and immigration were off-putting, and that their more mainstream

The Iowa Caucus was America's first look at voting patterns, and to have a look at where the Republican Party might be headed next. Cruz took first place with 27.6 percent of the vote, slowing down the Trump train that had seemed unstoppable.

Despite placing second in a field of 12, Trump lost a lot of momentum. He was decisively behind Cruz, taking 24.3 percent of the vote (45,427 compared to Cruz's 51,666). His campaign is based almost entirely on his flamboyant attitude and supersized proposals. When his promises of being a winner didn't work out, it made it harder to see his ideas as realistic.

In third place was Marco Rubio, with 23.1 percent of the vote. With his clear position in the top pack of the race, Rubio is now the hope of the Republican establishment. As other candidates drop out of the race, he's likely to see an upswell of support, as he presents a more familiar face and greater experience in politics.

Of the three leaders, the entrance polls show some interesting information. Rubio. a more traditional candidate, has the support of voters who care most about who can win in a general election. Cruz has the support of people who care about sharing values with candidates, while Trump wins over the constituents who care about bringing about change and "telling it like it is."

Additionally, Cruz had the most of the very conservative voters, Rubio won the somewhat conservative voters. and most of the independent or liberal voters supported Trump. People who believed the next president should be experienced in politics voted

Cruz and Trump will be fighting for the outsider label (with Carson barely hanging in there as well, earning 9.3 percent of Iowa's votes), and Rubio handily leading the mainstream Republicans, at least for now.

Bush will be looking to challenge Rubio's hold in the later primaries, but despite having high name recognition, his family's history may be more hindrance than help.

As for the other six candidates in Iowa, they have little to no chance to the nomination. Paul, despite winning 4.5 percent of the vote ahead of Bush's 2.8 percent - dropped out after the Iowa caucuses, vowing to continue the fight for liberty. Rick Santorum and Mike Huckabee also dropped out after receiving dismal showings.

Former HP CEO Carly Fiorina and Kasich remain in the race, having earned one delegate each from the Iowa Caucus; Christie and former Virginia governor Jim Gilmore are also hoping to do better in future contests, having received no delegates in Iowa. Gilmore received a total of 12 votes, but that isn't stopping his doomed charge toward the presidency.

As the election season moves forward, more candidates will drop out and support will begin to coalesce around the remaining few. Will the far right take over the Republican Party, nominating someone like Cruz or Trump? Or will Rubio — or Bush. possibly — take back control from the outsider faction?

After a few more primaries, including 12 states on March 1 ("Super Tuesday"), there will be more of an idea which way the party is going

### Candidates plan to address student debt as president

DEBT, from A4

#### **Trump Entertainment Resorts Owner Donald** Trump

Trump has harshly criticized the federal aid program saying it is "...not fair. It is one of the only places, frankly, where our country actually makes money." He has not put forward his own plan.

#### Former Secretary of **State Hillary Clinton**

Secretary Clinton wants to expand aid to states and possibly condition some of it on cutting costs to help bring

down tuition. She wants students to attend college debtfree, including having students work a minimum of ten hours per week. She would make community college tuition free and would allow college graduates to refinance their debt and lower their interest rates.

#### **Senator Bernie Sanders** (I-VT)

Sanders wants to make public tuition free and wants to prevent the government from profiting on student loans. He also wants to cut down interest rates and make it possible for students to

refinance their debts at interest rates similar to other industries' current low rates. His most common example is the automobile industry. He claims that a citizen can get a loan on a car for 1-2 percent interest whereas a student will be forced to pay 5-7 percent interest on a federal loan. He wants to allow students to use need-based financial aid and work study to shrink debt at private universities in order to prevent inflating costs from making college inaccessible. He plans to pay this via a financial transaction tax on Wall Street speculation in order to slow high-frequency trading and riskier bets.

### Clinton, Sanders exchange shots in heated fifth debate

**BARBARA SAMANIEGO** Staffwriter

Secretary of State Hillary Clinton and Senator Bernie Sanders (I-VT) faced off in New Hampshire this Thursday during MSNBC's fifth presidential debate. According to CNN. Thursday's debate was highly praised by political observers, but poorly received by its 4.5 million ordinary viewers, earning by far the lowest ratings of the debates in the 2016 election cycle.

Thursday's debate exhibited the key differences between the two Democratic candidates. Although both showed their weaknesses, they presented convincing arguments that were met with applause from the audience.

Sanders clearly placed economic reform at the top of his priorities as the democratic nominee, whereas Clinton stated that she wanted to build on the progress the United States has made under Obama's presidency and continue reforming healthcare, immigration policy, climate regulations, and gun laws with equal priority.

Sanders emphasized that the United States' current economic structure is the greatest weapon working against democracy, speaking to the national concern about the political system's representation of wealthy individuals and large corporations instead of the American people.

"There is a reason why these people are putting huge amounts of money into our political system. It is undermining American democracy and it is allowing Congress to represent wealthy campaign contributors and not the working families of this country," Sanders said.

Clinton, who has received millions of dollars in speaking fees and donations from Wall Street, addressed Sanders' implication of her own corruption. She noted that Obama had also received donations from Wall Street during his campaign, and asked that Sanders directly speak to the issue of her donations.

"The root of that word, progressive, is progress, but I've heard Senator Sanders' comments and it's really caused me to wonder who's left in the progressive wing of the Democratic party," Clinton said.

Clinton previously received \$675,000 in speaking fees from Goldman Sachs, but hedged away when asked if she would release the transcripts of her speeches.

Clinton maintained that, as a progressive herself, she wants to build on the education and healthcare reforms that have already been initiated in the country. In previous years, Clinton herself pushed for these reforms and promised that she would continue fighting to improve them. She argued that Sanders' plans for free higher public education and free universal healthcare would dismantle the progress that has already been made and force the country to start the fight over.

Sanders, however, proposed a plan for providing American people with the right for free healthcare and higher education. He noted the nations large income gap and how little large corporations are currently taxed, and implied that the money that would come from taxing these corporations would be able to pay for both healthcare and higher education.

Sanders also stated that

free, public, secondary school education was no longer enough for Americans. He denied that his plan to provide working class Americans with affordable healthcare and education would dismantle any sort of previous progress.

Clinton stood out in her foreign policy arguments. She highlighted her experience as secretary of state and demonstrated a stronger knowledge of the subject than Sanders. Sanders himself stated that Clinton was the best qualified candidate of the two to handle foreign affairs.

Clinton listed her qualifications for addressing foreign affairs as president, emphasizing the importance of foreign policy during a time of international crisis.

Both candidates expressed a desire to withdraw American troops from the Middle East but their opinions on the greatest potential military threats differed. Clinton explained her concern about increased tensions with Russia, while Sanders expressed a great deal of unease about North Korea.

Another notable difference between the two candidates is their opinion on capital punishment. Clinton contended that the death penalty should be permissible under extreme circumstances, but Sanders argued that the penalty should never be used due to issues of racial injustices and discrepancies between states.

"In a world of so much violence and killing, I just don't believe that government itself should be part of the killing," Sanders said.

Clinton and Sanders are scheduled to debate again next Thursday in Wisconsin. The debate will be the sixth of the current primary season.

### What does your child buy at convenience stores?



The RAND Corporation, in Pittsburgh, is conducting a research study to learn about what children, ages 11-17, purchase at convenience stores. Participation requires one 20 minute phone/internet survey and one 90 minute visit to the RAND study center.

Children who complete the study will be compensated for their time and effort with \$50 in gift certificates. Parking and travel compensation is provided.

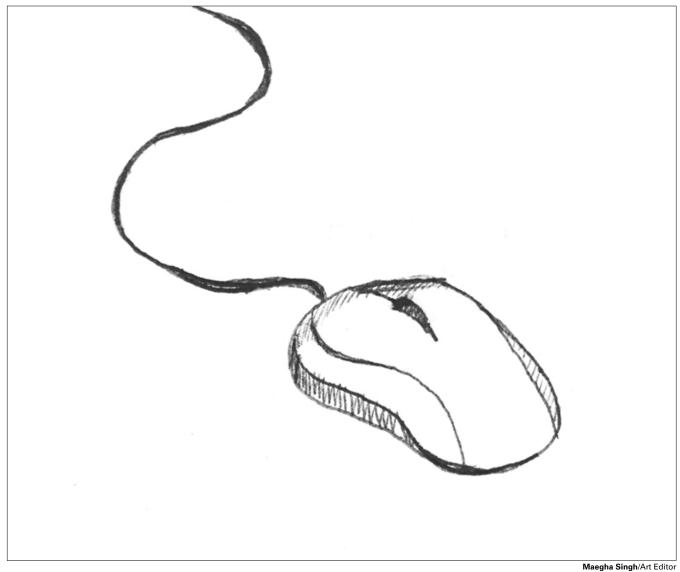
If you are interested and want to learn more about the study, please call 412-545-3005, e-mail c-storestudy@rand.org or visit us at www.rand.org/storestudy.



# Science & Technology

**HOW THINGS WORK** 

### Wireless mice use radio wave technology



**JOSH BROWN** 

SciTech Editor

Computer mice, named so for their scurrying movements, are the most interactive features of modern-day computers. Wireless mice, in particular, allow us an ease of motion and use that wired technology just doesn't allow. In this day and age, we have become so accustomed to moving mice about our desks that we often don't think of the technology that goes into making this process a reality.

Wireless mice have two components: a transmitter and a receiver. The transmitter is housed within the mouse itself, and the receiver plugs into the computer with which the mouse is interacting. Transmitters encode the mouse's movements as radio wave signals and transmit them to the receiver, that decodes the movement information into a form which the computer can read and respond to

There are two main transmitters used in computer mice: a rubber ball transmitter and an LED transmitter.

The rubber ball mechanism is outdated, as of now. The rubber ball mouse has a rubber ball, similar to those found in mall vending machines, sticking out of its stomach. Within the mouse, next to the ball, are two vertical, plastic wheels with holes cut at intervals along the sides. These plastic wheels correspond to directional axes, so there is one which measures horizontal movement and one for vertical movement. As you move the mouse, the rubber ball rolls and causes either one or both of these plastic wheels to turn. Depending on how far the mouse is moved, the wheel will turn a number of times. Each time the wheel turns, it interrupts a little beam of light within the mouse, and each interruption of this beam corresponds to a certain distance the mouse has been moved. This is how the computer translates the mouse's physical movement into movement of the cursor on the screen. For Bluetooth systems, the most common mouse technology, the transmitter is a Bluetooth radio which allows

mouse to a Bluetooth-enabled transceiver, like a computer.

Newer mice use a Light-Emitting Diode (LED) mechanism, whose movement is far more fluid. Instead of a ball projecting from its belly, the LED mouse shines a bright light onto the surface upon which it's being used. This light is then reflected from the surface and back into the mouse. A chip within the mouse receives this reflected light and translates it into movement data. The way an LED mouse measures its movement is by relating the mouse's speed and distance traveled to the beam of light and the way it reflects back into the mouse. The movement data is then transmitted to the receiver attached to the computer and decoded in order to move the cursor.

The receiver is a bit of hardware connected to the computer and paired with the mouse so it can receive the radio frequencies being transmitted by the mouse. Pairing the two devices means making sure that they operate at the same radio frequency, and in doing so, cuts out interference from other radio communications and makes the connection safer and more reliable. In terms of security, some brands encrypt the mouse's movement data or use frequency-jumping techniques to lessen the chance of interference from outside tampering because really, what's scarier than a rogue mouse? There are many benefits to the use of radio technology for wireless mice, such as inexpensive and lightweight components, and a low power consumption. Radio waves, in comparison with the infrared technology used in remote controls, can also pass through obstacles such as a desk, so they add versatility in addition to ease of use.

While they may seem only a minor detail of one's computer interface, a mouse is essentially a user's right hand in many of his interactions with computers. Ensuring that it works, and works effortlessly, is a matter of good design and smart technology, and the more lightweight, accurate, and effortless mice become, the more effortless our interactions with computers will become.

# Carnegie Mellon student develops water purification

**JOSH BROWN** SciTech Editor

Water is a hot topic in today's society. From the summer droughts that shook California, to the lead crisis in Flint, Michigan, people across the nation are suffering from the detriments of unsafe or unreliable water supplies.

While these areas are suffering from a breakdown of preexisting water systems, there are many areas around the world whose water systems have never been reliably clean. Adam Simpson, a senior chemical engineering major, is looking to change that.

Simpson's biggest concerns are particles called nitrates. Nitrates in excessive quantities can cause issues for marine ecosystems by impairing immune and growth functions within aquatic life; high nitrate concentration within an aquatic system can even kill the fish in that area. "Nitrates should be below 10 parts-per-million," Simpson said. "There are places like the Santa Ana River that have nitrates of about 10-15 parts-per-million."

A high nitrate presence is mostly caused by runoff from agricultural areas, especially those which use high-nitrate fertilizers. In these areas, this is not only an issue of clean water, but of clean soil as well.

When it rains, water percolates down through the soil layers and can eventually reach freshwater systems like rivers or lakes. When this water runs through the soil, it picks up particles (in this case, nitrates) and ferries them into the water system.

Simpson's parents own and operate Jamaica Wells and Services Ltd., a major water treatment plant, so he has long been surrounded by these issues as well as the people who are attempting to fix them.

His major research focus is the artificial wetlands created by water treatment plants like those owned by his parents.

"Currently, in North Carolina, California, Florida, they have these things called wetlands, where the outflow from wastewater treatment plants needs to be purified," Simpson said. "It's not quite ready to be released into the environment." This notquite-pure water needs to be filtered in some way so that the harmful particles within it don't leak out into the rest of the ecosystem. Simpson's plan for water treatment is to use biofilm and geotextile technology to filter this water.

A biofilm is a group of cells that stick to something, or in colloquial terms, a slime. A geotextile is any sort of fabric which is embedded in the earth. Simpson's ideal process incorporates "geotextiles impregnated with biofilms and sand," which will be able to "control the quality of the water that is going into rivers."

These bacteria, Simpson asserts, will be able to express nitrate-consuming enzymes, among other things. This will allow for a "naturally inspired, sustainable water purification process," Simpson said. In order to make these plans a reality, Simpson took this past summer to conduct research with the Frank Sonnichsen group in Germany. This research was part of the German Academic Exchange Service's Research Internships in Science and Engineering (DAAD RISE).

He has also been working closely with Danith Ly, an associate professor of chemistry at Carnegie Mellon University, throughout the past three semesters.

While the chemical engineer may have a pretty solid path nowadays, it wasn't always so stable. Simpson is a self-admitted "artistic person," who "would have gone to art school if the engineering thing didn't work out."

His journey into chemical engineering began with an interest in chemistry, but after coming to college and finding out that "chemical engineering really doesn't have anything to do with chemistry," he visualizes his future professional goals as falling more into environmental and civil fields.

See WATER, A7

### IntraFace software able to read emotion

**JONATHAN CALVELLO** 

Staffwriter

When I stepped into the office of Fernando De La Torre, an associate research professor in the Robotics Institute at Carnegie Mellon, the first thing he did was pull me out of the room. He brought me one flight down from his office and into the lobby on the main floor of Smith Hall.

Inside the lobby was a machine with a television screen that was mapping my movements and displaying my state of emotion based on my appearance. When I smiled, it said "Happy, 98 percent;" when I stopped, it said "Neutral, 56 percent;" when I remembered how much homework I had this past weekend, it said "Sad."

This machine was not just guessing my emotions, but was algorithmically calculating them based on the appearance of my face to the screen. This machine is the counterpart to the one found in Newell-Simon Hall. Installed in both machines is a special app called IntraFace, created by De La Torre alongside his team. This application is the result of 10 years of facial imaging research done by De La Torre, and it is capable of reading facial images in real time and computing a corresponding emotion based off changes in one's facial structure.

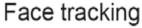
the two devices to connect the

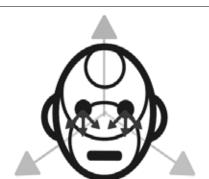
Generally, only humans and some animals are thought to understand emotions, but De La Torre and his team are adding robots to the list.

When first assessing Intra-Face, one of the first questions De La Torre posed was "How can you make a computer understand human emotion?"

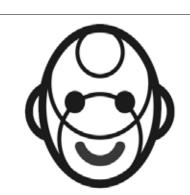
He answered himself by saying that the answer is twofold. The first part involves finding a way to have the computer track the user's facial components so that it can determine their position in a vector space and read them. To do so, De La Torre developed software that allows the application to track facial muscles based on their conformation and location on the face. The process involved feeding the software thousands of photos of facial components and thousands of photos of non-facial components.







Pose & gaze estimation



Expression analysis

Courtesy of Fernando De La Torre

This schematic depicts the process by which IntraFace operates; its algorithms take into account spot-based tracking locations on the observed face, as well as the orientation of the face in space and the pose of the head. These spatial inputs are then recognized despite potential blockers like gender-based factors, facial hair, and eyewear, which might block facial detection. This range of observation allows IntraFace to be very accurate

Based on those initial inputs, the machine could then process what is a facial component and what is not a facial component. To downsize the storage size of the software, De La Torre reduced the processing algorithm to just four matrix multiplications.

This downsize is well within the memory storage capacity of a phone or other computing device, allowing IntraFace to be accessible across a wide array of electronic media. The second part of the answer to De La Torre's question, and the more important part, involves developing a way to connect facial features to emotions in

an algorithmic way that a computer can understand. To accomplish this task, De La Torre and his research team fed the software thousands of photos with different facial structures and labeled them accordingly; smiling faces were labeled "Happy," frowning faces were labeled "Sad."

While expressions have far more psychologically and physiologically complex features, there does exist a set of universal expressions, such as happiness, sadness, and surprise, which look the same on everyone. This means that the same facial structures are used, and this universality allows

researchers to use these broad categories. This is an instance of classification, or the method of providing a machine an index (a list of facial expressions) from which it can develop a solution (stating whether the person is happy, sad, etc.). In classification, a machine is given thousands of different observations, each with an appropriate category. Using these observations, a machine can take an unknown observation and file it into a pre-existing category based on the list of categories it already contains. In the case of IntraFace, the observations are facial structures and the categories are

emotions. After elaborating on the technicalities of the software, De La Torre described some of the endless applications. For example, companies could use IntraFace in market advertising to assess the quality of their advertisements; they could see what parts of the advertisement make people laugh, what parts bore them, and what parts completely disinterest them. Additionally, De La Torre mentioned integrating this software into vehicles to detect driver distraction. If vehicles had this software within them,

See FACE, A7

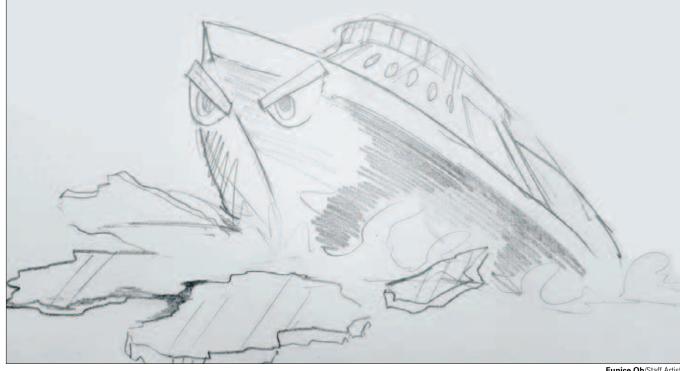
### Should the U.S. build icebreakers, create trade routes?



As we shift into the 21st century, the capabilities of our infrastructure to adapt to the changes in climate and the resultant changes in geography. The most notable of these shifts is the melting and thinning of polar ice caps. President Obama has mandated a fleet of ten new icebreaker ships, which he deems necessary to benefit the future economic and physical security of America as an arctic nation.

This week, Pugwash discussed the variety of effects these icebreakers could have. An icebreaker is a boat that can break up ice-covered water and allow safe passage for ships. Icebreakers are built such that they are able to maintain moderate speeds despite heavily reinforced hulls and the weight that they add. This allows them to easily submerge and crack thin ice.

When dealing with thicker ice, they sometimes will break the ice by repeatedly backing up and ramming it. Their thick hulls make them resilient to such collisions. The most obvious need for icebreakers is economic. Now that it is easier to navigate the Polar



Eunice Oh/Staff Artist

Regions, trade routes could emerge north of Canada. This could open up access to new energy sources in the Arctic. New trade routes could also make shipments of things like fuel and food to residents of Canada and parts of Alaska possible, raising quality of life for those citizens.

The problem is that icebreakers take about ten years to build, and each costs about one billion dollars. Getting pennies out of Congress's piggy bank has been

impossible in recent years. One solution that has been put forward by James G. Stavridis of the Wall Street Journal is "wet leases," a common deal in the shipping industry where the United States contracts-out icebreakers, and the owner of the ship provides both the ship and the crew.

The ship is then under the control of the United States Coast Guard. Another possibility, according to Jen Judson of POLITICO, includes a current study of the capabilities of Canadian and Finnish firms to create icebreakers. Further, increased Arctic infrastructure has caused the temperature in the Arctic to rise at twice the rate of the rest of the world according to Slate's Eric Holthaus. Without the bright white ice reflecting light, the darker water absorbs temperature more quickly. Breaking up the ice makes it easier for the ice to melt and also easier for the surrounding region to get warmer. Climate change and rising sea levels present a host of

economic problems: from the destruction of coastal cities via flooding and storms to weather events that make agricultural products more difficult to cultivate. The second pressing need behind icebreakers is security. According to Holthaus, Russia and its fleet of 42 icebreakers have started claiming oil fields and other bits of infrastructure throughout the Arctic, including claiming a piece of land previously claimed by Denmark. Russia's expansionism has already led to conflicts

in Georgia, Chechnya, Ukraine, and is now escalating tensions in Syria. When NATO countries like Denmark and Norway are in Russia's sights, this could significantly raise the threat for escalation.

With Russia and NATO conducting military training exercises mere vards from each other along Russia's border with the Baltic States and tensions at a post-Cold War high, raising the stakes by bullying NATO states puts the world in a scary position. The United States having an icebreaker fleet to help allies control regions they have very little physical control over could help prevent Russia's expansionist tendencies from beginning World War III. However, the United States getting into contests with Russia has come very close to ending the world before. It might not be best to get into an arms race, even if the arms are much less dangerous. It seems our military and economic needs dictate we expand our icebreaker fleet and do it as quickly and cost effectively as possible, but expanding icebreaker fleets in a limited fashion may prevent many of the pressing issues.

Student Pugwash is a nonadvocacy, educational organization that discusses the implications of science. This article is a summary of last week's discussion on icebreaker ships.

### Robots learn to read humanity's emotions

FACE, from A6

cars could detect when a driver is distracted or fatigued or texting based on the expression on his face. Another could be for public speaking, which would allow a lecturer to assess when his crowd is listening and engaged versus when it is tuning out or dozing off. De La Torre even mentioned the possible medical applications of IntraFace; the app could allow doctors and other clinicians to determine how patients are feeling medically and if they are experiencorder to advance the medicinal applications of InstaFace, De La Torre is currently partnering with Jeffrey Cohn,

an Adjunct Professor of Computer Science at the Robotics Institute at Carnegie Mellon and Professor of Psychology and Psychiatry at the University of Pittsburgh. Another feature of IntraFace is that it is indiscriminate: it can read faces of any skin color as well as faces with facial hair of

While the application has gained much ground over the past 10 years, De La Torre is hoping to develop it to a point where he can release it to researchers across the nation as a practical research ing any pain or discomfort. In tool. IntraFace could provide researchers in the field of psychology, physiology, and computer science with the tools to create breakthrough research.

### Student engineer works to create biofilm filtration

WATER, from A6

Simpson's professors, he said, were integral in the development of his goals. "I took organic chemistry with Professor Ly, and I really liked his approach. He didn't just want us to get the A, but he wanted us to discover through intuition." Simpson maintains that a diverse class repertoire is important for college students."A lot of the engineering and sciences, you can't have fun choosing your classes," Simpson said. "Some people don't want to take a Psychology

class because they don't think it will be good for their career." But Simpson's view is that a variety of classes have helped him decide what he really wanted to do. "I think that just following the path of what you're interested in will direct you to where you ought to go.

Use Carnegie Mellon in the best way possible." Since Carnegie Mellon is such a small university, there is people have the belief that in much more of an allowance to "establish a relationship with professors who are actually doing stuff." These relationships, Simpson believes, "will take you far."



CMU senior chemical engineering major, Adam Simpson, observes a microwave-activated solid phase protein synthesizer in Kiel, Germany.

SCITECH BRIEFS

#### Zika virus found to be sexually transmittable

In Dallas, Texas, health officials have reported the first case of a person infected with the Zika virus who has not traveled outside of the United States.

Furthermore, the virus is said to have spread through sexual transmission. This has new implications for the control of the disease.

After being infected by mosquito bite in Venezuela, a traveler returned to his home in Colorado, where he transmitted the virus to his wife.

Several days later, the man and his wife both had symptoms of the virus, which were confirmed through blood tests.

While researchers did not test the man's semen, they noted that the rest of the couple's family did not contract the disease.

Currently, there is a major outbreak of the disease in the Americas, and it is making its way to the U.S.

The virus is suspected to be the cause for the increased cases of the neurological disorder microcephaly among newborns in Brazil.

Recently, the Centers for Disease Control and Prevention have issued guidelines advising people to use protection to prevent sexual transmission of the Zika virus.

Source: The Washington Post

#### Dead birds wash onto Alaskan shore; cause unknown

Abnormally large numbers of dead seabirds have appeared on the shores of Whittier, Alaska over the past several months. In early January, around 8,000 common murres, which make up the largest population of seabirds in the state, were swept ashore as a result of strong winds coming from the southeast. Scientists were puzzled when large numbers of these dead birds first appeared in March of 2015 — the start of the breeding season when murre populations are typically in their prime.

According to experts in the Alaska branch of the U.S. Fish and Wildlife Service, a scarcity of food might have starved the common murres, depriving them of the energy needed to survive the extreme winds. It is also thought that saxitoxin, which induces amnesic shellfish poisoning, might have contributed to some some of the deaths. Saxitoxin can be present in shellfish, such as mussels, clams, and oysters, all of which comprise a piece of the murre's diet.

This toxin is thought to be the cause of some of these deaths, but it is hard to be sure, since it is difficult to detect in birds without much in their stomachs, like the starving murres.

#### **New collar helps** reduce brain trauma in athletes

After numerous animal studies, researchers are set to begin human trials on a collar that could reduce brain trauma during impacts, such as collisions which occur during football.

The device, a u-shaped collar that wraps comfortably around the neck, works by increasing bloodflow to the brain, thus providing a larger amount of cushioning and decreasing brain impact with the skull.

The device alters bloodflow by slightly reducing the amount of blood exiting the brain after each heartbeat.

This is a grand development for the athletic industry because brain trauma has become a rampant concern in many sports cultures.

Football especially has seen an alarming number of brain trauma cases; last year, Frontline reported evidence from a Brown University study that from a sample of 91 former NFL players, 87 (96 percent) of them showed signs of chronic traumatic encephalopathy (CTE), a degenerative brain disorder which can cause emotional defects, as well as memory loss.

Hopefully, if this collar enters full production, it will be able help cut down on these alarming statistics.

#### U.S. deems threeparent babies ethically passable

An Institute of Medicine panel, which was formed at the request of the U.S. Food and Drug Administration (FDA), has concluded that it is ethically permissible to make "three-parent babies" for clinical experimentation, given that a set of criteria are met. These babies are created using mitochondrial replacement therapy in order to prevent the inheritance of rare genetic diseases which affect mitochondria, such as autism. Since about one in 20 people with autism have mitochondrial dysfunction, while only one in 4000 people in the general population have the disease. Mitochrondrial disorder may have a role in autism

contraction. In mitochondrial transfer, which has already been approved in the United Kingdom, the nucleus from the mother's egg is inserted into a health donor egg, previously stripped of its original nucleus.

An embryo is formed when researchers fertilize the modified egg with the sperm of the father.

As a result, the embryo would contain a combination of DNA from the three parties, but it would be made of mostly genetic information from the mother and father.

#### Loudspeaker adapts to environment, helps vocal clarity

German researchers, operating out of the Oldenburgbased Project Group Hearing, Speech, and Audio Technology of the Faunhofer Institute of Digital Media Technology IDMT, have created a software that makes it easier for speech to be heard in noisy environments, including loudspeaker announcements at railway stations. Their Adapt Dynamic Range Compression (DRC) software employs a microphone that continually analyzes the noise of the environment, adjusting speech accordingly.

While similar nologies exist, high volumes from speakers can be incomprehensible.

The researchers' software is designed so that consonants, which involve short and high frequencies, are reinforced in sound. Additionally, DRC softens the loud parts and ampli-

fies the soft parts of speech. The combination of these techniques allow for improved intelligibility of speech and the prevention of potential

miscommunication. The software utilizes natural voice dynamic observations to amplify naturally quiet parts of speech and diminish naturally loud parts of speech, in order to optimize intelligibility. Currently, the software is available to industrial partners.

Source: ScienceDaily

#### Exoskeleton can help paralyzed individuals walk

A mechanical engineering professor from the Robotics and Human Engineering Laboratory in the University of California, Berkeley, has recently released a new, lighter, and more agile exoskeleton named The Phoenix.

A product of SuitX, a company that emerged from the robotics lab, the exoskeleton incorporates two motors positioned at the hips as well as tension settings — which are electrically controlled — that adjust to the movement of the wearer's legs. Part of the exoskeleton involves a pair of clutches with buttons that can enable the user to control the movement and speed of the legs.

The user also wears a backpack containing a battery pack that can last from four to eight hours. The Phoenix is currently one of the lightest and most accessible exoskeletons commercially available. At \$40,000, The Phoenix is competitively priced when compared to similar exoskeletons, which cost approximately twice as much. While prohibitively expensive for most, this development does have promising applications.

Source: ScienceDaily



Source: Discovery News

Source: Discovery News

Source: Science News

## Horum

FROM THE EDITORIAL BOARD

### France moves to disown citizens, undermines state

After the devastating November terrorist attacks carried out in locations around Paris, French president François Hollande had all eyes on him to respond creatively and effectively. He initially impressed the world with his compassion, choosing to allow 30,000 Syrian refugees into France. But at the dawn of the new year, Hollande announced a proposed constitutional amendment that would allow France to strip the citizenship of anyone convicted of terrorist acts, provided that they have additional citizenship elsewhere.

There has been resistance to the amendment from all sides, with some saying it does not go far enough and should include even those who only have French citizenship, and others saying the amendment is an infringement on civil liberties and is, in its current form, racist. Of interest to The Tartan, however, are the philosophical questions raised here; does this devalue the concept of the nation? If a country can choose to disown its citizens, it may not be fulfilling its end of the "social contract."

Except this is not an actual legal contract. It's a philosophy that the government spoon feeds to its youth that, in reality, does have benefits. Yet, it is unrealistic to expect that everyone in a nation the size of Texas should believe in a single unified belief about the role of the nation. Then this clash of philosophy and reality gets even more convoluted in that the proposed amendment openly targets the French Arab immigrant population. These are the people that are most likely to have dual citizenship, and Hollande is implying that France's Arab immigrants are the primary suspects of terror.

For decades France has disenfranchised this entire sector of its population. Relations only began with France conquering their nations, brutalizing and exploiting their people, and then fighting them in deadly wars of independence. But current first and second generation French-born Arabs have faced considerable discrimination. In 2012, France enacted the public burga ban, which makes law the assumption that either a woman wearing

the French government promised.

This is a long and ongoing history. But what's more telling is the profile of the French youth who have been radicalizing via the Internet and moving to Syria to join ISIS. There is definitely a large number of radicalizers that come from troubled banlieue families. But recently Arab youth outside of the banlieues, from loving middle class families, have been disappearing unexpectedly to join the Jihad. There's a reason for this. France treats its Arab population like second-class citizens, and if this amendment is voted into the constitution, some will cease to be citizens at all. While an individual committing an act of terrorism deserves severe punishment, expelling such people from the citizenry ignores the larger issue at hand.

France had an opportunity after the Friday the 13th Paris attacks. The nation could have decided to view it as a wake-up call. After the necessary mourning period, they should have elected to follow the same path that they began when welcoming the refugees. It would have been a great chance to make



Jarel Grant/Assistant Art Editor

pher Rousseau believed that a nation and its citizens engage in a contract, in which the individual gives himself and his rights over to the the community in exchange for shared equality, protection, and mutual aid. In keeping with this, France has always embraced a broad social safety net. Each citizen works toward the common good of the whole, and the nation is strengthened by this community mentality. In return, everyone reaps various social benefits such as education, health care, and a vast availability of subsidies. An example of this is the subsidy that parents receive per child. In return, parents are expected to teach these children French morals and values, to help other government structures such as public schools to actively perpetuate French culture.

This creates two complications. The first is that, within this context, terrorism becomes a much more severe offense against the nation. Someone who has reaped the benefits of the state has not fulfilled his or her end of the bargain. If we were speaking in terms of an actual legal contract, this would be grounds for termination. From a purely philosophical perspective, this seems just.

oppressed by a male. This law that both aims to come to these women's aid and protect France's secular values just ended up disregarding the culture and history behind veiling.

A large fraction of this population has also been relegated to France's "banlieues," which literally translates to suburbs, but is not the American idea of suburbs. These are essentially France's version of the projects, unkempt apartment buildings that the government rents to low-income immigrant families. They're notable for their terrible public education because very few teachers are capable of effectively delivering the rigid national curriculum to a class that the Ministry of Education does not consider when it makes these plans. The banlieues are also known for their crime and riots against police.

The argument that dual-citizen, which in reality mostly means Arab, terrorists are not deserving citizenship because they violated the social contract begins to fall apart when you consider these conditions. Most first- and secondgeneration French Arabs aren't receiving the education, protection, and shared equality Rousseau and

French Enlightenment philoso- one is a public safety risk or is being the kind of progressive immigration reform that we expect from a socialist candidate like Hollande. Yet he swung the pendulum so far back to the right, adopting an all-too-American attitude of Islamophobia.

No one should be modeling their immigration decisions after America. We've already been clandestinely pushing the boundaries of what rights American terrorists have under the guise of the Patriot Act and Guantanamo Bay. It is very American to respond to the threat of terror by stripping rights and showing an obvious fear and hatred for the enemy. Not only is this wrong for the French population, it's also disappointing that this is the product of Hollande's desire to protect his citizens and preserve their culture. He swung far away from Rousseau and straight into Trump territory.

France cannot continue to treat its population like a homogenous community anymore. So much has changed since 1762. A nation has different responsibilities to its citizens, and the concept of a 21stcentury citizen is still yet to be determined. France owes it to its Arab population to propose meaningful cultural change, not institutionalized discrimination.

### Iowa Caucuses shift 2016 election terrain



The 2016 presidential nominations are supposed to be all locked up. Secretary Hillary Clinton is supposed to sail to the Democratic nomination untouched. After months of hoping beyond hope, pundits have finally resigned to businessman Donald Trump's surprising inevitability. There's only one problem: nobody told Iowa.

On Monday, the Iowa Caucuses didn't quite go as planned. Despite a Quinnipiac poll the day of the caucus showing Trump seven points ahead of Senator Ted Cruz (R-TX), Cruz cruised to an easy three-point victory. Trump barely finished second over Senator Marco Rubio (R-FL), who performed surprisingly well. On the Democratic side, Senator Bernie Sanders (D-VT) and Clinton were deadlocked all night. In fact, Clinton wasn't declared the victor until the next day, and some precincts were even decided by coin flip. It was literally a toss-up.

In terms of nominating delegates, Iowa is almost meaningless. Thanks to his win, Cruz now has eight delegates for the Republican nominating convention this summer. Trump and Rubio both have seven. They need 1,237 to win the nomination. Clinton has 23 delegates and Sanders has 21. They need 2,382 to win their party's nomination. Iowa's real significance comes from the media coverage it generates. As the first presidential primary election in the nation, the Iowa Caucuses aren't about where a candidate places. Rather, what matters is how candidates perform relative to the expectations surrounding them.

Trump was the night's big Republican loser. Expectations surrounding him were huge. He looked weak in Iowa for a while, but he had surged there the week before the primary, buoyed by high-profile endorsements and effective attacks against Cruz. So when Trump barely escaped with second place, his campaign seemed to have drastically underperformed, and suddenly he didn't look so invincible.

Coming in first was a big win for Cruz, especially when the most recent poll showed him down in the polls significantly. However, Cruz was long considered the favorite in Iowa, thanks to his evangelical bona fides and Iowa-centric campaign strategy, so he didn't exceed expectations so much as meet them.

Despite coming in third, Marco

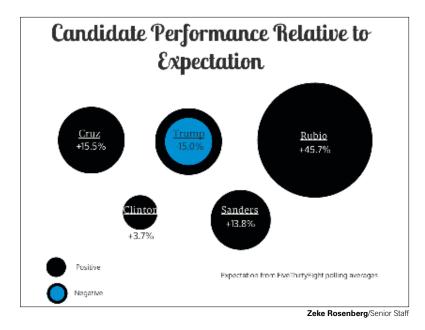
Rubio was the GOP's biggest winner. Rubio, who is Catholic, while most Iowa Republicans are evangelical protestants, wasn't polling well in Iowa. Considered one of the race's relative moderates (if such a thing exists in today's GOP), Rubio was vulnerable in Iowa thanks to his voting history on immigration and his lack of campaign infrastructure in the state. When Rubio outperformed polling and nearly overtook Trump, he far exceeded expectations, he emerged as the clear front-runner among establishment Republicans, and he dominated the news cycle. Now it looks possible, if not probable, that Rubio will be the Republican nominee.

Virtually tying with Hillary Clinton was a huge win for Bernie Sanders. Three months ago, Sanders was 20 points behind Clinton in Iowa. The day before the caucus, polling still showed him four points behind. By tying with Clinton, Sanders proved that he is a viable candidate with the campaign infrastructure needed to actually get the vote and win. By generating higherthan-average turnout, he showed that he can generate real excitement and convert that excitement into actual votes. Sanders defied expectations, as he has done this entire campaign.

Now, he has built up serious momentum. After tying with Clinton in Iowa, Sanders announced that he had out-fundraised Clinton by \$5 million in January, powered by thousands of small-dollar donations. On Friday, a new Quinnipiac poll showed Sanders just 2 percent behind Clinton nationally, erasing a 30 percent lead that Clinton held in the same poll just six weeks earlier. Polling 20 points ahead of Clinton in New Hampshire, Sanders is poised to take an early, commanding lead in the race. With key endorsements pouring in and lifting his chances for performing well among minority voters in South Carolina and Nevada, the electoral math keeps looking more and more promising for Sanders.

If the Iowa Caucuses were the only point of reference, the presidential election would look significantly different from how it has been portrayed in the media. Inevitable candidates don't tie with their rivals. Unstoppable candidates don't come in second, almost third. The Caucuses were a huge turning point in this race because they threw all expectations out the window. You had one job, Iowa, and you blew it. Now, this election might just be interesting after all.

Emmett Eldred (@eeldred) is a staffwriter for The Tartan.



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### Prostitution, porn, identity throw wrench in sex positivity

ariel Hoffmain

When I was a sixteen-year-old budding feminist still afraid of the label, I wrote a research paper that attempted to disprove virginity. It was a "construct," I argued — a sexist, heteronormative box that society invented to restrain and shame women's expression of their sexuality. Like many millennial feminists, I was proudly "sex positive."

Following the second-wave doctrine of free love, I supported all women's freedom to have as much and as wild sex as they saw fit. I rallied against slut-shaming, a sexual double-standard that calls promiscuous men "players" and women "hoes." Anything from kink to porn to sex work was fair game as long as it followed the BDSM golden rule: safe, sane, and — most importantly — consensual. Sex was fun, after all. It was one of the most natural and beautiful things people could do.

But nothing is that simple. Four years and a few rude awakenings later, I've realized that sex positivity — a philosophy followed religiously by so many well-meaning feminists — is far from a perfect fix for society's toxic relationship with sexuality.

Nowhere is this toxicity more evident than in the never-ending debate over prostitution, the so-called "oldest profession in the world" and quite possibly the most controversial. It's illegal everywhere in the United States besides some parts of Nevada, but that doesn't mean it's not thriving. Research indicates that the underground commercial sex trade exists in virtually every state, nets many billions a year, and provides pimps with weekly profits as high as \$30,000.

Sex-positive feminists draw a hard line between sex work, the consensual selling of sex between adults, and sex trafficking, the kidnapping or otherwise forcing of primarily women and children into the sex trade. They generally argue for a crackdown on sex trafficking along with the widespread legalization of prostitution. In a hugely controversial report published last year, Amnesty International — one of the first and most prominent global human rights organizations — officially came out in support of this stance. They cited many common, and extremely valid, arguments of the pro-prostitution

camp: decriminalization shifts limited police resources from sex workers to trafficking victims; it frees sex workers to demand safer working conditions, more economic autonomy, and protection of the law against abusive pimps and clients; and, if anything, it decreases the size of the industry. Meanwhile, criminalization does not eliminate prostitution or "save" prostitutes. On the contrary, it drives both underground into darker, seedier corners. By conflating prostitution with trafficking, it patronizes women working in the sex industry by choice while failing to help the real

For a glimpse of the other side, we don't have to look further than one highly publicized response to the Amnesty International policy: a scathing open letter signed by dozens of human rights organizations and big-profile celebrities, including white feminists Lena Dunham, Anne Hathaway, and Meryl Streep. This letter decries the sex industry on principle as both the product of and a perpetuator of gender inequality. In the anti-prostitution camp, "sex work" is a contradiction in terms because all prostitutes are akin to sex slaves. This camp's primary arguments rest on the frightening reality of prostitutes' lives. The majority are pulled into the trade as teenagers, usually runaways or wards of the state with a history of abuse. They are often completely economically dependent on pimps. They experience ubiquitous sexual, physical, and psychological violence from pimps and johns alike. Even when they are raped, they can expect no retribution from the law. In fact, they are arrested far more often than either those who sell or buy their bodies. Marginalized populations, especially poor minorities, are disproportionately represented in the industry. Across the board, prostitutes are at high risk of substance addiction, STDs, mental illnesses (especially PTSD), and homicide. The mortality rate of the industry is such common knowledge, and prostitutes are so stigmatized, that "dead hooker" remains a punch line.

Both sides have valid points, but they're so dedicated to destroying each other that they refuse to see the issue as anything other than black and white. Each cherry-picks, slants, and manufactures evidence to support their side. Though some statistical manhandling is inevitable in any contentious issue, I actually had a very hard time finding statistics that weren't affiliated with some "pro" or "anti-prostitution" stronghold. Many studies predominantly or even exclusively interview police officers, pimps, and rescued sex trafficking victims. Often excluded from these studies are sex workers by choice, who would reap heavy benefits from decriminalization. Consequently, many

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sex workers have criticized leading anti-prostitution advocates
— such as the celebrities who responded to Amnesty International
— for misrepresenting their experiences.

These are the women who sexpositive feminists imagine when they support the legalization of prostitution: women who deserve to make a living however they choose, free from judgment and protected by the law. But here again we must question what it means to "freely choose" sex work. Just as consent by coercion is not really consent at all, can marginalized and abused and impoverished women really *choose* prostitution when they have few better options?

It seems difficult, if not impossible, to separate "good" from "bad"

sex work without further victimizing women. No one should be surprised that prostitution is a dangerous job, even for those who choose it. But there's also no substantial proof that blanket bans on prostitution don't harm more than help. Despite all the idealism and well wishes in the world, this many-billion-dollar industry isn't going anywhere. This is especially true because advocates on both sides far more often address the supply of sex than society's unquenchable demand for it, a demand fueled by rampant misogyny and the commercialization of women's bodies.

This demand is further bolstered by pornography, another controversial sexual commodity generally supported by sex-positive feminists. Research hasn't yet reached a consensus on whether porn is addictive, despite the gargantuan efforts of

lespite the gargantuan efforts of websites like "YourBrainon-

Porn" which claim that it can be as damaging as alcohol or gambling. Like drug addicts who develops a tolerance, many chronic porn users report a compulsion to view videos of sex acts

that are increasingly far from "vanilla." Probably the eighth commandment of sex positivity is "don't kinkshame," but there's still something very wrong with a society that doesn't blink an eye at whole categories of PornHub videos dedicated to "teen," "humiliation," "abuse," and "rape." The normalization of such extreme pornography, even if performed by consenting adults, normalizes in turn an often violently misogynistic view of sexuality. While "feminist porn" is a beacon of light, demonstrating what porn could and should be, the mainstream porn industry continues to thrive, inevitably encouraging misogynists to bring harmful fantasies to life. In so many of these videos, women are objectified and abused and — most damning of all — they like it.

Plus, the sex positivity movement provides men with a "pro-feminist" excuse to pressure women into sex that they're supposed to want and enjoy. Think of all the men who've snapchatted unsolicited dick pics, who've pushed a drunken make-out into assault, who've refused to accept rejection, even to the point of violence. Imagine all these men with Robin Thicke in the background, smirking and crooning again and again: "I know you want it." To these men,

a sex-positive woman should be in favor of all sex, anytime, with anyone. She should not — or even cannot — turn them down.

Sex positivity shouts from the mountaintops about women's freedom to enthusiastically consent. But it needs to place equal emphasis on her right to say no. Not wanting sex, in the moment or ever, is normal too, and any implication to the contrary erases women on the asexuality spectrum. After all, the implicit message of sex positivity's "it's natural" motto is that if you don't want sex, there's something wrong with you. This feeds smoothly into stereotypes that asexual, or ace, people are broken, unfeeling, even inhuman. Not only is this kind of thinking often used to justify corrective rape, but it's horribly detrimental to the self-esteem of women who feel little to no sexual attraction or drive, especially those who are naturally sex-repulsed or experiencing sex repulsion in the traumatic aftermath of sexual assault.

The sex positivity movement has chipped away at many women's shame in their own desires, and allowed them to explore their sexuality with less internalized and societal judgment. It has underlined consent as the foundation for all healthy sexual expression. It has helped to normalize what was once widely considered deviant, particularly same-sex relationships. Thanks to sex positivity, queer people are more widely accepted and better educated about their sexuality.

But sex positivity is not a movement without victims. Those hurt most aren't sexually explorative college feminists, but women at the fringes of society — sex trafficking victims, prostitutes and porn actors who've known little else but abuse and exploitation. On a free-loving, freewheeling train where everyone gets off and no one gets hurt, these are the women thrown under the tracks. Not all sex is fun and natural and beautiful; a good deal of it is rape or coercion or the result of intense pressure from every corner of a hyper-sexualized culture.

We shouldn't throw the baby out with the bathwater here, but ultimately we need to take a long hard look at the giant sea of grey area that the sex positivity movement cannot escape. Countless women are in desperate need of such a reevaluation. Let's listen to them.

Ariel Hoffmaier (@ahoffmai) is Training Manager for The Tartan.

### Race unrelated to Oscar nominations, purely talent based

JONATHAN CALVELLO Staffwriter

Two weeks ago I read an article in The Tartan's Forum section discussing the Oscars, which argued that pervasive racism was connected to the list of Oscar nominees, all of whom were white. The Oscar nominations also generated a movement and attention online, with the hashtag #OscarsSoWhite spreading across Twitter. Many people believe that the lack of black or other minority actors on the list is a result of racism plaguing society, and I completely disagree.

society, and I completely disagree. When I watch a movie, I don't

judge an actor by what color his skin is. It's disingenuous to even associate skin color with talent: an actor is neither talented nor untalented because he is white, and the same corollary applies to actors of any skin color. In my opinion, an actor is talented if he can convey emotion through his character and capture his audience with such depth that viewers forget they're watching a movie and feel like they themselves are part of the story. Whether an actor is capable of doing that or not has nothing to do with their skin color. Yes, the list of nominees contains all white actors, but how does that reflect anything about their quality of acting, and how is this a social justice issue that activists deem necessary to respond to?

A notion called unconscious racism has arisen in response to the Oscars issue and other areas of social justice activism. The idea is that a person can be racist based on subconscious perceptions of race that he is not even aware of. Applying this notion to the Oscar nominees, some people believe that Academy voters — and more generally, people — unconsciously associate good acting with white skin. I don't associate good acting with being white, because being a good actor doesn't

mean being white, or black, or Asian, or any ethnicity. Period. It means having talent and evoking an emotional response in your viewers. Labeling the Oscar nominations racist because they failed to deem an actor of color worthy of the nomination for one of the most prestigious and competitive awards in acting is contrived. Hundreds of quality actors and actresses - including white ones — don't receive nominations, and thousands more don't even receive the celebrity, fame, and wealth associated with Hollywood. The actors that did receive nominations portrayed enough talent to do so, and this talent has nothing to do with skin color.

The #OscarsSoWhite issue is really just a subset of a larger mindset in America, one in which people are quick to adhere to media headlines portraying race issues and heightening racial tension. I am genuine and serious in my belief of the principles of equality and equal opportunity, regardless of race, sex, or color. However, sensationalizing ideas like #OscarsSoWhite and creating racial tension over things that aren't related to race divide and define people by their skin color, which goes against the very principles of equality social justice critics seek to uphold.

### TARTANS TALK

Compiled by **Sinead Foley** and **Sarah Gutekunst** 

### How do you think the world will end?

With the Doomsday Clock looming at three minutes to midnight, The Tartan wants to know,



Maria Navarro Global Studies, Professional Writing Sophomore

"I think that environmental disasters caused by climate change will the the cause"



Valentin Moullet Computer Science Senior

"Religion, war."



Cassidy Smith
Computational Physics
First-year

"I think human warfare will be the cause of the end of the world. The wars will be caused by conflicts over resources."



Paul Nicolet Computer Science Senior

"Climate catastrophe."



Julie Chen Civil & Environmental Engineering Doctoral

"Overloaded population."

A10 « thetartan.org/forum The Tartan » February 8, 2016

### **New "diverse" Barbies blur lines** between fun toy, bad role model



Yue Yin/Staff Artist

**EMILY GALLAGHER** 

Dolls were my favorite toy growing up. I would spend hours playing with them, dressing them up, brushing their hair, and making up stories about them with my sisters in my bedroom. I played with my dolls longer than I would let people know, for fear that I would be mocked.

Because dolls have been such a natural part of my life, I have always been hesitant to accept the social stigma around them. I do understand and vehemently oppose the way that certain dolls have the potential to affect the way a child views his or her body. However, the way to combat these damaging effects is to draw a clear distinction between toys and role models.

Dolls have been accused of being creepy, patronizing and gender specific, as well as of inflicting unfair ideas of body image on young minds. Mattel's Barbie doll is undoubtedly the biggest culprit in the argument that dolls give young girls a skewed perception of body image. For as long as Barbie dolls have existed they have made an ironic statement about what the perfect female looks like, an impression that has deeply affected and altered the lives of many young girls.

Barbie dolls tell a girl that she must be tall and skinny, yet curvaceous in the right places. She must have a long neck, minuscule waist and wear a DD cup. Should the measurements of a Barbie doll be applied to a real human she would

not have enough room for all of her organs: she would be unable to stand upright, lift her head, or use her hand to pick up anything heavier than a pencil. This, says Mattel, is the perfect woman; a woman who, should she exist in the real world, would be crippled and deformed by her own contrived beauty.

The traditional blonde-haired, blue-eyed, pale-skinned Barbie has existed for generations. Society has gone back and forth admiring and mocking the doll, but the model has been the standard for the company for nearly a half-century. But this is all about to change.

Mattel recently released a statement that Barbie dolls are now to be diversified. Dolls bearing the descriptions "Petite," "Tall," and "Curvy" will now be filling the shelves along with dolls of a wider range of skin tones, eye and hair colors, and "face sculpts." Upon hearing this news, one might be thrilled that after all this time Mattel is finally recognizing the absurdity of the "perfect woman" their company has worked so hard to create. But on second thought, what does it make a child think when his or her body can be classified with a neat little

I suppose that I would be classified as petite. But what does that even mean? So I'm on the smaller end of things height and bust-wise; I may not have the curves or tall stature of my friends, but who cares? Why should what my body looks like define me? Because of the way my body is made am I only allowed to play with dolls that most closely match my body description?

I've never felt that I need to look just like my doll because I viewed my dolls as toys, not some model to aspire to. By diversifying in a box and

classifying the range of dolls they manufacture, Mattel is encouraging this misconception that you should look like your toy. If you are tall, buy the "Tall" doll and strive to look like her. If you are "Curvy," you better look like Mattel's version of "Curvy." Before, Barbie was an unattainable ideal with no relation to most girls' realities, but the new claims about diversity make the unrealistic beauty standards even more corrosive.

Everyone is different. Every person has their own unique nuances to their body. By creating these new styles of dolls to "increase diversity," Mattel is doing nothing more than providing a few more options of cookie cutters to force a woman into. The source of the problem here is not with Mattel really, but the fact that society will allow a toy company to dictate what the perfect female body looks like. Barbie dolls are toys. That is always how I thought of them. Even at a young age I recognized the distinction between imagination and reality and I think most children would, too, if not for outside influences.

The true problem is that adults have not gotten it out of their heads that the perfect body is a Barbie doll. Look at any female model in a catalog and you will have confirmation of this. So perhaps it is wrong on some levels to crucify Mattel for creating misconceptions body image, because the doll alone is not the biggest of the problems. The Barbie doll is a creation that is far from progressive in appearance, but the true problem lies in the fact that the grownups still can not figure out the difference between reality and playing pretend.

Emily Gallagher (@egallagh) is a staffwriter for The Tartan.

### CaPS does vital work, services must expand

**ZEKE ROSENBERG** 

I have never had a particularly easy time falling asleep. Even when I was a child, I remember staying up until the clock hit 9, then 10, then hours no little kid should ever be awake for until I either slipped into a short nap or morning came. The problem never eased up as I got older, but as I started to reach adulthood it shifted from silent waiting to a series of uncomfortable thoughts to an internal screaming match just trying to get my brain to calm down for just one minute and let me sleep. From there it only escalated. It's hard to remember when each shift happened, but eventually this was no longer just a bedtime scourge. My whole day became a fight with myself. Over time it shifted into an internal fight with someone else. It made me angry, but I never really felt anything amiss until the middle of a final last year.

I sat taking a test in a class I was taking pass/fail, needing merely a 20 percent to slip by. As I sat in the room and tried to focus, this voice became loud and angrier than normal. As I stumbled through the first problem on the exam, it began to taunt me. It began to get more and more aggressive until, for the first time, it threatened me.

I was confused and panicked. I handed in my exam with just the one problem finished and looked for the nearest empty spot. That happened to be the stairs between the Morewood Parking Lot and WQED. I pulled out my phone and called the campus mental health emergency number, lying that I had just had a panic attack. I don't quite remember what the person on the other line said, but I managed to get all the way to my apartment before I began crying hysterically.

I decided I needed some sort of company. The voice in my head kept taunting me that I had somehow managed to miss such a meager goal on that final, and I just needed something else to focus on. I somehow never managed to contact anyone and wound up at home assembling IKEA furniture for six hours that felt like months. Eventually I did manage to find my phone to ask someone to come help build a coffee table, but I never quite recovered.

I still have a nightmare of a time just sitting down and doing homework for extended periods of time. Getting to class in the morning is a nightmare, and I often fall really far behind in terms of material. Carnegie Mellon's Disability Services are extremely helpful for these symptoms, but getting myself to class in the morning would be a more personally meaningful step then having free access to copy machines for notes and flexible testing hours.

I eventually sought help — I had to, there was no way around it through Carnegie Mellon's Counseling and Psychological Services, or CaPS, which sent me "into the community" as they always do with people with problems they are not designed to handle. That's probably the best solution, but there are three hurdles involved in seeking the necessary care in that situation.

First, a lack of motivation is among the most common symptoms of any mental illness. While CaPS is right on campus and not far removed from most people's daily activities, places like UPMC's Services for the Treatment of Early Psychosis (STEP) are comparatively far away and, when in the wrong mindset, can be explained away by anything from the weather to the bus taking too long to just plain not wanting to go.

Second, mental health treatment can be exorbitantly expensive. Copayments at each visit if not in a set program mean that six weeks of therapy can cost \$250. That's not within the budget of most people, especially college students.

Third, white coat syndrome can be a serious concern. Every time I go into STEP and am asked what the voice sounds like or what it says, I'm met with loud resistance inside my head to saying anything specific. Despite being able to talk about it freely in other situations, I've never been able to describe the problem when I'm actually inside a medical institution. White coat syndrome is very common and probably plays a large role. The on-campus environment of CaPS could be better for sharing information that needs to

Pittsburgh is an excellent city in terms of mental health care. Most places don't have something close to an equivalent for STEP and don't have the abundance of mental health care resources. CaPS itself is also a program ideal for a university; it is designed to deal with the mental health problems that may come up for college students. An intuitive solution seems to be to have Carnegie Mellon contract professionals who could help students with less common problems through CaPS, but there are probably obstacles to that I could not think of. I don't have the knowledge to provide a solution, just to start a conversation in hopes that someone else does.

Zeke Rosenberg (@erosenbe) is a staffwriter for The Tartan.



Ashley Chan/Staff Artis

### Mass surveillance supporters oversimplify war on terror

**ALP MUYESSER** 

Staffwriter

To some an Orwellian conspiracy, for others a necessary price for democracy, mass surveillance has been the center of numerous controversies in the past couple of years. The person responsible for delivering the issue to the public agenda was Glenn Greenwald, an American lawyer and journalist. In cooperation with whistleblower Edward Snowden, Greenwald published the leaks that revealed how intelligence agencies such as the NSA were amassing huge sums of data on ordinary citizens. Greenwald-Snowden standpoint on the issue is clear: mass surveillance at this scale hinders the ability of a citizen to be a free individual and thus damages democratic ideals. Not everybody agrees, however.

When pro and anti mass surveillance arguments are analyzed, it becomes clear that the disagreement boils down to a trust of governmental

intentions. If the intentions of political power is to capture terrorists, violent criminals, and all other sorts of "bad guys," and mass surveillance is just a means to achieve that end, the situation does look agreeable. After all, who doesn't want to put bad guys in jail, right? However, if we believe the remote prospect that political power will work to maintain its own exercise of power, then mass surveillance becomes inherently dangerous.

"I remember what the Internet was like before it was being watched," says Snowden, in Citizenfour, the documentary telling the story behind the leaks. "And we've seen the chilling of that, the cooling of that and the changing of that model towards something which people self police their own views. And they literally make their own jokes on ending up on the list if they donate to a political cause or if they say something in a discussion." The list of people under surveillance, by the way, is composed of an astonishing 1.2 million American citizens, as demonstrated by the released files. That is a lot of bad guys for a country of its size.

Benjamin Wittes, a senior fellow at The Brookings Institution, wrote a response to Greenwald which ended up becoming one of the most wellcited arguments in favor of mass surveillance.

The argument he sketches out in a post called Why Greenwald's Challenge is Asking the Wrong Question on his blog, Lawfare, goes something like this: people should care about their privacy because the government can use the data for malicious purposes. Wittes claims the government clearly would not do that, so Greenwald must be wrong.

Wittes, contrary to Greenwald, clearly trusts his government. In his blog he says, "As readers of this site know, I do not hang out, intellectually or emotionally, in the human rights clubhouse. I defend noncriminal detention. I believe actively in robust surveillance authorities. I

have no moral or legal qualms about military commissions. I don't mind drone strikes. I'll even — still — cop to harboring mixed feelings about coercive interrogations in the highest-stakes cases. #SorryNotSorry." That is one way to look at it.

Without questioning which clubhouse Wittes actually hangs out at, let us look at how Greenwald views terrorism. In a 2016 post on his blog, The Intercept, titled The Deceptive Debate Over What Causes Terrorism Against the West he says, "By pointing out the causal connection between U.S. violence and the decision to bring violence to the West, one is not denying that the attackers lack agency, nor is one claiming they are "forced" by the West to do this, nor is one "infantilizing" them. To recognize this causation is to do exactly the opposite: to point out that some human beings will decide — using their rational and reasoning faculties and adult decision-making capabilities — that violence is justified and even necessary against those

who continually impose violence and aggression on others." Greenwald, apparently, does not share Wittes' binary worldview where the only characters are freedom-loving, democratic Americans and violent terrorists. Quite to the contrary, Greenwald observes that terrorism is a multifaceted issue in which both sides are to blame.

With all this in mind, it turns out that the disagreement between Greenwald and Wittes comes down to their views on terrorism, the very thing that mass surveillance is supposed to address. To resolve this debate between national security and rights to privacy, then, we will need to figure out where we stand on terrorism.

If we come to realize that terrorism is not a black and white issue, then there will have to be other motivations behind mass surveillance programs since there are no clear cut "bad guys" to be watching. And that, to me, is not a very pleasant thought.

February 8, 2016 « The Tartan thetartan.org/sports » A11

### Denver Broncos stifle Carolina offense in Super Bowl 50

**ZEKE ROSENBERG** Senior Staffwriter

After months of games, the NFL season came down to a showdown between the Carolina Panthers and the Denver Broncos. The two teams took very divergent paths to Super Bowl 50. Led by MVP-winning quarterback Cam Newton, the Panthers were dominant from the start, vanquishing all challengers until slipping up in a close game, receiving their only loss on the road against the Atlanta Falcons. The Panthers put in a long string of dominant performances including beat downs in the first half against both of their playoff opponents, the Seattle Seahawks and the Arizona Cardinals, to earn the National Football Conference (NFC) Championship. The Broncos, on the other hand, have stumbled and bumbled their way into what some consider to be the luckiest Super Bowl appearance in history on the backs of a defense that more closely resembles a swarm of 300-pound killer bees than anything else. Denver's season could easily have been derailed early in the year as they came very close to losing each of their first games. Denver managed to rack up wins in all six however, and despite a prolonged absence from quarterback Peyton Manning, went on to split their remaining ten contests earning the top seed in a chaotic American Football Conference (AFC). After being out-gained and, arguably, outplayed by both the Pittsburgh Steelers and New England Patriots along the way, the scoreboard as the clock struck zero favored the Broncos and it all came together.

However, the small sample of a single football game makes for some unexpected results. The Broncos, who had managed only three wins by more than one score managed a fourth and took home a 24-10 victory in Super Bowl 50.

The preseason wisdom was that Carolina was doomed after former left tackle Jonathan Gross retired, and they would not be able to keep a clean pocket for Newton and the running game. That wisdom was wrong for 18 games, but when it mattered most, left tackle Michael Oher and crew were blindsided by a dominant Broncos defensive line. Every time Newton had some time to breathe, the Panthers gained large chunks of yardage. Unfortunately for Carolina, those moments were few and far between. Without any protection, Newton took lots of hits and was unable to get the Carolina offense going, dooming the Panthers' Cinderella season.

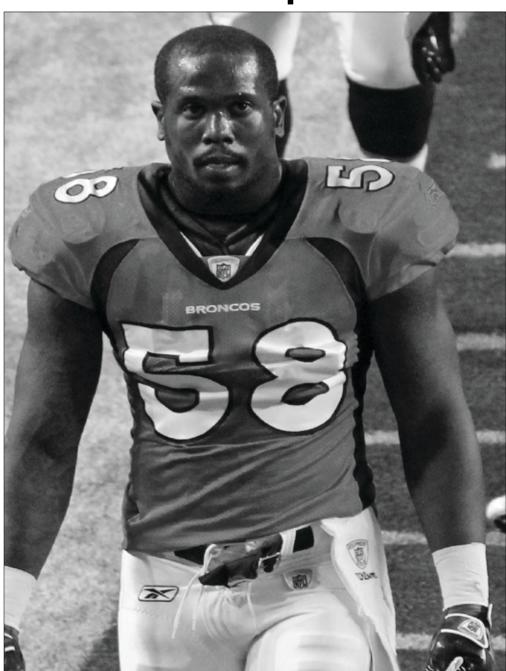
Super Bowl 50 opened about as badly as it possibly could have for the Carolina Panthers. After giving up a field goal by Broncos kicker Brandon McManus on the opening drive, Panthers right tackle Mike Remmers badly missed a block on Broncos defensive lineman Von Miller. Broncos defensive end De-Marcus Ware cut across the field to Miller's side taking Panthers center Ryan Kalil, taking him out of the play. Since the Panthers offensive line was entirely occupied, Miller stormed almost unimpeded into the backfield and was able to knock the football from Newton's hands. The ball bounced into the endzone and was recovered by Broncos linebacker Malik Jackson to put the Broncos up 10–0. The Panthers were able to respond with a 73-yard touchdown drive, but confusion about a fair catch call allowed Broncos return man Jordan Norwood to return a punt 61 yards, an NFL record. A field goal followed and the Broncos took a 13-7 lead into halftime.

Both defenses shined in a vicious first half. Miller was in Newton's face all night, pressuring the star into many uncharacteristically bad throws and closing off Newton's usual running lanes, preventing him from escaping Denver's pass rush. In addition to Miller, Panthers linebacker Luke Kuechly showed off his speed and instincts, disrupting many Bronco plays. Kuechly's patrol of the middle of the field prevented Manning from hitting his favorite short routes in front of the offensive line, and the Broncos were never able to mount much of a drive.

The second half seemed to open okay for the Panthers when they received the opening kickoff and subsequently drove to the Broncos 27-yard line. However, after Miller was able to hang with Panthers wide receiver Jericho Cotchery and break up a long pass, the Panthers were forced to kick a field goal which Panthers kicker Graham Gano clanked off the right post. The following Broncos drive turned into another McManus field goal and the Broncos took a two-score lead. The Panthers managed another field goal, but they never threatened again and that was

After what was possibly his final NFL game, Manning deserves credit for an incredible career. Manning was arguably the best quarterback in the NFL from his breakout sophomore season in 1999 until a quadriceps injury marked the end of his career as an effective quarterback late last year. He fought back from a benching and a plantar fascia injury earlier in the season to lead his team to a Super Bowl victory in the perfect ending to what might be the greatest NFL quarterbacking career in

Manning's night, however, was not his peak. This night belonged to Denver's defense. Jackson showed off the combination of downhill speed and block-shedding strength that makes him one of the league's more underrated players, Denver cornerback Aqib Talib



Denver Broncos linebacker Von Miller earned the MVP award for his shutdown performance in Super Bowl 50.

despite some discipline issues early in the season showed why the Broncos paid him so much money to come and shore up the defense, and the Broncos rush-focused offense did enough to outshine Carolina's overwhelmed unit. However, the greatest congratulations go to Miller, the Super Bowl MVP and deservingly so. Miller disrupted everything the Panthers tried and made it impossible for Carolina to strike back against any Denver advances.

In the end, Carolina's offensive line was unable to match up with the swarming front seven of the Denver Broncos and their failures stymied every offensive effort the Panthers tried to put together. It may put a damper on an incredible season for the Panthers, but with a newly

cleared cap sheet and an incredible core of talent locked up for a long time, the Panthers may be back on this stage soon enough. Super Bowl 50 may have been the product of plenty of luck, but every Super Bowl win involves some good fortune. The Broncos deserve the chance to commemorate a roller coaster of the season at its highest peak with Super Bowl rings.

SPORTS BRIEFS

### Men's track and field

The Carnegie Mellon men's track and field competed at the Denison University Bob Shannon Invitational on Saturday, and won the scored event best 14.39 meters. with 139 points. The Tartans took first in five events and placed second in three. Firstyear Rai Walters won the long jump with a mark of 6.64 meters, and senior Patrick Chang placed second in the triple jump with a mark of 12.36 meters. Sophomore Thomas

Mansfield placed second in the pole vault with a vault of 4.27 meters, and sophomore David Trzcinski finished third in the shot put with a season-

First-year Andrew Harter won the mile run in 4:27.64, and first-year Isaac Mills won the 800-meter run with a time of 1:58.37. Junior Matthew Sheh placed third in the 60-meter hurdles with a time of 8.94 seconds, and first-year Christopher Bayley finished the 400-meter dash in fifth place with a mark of 53.09

Junior Curtis Watro took first in the 3,000-meter run with a time of 8:40.58, a meet record. First-year Liam waish ran the 5,000-meter run in 15:39.56, taking second.

The Tartans finished out the meet with a victory in the 4x400-meter relay, as the team of sophomore Jonathan Perry, junior Brady Wilson, Bayley, and Mills crossed the line in 3:30.96.

The Tartan meet again on Saturday, Feb. 13 at the Dragon Invitational at Tiffin University.

### Women's track and field

The Carnegie Mellon women's track and field competed at the Denison University Bob Shannon Invitational on Saturday, and placed third in points among ten teams. Overall, the Tartans won four events.

won the high jump, clearing 1.55 meters. First-year Hannah Mahon placed third in this event with a jump of 1.45 meters.

The Tartans finish first and second in the 800-meter run as first-year Rose Ciriello placed first with a time of 2:23.97, and sophomore Sarah Cook finished right behind her with a mark of 2:24.46. Senior Liz Snyder placed first in the 3,000-meter run with a time

Junior Rebecca Fortner of 10:49.93, a meet record.

The team closed out the meet with a first-place finish in the 4x400-meter relay as the team of Ciriello, Cook, sophomore Jerilyn James, and junior Ariel Tian finished with a time of 4:16.50.

The Tartans meet again on Saturday, Feb. 13 when they travel to Tiffin University for the Dragon Invitational.

> Compiled by **ALEX WOOD**



A Carnegie Mellon runner makes his way around the track at the Bob Shannon Invitational meet on Saturday.

### **UAA Basketball Standings**

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Men's <sub>Univ.</sub>	Conf.	W	L	Women's	Conf.	w	L
Emory	8–1	15	5	Rochester	7–2	17	3
Rochester	7–2	14	6	Wash. U.	7–2	16	4
NYU	6–3	17	3	NYU	6–3	17	3
Chicago	5–4	14	6	CMU	4–5	15	5
CWRU	3–6	10	10	Chicago	4–5	12	8
Brandeis	3–6	9	11	Brandeis	4–5	11	9
Wash. U.	2–7	10	10	Emory	2–7	11	9
CMU	2-7	9	11	CWRU	2-7	7	13

### **Upcoming Events**

Men's Basketball at University of Chicago Feb. 12, 9 p.m.

Women's Basketball at University of Chicago Feb. 12, 7 p.m.

Men's Track and Field **Dragon Invitational** at Tiffin University Feb. 13, 12:00 p.m.

Women's Track and Field **Dragon Invitational** at Tiffin University Feb. 13, 12:00 p.m.

**Men's Tennis** vs. St. Francis University at Carnegie Mellon Feb. 13, 3 p.m.

**Women's Tennis** vs. St. Francis University at Carnegie Mellon Feb. 13, 3 p.m.

# Sports

### Men's basketball rallies, beats Brandeis after losing lead

**JORDAN SAFER** 

Staffwriter

Coming off of a tough loss to New York University (NYU) to open the weekend, the Carnegie Mellon men's basketball team sought to serve up some vengeance on Sunday against the Brandeis University side a week after losing to the very same team. And they did, shaking off a slow start and eating up a big Brandeis lead to break out their 2nd conference win of the season.

A team that has been in the mix throughout the season, the Carnegie Mellon men have been looking for a spark in University Athletic Association (UAA) play. With a 78–70 win over Brandeis, the men may have the spark they need.

Coming out in the first half, the Tartan men showed a lot of energy, playing up on their toes, and jumping for every sloppy Brandeis ball. The team lept forward 8-4 with quick play up and down the court. But as the half dragged on, the team watched an early lead fall away as they sank into a hole against the Brandeis men. In a very early setback, junior forward Jack Serbin drew a technical foul from a hard drive towards the basket only a couple of minutes into the game. With the technical foul, Serbin, the Tartan's leading rebounder this season, sat out the rest of the half, leaving the Tartans to battle against Brandeis down a man. It didn't take long to turn things around in the 2nd set though.

Even coming out of the half with a full lineup, play

was slow and measured from the Carnegie Mellon side. The team looked out of step and unemotional compared to their opposition. As the Tartans fell behind early in the 2nd half, they tried to re-energize their side by substituting in younger players who hadn't seen much game time through the majority of the season. The tactic didn't give a lot of results through, and the team kept sliding going into the half. The team looked frustrated. Every time something looked like it was coming together, a foul call or a quick Brandeis response just made the hole bigger. That all changed when sophomore guard Ryan Maha got involved.

31–40, Down Maha showed determination, racing down the court along the benches to make a jumper and start the team's game-changing run. With a couple more baskets tightening the game up, Maha broke loose to finish up what he started. Seconds after a smooth mid-range jumper from the left side, Maha intercepted a Brandeis pass for a clean steal up the middle, which he finished with a layup at the rim for the first Carnegie Mellon lead since the start of the game.

Building momentum off a few hard fought points by Maha early in the 2nd half, the men found a way to win from behind. As Maha put it, the team "just had to chip away, tryin' to get a basket in at a time, play solid, and keep playing [their] game". With the team down by nine points, Maha set off a 14 point unanswered scoring run by the Tartans. They chunked together

score after score, turning a deficit into a lead.

The men didn't stop there, looking patient and committed to finishing the job. They continued to battle the Brandeis side, keeping a tight defense, and holding off Brandeis's efforts to find clean

Two technical fouls against Brandeis in the 2nd half certainly didn't help the visitors, but with consistent ball control for the Tartans powered by Serbin's seemingly uncontested rebounds, there was no opportunity for Brandeis to get back into the game.

Brandeis had one last window of opportunity to tie the game, down 63-66, but Maha stole the ball right on the left sideline, charged for the basket, pulled up just inside the arc, and netted a long jumper to give the Tartans a permanent five point lead.

The entire second half was dominated by the Carnegie Mellon side, as the team out scored Brandeis 54-31 off of prolific scoring by Maha, Serbin, and junior center Chris Shkil. The trio combined for 53 points, with Serbin and Shkil contributing 11 and 9 rebounds respectively to keep the ball in Carnegie Mellon's hands.

After the game, Maha gushed about Shkil's contributions, with Shkil's streams of layups and key jumpers sucking the air out of any potential Brandeis comeback late in the game. "Chris Shkil played absolutely amazing. He played really well ... Chris had a career night. He played extremely, extremely well." Shkil led the Tartans in scoring with 24 points while



Junior center Chris Shkil beats a Brandeis defender on Saturday to make a lay up for his team and get the win.

shooting 58.8 percent.

In spite of a talented roster, the Tartan men struggled early on in UAA play, going 1–7 in their first conference games. But if the team continues their weekend success, they have a chance to turn things around in through the rest of conference play.

"I know we lost to [Brandeis] last Sunday by double digits, and we came back Sunday and we beat them ... So I think that that just proves that we can play with anybody", Maha says of his team. Maha's recognition of the teams capability is showcased in their play. Taking the largest hole of the game and turning into their largest lead, the Tartans demonstrated their ability to compete at a high level.

Friday night, the Tartans suffered a tight loss to NYU 70-67, losing their own half time lead to the visitor's run. The team came out shooting, putting 43 points in the first half while shooting 52.9 percent, but NYU came back to defeat them. With the Brandeis win, Carnegie Mellon ended the weekend 1–1.

The team's next game will be this Friday at Chicago, and the Tartan's next home game will be the following Friday, February 19th against Emory University.

### Tartan tennis squads start dominating top opponents

Sports Editor

The Carnegie Mellon men's tennis team faced off against NCAA Division II opponent Walsh University on Saturday, and topped the Cavaliers 6–3 in a convincing performance to improve their record to 3–1.

The match began with doubles play, and the Tartans swept their way through the rounds. The dynamic duo of senior Abhishek Alla and junior Kiril Kirkov set the pace of the match by dominating their way to an 8-1 win in third doubles. They set the tone of the match and made sure Walsh knew that the Tartans came to play. The second point came in first doubles, as senior Yuvraj Kumar and firstyear Daniel Levine emerged victorious 8-3 in their set. At this point, it was becoming evident that Carnegie Mellon had more experienced players, but Walsh did not give up. The Cavaliers gave the Tartans a real run for their money in second doubles, but the tandem of sophomore Jeffrey Chen and junior Kenny Zheng pulled through once more for Carnegie Mellon, winning their set 9-8 and closing out the doubles matches. Every Carnegie Mellon pair emerged victorious, and the Cavaliers went into singles play with their backs against the wall.

In singles, Carnegie Mellon continued to show competitive prowess, but Walsh managed to pick up the pace. The Tartans' fourth point came after a straight set victory by first-year Vayum Arora, winning by scores of 6–2, 6–2 in fourth singles. Although firstyear Chaz Downing dropped matches in first and second singles, he came back with a vengeance and clinched the win in fourth singles with a 6–0, 6–2 win. Sophomore

a straight set victory in sixth man dominated second dousingles to finish the scoring for the Tartans, winning 6–3,

The Carnegie Mellon men's tennis team hits the court again on Saturday, Feb. 13 as they host Division I opponent St. Francis University at 3 p.m.

The Carnegie Mellon women's tennis team took the court on Saturday to compete with Division II opponents California University of Pennsylvania and Slippery Rock University. The Tartans stepped onto the court looking to defend their No. 6 overall rank in Division III. Carnegie Mellon started the day by defeating the 14thranked Vulcans 6-2, and ended the day by dominating The Rock 8-1.

Doubles play saw Carnegie Mellon take a 2-0 lead against the Vulcans, winning in second and third doubles. In the second slot, sophomores Cori Sidell and Katie Lai played their way to a 9-7 victory, while the duo of senior Abbey Hamstra and junior Nicholle Torres also won 9-7 in third doubles. Even though the Tartans dropped first doubles, the maintained their confidence going into singles and transitioned smoothly into

more victories. Torres went on to win third singles by a score of 6–1, 6–1, putting the Tartans up 3–1. First-year Jamie Vizelman was the next to earn a point for Carnegie Mellon, winning fourth singles with a score of 6-2, 6-4. Senior Brooke Tsu clinched first singles 4–6, 7–5, 6–1. The Tartans finished off the Vulcans with a score of 6-2, setting them up for an impressive nightcap victory against The Rock.

Against Slippery Rock, the Tartans saw themselves holding a 3-0 advantage after doubles play, and never

Tommy Cheng also picked up looked back. Tsu and Vizelbles, winning 8–0 before the duo of Hamstra and Torres picked up another doubles victory, 8-3 in third doubles. Sidell and first-vear Minami Makino then won 8-5 in first doubles to finish up the sweep. The Tartans had a comfortable lead going into singles against The Rock, and they did not let up.

Vizelman managed her second singles win of the day at fourth singles, with a 6-1, 6–1 victory just before Torres clinched the team win with a 6–2, 6–3 score at third singles. First-year Charlotte Diess won at sixth singles with a score of 6-4, 6-1, just after Lai won in fifth singles 6-3, 6-2. The final Tartan victory of the day came from Sidell at second singles when she won 6-3, 6-4. With a final scoreline of 8-1, Carnegie Mellon's dominating performance ended their night on a high note, and will surely send them into their next match with confidence.

The Tartans women's tennis team will be back on the court on Saturday, Feb. 13 as they host Division I opponent St. Francis University at 3 p.m.

The Carnegie Mellon tennis teams have been dominating opponents in higher divisions, and this is a good sign for both teams that they can play at the highest level. Their next challenge will only test them further, and the Tartan tennis teams have to recognize the level of play of their oppnents and rise up to them. So far, the Tartans have met every challenge with confidence and prowess, and they do not seem to be backing down. Ultimately, the Tartan tennis teams will use the motivation earned from these victories to propel themselves to national competition; a place they know they belong.

### Women's basketball opens strong, gets a win at home



Senior forward Liza Otto attempts a free throw shot after being fouled.

IAN TANAYA

Assistant Sports Editor

On Friday, the Carnegie Mellon women's basketball team faced off against seventh-ranked New York University for the second time in seven days. Hoping to make it past their 75-74 loss the previous week in New York, the Tartans won this game 70–57. The Tartans improved to 15–4 overall and 4-4 in the University Athletic Association

(UAA). At the start of the game, the Tartans struck first after a missed shot by the Violets. NYU tried to quickly respond, but the Tartans played tight defense against the Violets, limiting the number of chances NYU was able to attempt from the field. The Violets played full court defense against the Tartans, limiting the amount of points the Tartans could get. The end of the quarter saw the Violets start to get the better of the Tartan defense, taking a 14-12 lead with around one minute to go in the quarter. Though junior

guard Jackie Hudepohl made a basket to tie up the game again, the Violets scored as time expired, taking a 16-14

In the second quarter, the Violets built up a 26–16 lead before the Tartans regained momentum. After making their first three–pointer of the night and a few fouls, the Tartans brought it back to a manageable 26-24 deficit. The Violets tried to keep the Tartans back, but senior guard Lindsay Poss managed to tie up the game before a questionable foul called against the Tartans gave NYU a free throw attempt. The Tartans responded and retook the lead at 31-27 before the Violets called timeout to try and halt Carnegie Mellon's 15–1 run. After a foul called at 0.7 seconds left, sophomore guard Anna Novak quickly grabbed the ball from first-year guard Jenn Mayberger and made a shot to take a 35-29 lead into halftime.

Hudepohl opened up the third quarter by scoring twice, once on her own and once off

of a rebound. Though NYU brought the game to within six points, the Tartans kept the Violets from coming back any closer during the quarter, building up the score to 50–39. In the final quarter, the Tartans' lead grew as big as 60-46. NYU's attempts to come back were matched by Tartan scoring. Though NYU kept trying to fight back, the Tartan defense held their scoring in check, ensuring victory long before the final buzzer.

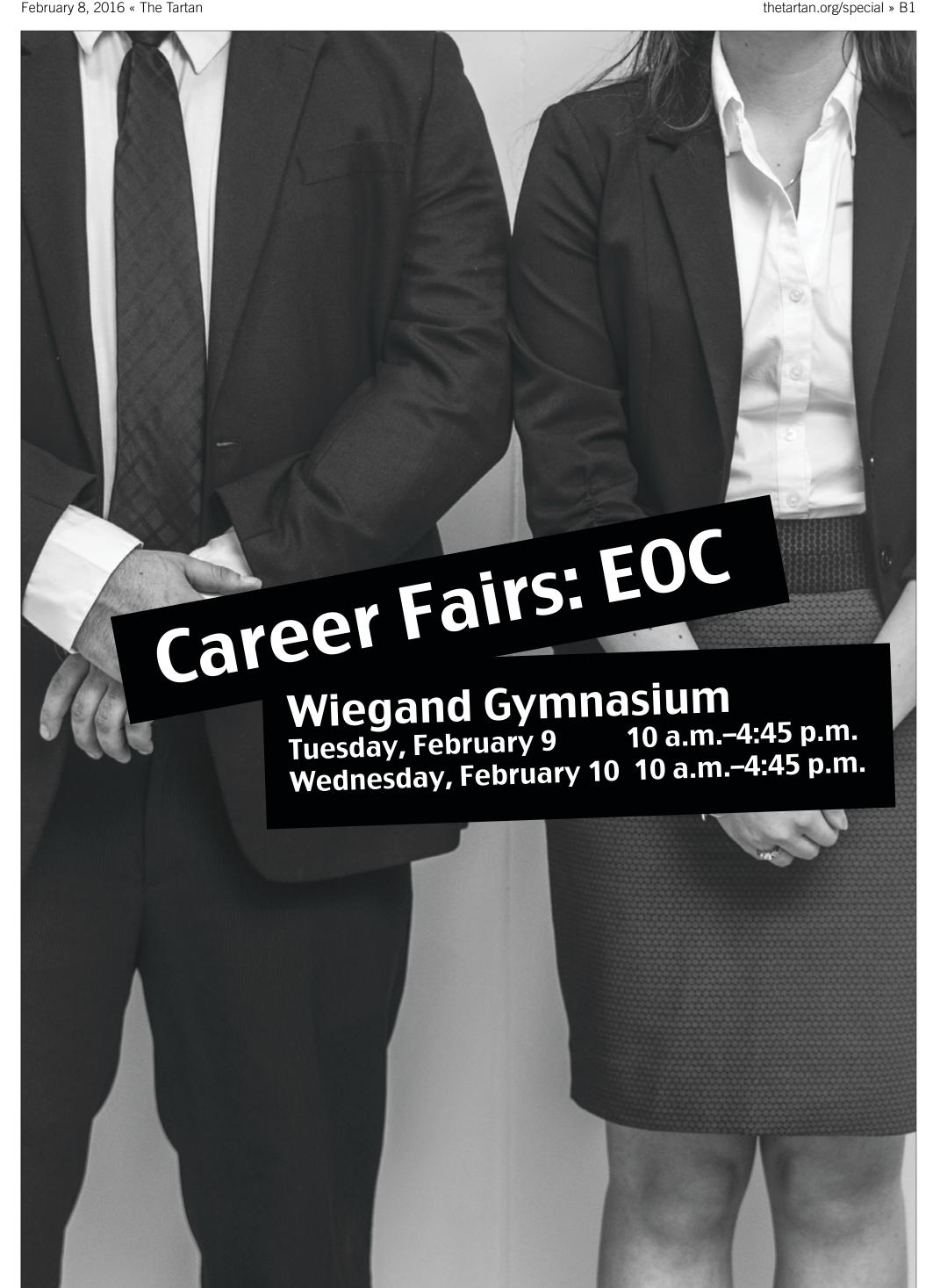
After starting the season 13–0, the Tartans entered a four game losing streak before beating Brandeis University on Sunday, Jan. 31. Though the team suffered a setback as UAA matches began, it has managed to stay focused on the big picture. No game was ever completely out of reach for the Tartans, and the team seems to be finding its stride once again.

Junior center and forward Lisa Murphy once again played a key role for the Tartans. Despite times when she would be double or even triple covered, she still managed to find the basket. She shot 8-for-8 from the floor, earned 16 points, and got 14 rebounds, etching her 11th double-double of the season.

Hudepohl led all scorers with 22 points, and she also got 11 rebounds for her third double-double of the season. Poss scored 16, marking the third straight game she has scored at least 15 points. Mayberger made nine assists, and she is only eight away from breaking the school's single season record.

On Sunday, the Tartans faced off against Brandeis in a rematch from the previous week's 66-60 win, and fell to the Judges 72–66.The Tartans will next travel to the University of Chicago for a rematch on Friday, Feb. 12.

February 8, 2016 « The Tartan



### EOC changes to address crowds, cater to younger students

**CLAIRE GIANAKAS** Editor-in-Chief

The Employment Opportunities Conference (EOC), a job fair hosted by the Career

and Professional Development Center (CPDC) each semester at Carnegie Mellon University, is an essential step in the job search process for most students on campus.

This year's spring EOC, which will be held in the Cohon Center in Wiegand Gymnasium on Tuesday Feb. 9 and Wednesday Feb. 10 from 10 a.m. to 5 p.m., will include two notable changes — the day will be split between internship and full-time opportunities, which was successfully implemented in the fall. First and secondyear students will be able to attend JumpStart, a program intended to promote connections between recruiters and younger students.

The first of these changes,

splitting the EOC into two sessions, is meant to aid both students and employers by making the event more efficient, even with such a large number of students and employers attending.

The first session, focusing on internship opportunities, will run from 10 a.m. to 12:45 p.m., while the second session, focusing on full-time opportunities, will be from 2 p.m. to 4:45 p.m. If students have class conflicts during these times, they are allowed to attend either session.

"The EOC is a very popular event, and we wanted to limit overcrowding by creating two sessions. We did this in the fall as well, and it improved traffic flow," said Judith Mancuso, the assistant director for recruiting at the CPDC.

Mancuso also noted that this structure will benefit both students and employers in more ways than just from previous years is the

"JumpStart will provide a more relaxed environment for students. We wanted to provide an event for ... students, who may have never attended a career event."

 Judith Mancuso, Assistant Director for Recruiting for Career and Professional Development Center

crowd management. "Students benefit from less crowding and having employers who are prepared to talk about what they are coming to the EOC seeking," Mancuso said. "Employers also appreciate this because it allows them to have representatives on hand who can speak to a particular audience."

The second major change

JumpStart program, which aims to benefit younger students. Through this program, first and second year students will be able to attend an event in Rangos Ballroom on Feb. 8, the evening before the EOC, from 5 to 7:30 p.m. The event will be a networking and internship fair designed specifically for first and second years. Students may register for the event in advance on TartanTRAK, although preregistration is not required.

Mancuso identified several benefits that they hope will come from the JumpStart program, including increased interaction between recruiters and young talent.

"Jumpstart will provide a more relaxed environment for students who are attending a career event for the first time," Mancuso said. "We wanted to provide an event for first and second year students, who may have never attended a career event, to begin interacting with employers and ... to give employers an opportunity to engage with students earlier in their academic careers."

Mancuso also noted that the JumpStart program will allow students and employers foster relationships for the future.

"JumpStart will help employers brand their organizations and identify and build future talent pipelines," Mancuso said. "It will also help students learn about employers, internship programs, and desired professional skill sets."

As always, the CPDC has a variety of resources to help students prepare for the EOC. CPDC drop-in hours are Monday through Friday from 11:30 a.m. to 1:30 p.m. Drop-in hours allow students to meet for 15 minutes with a career counselor in the CPDC Advising Center, located on the second floor of West Wing.

The CPDC is also holding a résumé blitz in the CPDC Advising Center on Feb. 8 from 10 a.m. to 4 p.m. This program allows students to meet with a career counselor for 15 minutes to review a hard copy of their résumé or to practice their elevator pitch.

No appointment is necessary for either event. The CPDC YouTube channel also has two short videos to help prepare students for the fair.

### It's never too early to search for your dream job at the EOC

**NIVEDITA CHOPRA** 

Special to the Tartan

If you walk into the University Center Tuesday and Wednesday while taking the warmer route to class, you may feel out of place amongst an exceptionally well-dressed crowd, the likes of which are rarely seen on campus outside of the Tepper School of Business.

It's that time of year again: various companies are here this week for the Spring Employment Opportunities Conference (EOC), the semester's largest career fair that will take place in the Wiegand and think about your dream Gymnasium in the Jared L. Cohon University Center from 10 a.m.-4:45 p.m.

If you're a first-year or sophomore, chances are that you're not going. Perhaps you intended to go, but are now having second thoughts given the number of jobs that go to upperclass students. On the other hand, you may be going, but mainly for the swag — free stuff, for the uninitiated. Here are some better reasons to go to the EOC as an underclassman.

#### Nothing to lose

Take a moment to sit back that there's no way that the

job. I bet there will be at least one company at the EOC where you can get that job, or do something related that's equally exciting. This semester's EOC is one of the few events at which you'll have absolutely nothing to lose by talking to recruiters. Your passion may even impress them enough to land you that dream summer job! You'll never know if you don't take the plunge.

#### Prep for future fairs

If you're firmly convinced

company of your choice will hire a freshman or sophomore, here's a more practical reason to go to the EOC.

Going to the EOC this year is good preparation for your following years at Carnegie Mellon. Attending this semester will allow you to feel what it's like, so that you know what to expect as an upperclass student.

Simply walk up to the company that you're eyeing for a job in the future, and chat with the recruiter. Ask about the company's required qualifications and interview process, so that you know what they're looking for and can be better prepared for the following year, when you're in the running for a job.

#### Small booths are hiring

While you're at it, check out some of the smaller booths that none of the upperclassmen are going to. Chatting with the recruiters there is less stressful — sometimes even fun — and can definitely boost your confidence.

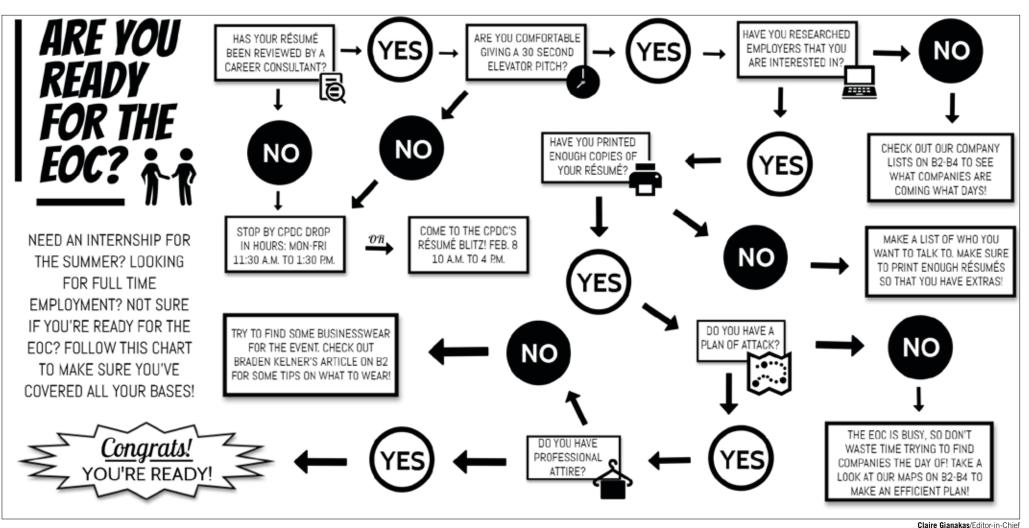
And remember, they're hiring too. So if they offer any opportunities you're interested in, go for it! The odds of geting

that job are substantially higher and the company probably pays more than traditional summer employers.

So, hunt out your nicest formal clothes and be prepared to join the crowd of well-dressed students at the EOC.

Draft a quick résumé — or update an existing one you have — and print out a few dozen copies. Make a name tag, dress nicely, and get ready

Editor's Note: This article appeared in a previous special career fairs edition of The



### Make the most of your EOC visit this week with these tips

**BRADEN KELNER** 

Special to The Tartan

University career fairs can sometimes seem like madhouses, with hundreds of employers visiting each day and an even greater number of students passing through. Nevertheless, it's important to sional when presenting yourself to the people who, hopefully, will soon be hiring you for a full-time position or summer internship. Here are five things you should be sure to bring to the Employment Opportunities Conference (EOC) to make sure you strike the perfect first impression.

### The right attire

Looking like you know what you're doing is half the battle at a career fair. To make your attire reflect the confidence employers want to see in candidates, stick to a formal dress code. For men, wear a career fair webpages to view business suit with a solid shirt or one that has a clean pattern. Tuck in your shirt, and wear a belt even if you don't need one. Don't forget a tie and a pair of black or brown shoes to finish off your look.

For women, wear a suit or a skirt with a suit jacket. Stick remain collected and profes- to neutral colors like black than a general résumé, to foor gray, and wear heels to complement the outfit. Both men and women should take the time to iron out wrinkles in your pants and shirt and to brush off any smudges that may be lingering on your jacket. As for hygiene, make sure your hair is cleaned up — cut and combed — and you look as if you got more than your fair share of sleep the night before, even if you haven't.

### Lists of companies to visit

Before attending the fair, visit the Career and Professional Development Center's the companies coming to campus. Research companies that interest you and make a list of the ones that seem to be good

For the companies you're head over heels for, consider spicing up your résumé and making unique copies, rather cus on the qualities you know those companies are looking

Hand your general résumé out to the companies vou're less interested in, but would still be happy to work for. By researching companies beforehand, you're sure to make a better impression with recruiters. Knowing a company's work and how you can specifically help the company will definitely make you stand out from the rest of the pack.

### A portfolio for résumés

Have a handful of résumés,

but don't know what to do with them? Take a trip to the University Bookstore to pick up a portfolio. These firm folders for your papers will round out your professional look. Not only do they look sleek, but they also ensure that you won't suffer any résumé snafus, like dropping all your papers or accidentally handing a recruiter a unique résumé intended for another company.

These handy folders allow you to organize your résumés, and a list of references and samples of your work if your field typically requires those elements.

Portfolios are easy to tuck under your arm and walk with, and they also add to your air of professionalism while giving you something to do with your hands.

### A water bottle and food

Career fairs can become packed and hectic. To give yourself some relief in your shake their hand firmly. multiple layers of clothing, bring a water bottle. Take a drink of cool water if you're feeling hot or overwhelmed. Staying hydrated will ensure that you are focused before you visit the companies that potentially hold your dream

Before the fair, also make sure to eat. Sometimes, vou may find yourself waiting in unexpectedly long lines, which could cut into time allotted for lunch after the fair. Even if the fair isn't crowded, it's always better to be overrather than underprepared.

### The right attitude

Remember that you're at the career fair to land a job or internship. Act that way. Approach all recruiters as if you want nothing more than to work for their company. Greet them enthusiastically and

Show them what qualifies you for a position at their company through an already prepared speech, but be sure to be flexible in what you've prepared if the recruiter has other plans for your conversation. Be ready to answer some tough questions, and don't break a sweat if you're not able to adequately answer one. Answer it to the best of your ability and get ready for the next question.

Ask the recruiter some questions yourself to show your interest and ensure that a position at the business is something you truly want to pursue. Thank the recruiter at the end of your conversation and follow up with an email

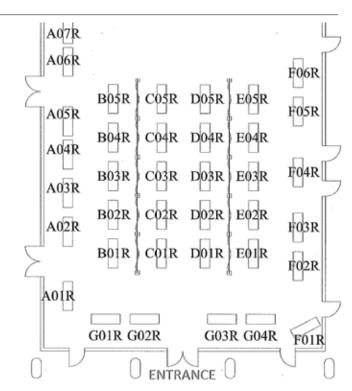
Editor's Note: This article appeared in a previous special career fairs edition of The

### **TUESDAY, FEBRUARY 10**

### **Employment Opportunities** Conference

10 a.m.-4:45 p.m. in Wiegand Gymnasium

Company Name	Booth	Company Name	Booth	
A9.COM	G02R	NVIDIA	E04R, E05R	
Amazon	G01R	OSIsoft, Inc.	B01R	
Duo Security	F03R	Parsons Corporation*	B02R	
Epic	A05R	Pitney Bowes	E02R	
Factset Research Systems Inc.	G03R	Redfin Corporation	D01R	
Goldman Sachs & Co.	C05R	Sandia National Laboratories	D05R	
Hortonworks	E01R	Branding Brand*	F10	
Jupier Networks*	F02R	Schlumberger	A06R, A07R	
King & Partners	C03R	SevOne	E03R	
M.C. Dean, Inc.	B04R	Teach for America	G04R	
Magic Leap	D02R	Teletracking	F05R	
Mimosa Networks	B05R	Terrasim, Inc.	F04R	
NetApp	A02R	The Hershey Company	C01R	
Next Jump, Inc.	A03R	TripAdvisor	B03R	
Nutanix	AO4R	TrueLearn Inc.*	CO2R	
*Company started by Carnegie Mellon alumni		Editor's Note: Attending companies sub	oject to change.	



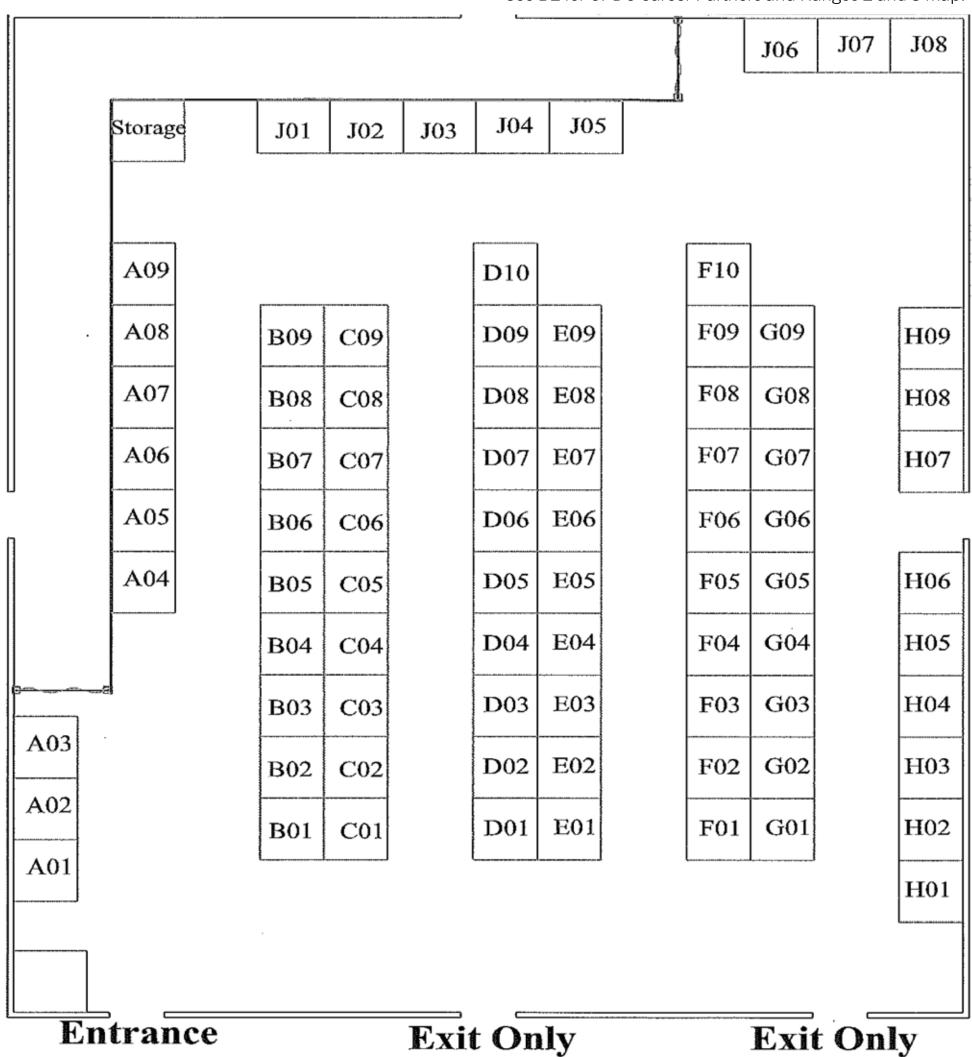
Company Name	Booth
Urban Teachers	F06R
Vallourec USA Corp.	CO4R
Venture for America	D04R
Veritas Technologies, LLC	D03R
Vmware	A01R
Wolverine Trading LLC	F01R

### TUESDAY, FEBRUARY 9

### **Employment Opportunities Conference**

10 a.m. – 4:45 p.m. in Wiegand Gym

See B2 for CPDC Career Partners and Rangos 2 and 3 map.



**Exit Only** Editor's Note: Attending companies subject to change.

Company Name	Booth	Company Name	Booth	Company Name	Booth
Accenture	C06	Gilt Groupe	H07	Oracle Software and Hardware	E02, E03
Adobe Systems Inc.	B04, B05	GoDaddy	B08, B09	Development	
Aerotech, Inc.	A06	Google, Inc.	H09	PDT Partners, LLC	F05
Alcoa, Inc.	A07	Grant Street Group	A05	PrepMD	D06
American Eagle Outfitters	E01	Hewlett Packard Enterprise	E04	Pure Storage	F06
AppDynamics	C05	Highmark Health	A08	Raytheon Company	F07
Arete Associates	H04	IBM Corporation	G03, G04	Rockwell Automation, Inc.	C07
AT&T	H03	Infinera	J02	Salesforce.com	F02, F03
Aurora Flight Sciences	D04	InsideSales.com	J08	Stevens Capital Management LP	F09
Avencore	G06	Intentional Software	J07	Strayer@Work	D08
Avvo Inc.	E06	Key Lime Interactive, LLC*	J06	Summa Technologies*	D07
Bloomberg L.P.	G01, G02	Kulicke & Soffa	G07	Tapad, Inc.	D01
BNY Mellon	B03	Labatt Food Service	C02	The Mathworks, Inc.	G08
Branding Brand*	F10	LGS Innovations	J03	The MITRE Corp.	G09
Capital One	A04	Lutron Electronics Co., Inc.	J01	TigerText	F08
Casa-Systems, Inc.	G05	ManTech International Corporation	F04	Town Square Trading LLC	B01, B02
Cisco Systems, Inc.	H01, H02	Medidata Solutions*	C09	Two Sigma Investments	C03,C04
Citadel LLC	B06	Meraki	J04	U.S. Army Communications-Electronics	E09
Deloitte Advisory	B07	Microsoft	J05	Research, Development and Engineering Center	
Facebook	A01, A02	MIT Lincoln Laboratory	D02	U.S. Navy Nuclear Engineering	E08
Fenwick & West LLP	H08	MongoDB, Inc.	D03	United States Postal Service	H05
FireEye	C01	Mylan	D09	Visa Inc.	E05
FreeWheel	F01	National Security Agency	H06	West Monroe Partners	D05
General Dynamics Mission Systems	E07	Oceans Edge Inc.	C08	WhatsApp Inc.	A03
General Motors Corporation	D10	2004 2450	000	Yext	A09

\*Company started by Carnegie Mellon alumni

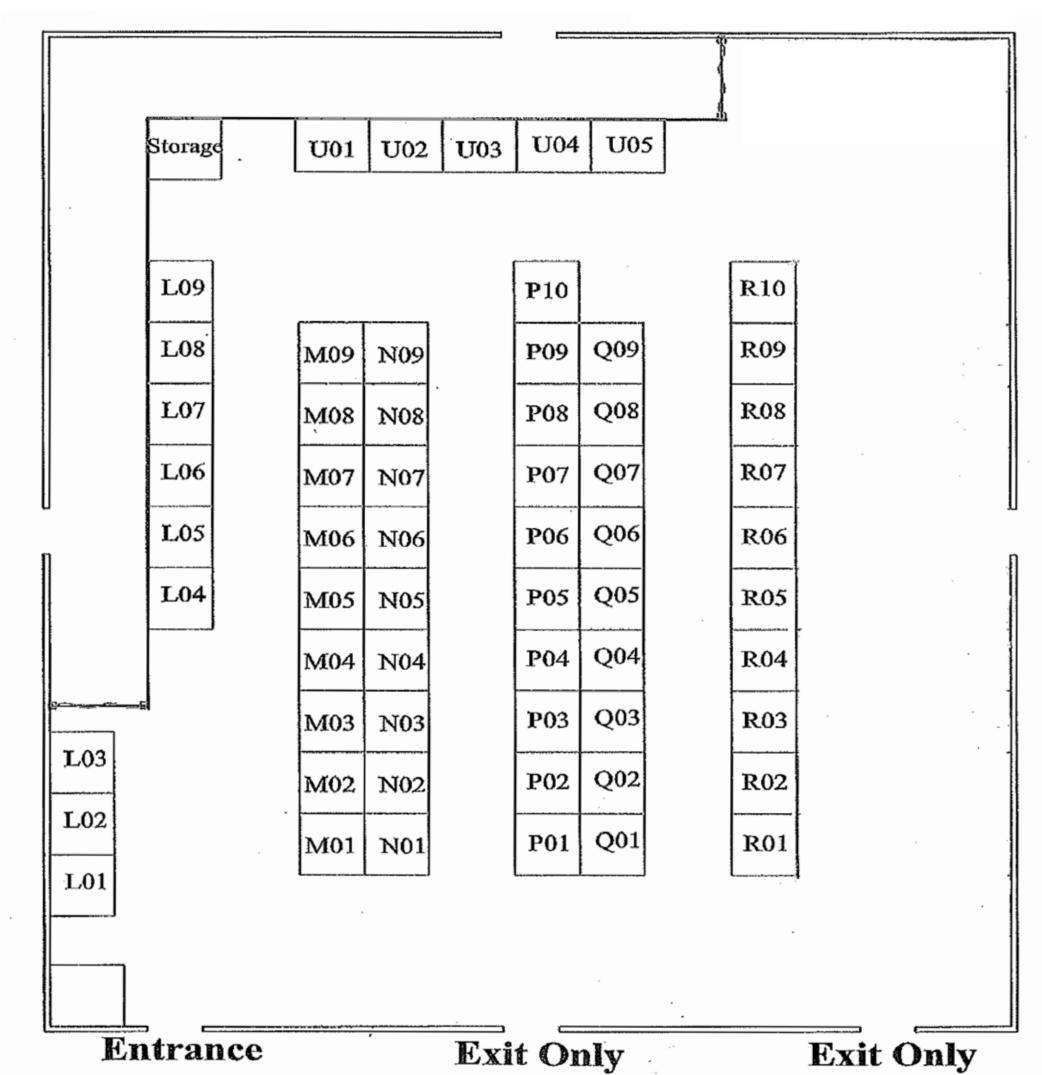
### **Career Fairs: EOC**

Wiegand Gymnasium and Rangos Tuesday, February 9 10 a.m.-4:45 p.m. Wednesday, February 10 10 a.m.-4:45 p.m.

### WEDNESDAY, FEBRUARY 10

### **Employment Opportunities Conference**

10 a.m. - 4:45 p.m. in Wiegand Gymnasium



Editor's Note: Attending companies subject to change.

Company Name	Booth	Company Name	Booth	Company Name	Booth
AB	L06	King & Partners	N04	Systems & Technoogy Research	M04
Ab Initio Software	L01	Kulicke & Soffa	Q03	Tapad	P01
Accenture	N06	Leidos	L08	The Hershey Company	MO1
American Eagle Outfitters	Q01	Lutron Electronics Co., Inc.	U01	Think-A-Move Ltd.	P06
American Institutes for Research	R03	M.C. Dean, Inc.	M02	TradeLink LLC	P03
Ansys, Inc.	NO1	MediaMath	P02	True Image Interactive, Inc.*	M07
Bechtel Marine Propulsion Company -	Q07	Model N, Inc.	M05	U.S. Army Communications-Electronics	Q09
Bettis Laboratory		Mu Sigma Inc.	L03	Research, Development and Engineering	
Capital One	L04	National Geospatial Intelligence Agency	U03	Center	000
Cheetah Mobile	R09, R10	Oncora Medical	P09	U.S. Navy Nuclear Engineering	Q08
Cirrus Logic, Inc.	N05	ORAU	L07	United States Postal Service	Q05
Compunetix, Inc.	P05	Qumulo	L02	University of Pittsburgh Medical Center	P10
Cooper Tire & Rubber Co.	R06	Robert Bosch LLC	R04	Uptake	N02
DC Energy	P04	Rockwell Automation	N07	WorldQuant, LLC	N03
ETAS	R05	Siegel+Gale	N09	Yext	L09
FreeWheel	R01	Software Engineering Institute*	M03	YinzCam, Inc.*	R02
GoDaddy	M08, M09	Sunrise Labs	P07	Zendesk	R07
Grant Street Group	L05	Suffice Labs	1 07		

<sup>\*</sup> Company started by Carnegie Mellon alumni





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### **Artist profile: SWU**

SCS student Stephen Wu to release debut EP • C5

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An experimental new sound from pop artist Rihanna • C7

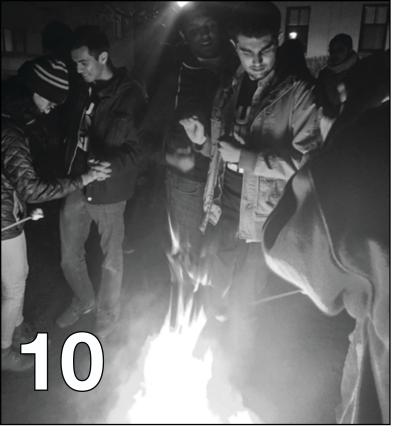
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### Tales from abroad: going to Madrid, Spain

Amelia Britton writes about her experiences with Spanish people, culture, food, & history

I've been in Spain nearly a month now, and it still doesn't feel like I'm staying. The orientation period is over, and I hope having a routine will make me feel less like a visitor.

This semester abroad marks part three of my year away from Carnegie Mellon's Pittsburgh campus, during which I've lived in a new city every four months. I left Pittsburgh in May 2015, went home to Ohio to pack and recharge, and headed to southern Virginia for a surreal internship experience with NASA. I lived with other interns in a crooked little beach house — our kitchen floor was so slanted that if you dropped something, it rolled to the corner. It felt like a dream. I met wonderfully nerdy people who were excited to talk about their wonderfully nerdy work. In August, I went home again to unpack and repack before heading for Washington, D.C. I'm glad I did the Washington Semester Program, but it was difficult. I worked as an intern three days a week and took four classes, so I always felt like I was doing one-too-many things. The city was smart, put-together, and fast-paced. It was exhausting. At winter break, I was glad for the chance to hibernate before my next journey: Madrid.

I studied Spanish in high school with a Madrileñan teacher. I picked up his accent — the distinct "th" for soft "c" and "z" sounds — and I decided to study abroad in the one place I could actually use it. Of course, Madrid also has the allure of being a European capital, and the history and culture here are astounding. Unfortunately, I still sound more like an American than a Spaniard.

Speaking Spanish here is a very humbling experience. I have passable classroom Spanish, and I am able to understand others more easily than I can produce the words myself. My host family is patient and helpful, but communicating with locals is often an exercise in embarrassing myself. I can get around the city and find the things I want, but I sometimes misunderstand small interactions. I've also misread situations for using the formal "usted" and informal "tú" (a young police officer corrected me — I had used "usted" because he was in a position of authority, but he was a little offended to be considered old).

While I can feel my Spanish getting better, I also feel reduced to less complex emotions or ideas. I can't express nuance very well, so I worry that I seem boring. I know I don't come across as intelligent — being smart is different than being good at Spanish. I'm frustrated by my own inability to share stories or give details. It's strange to see what's left of my personality when communication becomes so limited.

I won't pretend to be an expert on Madrid or Spanish culture, but I'll share some observations:

I'm still getting used to the daily schedule here. Spaniards make a late lunch their main meal of the day (usually around 2 p.m.). The meals are much more spread out — a tiny breakfast (toast and coffee) at 8 a.m. and a small-ish dinner at 9 p.m. — so I spend a lot of time feeling hungry even though I'm not really eating less. The food is delicious; lots of potatoes, ham, and seafood. I haven't had a bad meal.

The Euro has some peculiarities; each bill is a different size (actually very important for people who are blind — U.S. currency is among a few in the world in which every bill is identical). One and two Euros are represented by coins, so I find that the change rattling around in the bottom of my purse is suddenly useful and valuable. A change purse is becoming a necessity.

While some buildings here are much older than the United States, it's not uncommon to see old farmhouses or sheds in the countryside that are falling to ruins. In both the country and the city, graffiti is ubiquitous. Instead of removing the graffiti, Spanish authorities seem to let it be. There's an understanding that more would only take its place.

A few buildings seem deceptively old. For instance, I thought it was interesting to see an old-looking archway beside a very modern, metallic observation tower. I later learned that the archway was built to commemorate a Civil War victory for Franco's troops, and is only 50 or so years older than its fellow. I felt a little cheated.

As a whole, Spain seems more relaxed than the U.S. It's certainly more relaxed than a place like D.C. I'm also looking forward to exploring more of Europe; Spain is the only place I've been overseas. Traveling within Spain has been amazing already — the Roman aqueducts of Segovia and the incredible walled city of Ávila make me conscious of just how young the United States is. As a capital city, Madrid is modern and busy, and yet the evidence of its Roman-to-Muslim-to-Catholic imperial history is all around.

My time here is passing quickly. I want to balance travel with getting to know Madrid. Of all the new places I've lived in the last year, this is the most drastic change. I'll be ready for something familiar next fall, but I'm trying to make the most of the next few months.

Amelia Britton | Junior Staffwriter

Bottom left: A panorama of Madrid.
Bottom right: Graffiti is usually accepted.
Right: Archway shows the end of the civil war.







Amelia Britton | Junior Photographer

### Cloud Tectonics merges magic and science

Elements of magical realism and scientific theory come together in an inspiring production

Cloud Tectonics is the first play I've ever seen in the Helen Wayne Rauh Studio Theater. When I walked in it reminded me of this place called York Little Theatre, two blocks away from my house growing up. My grandparents always took my sister and me to see plays, but the most memorable ones weren't always on the main stage. There's a certain intimacy to the studio performances that lends itself really well to certain productions. Just walking into the theater in Purnell on Thursday night and looking at the set, I could tell this would be one of those plays.

This isn't a play you can easily describe in passing with one to two sentences, nor can you just page through the program to get the gist. It took me nearly half of the play to figure out exactly what it was about — although I can tell you that two major themes are time and sex, obsessions many students in the audience could likely relate to.

The set was simply a home on a hardwood square, except it dissolved into floating planks as it moved toward the risers. The play is primarily about characters Celestina del Sol and Aníbal de la Luna, played by junior drama students Isabel Pask and Clayton Barry respectively. Celestina is a pregnant woman who's been on a cross-country road trip with a truck driver trying to find Rodrigo Cruz, her baby's father. She got off the truck when the truck driver tried to touch her knees. Aníbal finds her hitchhiking in the middle of the "storm of the century" on his drive home from work at LAX. He offers for her to spend the evening at his house after they both promise not to be axe murderers.

As soon as Celestina walks into the house on the stage, the digital clock on the table next to the couch goes blank. She tells Aníbal stories about her life in Montauk, where she lived her whole life in her bedroom, reading crime novels and thinking about sex. She's also apparently 54 years old and has been pregnant for two years. She only learned about minutes and hours and weeks and years from the truck driver because she has no conception of time. As they spend time together they fall in love.

Later on there are two interruptions from Aníbal's brother Nelon, home after six years of military service. While in real-time these appearances feel 20 minutes apart, they are actually two years apart in the play's timeline. Throughout the course of this intimate night where a moment is a month, Aníbal and Celestina perfectly deliver monologues about their sexual and romantic histories. Silence and speech bear equal weight, and there is an incredible erotic tension.

Celestina and Anibal lie together in bed under the stars in one of *Cloud Tectonic's* most memorable

But once they come back to reality, all hell almost literally breaks loose. She runs away and has her baby, but a massive storm destroys Los Angeles in one night.

We come back in a newly reborn Los Angeles, the capital of the United States, home of the White House. Celestina takes her infant to visit an elderly Aníbal. He doesn't quite seem to remember or believe that it's really her, but he tells the story of the night he spent with the woman who doesn't belong in this world. The play ends with the re-performance of a speech Celestina made earlier in the play to Aníbal, who had forgotten how to speak Spanish. Elderly Aníbal recites the Spanish while she translates into English her musings of what it would have been like to love him at every age — as an infant, as an old man, and all in between. As an ending, this really captivated me. I left the theater having so many feelings about the way time and love are so connected.

As emotional as I was, I had a really hard time explaining why, and even what exactly happened. But then I went back and read through the program. Dramaturg Lina Pulgarin-Duque compiled five pages of background into playwright José Rivera's affinity for

magical realism, and how similar it is to the scientific method. An author formulates a question: what would reality be like if a woman could exist outside of time? And then in writing a story, they test their hypothesis and try to make that fantastic reality seem plausible. She gives the example of a theory Aníbal has that "[Love] alters the physics around you in some way: changing the speed of light and the shape of space and how you experience time." A magical concept, but actually grounded in Einstein's theory of general relativity.

The play was so beautifully acted, directed, produced, and lit, but I think it was really smart for the production team to acknowledge that this play is challenging to understand on its own. They did the necessary research for the average theater-goer. I was very thankful that they provided a really approachable thematic summary in order to help us contextualize the beautiful storm that was *Cloud Tectonics*: the merging of the sky, sun, moon, and ground.

Sarah Gutekunst | Publisher



noto courtesy of Trent Taylo

### Artist profile: Stephen Wu

### SWU opens up to The Tartan about his upcoming debut EP

When anyone thinks of Carnegie Mellon's School of Computer Science, they probably think that it produces some of the best thinkers in the world, but thinkers who can only use the left side of their brains. Stephen Wu, a junior Computer Science major who produces under the name SWU, is one of the many students who prove that age-old dichotomy incorrect. A San Francisco native, he said he hopes to "bring the sunshine [to Pittsburgh] with my music." SWU's debut six-song EP Human is slated to be released later this month on purchase platforms iTunes and Amazon Music as well as streaming platforms Spotify and Soundcloud. SWU's sound is a mix of EDM characterized by deep bass accented by bright synths mixed with melodic vocals, and it's sure to resonate with the burgeoning dance music following here at Carnegie Mellon.

Human's six-song structure showcases the spectrum of SWU's sound and outlook, according to Wu. "My EP ... consists of two hard songs and three softer songs, with the last one as a mix. It shows the part of my personality that's very intense, but also my happy side. Life isn't all dark and gloomy, and it's good to be reminded of that, especially when you're studying in your room."

Mathematical concepts and music may seem like separate concepts at surface level, but they're actually quite interrelated, especially with electronic music production. To create sound, Wu used the programming language Nyquist to take a regular wave and alter it, making the structure more jagged. The result is a dirtier synthesizer bite, which is the driving force underneath

his layered sound — just in case you weren't aware that the biggest EDM titans are also the biggest nerds. Wu first fell in love with music at a young age thanks to the influence of his older sister. What began as a happy distraction formed into a passion, as he began to think critically about music and what exactly separated good songs from bad ones. Before long he was making tracks using LogicPro on his laptop and sharing them with family and friends.

SWU's debut was produced and recorded almost entirely on Carnegie Mellon's campus. Wu would begin working on a song in his dorm room once inspiration struck and then take it to the College of Fine Arts recording studio to produce a finished version. Riccardo Schulz, an associate professor in the School of Music and president of Pittsburgh Digital Recording & Editing Company, assisted Wu with much of the studio recording process.

When he's not programming or making music, Wu relaxes by playing tennis. He hopes to one day possibly make music his career, "if it works out", but his ambition and talent will surely make him successful in whatever path he chooses.

SWU's debut EP, *Human*, will be available on Spotify, Soundcloud, iTunes, Amazon Music, and Shazam later this month.

Joey Peiser | Contributing Editor



Album art from SWU's upcoming debut EP — Human.

Courtesy of Stephen Wu





### Movie news: Oscars, Ant-Man, & Justice League

Academy diversifies membership, plus new information from Marvel Studios and DC

### Academy of Motion Picture Arts and Sciences Diversifies Its Membership

#OscarsSoWhite took the news by storm in the weeks following the nominations for the 88th Academy Awards. The smoke has slightly cleared since, but, in the shadow of such focus, the Academy of Motion Picture Arts and Sciences took swift action to shine a light on the problem. In a unanimous vote, the Academy's Board of Governors changed the way members are selected in an effort to diversify its voting block. The Academy stated in a press release:

"Beginning later this year, each new member's voting status will last 10 years, and will be renewed if that new member has been active in motion pictures during that decade. In addition, members will receive lifetime voting rights after three ten-year terms; or if they have won or been nominated for an Academy Award." Additionally, the Academy added three new seats on its Board of Governors, to be nominated by the President and confirmed by the Board, and updated its recruitment efforts across the globe to find new, qualified, diverse, people to add to its membership.

In subsequent material, the Academy clarified some of the release's more vague points. How does the Academy define "active in motion pictures?" This question was answered with the statement, "You must be employed in the same kinds of quality films that got you into the Academy in the first place. Your status will be assessed by your peers in your branch — the people who best understand the intricacies of the motion picture industry and your field." The material explains that screen credit is not required for membership and work does not have to be restricted to one field (i.e. an actor could sell a script or an editor can direct, and is all considered "activity" in the movie business, thus qualifying for membership).

This is a step in the right direction for the Academy. Though I do not anticipate it solving the larger issue of diversity absence in Hollywood, I see this as an ambitious step forward by an organization that prides itself on tradition.

The 88th Academy Awards, hosted by Chris Rock, will air on Feb. 28 on ABC.

### Adam McKay On Ant-Man Sequel and Solo Wasp Film

Writer/Director Adam McKay is on a hot streak coming out of 2015. *The Big Short* is nominated for Best Picture, McKay is nominated for Best Director, and his co-written screenplay for Ant-Man was surprisingly well received. With the announcement of a sequel, *Ant-Man and the Wasp*, McKay sat down with IGN to discuss the upcoming film.

"...I've been talking to Peyton Reed and to [Paul] Rudd, but you know Marvel has a process that they do, so they may have other writers working on a script — the only thing I tell 'em is 'If you need me, I'm here.' I love working on those — it's really fun. It was also very fun just writing. And fortunately we had a great director in Peyton Reed, so we wrote all this crazy stuff and then he did it really well. I was like 'I could get used to this!' It's certainly a lot easier — I just showed up at the premiere and was like 'Good job!," McKay said.

The Wasp was teased at the conclusion of *Ant-Man* and Marvel has been integrating new characters into their universe with Vision, Black Panther and Doctor Strange up first. It only makes sense to ask about a Wasp standalone film in Marvel's future.

"Possibly. I think it all depends on this sequel and how the character plays. Certainly there's a lot of female superheroes in the Marvel universe, so I'm sure you're going to see them start to spread out. They sort of started with their kind of bedrock characters from the 60s and the 70s and I think you saw more of an explosion of female characters happening in the 80s and then the 90s. X-Men obviously has great female characters, but that'd be interesting, a Wasp movie... I always think of the two of them as kind of together — they always were in the comics — but why not? Sure.," McKay said.

McKay seems either out of the loop or hysterically elusive about the future plans for the characters. If I had to put money on it, I'd say a standalone Wasp film is on the "Maybe" list at Marvel. McKay is exactly right; if the character pops up in *Ant-Man and the Wasp*, chances for a standalone will skyrocket.

Ant-Man and the Wasp is set for release on July 6, 2018, directed by Peyton Reed and starring Paul Rudd and Evangeline Lilly.

### Zack Snyder On Wonder Woman In New DC Cinematic Universe

Batman v. Superman: Dawn of Justice is the first time Batman and Superman will be on screen together, but director Zack Snyder and Warner Bros. are pushing the envelope even further by including the most powerful female character ever created: Wonder Woman. Now this is not news to anyone (she is featured in the most recent trailer), but the standalone Wonder Woman film, directed by Patty Jenkins, is currently in production. Snyder spoke with Empire Magazine regarding the introduction to the character:

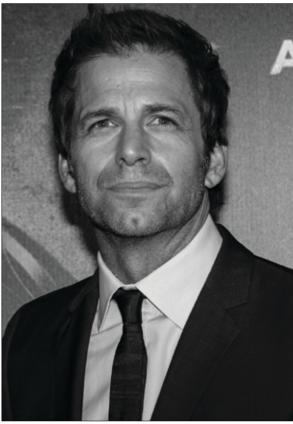
Zack Snyder (right), is the director of *Man of Steel* and *Batman v. Superman: Dawn of Justice.* He is also the architect of the modern DC cinematic universe.

"It was incredibly organic how Wonder Woman came into the story, the whole concept came of, 'Let's not save anything. Let's try it all.' Then Wonder Woman's entrance made us realize we were much closer to the Justice League than we thought. We realized we were one movie away."

Snyder expanded on the nature of the first theatrical adaptation of Princess Diana and gave some basic details on the upcoming film. "Her sexuality is part of her power, but she is also a feminist icon. Gender has been a hot topic, so it is very timely to bring her back. The way we have approached it, especially in the standalone movie, that is definitely there. Looking back and doing an origin story — and it is a period piece — see the role of women through history. There is a great source of humor in that now. It is so unbelievable you can't even fathom it. You are still making a statement, but having some fun with it."

It has been reported that Wonder Woman has a very small role in *Batman v. Superman*, so audiences will most likely require a true origin story. *Batman v. Superman: Dawn of Justice* will release on March 25, 2016. *Wonder Woman* is slated to hit theaters on June 23, 2017.

Ryan LaBarbera | Staffwriter



Courtesy of Wikimedia Commons

### New Rihanna Album Anti finally drops

### Releasing on Tidal overnight, Anti is arguably Rihanna's most experimental album to date

After three years of delays and teasers, Rihanna's eighth studio album, *Anti*, has been finally released. *Anti* represents an intriguing change of form for Rihanna. It is less commercial than her previous albums; it was released overnight on Tidal much like Beyonce's 2013 self-titled album. None of Rihanna's recent singles are on *Anti* except "Work," and overall, the album is less pop and has a more minimalist tone.

In a recent MTV interview Rihanna explained what she hoped to do in her new album: "I wanted songs that I could perform in 15 years; I wanted an album that I could perform in 15 years," she said. "Not any songs that were burnt out. I find that when I get on stage now, I don't want to perform a lot of my songs. They don't feel like me. So I want to make songs that are timeless."

Anti is not a complete departure from the Rihanna we know and love, however. At her best, Rihanna's songs are brilliantly produced pieces of pop that showcase her distinct personality, whether it's expressing bombastic pride, emotional fragility, or playful seduction. "Consideration," featuring R&B singer SZA, kicks off the album with a dark, minimal beat and features Rihanna's voice in her signature Caribbean styling. The way she says, "I got to do things my way, darling" in the chorus is very much in line with the bad girl image she's portrayed over the years.

At her worst, however, her songs are repetitive, unimaginative, club bangers that are all too willing to fall back on being able to bill themselves as Rihanna songs rather than trying to stand as works on their own. Case in point: "Work," featuring rapper/singer Drake, is one of those Rihanna songs whose chorus repeats the name of the song a thousand times over until it becomes

completely meaningless. Drake's verse in the song isn't anything spectacular either; it sounds like the generic R&B songs he would have been singing at the start of his career rather than the distinctly moody songs he has been producing recently.

For the most part, though, Rihanna's worst songs on this album are not bad in a loud and obnoxious way; instead, they are bad in the sense that it feels like slowly dying of a nosebleed: they are horribly boring and feel like they will never end. "Woo" features a noisy electronic beat that never changes; it is the same three dissonant notes playing over and over again, and becomes tiresome very quickly. Rihanna's voice also has noisy filter on it, and doesn't stand out much over the beat. Unfortunately, at 3:55 this is one of the longer songs on the album. "Needed Me," produced by DJ Mustard, is Rihanna's take down of a former lover. The minimalist beat in this song sounds like it needs a dark, moody, and unforgiving set of vocals and lyrics to make it work. Instead, Rihanna's disinterested tone just makes the song as a whole sound watered down and uninteresting.

Most songs on the album thankfully do not fall into this category. They are enjoyable but noticeably flawed. "Kiss It Better" has a unique 80s-inspired instrumental featuring an electric guitar. The instrumental is interesting the first time you hear it, but lacks any sense of progression. It remains exactly the same throughout the course of the song. "Desperado" has the same problem. The galloping, spaghetti Western inspired beat and lyrics about a pair of loners running off together is fun at first, but doesn't seem to change at all from start to finish and becomes stale by the end. "Same Ol' Mistakes" is Rihanna's cover of a Tame Impala song, "New Person, Same Old Mistakes." It's a great song, but Rihanna's version is exactly the same as

the original song and adds nothing new.

Some songs just have no presence. "Yeah, I Said It," a sex jam produced by Timbaland, seems a little hollow. Rihanna repeats the words "Yeah, I said it" like she's actually said something shocking when in reality she hasn't. "James Joint" is a short one minute interlude about getting high that is weirdly shoved in between two songs that would have flowed well into each other otherwise.

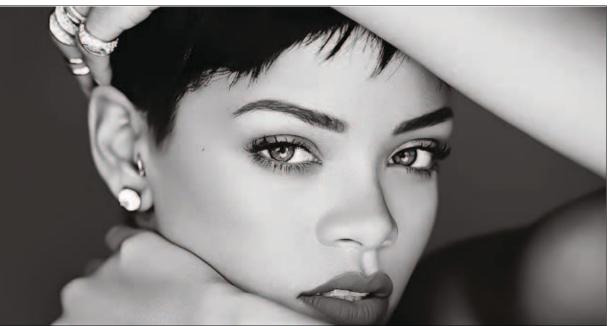
On this album, the best songs are the acoustic songs reminiscent of her performance on "FourFiveSeconds," that truly let her show off her skills as a vocalist. This group includes "Never Ending," "Love on the Brain," "Higher," and "Close To You." As a reviewer, I may be a little biased because I'm a complete sucker for more acoustic retro-sounding songs, but these last four songs on Anti really seem to be the most fleshed out songs in terms of composition. Rihanna's voice is beautiful and brimming with emotion, and the songs feature some very well-written lyrics. The opening verse of "Close to You" is an elegy for a dying relationship: "Nothing but a tear, that's all for breakfast/Watching you pretend you're unaffected."

On "Higher," Rihanna opens with "This whiskey got me feelin' pretty/So pardon if I'm impolite." As she begs her lover to be with her she croons, "And I know I could be more creative/And come up with poetic lines." It is a heartbreakingly beautiful two-minute song whose only flaw is that it is not any longer.

These last four songs also form a coherent arc in which Rihanna falls in love again after heartbreak, becomes unsure about the future of the relationship, and eventually ends up falling apart with her lover again. It really leaves you wondering what the album might have been if the rest of songs had been more like this.

Tidal listeners had access to three additional songs: "Goodnight Gotham," an atmospheric albeit repetitive interlude piece, "Pose," which sounds like it's trying too hard to be "Fresh off the Runway," and "Sex With Me," which has the playful flirtatious energy that "Yeah, I Said It" so desperately needs.

Anti seems like an album in a confused transition. In fact, it completely changes its tone halfway through from dark minimalist R&B to acoustic soul. Compared to past Rihanna albums, Anti may be more daring but simultaneously underwhelming. It seems to be exploring its options; it plays around with a couple of good ideas but doesn't take too much time to develop any of them. More than anything, Anti leaves you wondering what direction Rihanna is planning to pursue in the future.



Courtesy of Wikimedia Commons

Xiyu Wang | Staffwriter

### Le Melon: Everyday Noodles is relaxed and real

### An experience where the focus is the food — classic dishes done spectacularly well

by **Apeksha Atal** | Junior Staffwriter

Chinese food is one of those types of cuisine that tastes different in every country you go to. In India, where I live, it's loaded with spices to excite the palette and full of vegetarian renditions of common Chinese fast food classics such as "Gobi Manchurian" (made with cauliflower), in lieu of chicken manchurian of course. In America, I've found that Chinese food takes the names of what I assume are historical figures (General Tso's Chicken, anyone?) and is mellowed down to better suit the taste of the typical American customer. Because of this, when I eat Chinese food in Pittsburgh, I find myself scanning the menu for different versions of the generic dishes that I've indulged in countless times. It was this routine I had gotten into that pushed me into a state of uneasiness when looking at the menu at Everyday

The restaurant sits on Forbes Avenue in Squirrel Hill, walking distance from the Cold Stone and Rite Aid on the intersection of Murray and Forbes. Inside, the lights are bright and the tables are usually packed with vibrant, chatty customers of all age groups. I highly recommend — if possible — sitting at the bench seat, which is positioned right in front of the glass window that looks into the kitchen. Through the glass you can see the dumplings and noodles being prepared from scratch. The way the chefs kneed the dough and carefully pull it to craft the noodles and dumplings served hot to customers is mesmerizing. Of course, most of the seats in the restaurant have a view of the signature glass pane, to add to the authentic feel that the food carries with it, so if you can't get the bench seat, don't feel too discouraged.

The decor of the restaurant is simple and fits the atmosphere well. A cushioned bench lines one wall and has thin bamboo-like structures lining it from the top of the back-rest to the interface between the wall and the ceiling. There are tables scattered about, and the staff does a great job of making sure they can fit in as many people as possible. If you go on a particularly busy night, you might have to wait for a while before you get a seat, so do plan ahead if you happen to be in a rush.

I cannot count how many times I've been to this restaurant, but I can count the number of dishes I've had. I'm usually not one for repetition, but after finding my share of favorites at Everyday Noodles, I find myself craving the signature tastes that my mind has come to associate with the establishment. Here are some personal

Everyday Noodles' Broccoli and Chicken Dumplings with noodles are a favorite dish amongst patrons.

Pork Soup Dumplings: This is one food item that I cannot visit Everyday Noodles without eating. Eight of these steaming hot, delicately crafted bundles of flavor come with every order, ready to eat. The dumplings look relatively simple on the outside, but on the inside contain a small piece of pork and soup for it to float around in. The dumplings are made fresh and are therefore very hot, so here's a little trick my friend taught me to eat them if you can't wait for them to cool down:

Step 1: The dumplings come with large soup spoons, and they do much more than catch any soup that might leak out of ruptured dumplings. The first thing you do here, is carefully lift one dumpling out of the steamer basket and

Step 2: Poke a tiny hole in the dumpling. You can do this either with a chopstick or if you trust yourself, by biting a small piece of the dumpling off.

Step 3: Using your chopstick, press down on the dumpling from the top and let the soup seep into the spoon out of the dumpling to surround it. Now that it's out of the inside, it'll be able to cool down faster. Go ahead and sip. Step 4: Now that the dumpling's got a good amount of soup squeezed out of it, and a hole to cool off the insides, it should be ready to pop into your mouth after sitting for a little longer.

By the time you've eaten a few like this, the rest should have cooled down amply enough for you to eat them

whole and let the soupy, doughy, meaty concoction explode in your mouth. It's heavenly.

Minced Pork Rice Bowl: I'm a teriyaki addict, so I'm usually a little weary of savory rice bowls that air on the saltier side, but this dish is definitely an exception. It consists of what it promises: minced pork and rice, along with some vegetables and a boiled egg. What I enjoy so much about this bowl is the fact that it can be eaten deconstructed, or heavily mixed together and still taste phenomenal. Each of the individual elements is cooked and flavored very specifically, which results in great individual flavors as well as great integrated flavors. It's filling, it's warm and it's a great dish to share with friends.

Egg Yolk Bun: At first glance, this doesn't seem like a dessert item. The lovely, round, fluffy bun comes with an egg yolk filling that is sweetened up just enough not to be overwhelming. Again, this arrives hot, and is an unusual flavor, but is something that has so far agreed with the palettes of all whom I've taken out for a bite. It's an easy dare for the blossoming food experimentalist.

Bok Choy in Vegetable Oyster Sauce: All meals require some sort of balance, and here I've found some rich greens in a tangy sauce to be perfect. The restaurant has a variety of greens to choose from, but the bok choy is by far my favorite. It's leafy enough not to be overwhelming, and soft enough to munch on between mouthfuls of rice



Abhinav Gautam | Contributing Editor

or noodles. The vegetables can also come with minced pork sauce, but I've found it helpful to have something vegetarian and neutral for the table, especially when with a group.

Jasmine Green Tea: I love tea with my food, whether at home or at a restaurant, and at this restaurant the green tea comes in the form of what looks like a sapling. The triangular prism bag is topped with a green wire with a small plastic leaf attached to it, that pokes out of the heartily sized tea cup, infusing tea steadily. Free hot water refills are available, and the intensity of the bag, if rationed out carefully, can last a good 2-3 cups. It's light, and washes down the heavy food items effectively.

If you're more of a noodle bowl lover and are inclined to see how the namesake dishes live up to your expectations, there are quite a few noodle bowls to choose from. The soup noodles bowls are quite large and very filling, while the dry noodles bowls are more realistic in terms of one-sitting consumption goals.

There are also some dishes on the menu that are unfamiliar to the typical Americanized Chinese menu, such as the House Oxtail Soup. I've only had the pleasure to taste a handful of these, and was particularly intrigued by the cool, refreshing, jellyfish salad.

The restaurant also happens to have a broad selection of delicious bubble tea, if that's the way your taste buds

#### Heads up:

Cha-ching: The restaurant takes cards and cash and is great with splitting checks for large groups.

Veggie stuff: There are NOT a whole lot of vegetarian mains here, but those that are present have been tried and tested by friends of mine. For vegetarians I would highly recommend the vegetable dumplings, which are made with a similar level of finesse as the pork soup dumplings. I would argue, in fact, that the dumplings are what most sing praise for. Other vegetarian options are marked on the menu with an encircled "v," and the waiters have been very helpful in the past with pointing out vegetarian options and vegetarian versions of some

Are we there yet?: All of the 61 buses will get you to Forbes and Murray from campus, where you can easily walk to your final destination. Taking an Uber is also not a bad option, although taking the bus to Squirrel Hill is definitely simpler than it is for other locations. Here's a location to punch into your Uber app for the destination,

or Google Maps if you're in the area and headed over by foot: 5875 Forbes Ave, Pittsburgh PA 15217

Click, click: The website for this restaurant has improved significantly since I first used it, and includes a menu, an about page, some pictures of the restaurant, and other features. Do check it out: http://www. everydaynoodles.net

For those stay-at-home days: This place has a great FREE home delivery service, with a \$15 minimum for the order to be delivered, that lasts through restaurant kitchen operation hours. I've found ordering straight from the restaurant (as opposed to grubhub, for example) to be very effective, as they are careful to keep the food hot for when it arrives at your doorstep. This is especially great for the pork soup dumplings, which reach their optimal "eat-in-one-bite" temperature once they arrive. Here are their numbers: (412) 421-6668 and (412) 421-

#### Hours:

Monday - Thursday: 11:30 a.m. - 2:30 p.m. 4 p.m. - 9:30 p.m.

Friday and Saturday: 11:30 a.m. - 2:30 p.m. 4 p.m. – 10 p.m.

Sunday: 11:30 a.m. - 9 p.m.

21+: As far as I am aware, they do not serve alcohol, and do not have an established policy on bringing in one's own alcohol.

Rash Alert: Gluten, nuts, dairy, soy, eggs, shellfish there are a lot of common allergies that can be triggered here, so be sure to ask the waiter what is in your dish before you try it, especially if you are particularly sensitive to any of the ingredients I mentioned, or any other ingredients in typical Chinese cuisine.

Ambience: Lively, friendly, relaxed.

College student friendly?: Very much so. It's a hot spot for families, college students, couples of all ages and on occasion — some high schoolers looking for a quick bite before heading home. Given it's location, it gets attention from a wide variety of audiences.

Overall rating: 4 melons



Abhinav Gautam | Contributing Editor





Everyday Noodles proudly makes its own noodles, as



opposed to buying them. Here, a chef twists batter before trimming it down into its servable form.



8 dining

dining

### South Asian festivities celebrated in Lohri event

Stever Backyard plays host to a bonfire and performances from Deewane and CMU Bhangra

Last Friday starting at 6:30 p.m., students from around campus met in the backyard of Stever House to celebrate Lohri. Native to the region of Punjab in India and Pakistan, Lohri is a festival with ancient roots.

Typically coinciding with the end of winter and the passing of the solstice, Lohri brings together members of the community for a night of lively festivities. Punjab, the only region that straddles India and Pakistan, is known as the "breadbasket" of India because of its fertile soil. Farming has been an integral part of life in the region for millennia, and the festival celebrates the beginning of the winter wheat harvest. Lohri is a cultural event celebrated by Sikhs, Hindus, and Muslims, who share a common heritage despite the political and religious divisions prevalent today.

Geographically, Punjab sits at the northwestern corner of the Indian subcontinent and has borne the brunt of homeland invasions from the time of Alexander the Great. A popular legend associated with Lohri is that of Dulla Bhatti. This Punjabi version of Robin Hood lived in the middle ages, rescuing girls from being sold into slavery during times of turmoil. Many of the traditional

Lohri songs commemorate Dulla Bhatti. Punjab is also the birthplace of the Sikh religion, which blends together philosophies of Hinduism and Islam. The region is very culturally diverse, and Punjabi food, dance, and people have come to represent the whole of India abroad.

In Punjab, Lohri festivities take on many different manifestations. In some parts, children go from house to house singing traditional songs. As a reward, they are given jaggery or solidified sugarcane extract. Bonfires are a significant part of Lohri celebrations and serve as the focal point for the activities once the sun begins to set. Bhangra, a traditional Punjabi folk dance, is usually performed around the fire during Lohri. Traditional snacks include fire-cooked corn and sesame seeds.

Carnegie Mellon's version of Lohri featured performances by the school's Bhangra team and Deewane, the South Asian a cappella group. True to tradition, the celebrations centered around a large bonfire, with people huddling close for warmth on the chilly evening. A table was decked with snacks and refreshments. Corn was cooked by the fire according to ancient tradition, while s'mores added a more modern

flair. Many felt as though Friday's celebration was an improvement over last year's event, when there was snow on the ground, and the temperature was well below freezing.

In the weeks leading up to the event, a Facebook campaign called "Pics with Punjabis" was used as a lighthearted way to advertise the holiday, with people taking selfies with participating Punjabis. Contests were held for the most creative picture and the most pictures overall, with winners receiving Chipotle gift cards. The event overall was very successful, bringing together members of the Carnegie Mellon community in much the same way as Lohri celebrations in Punjab. People socialized, enjoyed the food and drink, and got to learn a little bit about Punjabi culture.

The event was organized by CMU OM, a multi-faith Indian cultural and spiritual organization, which is responsible for other popular events on campus, like Diwali Garba and Holi.

Krishna Rao | Junior Staffwriter





Krishna Rao | Junior Photographer

People dancing and singing around the bonfire at the Lohri event to celebrate the end of the winter solstice.

#### Hark, A Vagrant by Kate Beaton



kathrynmoira@gmail.com

harkavagrant.com

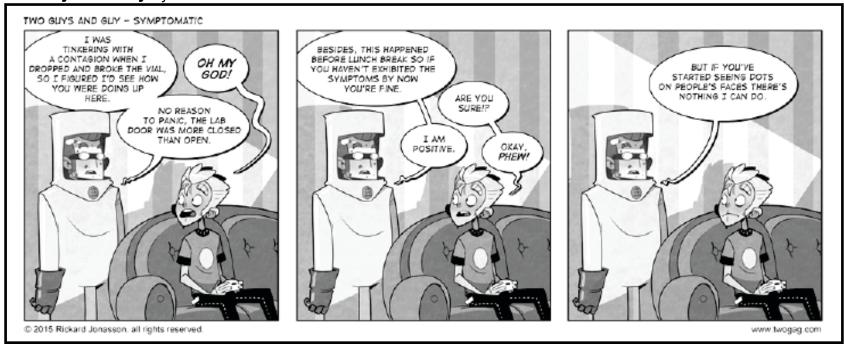
#### Filbert Cartoons by L.A. Bonté



filbertcartoons@gmail.com

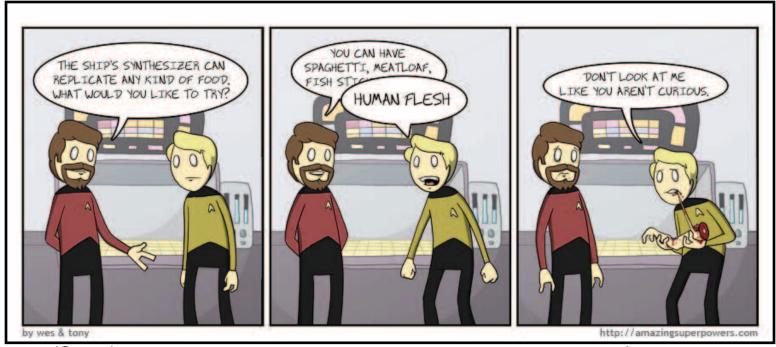
filbertcartoons.com

#### Two Guys and Guy by Rickard Jonasson



twogag@gmail.com twogag.com

#### Amazing Superpowers by Wes and Tony

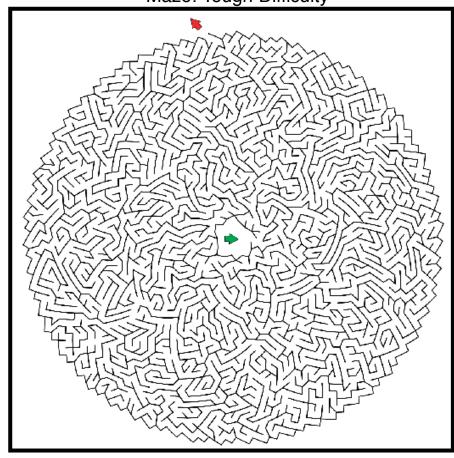


general@amazingsuperpowers.com

amazingsuperpowers.com

Sudoku Puzzle: Very Hard Difficulty 

Maze: Tough Difficulty



Sudoku courtesy of www.krazydad.com

Maze courtesy of www.krazydad.com

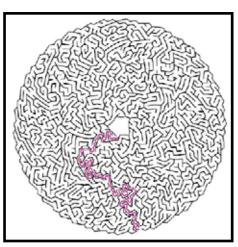
### Solutions from Feb. 1

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Crossword

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

Very Hard Sudoku



Tough Maze

### Horoscopes

These horoscopes are a bit cheesy.

march 21-april 19

Pepper Jack — Savory, tangy, and a bit tart. Adds a spicy kick to any meal.

taurus april 20-may 20 Brie — Soft and buttery, simple and stable. It's a cheese with a rich past.

gemini may 21-june 21

Colby Jack — A mix of two cheeses, it has a wide range of applications.

cancer june 22-july 22 Cottage Cheese — Can be eaten alone, but is a great compliment for many different types of food.

leo july 23-aug. 22 Parmesan - Known as the "King of Cheeses," its presence will add a wealth of flavor.

virgo aug. 23-sept. 22 Gouda — One of the most popular cheeses in the world, it has a rich and unique taste.

libra sept. 23-oct. 22 Mozzarella — Smooth and delicious, it balances the flavors in a dish.

scorpio oct. 23-nov. 21

Sharp Cheddar —This cheese has a strong effect on people. It has an easily recognizable flavor.

sagittarius nov. 22-dec. 21

Asiago — Melted, grated, or sliced, asiago can contribute a variety of ways to be enjoyed.

capricorn dec. 22-jan. 19 Provolone — Mild but distinct, this cheese adds great substance to a meal.

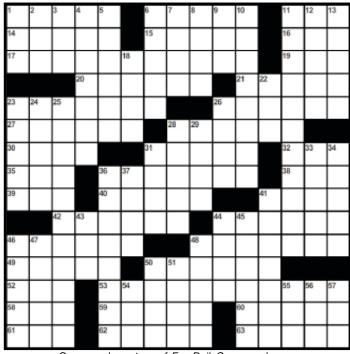
aquarius jan. 20-feb. 18

Swiss — Easily recognizable, this is an iconic cheese that is known by all.

pisces feb. 19-march 20

Feta — Originating from Greece, this cheese's salty flavor gives food a special edge.

Sarah Wang | Comics Editor



Crossword courtesy of FreeDailyCrosswords.com

#### **A**CROSS

- 1. Alpha's counterpart
- 6. Faux chocolate
- 11. 1/6 of an ounce (abbr.)
- 14. Thesaurus man
- 15. Type of acid
- 16. "So there you are!"
- 17. It may form a crown
- 19. Bard's "above"
- 20. Deserving
- 21. A dot in the ocean
- 23. Apollo's sister
- 26. Expels, as a tenant
- 27. Like some winter blankets
- 28. Capital of Cuba
- 30. "Over the hill" in the military
- 31. Colony member of old
- 32. Unit named for a telephone pioneer
- 35. Snitch
- 36. Limerick writers, e.g.
- 38. Wedding words
- 39. "The Nanny" has three of them
- 40. Elephant's tiny kin
- 41. Fit of agitation
- 42. Old-time delivery person
- 44. Take your pick
- 46. Trample
- 48. Italian side dish
- 49. Fabric with pictorial designs
- 50. Grosse \_, Mich.
- 52. Longtime Chinese chairman
- 53. Was best in the Olympics
- 58. De-squeak
- 59. Invisible emanations around people
- 60. Missouri or Mississippi
- 61. Everyone
- 62. Some playing cards
- 63. Serpentine

#### Down

- 1. Bit for the dog bowl
- 2. Sound heard in a dairy herd
- 3. Inflatable item
- 4. Kind of card
- 5. "Make yourself
- 6. Pitches to one side
- 7. Baby's nurse, in China
- 8. Frost-laden
- 9. What the unified are
- 10. Venezuelan monetary units
- 11. Carpenter's storage place
- 12. Paper unit
- 13. Cities with piers
- 18. Ireland, romantically
- 22. Go astray, biblically
- 23. Not duped
- 24. "Laugh-In" co-host
- 25. Drummer's favorite candy?
- 26. "Glades" or "green" starter
- 28. "Masters of the Universe" fellow
- 29. Tip top
- 31. Vega's constellation
- 33. Royal order
- 34. People are picky about this game
- 36. Dimmer switch, e.g.
- 37. "Ave Maria," e.g.
- 41. Fizz ingredient
- 43. Accounting pro
- 44. Trigonometric functions
- 45. Perfumey compounds
- 46. "Coming of Age in \_\_\_\_ \_" (Margaret Mead book)
- 47. Hikers' path
- 48. Customary ceremonies
- 50. Hole in the skin
- 54. Your and my
- 55. What aves lay
- 56. Albanian currency
- 57. Not wet at all

Tuesday 2/9

### **Employment Opportunities Conference** Wiegand Gymnasium. 10 a.m. – 5 p.m.

wiegand Gymnasium. To a.m. – 5 p.n

The Employment Opportunities Conference (EOC) is a 2-day campus-wide career fair for employers from all industries — technical and non-technical. This event will draw students from all majors and degree levels seeking full-time or summer internship opportunities. Alumni seeking opportunities will also be in attendance.

#### Skizzy Mars

Altar Bar. 7 p.m.

Manhattan-based rap buzzmaker Skizzy Mars recently released his latest collection of original material, the Pace LP. Watch him perform his new music and some of his older tunes at Altar Bar on Feb. 9.

#### Wednesday 2/10

#### **Employment Opportunities Conference**

Wiegand Gymnasium. 10 a.m. – 5 p.m.

The Employment Opportunities Conference (EOC) is a 2-day campus-wide career fair for employers from all industries — technical and non-technical. This event will draw students from all majors and degree levels seeking full-time or summer internship opportunities. Alumni seeking opportunities will also be in attendance.

#### Friday 2/12

#### Scotch'n'Soda Presents: The Outsiders

McConomy Auditorium. 7 p.m. & 11 p.m.

Carnegie Mellon's own Scotch'n'Soda puts up a production of *The Outsiders*, the famous children's book with a gender and color blind cast. Expect an interesting new take on an established classic.

#### Saturday 2/13

#### Lunar Gala 2016: STRAIN

Wiegand Gymnasium. 8 p.m.

Student designers, models, dancers, and artists bring their skills together to produce Lunar Gala, Carnegie Mellon's largest annual show. Lunar Gala brings together fashion design, dance and video art in a unique onenight event. Strain, the theme of Lunar Gala this year, is the evolution of a form over time from the application of external forces — pressure, tension, and constriction. Strain is the struggle of an organism to survive. Through the past twenty years, Lunar Gala has strained to evolve beyond the usual, accepted, and proper, and will continue to do so for years to come. This year will mark Lunar Gala's 20th Anniversary, so the show will be nothing like you've ever seen.

#### Scotch'n'Soda Presents: The Outsiders

McConomy Auditorium. 2 p.m. & 7 p.m.

Carnegie Mellon's own Scotch'n'Soda puts up a production of *The Outsiders*, the famous children's book with a gender and color blind cast. Expect an interesting new take on an established classic.

#### Sunday 2/14

#### An American In Paris

Heinz Hall. 7:30 p.m. - 9:30 p.m.

Pittsburgh Symphony Orchestra Music Director Manfred Honeck closes the Paris Festival with a vigorous performance. Igor Stravinsky, in collaboration with the Ballets Russes in Paris, created the music for the ballet Pétrouchka, also being presented at this show. In addition, the show consists of three pieces that focus on the impact of American Jazz in Paris.

### **Classifieds**

Male and female english bulldogs ready to give away (free for adoption) contact me for more information at: *gremore34@gmail.com*.

#### Ongoing

#### Orchid and Tropical Bonsai Show

Phipps Conservatory and Botanical Garden.

Now – Feb. 28

9:30 a.m. – 10 p.m. on Fridays.

9:30 a.m. – 5 p.m. Saturday to Thursday. Phipps Conservatory presents their famous Bonsai collection, with the addition of a colorful display entitled Orchid: A Flower Like No Other. Entrance into the conservatory is free with a Carnegie Mellon ID.

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#### Maximum Minimum in Unum

The Miller Gallery. Now - Feb. 28

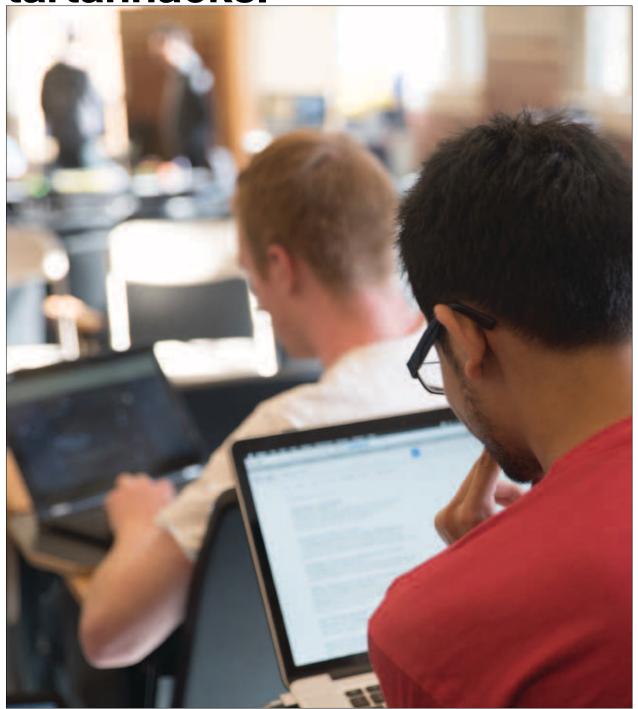
The exhibit features artists — all alumni from Carnegie Mellon School of Art — whose work falls under maximalist or minimalist classification. Curated by Joshua Reiman and Susanne Slavick, the exhibit aims to create a harmony within the juxtaposition of the two distinct types of art. For more information on the exhibit and the artists featured in the exhibition, visit *millergallery.cfa.cmu.edu*.

Compiled by **Abhishek Tayal** | Pillbox Editor

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



tartanhacks.



Brandon Hong | Photo Editor

TartanHacks is an annual, student hackathon run by Scottylabs that took place from Friday, Feb. 5 to Saturday, Feb. 6 this year. Teams of up to four people participated in the two-day event. Surviving on pizza and coffee, teams spent the two days working to 'hack' their way to develop and realize interesting ideas such as an app that lets Carnegie Mellon students search Blackboard as they would Google, and a real-time collaborative task-management app.