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The Originals head to NY to compete in ICAA finals · B4

THE KARIAN

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The Tartan

April 25, 2016 Volume 110, Issue 25

Carnegie Mellon anticipates the arrival of the Pennsylvania Special Olympics









Athletes in last year's Western PA Special Olympics competed in various activities such as track and field, swimming, basketball, tennis, and golf.

VALENE MEZMIN News Editor

For the first time ever, the Western Pennsylvania Special Olympics Spring Sectional will come to Carnegie Mellon University this Saturday, April 30. The event comes at an opportune time for Carnegie Mellon students to de-stress after the last day of classes and cheer on young adults with intellectual disabilities from across the country as they compete

in basketball, swimming, track and field, tennis, golf, and

In preparation for Saturday's games, The Tartan spoke to representatives and athletes that will take part in the event about the role they played in bringing it to Carnegie Mellon and what they are most looking forward to.

The Western Pennsylvania Special Olympics has historically been held at Clarion University, just outside the Pittsburgh area. This year, however, Special Olympics Pennsylvania (SOPA) was on the lookout for a new venue for the Spring Games. This caught the attention of Carnegie Mellon Police Lieutenant Joseph

Lieutenant Meyers saw this as the perfect opportunity for SOPA to partner with Carnegie Mellon to take this event to a new level. "It [gives] SOPA an opportunity to bring the event to a world class university in

the heart of Pittsburgh, and an opportunity for the CMU community (particularly the students) to engage with the athletes on a personal level, and experience first-hand the dedication, commitment, and sacrifice of each special Olympian — not only to their sport, but to their daily struggle for acceptance and inclusion in mainstream society," Lieutenant Meyers said. This

See OLYMPICS, A3

TartanTRAK to be replaced on June 1

VALENE MEZMIN

News Editor

This summer, Carnegie Mellon will officially say goodbye to TartanTRAK and hello to Handshake, a new job recruitment website that will connect students with potential employers and the Career and Professional Development Center (CPDC) staff. TartanTRAK has been used by the University for many years now, and, although it is familiar, the CPDC decided to make the change in order to provide a better service. Although the possibilities presented to students through this new system have created a buzz of excitement, the official transition will not take place until June 1. To understand the impact that this change will have on the ease of access of job recruitment and how to prepare for the transition, The Tartan spoke with Diane Taylor, Assistant Director/Career Consultant for Dietrich College, and Marissa Fenwick, Assistant Director/Career Consultant for the College of Engineering at the CPDC.

Handshake is a 21st century tool that was designed by students who know first-hand the struggles of the job recruitment process. The website aligns with the media platforms students are accustomed to today, thus providing easier access. "CMU students are going to find it more intuitive to use, easier to connect with what they are looking for, and enjoy a better

user experience all around," Fenwick said. Fenwick believes that the intuitiveness of the website combined with its ease of use will give students better access to job and internship opportunities, career events, and programs and services offered by the CPDC that better reflect what students seek.

Part of Handshake's intuitive use comes from its similarity to Facebook, with a direct focus on job recruitment. Taylor noted that, when users log on to the website, they are taken to a news feed, similar to Facebook, with updates on job and internship opportunities posted by employers.

Students are used to fumbling through the search for job opportunities on Tartan-TRAK. On Handshake, however, job and internship postings from potential employers are directly presented to students on their news feed. Rather than seeking out employment opportunities one by one, students can "follow" employers in order to receive updates on job postings. Students will be able to customize their Handshake accounts to accommodate what best fits their

Taylor pointed out that one unique feature of Handshake is the ability to customize how you receive notifications, such as text messages, emails, or notifications on the website.

She also noted that

See HANDSHAKE, A3

University members prepare for the opening of Scott Hall

JANE CKUCKEM

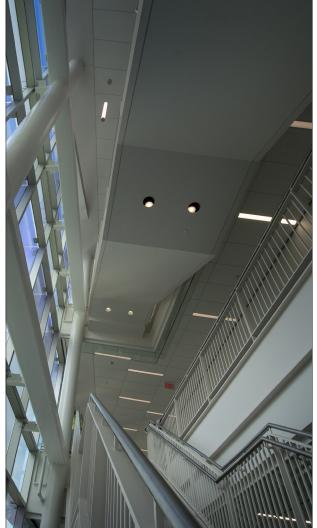
Personnel Manager

The Sherman and Joyce Bowie Scott Hall is the most recent addition to the Carnegie Mellon campus. The new home for the Biomedical Engineering Department, Nano Fabrication, and Wilton E. Scott Institute for Energy Innovation, set to officially open on April 30, is by far one of the most uniquely designed buildings on campus. Nestled in the area between Wean and Hamerschlag Halls, Scott Hall's glass exterior stands out amongst the concrete and brick architecture of its neighboring buildings. This building serves as a hub for the College of Engineering, while also providing connections between integral areas of campus.

One of the main goals of Scott Hall is to foster a sense of collaboration. "Scott Hall fits like a jigsaw piece into Carnegie Mellon's campus and was designed with the university's culture of collaboration and sustainability in mind," College of Engineering Dean, James Garrett Jr. said. Scott Hall consists of two main spaces, the North Wing and the John Bertucci Nanotechnology Laboratory. These spaces are connected by the Arthur C. Ruge Atrium, which will house a café area, and the Collaboratory, "a four-story space that connects the levels of the North Wing of the building," according to Garrett. The Collaboratory "connects all four floors of the building [and] it has this big beautiful [staircase] in it that sort of brings people into the building and allows them to move between floors," said Isaac Campbell, principal of OFFICE 52 Architecture. Campbell described the space as a "vertical mixer for the different disciplines of







The Sherman and Joyce Bowie Scott Hall, situated between Wean Hall and Hamerschlag Hall, will be the newest addition to campus starting April 30.

the building." Campbell also explained that true collaboration is not just about sharing a building with another discipline. "[A] lot of the magic happens in the social activity," he said. "You run into someone in line getting a sandwich and then you get talking about something and then pretty soon you realize that even though your work is very different, you're actually working on the same thing from different perspectives and then next thing you know, you're writing a grant proposal."

There was also a lot of thought put into the design choices that went into making Scott Hall an elevated, fourstory building rather than a seven-story building that began at the base of Junction Hollow. "The North Wing is a multicolored glass structure that sits elegantly over Junction Hollow on a sculptural composition of angled white steel columns, which are strategically placed in the overall design to avoid the utilities below," Garrett said. Campbell elaborated on this, noting that beginning the building at the base of Junction Hollow "was going to force us to be much closer to the railroad tracks, which was going to be a big problem for the labs. By putting the building up on the columns we were able to leave the utilities in the hillside which saved a ton of money." Campbell also explained that they "were able to take the most sensitive labs and were able to put them in the courtyard" underneath the grassy area in order to "make those labs more functional." This idea also opened up the

area to the rest of campus instead of being cut off by shrubbery. He explained how the courtyard area really made the campus feel more opened up and connected all the way back past the mall and into the College of Fine Arts lawn.

Campbell also explained the reasoning behind the numbering of the floors in Scott Hall. "The floor levels in the building had to be staggered because of height restrictions," he said. In order for the building to be able to connect to Wean Hall on one side

and Hamerschiag Hall on the other side, the floors needed to be slightly offset. This connectivity also goes to further strengthen the idea of bridging the gap that existed between some of the buildings on campus. Aside from connecting the buildings, Scott Hall also connects people simply by being on campus. Campbell said he understands that "the university is squeezed for space and the campus is kind of boxed in and has actively been working to find areas where it can grow." This lack of space has forced expansion into Craig Street and across Forbes Avenue because there isn't much space left on campus to develop. By keeping Scott Hall on campus, despite space constraints, Campbell was able to foster connectivity and make accessing Baker Hall and

Scaife Hall much easier. Scott Hall is also an innovative hub designed to foster interdisciplinary research. "The new space enriches the campus fabric and strengthens connectivity by linking four major buildings: Hamerschlag, Porter, Roberts and Wean Halls," said Campbell. "[It] very much fits in with the collaborative and interdisciplinary culture at the university." Between the open North Wing and the Collaboratory, it is clear that Scott Hall was designed with the collaborative nature of the university in

mind. The café will be open for business on Wednesday April 27, and Campus Design and Facility Development expect the Nano Fabrication facility to be operational by fall 2016. The campus-wide celebration for the opening of the Sherman and Joyce Bowie Scott Hall will take place in the building on Saturday, April 30 at 11 a.m.

FEATURE PHOTO

CMU commemorates lost lives with Holocaust Remembrance Day









This Tuesday, April 19, was Carnegie Mellon's annual Holocaust Memorial and Remembrance Day. University volunteers took to The Cut to read the names of thousands of those whose lives were taken during this tragic and devastating period in history that still resonates with students today.

Campus Crime & Incident Reports

Disorderly Conduct

April 16, 2016

A University Security Officer had a bag of chalk dust thrown in his face by a male. University Police Officers responded and the male was identified as a Carnegie Mellon alumni. The male was escorted off campus and was issued a citation for Disorderly Conduct.

Underage Drinking

April 16, 2016

University Police responded to Mudge House after receiving a report of an underage drinking party. University Police recovered several bottles of alcohol from the premises. Seven Carnegie Mellon students were issued citations for underage drinking.

Assist Outside Agency/ **Noise Complaint**

April 16, 2016

University Police responded to an address on Beeler Street to assist the City of Pittsburgh Police with a report of a loud party. University Police Officers assisted Pittsburgh Police Officers as they ended the party and dispersed the crowd without incident.

Suspicious Activity

April 18, 2016

Two University Staff members reported suspicious activity occurring in Wean and Warner Hall. In the first incident, the staff member found a secure conference room in Wean Hall in disarray. In the second incident, the staff member reported that a suspicious letter was placed on another staff member's vehicle.

Theft of Backpack

April 19, 2016

A Carnegie Mellon student reported to University Police that her backpack was unlawfully removed from Resnik Cafe. The backpack was mistakenly taken by another student and was returned intact.

Suspicious Person

April 20, 2016

A University Security Officer on patrol in the Mellon Institute observed a disorderly male in the building. The male was identified as a nonaffiliate and stated that he was upset because he was not allowed to access the building since he was a non-affiliate. The male was advised of the security policy of the Mellon Institute and was allowed to leave the area without further incident.

Burglary/Criminal Mischief

April 21, 2016

A Carnegie Mellon student reported that an unknown person unlawfully entered her apartment in Fairfax Apartments and spilled the contents of various food and drink containers on her wall, carpet, and couch. An investigation is ongoing.

Theft of DJ Equipment

April 22, 2016

A Carnegie Mellon student reported that several items of DJ equipment were unlawfully removed from his apartment in Margaret Morrison Apartments. An investigation is ongoing.

> Compiled by **VALENE MEZMIN**

CAMPUS NEWS IN BRIEF

American Academy of Arts and Sciences welcomes Carnegie Mellon's Tom Mitchell

On Wednesday, April 20, the American Academy of Arts and Sciences (AAAS) announced its 2016 member class, which included Tom Mitchell, a member of Carnegie Mellon's Machine Learning Department.

Mitchell has been with Carnegie Mellon since 1986 and was named Fredkin University Professor of Artificial Intelligence and Machine Learning. Mitchell also served for 10 years as the founding head of the Machine Learning Department. His research focuses on learning algorithms, with particular interest in analyzing MRIs to model brain cognition.

In addition to his new membership in the AAAS, he has also been elected fellow of the American Association for the Advancement of Science, and served for two years as President of the Association for the Advancement of Artificial Intelligence.

Mitchell and the rest of the 213 new members will be inducted to the AAAS on Oct. 8 at the Academy's headquarters in Cambridge, MA.

AAAS was founded in 1780 by John Adams and James Bowdoin, and is considered nationally to be one of the most prestigious honor societies for American scholars.

Mitchell is the fourteenth Carnegie Mellon faculty to receive this honor, joining President Subra Suresh, Jared L. Cohon, Edmund Clarke, Randal Bryant, and Takeo Kanade, among others.

Student Senate starts CMU Speaks to bring awareness to mental health issues

On Thursday April 21, volunteers from Active Minds and Senate gathered on The Cut from 10 a.m. to 4 p.m. to read stories about student mental health aloud.

The event was the result of an initiative from Senate's Academic Affairs Committee called CMU Speaks.

In late February, the Academic Affairs Committee hosted Pulse Check: Senate Mental Health Week. Members tabled in the Merson Courtyard each day to raise mental health awareness and facilitate discussion among students. They also hung posters around campus advertising the opportunity to anonymously submit personal stories about mental health at Carnegie Mellon. Senate

received 41 responses.

The authors of these stories granted their permission to have them published on the CMU Speaks website (https://cmuspeaks.wordpress.com/) and read aloud at the event. Since Thursday, the website has received over 1,000 pageviews.

The CMU Speaks initiative is ongoing, and Senate Academic Affairs (AA) Committee Chairman Eric Zhu says that Active Minds and AA intend to make this an annual event. Students can continue to submit their stories to CMU Speaks at https:// senate.typeform.com/to/ tvA050.

> Compiled by **SARAH GUTEKUNST**

WEATHER

WEDNESDAY THURSDAY TUESDAY







76° / 45°

70° / 49°

66° / 49°

FRIDAY

SATURDAY

SUNDAY







66° / 46°

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

US remains hesitant to share information with Nigeria

DAKAR — American and other western officials' failure to share intelligence information about the West African militant group known as Boko Haram has negatively impacted the efforts of Nigerian forces and those of its neighboring nations. Western officials have previously only provided partial information to the Nigerian military fearing any potential abuse of this information. Nigerian officials believe that American intelligence is pivotal to putting a stop to this terrorist

Source: The New York Times

German citizens divided in reaction to Obama's visit

HANOVER — German citizens have developed contrasting reactions in anticipation of President Obama's visit. President Obama is set to open the Hannover Messe, the largest industrial fair in the world. Some German citizens eagerly awaiting the President's visit were seen showing off their wares. Thousands of other German citizens, however, were seen protesting the proposed trans-Atlantic trade deal between Europe and the U.S., which many believe will lower consumer standards. Source: The New York Times

Germany seeks safe zones to shelter Syrian refugees

GAZIANTEP — On Saturday, German Chancellor Angela Merkel stated that Germany would attempt to create "safe zones" in Syria for refugees fleeing the war in the country. This would help cities like Brussels and Ankara slow the tide of migrants entering Europe from the Middle East. The U.N. had previously disapproved of the plan unless the refugees' saftey could be guaranteed. In response, Merkel is advocating for a ceasefire and a significant level of security in the zones.

Source: Reuters

Canada advocates for new media laws to boost content

TORONTO — The Canadian government is preparing to abolish a law that says the country's broadcasting, media, and cultural industries have to support local Canadian content. The previous quota for local content decreased last year with the arrivals of online media services such as Netflix. The Canadian Heritage federal department has announced a public consultation to determine how to support and promote Canadian content in the current digital climate.

Source: Reuters

China and U.S. pledge to ratify Paris climate deal

UNITED NATIONS — On Friday, China and the U.S. made progress on implmenting a Paris deal to slow down the effects of global warming after both countries pledged to adopt it.Together, China and the U.S. account for 38 percent of the the world's Greenhouse gas emissions. 175 states signed the deal on Friday, making it the biggest global agreement that has been ratified on the first day, a record that was previously set in 1982.

Source: Reuters

Two car bombings in Baghdad kill 12 military officials

BAGHDAD — This Saturday, 12 people were killed in two car bomb attacks in Baghdad. ISIS has claimed responsibility behind the larger of the two bombings, which targeted security forces at a checkpoint in al-Husseiniya. The second bombing targeted an army convoy in Arab al-Jabour. There has been no claim of responsibility for the second bombing. Source: Reuters

Compiled by **VALENE MEZMIN**

April 25, 2016 « The Tartan thetartan.org/news » A3

Senate seeks more inclusion

SARAH GUTEKUNST Publisher

ZEKE ROSENBERG Senior Staff

On Thursday, April 21, the Academic Affairs Committee of the Undergraduate Student Senate released a white paper authored by sophomore computer science major and Senate Academic Affairs (AA) Chair Eric Zhu, first-vear electrical computer engineering and biomedical engineering double major Christina Ou, and first-year Dietrich student Julia Luo. The paper detailed a case for creating an office of diversity and inclusion at Carnegie Mellon University using money from the recent Marvell settlement.

The paper begins by mentioning that there is some version of this office at each of Carnegie Mellon's 13 peer institutions and that Carnegie Mellon is lagging behind them on this issue.

The paper made the argument that diversity and inclusion were key components of the Strategic Initiative 2025, but the university's current strategy of a "grassroots approach" was insufficient. The authors wrote that "the University needs to hire individuals skilled in this specific area to be solely dedicated to making sure we are doing the best we can. Without this direction, the development, implementation, and optimization of the recommended practices seem near-impossible." They argued that directing efforts through a central office would improve the steps taken by the university and the public visibility of those steps, both improving the pursuit of their goals.

Zhu did not completely reject the idea of studentcreated change; he felt, however, that it was not a sufficient model to bring about meaningful change at the university. "I think students can create some

measure of change, as we're kind of trying to do, but at the end of the day we're full-time students and only doing anything else part-time. And we leave after four years, which makes anything nearly as long term as change in a university very difficult," said Zhu in an email interview with The Tartan.

Students were consulted on the initiatives being outlined. Senate reached out to "maybe 12 multicultural and interest groups," according to Zhu, and received input from the Spanish and Latin Student Association (SALSA), the Korean Student Association (KSA), Colors@ CMU, and ALLIES. The groups expressed frustration because the responsibility to publicize the university's diversity services must fall to them. The authors felt that centralization would improve the ease of accessibility to the options available to students, writing in the white paper "a Google search for 'Carnegie Mellon diversity resources' returns a Diversity Resources Guide, the guide is outdated with no resources that would benefit a student. Buried in the second page of results is CMARC's [Carnegie Mellon Advising Resource Center] website that then requires more searching to locate a 'Get Involved!' page. Most students will not go through this trouble."

Zhu said much of this difficulty to access information is "a product of the decentralized nature of the university, but that's no excuse. So, many students don't know what CMARC is (I didn't until very recently) and they don't know what resources are available to them." He argues that an office of diversity and inclusion could go a long way towards remedying this problem.

The paper also suggested Brown University's Diversity and Inclusion Action Plan as a potential source for the best practices to implement in

order to make sure the office is effective.

The idea to write the paper came from a drive for new initiatives that started over winter break. "I decided, along with my vice chair [and sophomore decision science major], Michael Gormley, to focus AA on policy and long-term solutions that we feel Senate is the best equipped to solve," said Zhu.

He continued, saying "...the impetus for this really started when I attended the MLK 'Conversation' event in January. The student speakers section really, really moved me and got me thinking about the topic ever since. To be completely frank, I didn't even know about many of the struggles that people all around me have to face."

The authors also expressed dissatisfaction with the current state of Carnegie Mellon's diversity efforts. "I've always felt like CMU says a lot but doesn't put much money or action where its mouth is, which really disappoints me," said Zhu.

Ou perceives that "even within such a diverse campus, people stick to what they are most familiar with. If Carnegie Mellon's setting were to change so that it would be easier to intermingle more, then that would be a great step towards more diversity and more interactions between students." Luo agrees, adding that "there are a lot of people who hurt from not being [able] to get the resources they need to succeed."

Zhu felt that an office of diversity and inclusion would help to publicly shift the university's priorities. "I think that this is one of the unique opportunities for CMU to really show with money, not just words, its commitment to diversity. It'll be a signal to future donors that this is a priority of the university," he said.

The white paper was released after being passed unanimously by Senate on Thursday.

Handshake is welcomed as new job recruitment website

HANDSHAKE, from A1

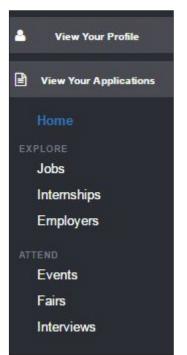
students will have better access to planning features, such as a calendar and communication with advisers. Taylor explains that the site will also help promote students' relationships with their career consultants. similar to Facebook, you can directly message your career consultant and don't necessarily have to email them. You can go back and forth with messages pre- or postappointments."

Another major change Taylor noted is the filtering system for job postings. "Let's say Bank of New York Mellon has an internship position and they want to post it with Carnegie Mellon," Taylor said. "They would have to sign up for a specific TartanTRAK account and post with us." Taylor noted that this requires extra time for employers who seek Carnegie Mellon employees. "What Handshake does is an employer will just log on to their Handshake account and they have a list of all schools that currently use Handshake and can post with all schools with one click." This makes the recruitment process not only easier for students utilizing Handshake, but also for employers who want to save time and effort. Taylor believes that this two-way ease of access will yield more job and internship opportunities for students. Overall, Taylor said that the main goal of switching to Handshake is "to create a more efficient way [for students] to find the information that [they] need to

The decision to transition from TartanTRAK to Handshake was clear-cut. Student and CPDC feedback made it obvious that it was time for a new system. "At the CPDC,

be successful."

Q Search... Google, Inc Following







Courtesy of Diane Taylor

Handshake will officially replace TartanTRAK at midnight on June 1.

we always listen to what our students tell us. And we do our best to offer the top services, programs, and technologies in the field to best connect CMU students with the opportunities they want most," said Fenwick. "It didn't take much feedback for us to know that the system we were on wasn't evolving fast enough to meet the growing needs of our students." Fenwick noted that for the past four years the CPDC has been searching for the right tool to connect students with employers, job opportunities, and career building services offered by the CPDC. "We feel we finally found all of this when we discovered Handshake."

should be Students aware of a couple things in preparation for the switch. TartanTRAK will be shut down at midnight on May 31, and, only seconds later on June 1, Handshake will be live and ready for use. Consequently, any and all information on TartanTRAK will be wiped out of the system. It is important that students download and save any important files that are stored on their Tartan-TRAK accounts, such as resumes and cover letters.

All new job postings will immediately be readily available on Handshake for student access. Students can also begin to schedule appointments with their CPDC career consultants starting on June 1. Students will continue to receive email reminders prior to the launch of the website.

Athletes discuss their roles in Spring Special Olympics

OLYMPICS, from A1

goal of acceptance, Meyers notes, has not yet been fully achieved, but he hopes that support from the Carnegie Mellon community for the athletes in Saturday's event will bring them one step closer.

Meyers took the reins on this project, and procured critical support from university entities. He reached out to Vice President of Campus Affairs Michael Murphy, who enthusiastically backed the project, telling him to "make it happen." Also on board were Beth Yazemboski and Monica Galmarini from Conferences and Event Services and Director of Athletics Josh Centor. "The effort continues to grow, and we're expecting a great event that will become a lasting part of the CMU and Special Olympics experiences," Meyers said.

In order to raise money and awareness for the Special Olympics, Meyers, and hundreds of other LETR officers, participated in SOPA's fundraising events including the annual Pittsburgh Polar Plunge and the Law Enforcement Torch Run. Meyers and his colleagues were even seen during Spring Carnival near Doherty Hall hosting Dunk-a-Cop. The event was organized in part by Carnegie Mellon Police Detective Leah Noch in order to raise money for the games. The University Police Union pledged to match the amount raised at the event, amassing a total of \$2,300. The officers will present a check to the Special Olympics at the opening ceremony, which kicks off at 9 a.m. on Saturday.

Detective Meyers, along with other LETR officers, will volunteer at Saturday's games as "honor guards" during the opening ceremony and will be presenting awards throughout the games.

and Western Competition Director for the Special Olympics Mike Ermer has been involved in the organization for seven years. He expressed his enthusiasm for bringing the games to Carnegie Mellon's campus, noting that moving this event, despite its magnitude, has been a goal of SOPA's for a while. Lieutenant Meyers reached out to Ermer a couple of years ago, which allowed this goal to come to fruition. Now that the event is only days away, Ermer and his associates at SOPA are eager to see this dream become reality. "It is a great opportunity to partner Special Olympics with a great university, but even a better opportunity to have our athletes and the CMU population get to know each other. The impact each will make on the other will be life-changing," Ermer said.

Special Olympics athlete Jessica Clayton has been participating in the Olympics since she was nine years old. During Saturday's games she will compete in walking, bowling, and bocce. She is most looking forward to being with her friends during the games and getting to showcase the hard work she has been doing during her training. In a message to the Carnegie Mellon community, she invites us to "come and see what we're going to be doing. It's fun when

people come and support us." Also participating in the games is Mikey Brecker, a selfproclaimed "huge Penguins fan," who will compete in basketball, soccer, and softball. Like Clayton, Brecker looks forward to hanging out with his friends during and after the games. He also likes saying cheers for his fellow athletes while they are competing. Brecker wants to wish all the athletes good luck at Saturday's games and urges those coming out to donate. "I'd like

Program Director of SOPA us to raise a lot of money," Brecker said.

The Tartan also spoke with Robert Mansfield, who will compete in soccer, softball, and basketball. Mansfield first started participating in the games due to encouragement from his friends and family members. He is most looking forward to the tournament and getting to interact with the athletes. "It's going to be an awesome experience," said Mansfield.

Clayton, Brecker, Mansfield, and their fellow athletes have dedicated a lot of time and effort towards preparing for Saturday's games. Unfortunately, not many athletes get the support of friends and family members at the competitions. It is important for Carnegie Mellon constituents to give back to the athletes, police officers, and faculty members who have given the community the opportunity to experience all the hard work and dedication that went in to bringing these games to campus.

Special Olympics officials invites all attending to become a "Fan in the Stand" by cheering on the athletes, making signs, clapping, whistling, making up chants, or anything to let them know you're there and are supporting the athletes. It's a great way to get involved in the games while also watching the athletes in action. Special Olympics officials are also looking for volunteers to help throughout the day with basketball, track, aquatics, tennis, awards, food, and other services.

Donations can be made and managed online at specialolympicspa.org.

The Western Pennsylvania Special Olympics Spring Sectional encourages students to take a break from academics before finals and enjoy the events at Gesling Stadium this Saturday.



The members of the Upsilon of PA Chapter of the Phi Beta Kappa Society extend sincere congratulations to the following graduating seniors who have been elected as student-members-in-course of Phi Beta Kappa:

Oz Amram Jeremy Applebaum Jenna Asperslag Zack Birnbaum Yiqun Cao Andersen Chang Blake Chasen Gabriella Cottiero William Crichton Amelia Crigler Zachary Dell John Devine Rosa Floreak Rachel Fowler Nathaniel Fruchter Philip Garrison Zora Gilbert Alexander Gurvich Eleanor Haglund Paul Hamerski Noah Hermalin John Hong Zeyu Hu Christopher Jones

Alison Kao Hemanth Kini Anastassia Kornilova Rachel Kositsky Kevin Ku Joshua Kubiak Daniel Kusbit Alexis Larry Ghee Rye Lee Justin Lee Weikun Liang Angela Liu Xun Liu Kevin Long Jai Jun Brandon Lum Nikita Mishra Richa Mohan Thatcher Montgomery David Moss Rubini Naidu Kaytie Nielsen Sayre Olson Elisa Pabon

Lucy Pei

Benjamin Plaut Carson Quiros Naomi Rubin Caitlin Selvaggi Brian Sinko Elizabeth Snyder Ashley Sobhani Rishi Sonthalia Margaret Stephenson Jacquelyn Tencza Chloe Thompson Estelle Tian Jennifer Tuttle Noel Um Thomas Vielott Jessica Wallach Caitlin Williams Samantha Wilson Allison Wood Ming Yan Wu Patrick Xia Weichen Yin Sophie Zucker

A4 « thetartan.org/scitech The Tartan » April 25, 2016

Science & Technology

SCITECH BRIEFS

Researchers make material that can repair itself

An international team of researchers has created a material that can stretch to 100 times its original length and is capable of self healing if punctured, according to a study published in Nature Chemistry. The material is so stretchy that, when originally testing it, the researchers did not have the proper equipment to stretch it to its fullest potential.

"When we designed the material, we expected it to have high stretchability because we intentionally incorporated energy-dissipation sites into the polymers," said Chao Wang, an assistant professor of chemistry at the University of California, Riverside, and a co-author of the study.

The specific properties of this material make it ideal for the development of prosthetics and robots, and there is potential for the material to be linked to neurons and be driven by human neuron signals.

Source: The Huffington Post

Supernova ashes rain rare iron isotope onto Earth

Scientists have recently detected trace elements that indicate a supernova exploded in a nearby galaxy millions of years ago.

The element, Fe-60, is a very rare, radioactive isotope of iron with a half-life of 2.6 million years that is created when stars collapse during a supernova.

The Fe-60 was detected using the Cosmic Ray Isotope Spectrometer (CRIS) aboard NASA's Advanced Composition Explorer (ACE), which is currently orbiting between Earth and the Sun. In the past 17 years, CRIS has only de-

tected 15 Fe-60 nuclei. "Our detection of radioactive cosmic-ray iron nuclei is a smoking gun indicating that there has been a supernova in the last few million years in our neighborhood of the galaxy," said Robert Binns, research professor of physics in Arts & Sciences at Washington University in St. Louis and lead author on the paper published online in Science.

Source: Space Daily

Fructose alters brain genes, slows problem-solving

Recently, in a study published online in EBioMedicine, scientists at University of California, Los Angeles have determined that fructose, a common sugar in Western diets, alters hundreds of genes in the brain and may be linked to a number of diseases. However, they also report that consuming docosahexaenoic acid (DHA), an omega-3 fatty acid, reverses the harmful effects. DHA is naturally produced in small quantities in brain cell membranes, and it strengthens synapses and enhances learning and memory. It can be found in fish, nuts,

vegetables, and fruits. To compare the effects of fructose and DHA, researchers trained rats to escape from a maze; rats that consumed only fructose navigated the maze half as fast as the rats that consumed only water. Rats that consumed both fructose and DHA navigated the maze with times similar to those who consumed only water. Rats consuming only fructose also had much higher blood glucose, triglycerides, and insulin levels, which can result in diseases such as diabetes or obesity.

Source: Science Daily

Solar-fueled plane completed flight across the Pacific

A revolutionary solarpowered airplane is flying its way from Hawaii to California in a three-day flight. The aircraft, called Solar Impulse 2, originally took off in March 2015 from Abu Dhabi and has made stops in Oman, Myanmar, China, and Japan.

The carbon-fiber aircraft weighs about as much as a midsized truck and relies on nothing but energy from the sun to fly.

The ideal flight speed is 28 mph, which can double during the day if the sun's rays are strong.

Its wings are equipped with 17,000 solar cells that power propellers and charge batteries. During the night, the plane runs on stored

After the battery system sustained heat damage on its trip to Japan, the aircraft was forced to remain in Hawaii for nine months. There is a live feed documenting the entire journey online.

Source: Phys.org

Unfamiliar setting keeps left half of brain awake

In a report published in Current Biology, scientists reveal that part of the left hemisphere of the brain remains active while the brain is deeply asleep in unfamiliar surroundings. Researchers at Brown University monitored people's sleeping patterns in their sleep lab to test for asymmetry in the brain. During a deep sleep stage called slow-wave sleep, a network of nerve cells in the left hemisphere of the brain were not exhibiting as much sleeprelated bevior as the corresponding network on the right side, suggesting that the left side of the brain sleeps lighter than the right side. This could mean that one half of the brain is on guard when sleeping in unfamiliar settings. In support of this, researchers' results showed that the left side reacted quicker to quiet noises on the first night of sleep, and the response time on the first night was quicker than that on the second night.

Source: Science News

Baby titanosaur fossil discovered in Madagascar

A fossil of a one- to two-month-old dinosaur has been discovered in Madagascar.

The dinosaur is of the species Rapetosaurus krausei, a member of a group of long-necked sauropod dinosaurs classified as

titanosaurs. The limb proportions of the baby dinosaur fossil are very similar to their adult counterpart, as reported in

This is a sign that baby titanosaurs did not require much parental supervision, according to study coauthor Kristi Curry Rogers, a vertebrate paleontologist at Macalester College in St. Paul, Minn.

From microscopic images and CT scans, the researchers calculated that during the growth spurt, all of the baby's limbs grew at about the same rate, and data from the dinosaur's bones suggest that it lived an active, independent life up until it died of starvation.

Source: Science News

Compiled by JULIA NAPOLITANO

Novel smart drug delivery techniques may lead to less harmful cancer cure

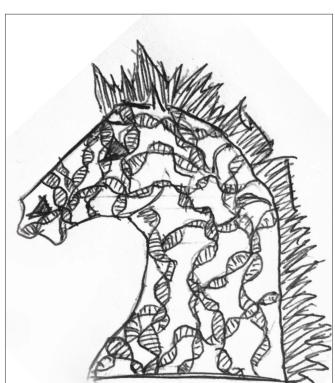
JOSHUA BROWN SciTech Editor

Developing a cure for cancer is one of the most difficult and most necessary initiatives in modern medicine. As of now, there are numerous treatments for various forms of cancers, and probably twice that amount of experimental trials attempting to defeat one of humanity's most dangerous diseases. One of the latest developments in cancer treatment is smart drug delivery, or targeting specific cells with specific doses rather than flooding a person's whole body. Ideally, these treatments will be able to discriminate between cancer and patient, eliminating the disease and leaving the patient far healthier than current treatments.

Currently, chemotherapy and radiation therapy are the two most widespread cancer treatment options, apart from surgery. Chemotherapy treatments introduce chemicals toxic to cells into the blood stream, allowing the chemicals to potentially treat cancer throughout the body. These chemicals affect cell division in a number of ways. There are cell-cycle-specific chemicals, which target cells in the process of dividing, and cellcycle non-specific chemicals, which target cells at other times. Since the most notable property of cancer cells is that they divide rapidly, this seems like a fairly straight-forward treatment. However, this approach affects not only cancerous cells, but cells which divide rapidly such as hair; epithelial tissue, which lines the digestive tract; and bone marrow, which produces blood cells. Since these cells are affected, this leads to the most notable side-effects of chemotherapy treatments: hair loss, nausea, immunodeficiency, and a host of internal issues.

Like chemotherapy, radiation treatments target cells undergoing the division process. Radiation treatments use objects with high-energy emissions, such as gamma radiation, x-rays, or charged particles, to target cells in certain cancerous areas. This disrupts cell division by breaking holes in the DNA of cancerous cells. These treatments are more targeted than chemotherapy, but they cannot specifically target cancer cells while leaving surrounding healthy tissue unaffected.

Another major issue, at least with chemical treatments, is that some cancers become resistant to the drugs used to fight them. This road block has led researchers down a path to discover smarter ways to target these drug-resistant cancer cells and how best to eliminate them. This method, called targeted drug delivery, involves targeting specific cancerous cell types with deadly chemicals while leaving surrounding tissue unaffected. One of the most interesting questions this concept has posed is what to package these cancer-defeating drugs in. There are many questions that must be answered before the perfect capsule can be found. What kind of casing can be sturdy enough to transport the drug through the body without spilling it



These new treatments have been compared to the Trojan Horse due to the way they trick the cells into accepting the agents which destroy them.

into the body?

How can we ensure that the capsule will be accepted into the cancer cells and deliver the drug effectively?

The Tartan recently covered similar research coming out of Carnegie Mellon in November of 2015. This research focused on creating a liposomal package out of phospholipids, the same material that makes up a cell membrane, to deliver the anti-cancer drugs. This research was theoretical and modeled the concept of creating this capsule.

Researchers at The Ohio State University are using DNA origami structures to perform similar tasks. This research

was conducted by John Byrd of The Ohio State University Wexner Medical Center, in collaboration with a number of colleagues. This particular study focused on a type of leukemia that had grown resistant to a certain anti-cancer drug by adapting itself to recognize the deadly chemical and actively pump it out before it can affect the cell. The researchers noted very clearly, however, that the DNA capsule does nothing more than hold and camouflage the drug. One of the most interesting facets of this transport capsule, however, is that researchers "can

See CANCER, A5

it can make when you politely

ask someone to do something

People who like to be in

control, from rebels to narcis-

sists, are more likely to be af-

fected by reverse psychology.

The phenomenon also tends

to work best when people are

caught up in an emotional,

rather than rational, state

of mind. However, reverse

psychology is susceptible to

pitfalls. When you use it on

someone, you may not always

receive your intended effect.

It can also teach others that

you do not really mean what

you say, or in some cases, it

can make you come off as

manipulative.

quest in a demanding way.

HOW THINGS WORK

Avoid reading this article at all costs

SHARON WU Staffwriter

Has it ever confused you how you can convince people to pursue a specific behavior by telling them to do the opposite of what you wanted? If so, it is advised that you stop reading this article on how that persuasive technique, known as reverse psychology, works. After all, not everyone can handle the mental complexity behind a seemingly counter-intuitive phenomenon.

If your desire to continue reading suddenly increased, then you can probably understand why reverse psychology can, at times, be effective. According to howstuffworks. com, reverse psychology enables people to fulfill a need for independence by doing something upon their free will, rather than being coerced into it. The theory was first brought to light by German psychologists, Theodor Wiesengrund Adorno and Max Horkheimer, back in 1970. Today, there are many examples of reverse psychology that may seem familiar to you. For example, you may have had that odd temptation to put your hand over a red button, even though it clearly had a "Do not press" sign right above it. Reverse psychology is a technique that frequently shapes the ways people interact with others, as well as their environments and even themselves.

Reverse psychology is both widespread and frequently used. In a 2011 survey conducted by researchers from Universities of Toronto, Central Arkansas (Conway), and Western Ontario, the majority of a group of college students said that they used reverse psychology on about a monthly basis. Furthermore, they found it to be just as effective as other influence tactics defined by social psychologists, including door-in-the-face, foot-in-the-door, and disruptthen-reframe.

Besides helping you surreptitiously get what you want, reverse psychology can also help better people's lives. Psychotherapists use a counseling technique involving a nuanced form of reverse psychology, called paradoxical intervention. During paradoxical intervention, the therapist prescribes the symptom that a patient is seeking to fix. For example, in 1975, two parents came to seek help from a University of Delaware psychologist, Rachel T. Hare-Mustin, after having issues with their four-year-old son's frequent and capricious temper tantrums. The issue was corrected when the parents were told to designate a time and place in which their son was encouraged to have a tantrum. To their surprise, the son's tantrums had significantly diminished within a few weeks.

By deliberately having unwanted symptoms, patients see the absurdity of the situation and realize that they

DO NOT THINK ABOUT POLAR BEARS

can voluntarily avoid the symptom. In turn, paradoxical intervention reinforces the mindset that the patients have autonomy over their own behavior and experiences. The technique, however, does raise some ethical concerns, including cases

when the patient is struggling shows the marked difference to fix a dangerous or illegal behavior.

In fact, reverse psychology versus when you give your replays upon a psychological phenomenon known as reactance. In 1976, University of Texas at Austin researchers found that people were more likely to write graffiti when a sign on a college bathroom wall stated "Do not write on these walls under any circumstances," rather when it said "Please do not write on the walls," or even when no sign was present. Later on, University of Virginia researchers found that children formed a preference for a toy that they initially found unattractive and were told not to use. The same results were found from studies with adults.

The experiments serve as instances of the reactance theory, which was developed by Jack Brehm, a former University of Kansas professor. According to the theory, people react negatively when their freedom is threatened, and thus, they develop a desire to engage in a forbidden behavior. It

different need.

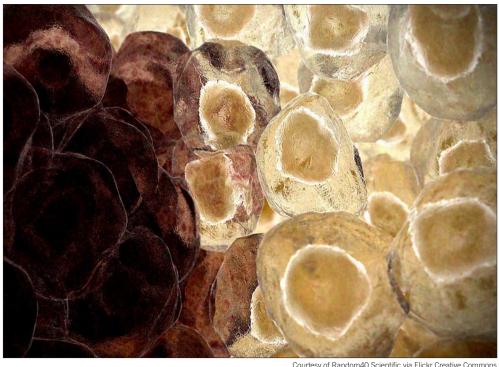
In more serious matters, it could be a tool you use in preventing the release of sensitive information. Just reaching the end of this article showcases your natural dislike of being told what to do, as well as your innate desire for the freedom to decide the actions you take by yourself.



Reverse psychology can be applied in many situations, whether it be when your parents were raising you during your rebellious teenage years, or when that salesman was trying to sell you a car that you probably did not

April 25, 2016 « The Tartan thetartan.org/scitech » A5

Drug delivery mechanisms fight cancer in novel ways



A medical animation of tumor cells metastasizing and encroaching on healthy cells in the same tissue, a principal danger of cancer invasion. By stopping cancer cell division, these treatments can decrease this damage.

From CANCER, A4

that researchers "can vary the shape or mechanical stiffness of a structure very precisely and see how that affects entry into cells," according to Carlos Castro, director of the Laboratory for Nanoengineering and Biodesign, who collaborated with Byrd on this project. The particular anti-cancer drug the researchers used for this experiment is called daunorubicin, a compound that inhibits cell growth by nudging itself into the DNA and sticking there, preventing proper cell division. This drug worked well in the DNA capsules because it naturally adhered to the capsule. This research showcases the usefulness of capsule technology in drug delivery, and has proven effective in both isolated leukemia cells and solid tumors alike. The next step is translating these culture effects into

animal models, so that the research can be applied. While chemical treatments are being heavily pursued, the art of researching smart ways to target and destroy cancerous tissue has multiple lines of inquiry within many laboratories across the world. Researchers at Sheffield University in the United Kingdom have been experimenting using viruses, rather than drugs, as the principal method of cancer elimination.

One of the best facets of this approach is that the viruses are self-replicating, so they can target tumors and keep up with the cells' intense growth cycles. They can also piggyback on the body's natural immune response to chemotherapy.

The procedure works by implanting macrophages, a type of white blood cell, with viruses and allowing them to naturally seek out tumor

sites. In response to chemotherapy, the patient's blood concentration of macrophages increases, and they rush to the affected tumor sites, responding to the chemical injuries sustained and attempting to heal the damage done. This treatment had prior success in animal models, and it will be experimentally tried on 15 Sheffield men with prostate cancer, the type of cancer with which this treatment has been

Overall, experimental cancer treatments have come a long way in the recent past. Cancer research requires a good amount of innovation, considering the savagery of the disease and its adaptive

Only time will tell how cancer will be conquered, but in this era of heavy experimentation, it's interesting to consider the routes by which this victory might be won.

Pugwash wonders whether internet use is a human right



THATCHER MONTGOMERY Contributing Editor

At last week's meeting, Pugwash joined Students for Science and Technology Policy to discuss whether the internet is a human right.

The question of what constitutes a right was key to the discussion. The United Nations (UN) has a list of human rights, including rights to life, liberty, and security, the right not to be discriminated against, and the rights to work, to have an adequate standard of living, and to education, to name a few. Does the internet belong on such a

One of the main uses of the UN list is as criteria for aid. Global organizations like the International Monetary Fund see the list as a set of checkboxes that need to be ticked off. If a country doesn't meet the list of rights, they either won't get aid or their development projects will come with the caveat that they have to work on improving those rights. The internet doesn't seem to be something that a country should be required to have in order to receive international aid.

This suggested that rights are the things necessary to live a productive life. In developed countries, the internet is an extremely important tool, both in personal and business settings. How can someone be expected to apply for a job without an email address?

The internet is also very useful as an educational tool. However, these uses are

the United States, an email address is required to apply for a job, but it doesn't seem necessary for a farmer in rural Africa, for example, Whether the internet is necessary to function in society depends on the society, and a geographically-dependent right doesn't seem like a right

This is especially true when one considers all the other fundamentals needed before internet becomes useful. internet access requires electricity, and it would be nice to have other things too, like clean drinking water or adequate shelter. If a country doesn't have all those things, it doesn't seem justified for them to put in a request for internet access before addressing the other issues.

However, just because the internet isn't required to live, doesn't necessarily mean it shouldn't be a right.

Rights can be seen as the basic necessities needed to survive, but humans can live without justice, or liberty, or

There's a lot that can be taken away, and people will make do without. This doesn't mean that those things shouldn't be considered rights.

With the distinction between necessities to live and other things that would be nice to have, maybe rights should be ranked or put into some sort of hierarchical structure. First, basic necessities like food, water, and shelter should be met. Education, religion, and other less tangible rights would come next.

As one Pugwash member put it, by splitting up rights to live and rights to thrive there might be room for the internet without making the very idea of the right seem frivolous. There were some ideas

context-dependent. Maybe in that didn't include the internet at a basic human right. One was to treat the internet as a public utility, instead of a right. This would mean that while it's not a required aspect of human existence, if it is present, it has to be fairly distributed and accessible. This would prevent monopolies, like Facebook's internet. org initiative in developing countries, in which Facebook would provide internet access for free but it would be limited to select websites chosen by Facebook. It would also address issues like internet providers in the United States giving preferential or unfair treatment to certain

> Another idea was that while the internet itself isn't intrinsically a human right, it could be contextualized as such through the extensions of other rights. The right to education might require access to online resources, or there might be a right to access public information, which would make internet access a very important way to provide that right.

> Similarly, a right to the internet could be drawn out of the right to free speech. And a divide between those who can access the internet and those who can't might lead to internet access becoming a discrimination issue.

> While the discussion was, for the most part, relatively abstract and philosophical, one Pugwashite made sure to point out that this isn't just theoretical hair-splitting.

> Right here in Pennsylvania, there are laws that make it hard for local or city governments to provide free or cheap internet access to their residents.

> Whether the internet is a right or not is an important question with real-life consequences.

Algorithm learns to identify anomalous activity online with high degree of accuracy

Staffwriter

At the IEEE International Conference on Big Data Security in New York City this month, researchers from MIT's Computer Science and Artificial Intelligence Laboratory (CSAIL) and the machine-learning start-up PatternEx, presented a paper about their new security system that combines machine learning approaches and input from human security experts. This system, called AI2 (named by merging "artificial intelligence" and "analyst intuition"), has an 85 percent success rate in identifying threats and a false positive rate of 4.4 percent over a raw data set of 3.6 billion

come across an anomaly.

The research team's answer to these hurdles in the field of security systems is to build a supervised model using three different unsupervised models (learning models that don't use any prior data or 'labels'), which 'continuously refines itself.'

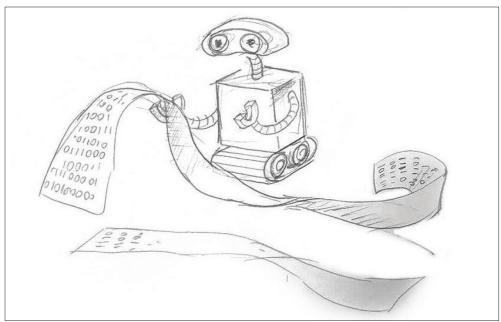
The paper lists four basic features that define the system: a big data behavioral analytics platform, various feature detection methods (outlier detection methods), a mechanism for obtaining feedback from security analysts, and a supervised learning module.

Basically, the system analyzes large-scale raw data using three learning models, after which it presents the

a series of all the steps required to commit the security breach.

Since this study was conducted with data from an online enterprise system (typically a business organization), some of the data that the learning system studied included the login success and failures over a time unit from a given IP address, minimum time from login to checkout, the different geographical locations that the user has checked into during a given time unit.

All of these factors, combined in a unique manner, might be used to produce the behavioral signature of an attack, that the learning algorithm 'learns' to identify suspicious activity.



Eunice Oh/Staff Artist

log lines. According to the paper, the three major challenges faced by the security industry are a lack of labelled examples to model learning models on, constant evolution of attacker's methods, and limited reliance on security analysts to determine each threat's risk factor.

In fact, stand-alone analyst-driven approaches are limited in their effectiveness because of the fact that attackers learn the behavior used by such systems to predict possible threats, and then work their way around that learned behavior in order to bypass security systems.

Furthermore, only machine learning-based approaches can be inefficient based on the fact that they raise a need for human investigation every time they

analysis with a small portion of the data set based on the three models to obtain labels for each of the sets it wishes to identify.

After collecting an analyst's feedback about these data sets, it uses a supervised learning model (a learning model that predicts based on some previous training data) to further refine the process.

The supervised model, used in conjunction with the three unsupervised ones, helps the system narrow down the data presented to the analyst in a short period of time, thereby cutting costs and inefficiency.

In identification of potential attacks, the system uses variables that pinpoint to a particular behavior. Such variables define the behavior that is a signature of an attack, which is simply

Frauds that violate the terms of the service agreement often have a distinct behavior signature.

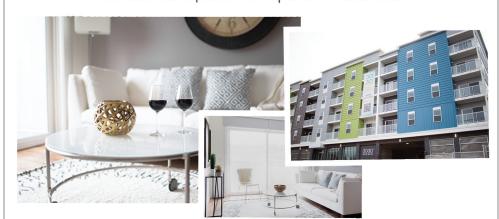
For example, abusive use of promotional codes and manipulating web browser cookies to take part in a poll or draw multiple times.

Therefore, as the system learns to identify previously 'unseen' threats, it becomes better, showing 3.41 times improvement as compared to other unsupervised anomaly detectors, and decreasing false positives by fivefold.

Since threats keep evo ing, along with the increasing importance of an infallible security system, any such system will involve human presence along with artificial intelligence to combat possible threats, as scientists try to study ways that would completely automate the process.



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A6 « thetartan.org/scitech The Tartan » April 25, 2016

LSD destabilizes the brain's "sense of self" neural network

THEODORE TEICHMAN Assistant Photo Editor

This is your brain on drugs! But more importantly this is also your brain not on drugs. In a series of brightly colored collages of "lit-up" brains, neuroscientists Robin Carhart-Harris, David Nutt, et al. released their findings on the first modern imaging studies of human participants on Lysergic Acid Diethylamide (LSD). While there has been previous work done on the effects of psychedelics and the brain, many of these studies are limited by methodological concerns, legal issues, and their lack of scope. Like many secondary reports psychopharmacological research, these reports ignore the fact that these brains are still a product of their previous experiences and environments. These drugs don't create new neural networks, they work with and augment systems that exist in the default brain, which can vary drastically. The limitations of prior research have led to a multitude of current research on these substances, including a study published by Carhart-Harris and Nutt.

LSD was first synthesized in 1938 by Alfred Hoffman.It is derived from ergotamine, a component of ergot fungus, which is a type of mold that grows on rye bread. Soon after its psychoactive (brain-altering) properties were discovered in 1943, it became a part of psychological "research," which ranged from psychoanalysis sessions, to marriage counseling, to the

infamous CIA trials to put soldiers through "living hell," to getting dolphins to trip. This, neuroscience, studies are often fettered by the drug's complicated past.

and the rise in the recreational use, led to governments around the world prohibiting the drug and keeping it under strict control. Until recently, this conversation around LSD has remained stuck in the world of the 1950's. Even now, as research is expanding in the field of psychedelic

LSD is an organic molecule that is able to cross blood-brain-barrier, meaning it can interact with

these neural circuit pathways. While we know a little about how these molecules bind to receptors at a biochemical level, there is still uncertainty about how this affects larger sections of the brain. Existing research regarding systems related to LSD functionality centered around the medial

to visual perception similar LSD promotes interaction to those associated with LSD. However, the effect of this substance on the brain cannot be isolated to a singular brain area or receptor type. In order to understand the effect of any molecule in the brain, we must consider how that substance interacts with

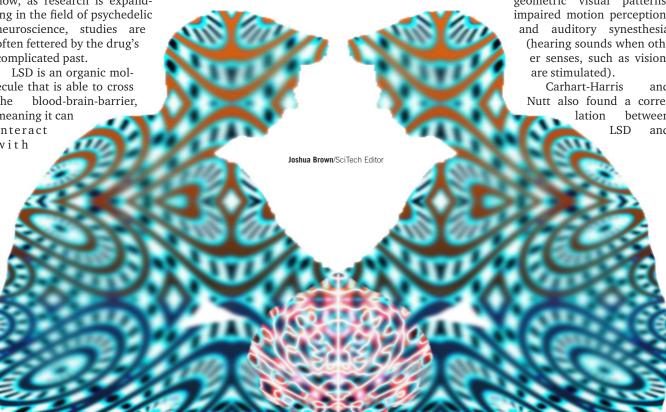
that are normally thought to have discrete psychological functions such as emotion, sound, or cognition. This increased interaction between traditionally separated parts of the brain helps explain some of the common traits associated with LSD such as geometric visual patterns, impaired motion perception, and auditory synesthesia (hearing sounds when other senses, such as vision, are stimulated). Carhart-Harris Nutt also found a corre-

between regions of the brain

lation between LSD

could have important implications in a variety of fields of study, saying "in the same way the neurobiology of psychedelic induced visual hallucinations can inform on the neurobiology of visual processing, so the neurobiology of psychedelic-induced ego dissolution can inform on the neurobiology of the 'self' or 'ego." While this study made significant headway in uncovering correlations between states of consciousness and brain activity in the presence of LSD, it is still uncertain how this can be applied to normal brain function. Further studies are needed to really understand how distinct brain regions are connected. LSD has been used in trials to help treat anxiety disorders and cluster headaches and has had astoundingly positive results. LSD has also been fruitful in studying other disease states, since some of the same regions and neurotransmitter receptor systems are implicated in forms of depression and schizophrenia. By focusing on what these LSD studies can tell us about brain connectivity and normal brain function, LSD studies could become an important part of neuroscience research. While headlines of "Your Brain on LSD" grab attention, they provide only a cursory glance at the complex and intricate relation between your brain and the world around it. Hopefully, with further studies of this type, we can continue to unravel the enigma that is the phenomenology of human

explain that these findings



neurons and receptors in the brain. From there, LSD is able to interact with many different receptors. On some receptors, it acts as an agonist, activating specific cellular pathways in neural circuits. On others, it is an antagonist, blocking these receptors and preventing the activation of

temporal lobes, which are involved in processing vision, language, and emotion. Patients with part of their medial temporal lobes removed showed diminished LSD effects, and electrical stimulation of these regions is known to produce dreamlike "visions" and distortions

the brain as a whole. The aforementioned study, led by Carhart-Harris and Nutt, not only sheds light on how LSD interacts with larger scale neural systems, but also clarifies how certain parts of the brain interact.

Carhart-Harris and Nutt's study provides evidence that

decreased connection in the Default Mode Network, a network thought to be the foundation for a person's understanding of "self." The breakdown of these connections mirrors the loss of selfidentity that is a part of the LSD experience.

Carhart-Harris and Nutt

Researchers determine how brain learns scientific concepts

YUE YIN Staffwriter

Research coming out of Carnegie Mellon's Scientific Imaging and Brain Research Center (SIBR) shows that to learn and understand new physics concepts, our brain repurposes ancient structures that are used for everyday purposes such as motion

and time intervals. This concept goes back to to new ideas. For example, when envisioning gravity and potential energy, your brain relates the concept to an apple falling from a tree.

When learning periodic circular motion, your brain may associate it with the repeating rhythms of music and dance. This research was carried out by Marcel Just, the D. O. Hebb Professor of Psychology at Carnegie Mellon, and senior research psychologist Robert Mason.

For these experiments, nine right-handed students (three females and six males between the ages of 19 and 25) from physics and engineering departments participated in the study.

They were required to think about common physics the idea that when we learn, concepts in a way that they we relate old information understood. Researchers then set up a machine learning computer program to identify the concepts' neural correlates by analyzing brain images. Participants were required to think about the physics concepts six times.

Researchers trained the computer on five sets of those brain images. Then, during the sixth presentation, they asked the computer to identify what physics concept the participant was thinking about from a dataset. The program was able to identify the concept with a high level of accuracy, but that was only half of the researchers' goal.

They were also curious about which neural properties of the brain allowed the program to identify the concepts.

After examining the results of the experiments, researchers found that humans are able to learn new physics concepts because our brains are programmed to be able to understand four main categories: causal motion, motion with cause and effect relations; periodicity, the repetition of the same motion or phenomenon; energy

flow, the transport of energy from one body to another; and algebraic representation, the ability to retrieve characteristic algebraic equation associated with a scientific variable.

Because all new physics concepts may fall into one of these categories, or at least have some correlation with the four characteristics, our brain is able to encode almost all new physics concepts we learn about.

Moreover, the research shows that each participant's brain shows the same activation pattern in certain regions when learning the same new concept. That is to say, we learn things in the same way as others do.

"Even though each student may have acquired their physics knowledge in different classrooms or under different methods, [the results] were all predictable when the computer was trained on the data of the students," Mason said.

"This is why humans have been able to move ahead and innovate — because we can use our brain for new pur-

According to Just, "Human brains haven't changed much over a few thousand cine, and computer science have been developed and continuously change."

This experiment constitutes researchers' first attempt at finding a neural correlate for abstract concepts that are typically acquired through schooling. This research fits nicely as part of an ongoing project to map out the neural dimensions of semantic knowledge across a variety of domains.

brain, be it on drugs or not.

"It will be interesting to determine the nature of brain representations for additional science concepts such as genetics, chemistry or biology," Mason said.

"We hope [these] neural knowledge representations will be useful for education research, potentially years, but new fields like for brain-based instruction aeronautics, genetics, medi- or evaluation and testing of knowledge using brain-based assessment."

> Furthermore, if we could understands how the brain encodes new scientific concepts, future education would be able to utilize this and provide better teaching and learning experience for education.



Carnegie Mellon University Chorus

Thomas W. Douglas DIRECTOR OF CHORAL STUDIES AND **CONDUCTOR**

DETAILS:

The Carnegie Mellon University Chorus, along with a chamber orchestra, will provide a live soundtrack to Carl Theodor Dreyer's silent film, The Passion of Joan of Arc.

TUE **APR 26** 2016 8:00 pm

Kresge Theatre College of Fine Arts





Carnegie Mellon University School of Music



Carnegie Mellon University Philharmonic

Andrés Cárdenes MUSIC DIRECTOR

Greta Mutlu VIOLIN

FEATURING:

Brahms Five Hungarian Dances (Nos. 1, 11, 10, 14, 5)

Berg Violin Concerto

Strauss Ein Heldenleben, Op. 40

\$10 Regular Admission \$5 Senior Citizen (65+) Admission THU **APR 28** 2016 8:00 pm

Carnegie Music Hall Oakland





Carnegie Mellon University School of Music

Forum

FROM THE EDITORIAL BOARD



At the close of every school year, The Tartan reassesses the year's events. We present here a list of the people and happenings that are worthy of recognition. Thistles go to people and events that had a positive effect on the campus community and the world at large; thorns go to those that have negatively impacted the community.

A **thistle** to the people who organized or participated in Black Lives Matter marches and dieins across the country and at Carnegie Mellon. There are serious systemic issues with policing in this country that need to be exposed and talked about honestly, and it was great to see Carnegie Mellon adding its voice to that discussion.

A thorn to Carnegie Mellon's Software Engineering Institute (SEI) for handing over research that cracked Tor, revealing the identities of thousands of internet users who were attempting to remain anonymous. As an institution on the cutting edge of technological development, Carnegie Mellon as a whole and SEI specifically are helping shape the future of the Internet. They should be working to preserve the freedom of the Internet and defend user privacy.

A **thistle** to Vaasavi Unnava for being elected Student Body President with Aaron Gutierrez as Student Body Vice President. The campus will be relying on them for leadership in the upcoming year.

A thorn to Mitch McConnell for waiting less than an hour after President Obama's nomination of Merrick Garland as a Supreme Court Justice to reject him as a candidate. He clearly did not even bother considering Garland's qualifications, and instead used this important process to win points in petty partisan squabbles. Garland is a moderate and well-qualified candidate that deserves the respect of a proper vetting process.

A thistle to all of the booth building organizations for overcoming the challenges of the relocation of Carnival. The College of Fine Arts parking lot is on a slope and very unlike the flat terrain of the Morewood Gardens parking lot, but the organizations adjusted gracefully to bring us the Carnival experience we all know and love.

A thorn to the water main under Forbes A der Forbes Avenue for breaking and shutting down the road so all the cars were funneled onto Fifth Avenue, resulting in such chaotic traffic that a student's foot got run over. The steady stream of pedestrians across Fifth deserves better defense from motor vehicles in these trying times.

A **thistle** to the water main under Forbes for liberating pedestrians from the tyranny of the motor vehicle. Forbes was much easier to cross for a few blissful weeks as students rushed to class.

A thorn to American media consumers for thinking Al Jazeera was a terrorist organization for so long that Al Jazeera America was driven offline. Our culture of fear and Islamophobia has become so pervasive that people cannot tell a well-respected journalistic organization from a terrorist cell. Fueled by ignorance, this fear will become selfperpetuating unless we listen to a range of different media outlets and perspectives.

A **thistle** to The International Consortium of Investigative Journalists for The Panama Papers, a global effort of more than 400 journalists to expose the off-shore holdings of world leaders. In a similar vein, a thistle to BuzzFeed for its recent investigative pieces on everything from match fixing to for-profit foster care.

A **thorn** to Overheard at Carnegie Melloegie Mellon, once a place for light-hearted Carnegie Mellon themed fun, for descending into vitriolic comments and petty bickering. The page used to be a place to laugh together about the silly quirks of our community, but it is no longer serving its purpose.

A **thistle** to the Carnegie Mellon construction team for finishing the renovations on both the Cohon Center and Scott Hall. These new additions provide much needed facilities to campus and are yet another sign of our university's rapid development in recent years.

A **thorn** to whoever unlawfully removed the beloved cardboard cutout of David Tepper from Posner Hall. It's probably serving as excellent nice dorm room decor, though.

A thistle to Scott Hall specifically for providing a home for the Biomedical Engineering department, along with Nano Fabrication and the Wilton E. Scott Institute for Energy Innovation. With new laboratories and a cleanroom facility, the building will help our STEM departments continue to excel. Not to mention it connects Porter, Roberts, Hamerschlag, and Wean Halls, giving students a way to avoid the rain and cold for even longer as they rush between classes.

A **thorn** to Snapchat for marking 4/20 with a Bob Marley filter that reduced an iconic singer to a symbol for weed using a lens that basically amounted to digital blackface. The lens showed a stupefying lack of historical awareness on the part of Snapchat. In a nation with a long and painful history surrounding blackface, both individuals and companies should do their research before making light of it.

A **thistle** to Hillary Clinton for visiting our campus on her presidential primary circuit. Her visit was a great way for students to engage with politics, be it by cheering in the crowd at the rally or chanting protest slogans outside with a papier-mâché Bernie Sanders. It's incredibly important to engage young voters in the election process since we are the future of America's democracy.

A thorn to the Mississippi and North Carolina legislators for passing such blatant and aggressive anti-LGBT+ legislation that the British government published a travel warning to LGBT+ people visiting the states. It is troubling to live in a country where local governments so brazenly approve of discrimination.

A **thistle** to Governor Tom Wolf for making Pennsylvania the 26th state to legalize medical marajuana, and not letting decades of stigma get in the way of medical research.

A **thorn** to Pennsylvania Senator Pat Toomey for failing to uphold his duty to represent his constituents and instead getting ensnared in petty Washington politics. His attempt to block the moderate Supreme Court justice candidate President Obama nominated from being approved represents a betrayal of his constituents and constitutional duties.

A **thistle** to the Market District Giant Eagle for extending its hours back to midnight. The later hours are much more convenient for students who want the comfort or cost effectiveness of a home cooked meal.

A **thorn** to the recent construction for molecular tion for making campus noisy and difficult to navigate this year. While progress is great, the current group of students definitely got the short end of the stick with the renovations. Students will find a beautiful, bulldozer free Mall when they return in the fall, but will have to keep listening to the jackhammer choir in the Morewood parking lot for quite some time.

A **thistle** to The Underground for also extending its hours, in this case to 2 a.m., to compensate for the closure of Skibo. Milkshakes, greasy fries, and excessive amounts of melted cheese at midnight are a staple of the undergraduate college experience, and The Underground ensured that this year's first-years didn't miss out on it.

A thorn to Donald Trump, for the plethora of reasons that have been addressed in these pages throughout the year.

A **thistle** to our readership for seeing us through another great year at The Tartan.

AG race comes to fore with Kane's legal woes

ZEKE ROSENBERG

Senior Staff

SARAH GUTEKUNST Publisher

Pennsylvanians will vote in their primary on Tuesday and the focus has largely surrounded the races for the major party nominations for the Presidency, Senate, and House of Representatives.

While these primaries are all very important, the state government races have a much more direct impact on the lives of Pennsylvanians.

Our votes are also more powerful in these races because of the smaller voting body.

Pennsylvanians represent a relatively small chunk of all Americans, controlling less than 10 percent of the Electoral College. We control two percent of the Senate, like every other state. And even though we get our proportionate share of the 435 representatives in the House, that power is disproportionately concentrated in House leadership. State elections, on the other hand, have a smaller electorate and put people directly into positions of power. Therefore, voters have to pay attention to these races and cast well-informed votes.

More specifically, Pennsylvania voters should give special consideration to the Attorney General race this Tuesday.

The Attorney General serves as the chief legal and law enforcement officer of the Commonwealth, particularly charged with prosecuting public corruption and organized

The Attorney General also serves on seven different state boards and committees. These responsibilities are essential to a functioning state government.

Usually, it is safe to re-elect incumbents who have not done damage in state offices because they have proven they can do the job. This year, however, Pennsylvania Attorney General Kathleen Kane has exited the race.

Kane is currently under indictment for perjury and obstruction following a leak of confidential information to a local newspaper. Regardless of how we feel about Kane's actions and indictment, we must take the time and do the research on all candidates in order to judge who is the most qualified to take over for Kane.

Thirty minutes and a critical Google search on each of your party's candidates are all it takes to turn up some distinct differences among their intentions for the position. We found one important difference some make their platforms clear and some don't talk about it at all.

On the Democratic side, two candidates have a realistic shot at the nomination. Montgomery County Commissioner Josh Shapiro and District Attorney of Allegheny County Stephen Zappala are in a very tight race for the Democratic nomination, with John Morganelli trailing behind.

Shapiro is currently running with President Barack Obama's endorsement. Environmentalism has been a core part of Shapiro's campaign, which is largely consistent with what the Obama administration has been pushing in recent months. Shapiro has said that he will pursue legal action against companies where there are damages to water and air due to fracking. He has also been a proponent of cracking down on gun violence, advocating for increased policing of firearms and fewer loopholes for gun purchases.

Shapiro currently serves as a county commissioner in Montgomery County in southeast Pennsylvania near Philadelphia. However, county commissioner is a largely administrative role that heads county government, a significantly smaller job than attorney general.

Stephen Zappala, a Pittsburgh native and Allegheny County District Attorney since 1998, is running his platform on his prosecutorial record and his story. He's a hard-working Pennsylvanian from an immigrant family with a "passion for fairness." Zappala paid for his undergraduate degree at the University of Pittsburgh by working as a "card-carrying union Boilermaker." Then he earned his law degree at Duquesne, and, after 14 years of private practice, he went on to serve five terms as District Attorney. In his years of service, Zappala has been tough on child abuse, animal abuse, elder abuse, domestic violence, veteran's issues, and public corruption.

Even though his campaign lacks any real platform, Zappala is neck and neck with Shapiro in the polls. We endorse Shapiro for his dedication to action over Zappala's empty platform.

The Republican race looks more cut and dry. John Rafferty's campaign has raised more money and received more endorsements than his competitor Joseph Peters.

Peters began his career as a police officer in Scranton, then moved to the White House to manage the High Intensity Drug Trafficking Area (HIDTA) program in 26 American cities. He has a tough record on drug and terror, and made his name by convicting Philadelphia mob boss "Little Nicky" Scarfo and his entire crew. He claims to be tough on drugs and terror, but he is also tough on gun reform and women's reproductive rights. In addition, he served as Communications Director under Kathleen Kane.

Opponent and likely victor John Rafferty has served as State Senator of the 44th district, including parts of Montgomery, Chester, and Burkes Counties, since 2003, and before that worked as a private attorney. Like Zappala, Rafferty is taking the good guy with a good story approach. In a statement following the Pennsylvania Attorney General Candidate Forum, Rafferty said: "My number one priority is to restore integrity and bring solid principled leadership to the Office of Attorney General. The Office of Attorney General has suffered from scandals, controversy and most important a lack of strong leadership." He went on to reinforce Peters' connection to Kane, still not offering any platform items beyond reintroducing integrity.

Despite our feelings on Peters' pro-life and pro-second amendment stance, we have more confidence in his strength and his qualifications for the office. Peters' platform has clear vision and direction, but Rafferty's depends on his past more than his future.

Whether you agree that the race should come to Shapiro and Peters or not, you should research vour party's candidates and their platforms so you have an opinion. Show up to the polls this week, and cast a vote you believe in.

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THE TARTAN



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Islamophobia hijacks American values, perpetuates terror

SYDNEY ROSLIN

On April 6, a senior from the University of California, Berkeley took a call from his uncle while sitting on the tarmac in a Southwest Airlines flight. As he chatted on the phone, a woman in the seat in front of him got up to get a flight attendant. A few minutes later, a Southwest employee asked the man to leave the plane, and escorted him into the company of police officers where he was questioned, restrained, and prodded by the officers, detection dogs, and FBI agents, causing the man to miss his flight. He was eventually released, but told that he could not fly with Southwest Although he was able to get a refund and book a new flight with Delta Air Lines, he arrived back in Berkeley nine hours after his intended arrival.

The man had not been acting abrasively to the staff or passengers, he was not carrying anything illegal, and was not posing a threat to anyone on the plane. There was only one thing set that him apart from his fellow passengers, which lead to his dismissal from the flight. The student, Khairuldeen Makhzoomi, is Iraqi, and spoke Arabic over

the phone. Islamophobia has become a huge issue in the U.S in the fifteen years since 9/11, and in the wake of acts of terrorism lead by ISIS. approximately The million Muslims living in America are constantly being discriminated against, stereotyped, and seen

as an "other." In the case of Makhzoomi, a Southwest employee asked him "Why would you speak Arabic

on a plane? It's dangerous. You know the environment around the airport. You understand what's going on in this country." Just like the way words such as "bomb" are taboo in an airport, it seems like the Arabic language is becoming taboo, despite the fact that more than 950,000 people in this country speak the language fluently. This is characterizing an entire segment of American citizens by the actions of a select few extremists. This is turning a language, a religion, and a culture into something that is seen as a threat to our country.

Islamophobia is not a new thing, and, unfortunately, is being perpetrated not just by everyday citizens, but in our government as well. Under the guise of national security, normal, innocent people are becoming the target of hatred and bigotry. After 9/11, for example, Congress quickly passed legislation that granted broad new powers to federal law enforcement in the U.S. to gather and investigate anyone suspected of terrorism.

The USA Patriot Act, as it was named, was extremely detrimental to the civil liberties of Muslims and Arab Americans, and most of the allegations made under the provisions of the Patriot Act were directed at Muslim Americans or Americans of

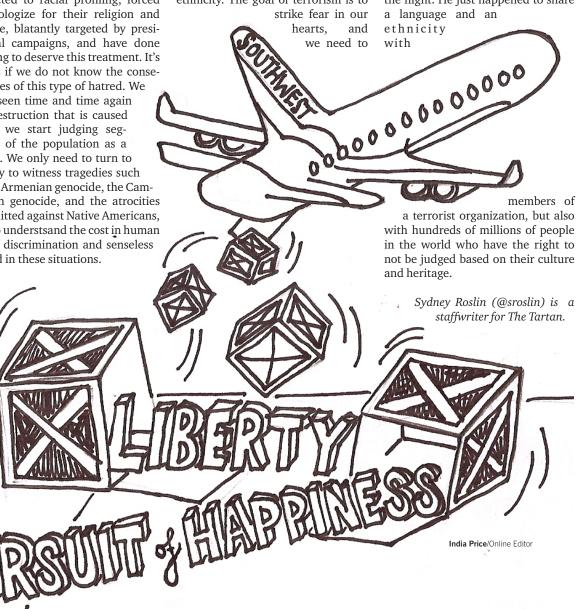
Arab descent. In the post-9/11 panic and rush to ensure national security, many of these people were detained without reasonable charge, verbally and physically abused, spied on, and even blacklisted from financial institutions.

Now, 15 years later, this type of discrimination is still being perpetrated. People like Makhzoomi are being subjected to racial profiling, forced to apologize for their religion and culture, blatantly targeted by presidential campaigns, and have done nothing to deserve this treatment. It's not as if we do not know the consequences of this type of hatred. We have seen time and time again the destruction that is caused when we start judging segments of the population as a group. We only need to turn to history to witness tragedies such as the Armenian genocide, the Cambodian genocide, and the atrocities committed against Native Americans, and to understsand the cost in human life of discrimination and senseless hatred in these situations.

The ISIS extremists that have perpetrated the acts of terrorism that we as a country fear are just that extremists. They do not in any way, shape, or form represent all Muslims, or all people of Arab descent. Muslims and people of Arab descent should not be judged as members of ISIS and should not be discriminated against because they share a religion or an ethnicity. The goal of terrorism is to

precent that fear from dictating our actions and override our moral com-

Yes, this is a simple case of a man being asked to leave an airplane. But it is representative of so much more. Because if Makhzoomi had been Caucasian, or if he had been speaking French, or Spanish, or Chinese, he would not have been asked to leave the flight. He just happened to share



FROM THE EDITORIAL BOARD

New experience initiatives sound great, if they happen

This Wednesday, April 20, President Subra Suresh sent an email to the campus community announcing new plans to "[enrich] the CMU experience," inspiring cautious optimism.

In the email, Suresh outlined six action items: he will form a President's Advisory Board for the CMU Experience; Provost Farnam Jahanian will convene a campus-wide task force on the student experience; the Eberly Center will create a pilot program to enhance student experience in the classroom; the University will open a new wellness center twice the current size; Counseling and Psychological Services (CaPS) will improve access to care; and the Cyert Center for Early Education will double its enrollment to accommodate graduate students and faculty members with children.

Altogether, these steps are a promising start. It is important to balance long term aims to change campus culture with more short term improvements to resources like CaPS and the Cyert Center for Early Education, and these steps seem to do that. But they are only a start.

Campus administration likely feels pressure to offer a quick response to complaints students have brought to the President's Office this semester. The suicides in March were symptomatic of a dangerous culture that we have known exists for a long time. The campus community reacted with the strength of its frustration, revitalizing old grievances in face of the inaction from the university on a serious, long-term public health issue.

Because of the pressure, these announcements are coming prematurely. The plans they promise are not yet developed enough. Even though conversations have begun, the announcement came before the members of the advisory board or the task force could be chosen. Most of the more active items still do not include timelines.

Students are justifiably hungry for a meaningful change in our CMU Experience. We do not want to be spoon fed false promises while gentle rhetoric encourages us to open

These proposals outlined by President Suresh are good ideas that could end up bearing fruit in the future, once concrete plans have been drawn. The Eberly Center's program to analyze classroom culture and the Cyert Center enrollment increase are appropriate answers to the serious problems our campus faces, and on the surface, they seem to show problem-solving initiative.

However, without names of people in charge of the planning, specific timelines, and specific goals, they only show that people intend to talk about talking about problems on

The administration has defaulted on promised change before. Improving campus diversity has long been a goal touted by the administration, but just this week the Student Senate's white paper highlighted how little tangible progress has been

With this recent example of how jargon does not necessarily lead to results on our minds, it is reasonable to be suspicous of the new initiatives.

The Tartan is eager to see how these projects play out and if the University will make good on its promises. Until then, we remain skeptical.

TO THE EDITOR: END

The university administration should ban all future weapons research on the grounds that it violates the policy on Academic and Individual Freedom and is against the principles of our founder, Andrew Carnegie. Research funding at the university includes millions of dollars in government contracts, some of which is used to research weapons, or technology that can be weaponized for the U.S. military. For example, in 2014, the Software Engineering Institute contributed to research on drones, which have been used by the U.S. military to destroy both military and civilian targets. Nearly 90 percent of the people killed in drone attacks in Afghanistan were civilians. This is clearly contrary to the university's policy on Academic and Individual Freedom that states, "Intentional acts threatening personal safety ... will not be tolerated." Weapons research includes research on technology and devices that threaten personal safety and clearly violates this community's ethics.

Weapons research is also contrary to the values of the university's founder, Andrew Carnegie, one of the foremost advocates for peace in his time. At the dawn of World War I, he became the president of the New York Peace Society. He also met with world leaders and lobbied countries — including the U.S., Great Britain, Germany, Russia, and France — to promise not to go to war with one another. In 1910, Andrew Carnegie founded the Carnegie Endowment for International Peace, which is still in operation. It seems likely that he would not support any of the university's contracts with the military, especially those that aid armed conflict. Any current contracts should be allowed to continue, but no contracts should be renewed or created if they involve weapons research. The university community should be critical of the work done in Carnegie's name and hold the university to the highest ethical standards.

Julia Eddy is a senior in social and decision sciences.



April 25, 2016 « The Tartan thetartan.org/forum » A9

Paul Ryan will avoid 2016 election and keep control of party

ABHISHEK TAYAL Pillbox Editor

Few people can deny that this has been one of the most interesting and confusing election seasons in recent history. Anti-establishment rhetoric is finding a larger audience than ever before in both parties. While Bernie Sanders rails against Wall Street on the left, Donald Trump engages in open rebellion and threatens violence against the political elite on the right.

This puts Paul Ryan, Speaker of the House and effective leader of the Republican Party, in a very difficult position. In a campaign so dominated by anti-establishment sentiment, Ryan happens to be the most prominent face of the establishment. Considering the target that this paints on his back, he has conducted himself with dignity and poise. If there's anything that the past year has demonstrated, it's that Ryan has one of the sharpest political minds in the country. He has demonstrated an uncanny ability to smoothly maneuver through ugly situations and shape the conversation in such a way that he might just emerge from this mess stronger than he was

Consider how Ryan got the job. Late last year, John Boehner abruptly announced his resignation and decision to step down within the next month. Boehner's pick, Kevin Mc-Carthy, was seen as the successor and received wide support, including from Ryan himself. When Mc-Carthy abruptly withdrew his name from consideration, the attention fell on Ryan. Initially, he refused as well. It was only after a multitude of endorsements from across the Republican spectrum, including the everrebellious Freedom Caucus, that Ryan reconsidered and took the job. He managed to land the most respected position in the establishment, without any sort of campaign, all while managing to paint himself as the reluctant white knight.

As Speaker, Ryan has been brazenly assertive this election season, even going so far as to directly rebuke his own party's candidates. When Trump suggested a blanket ban on Muslims entering America, Ryan didn't mince his words — he made it clear that such ideas weren't what the Republican Party, or conservatism in general,

stood for. Later in the campaign, when Trump failed to disavow an endorsement from Ku Klux Klan leader David Duke, Ryan went so far as to say that Trump would not be the Republican nominee if he didn't unequivocally reject the bigotry and racism that Duke stood for. Such standoffs have created a sharp line in the sand between Trump and Rvan.

Never in the modern era has there existed such animosity between a party leader and the party's front runner this late in the primaries. If Trump successfully gets to 1,237 delegates, he will be the Republican nominee for President. How would he approach not being supported by the party leader? One can never be sure with Trump, but if his statements are to be taken at face value - very confrontationally. How would Ryan approach a situation like this? He'd like us to believe that he would support the nominee, even if that happened to be Trump. That said, make no mistake, Ryan will do everything in his power to prevent Trump from getting the nomination.

What Ryan is probably hoping for, and what seems increasingly likely, is that Trump falls just short of securing 1,237 delegates. In this scenario, Ryan becomes surprisingly powerful and his options become far more interesting. The ensuing brokered convention would essentially allow the party elders, led by Ryan, to play kingmakers and choose the next Republican presidential nominee. Given this choice, Ryan would likely make sure that anyone but Trump gets the nomination; a Trump candidacy is so polarizing that the general election would be lost at the starting line. Further, making Trump the spokesman of the party alienates everyone besides his core base away from the GOP for a generation.

What does Trump do in a situation like this? Nobody expects him to go quietly into the night. He might either try and sabotage the campaign of the chosen Republican nominee or, more likely, launch a third party bid for President. Trump supporters aren't the traditional Republican voter base — some of his positions, such as those on trade and healthcare, are decidedly un-Republican. In a theoretical three-way general election, Trump's votes could eat into both Democrat and Republican shares.

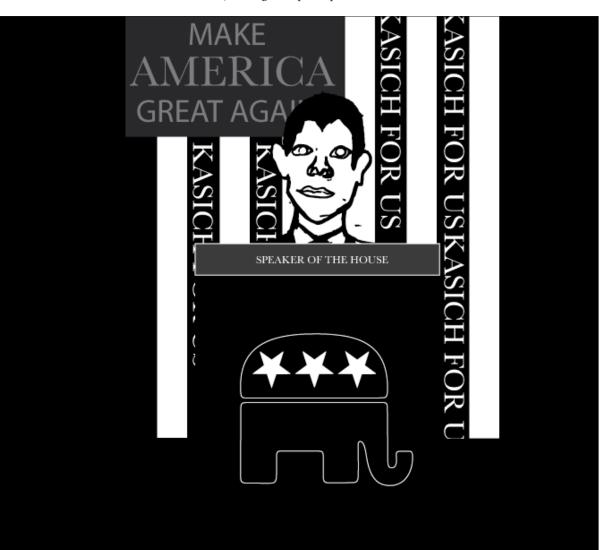
This would result in a very interesting and potentially disastrous general election if no party gets a majority. Although Ryan wouldn't want this, his bigger priorities are in the more distant future.

In any situation where Trump doesn't get to 1,237 delegates, the chosen Republican nominee would enjoy a small to negligible chance of winning a general election. Going up against Trump and Hillary Clinton in a brutal three person race is also likely to end the political career of whoever takes up that mantle. Keeping that in mind, Ryan has just the candidate he'd want for the nominee — Ted Cruz. He is a firm second to Trump in the primaries, making him a legitimate contender that doesn't have to be parachuted in at the last minute. He also happens to be a subject of derision for the establishment. Republican senator Lindsey Graham once joked that if you killed Ted Cruz on the floor and the trial was in the Senate, nobody would convict you. The vast majority of the Republican establishment wouldn't be too sad to see Cruz go. With Cruz gone and a good four years till the next presidential nominee, Ryan suddenly has breathing room to shape the party in his image as its sole remaining strong leader.

A surprising amount of ink has been spilled on speculation that Ryan might attempt to engineer a situation where he himself becomes the nominee. He has repeatedly, in increasingly strong language, denied any interest in being the nominee. And yet, fairly enough, people point to how he rose to become the Speaker of the House as evidence of the trustworthiness of his denials. His predecessor, John Boehner, has openly called for him to be given the nomination.

Yet, this time, it'd be very surprising if he tried the same reluctant acceptance tactic that worked so beautifully last year. Simply put, being the Republican nominee in this election is political suicide, and Ryan understands this. He lacks the support of the base. He'd be ripped to shreds by Clinton and Trump. In a campaign so dominated by anti-establishment rhetoric, how can he expect the people to accept the Speaker of the House?

Paul Ryan is not running for President. He has, for all intents and purposes, written off the 2016 election for the GOP. That said, he is running a campaign — a campaign that likely leads to his emerging as the only remaining strong voice within the GOP with the ability to "save" his party from extremists like Trump.



Jarel Grant/Assistant Art Editor

Hillary Clinton must clarify stance in \$15 minimum wage debate

DORSA MASSIHPOUR

Junior Staffwriter

During this presidential election, there has been a lot of debate about raising the federal minimum wage. From the beginning of his run for president, Democratic candidate Bernie Sanders has made it clear that he supports raising the minimum wage to \$15 per hour. On the other hand, his opponent Hillary Clinton has taken a different approach that many find difficult to understand.

Clinton first gave her opinion on minimum wage during the Democratic debate on April 14. She stated that she would sign a bill to increase the federal minimum wage to \$15, but added that she favors a slightly different change in federal wages. Recently, she has stated that her ideal model is based around the changes that have been made in New York — initially

creating a \$12.50 minimum wage in suboptimal effects on the economy rural areas and \$15 minimum wage in the city.

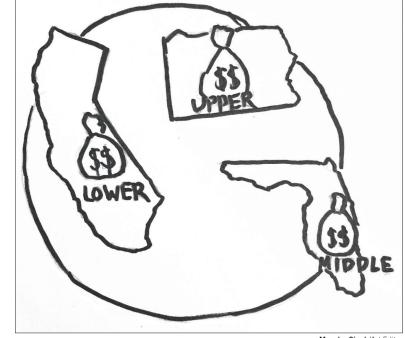
She has received much criticism for her opinion on minimum wage, mainly because people feel that her position is not a straightforward one. Contrary to her statements during this Democratic debate, Clinton supported changing minimum wage to \$12 per hour at the beginning of her campaign. If she only claims that she wants a more gradual change in wages, voters cannot be sure that she would actually sign off on a \$15 minimum wage bill if it was presented to

Another issue is that many people do not believe that incremental change will benefit them more than a doubling of the federal minimum wage, from the current \$7.25 to \$15. Clinton reasons that in rural areas, doubling wages would have

and could lead to fewer jobs. It is not certain this will occur, but Clinton believes that the safe approach is to monitor gradual increases to make sure that the economy as a whole does not suffer.

Nevertheless, much economic research has shown that increasing wages would not cause a significant decline in the number of jobs. Last year, the Congressional Budget Office published a report finding that increasing wages would give higher earnings to at least 16.5 million workers. According to Statista, there are currently 144 million people in the U.S. workforce, so around 10 percent of the workers

with low wages would benefit. Regardless of whether increasing wages will affect job growth, Clinton should be more clear about her intent, since many perceive that she has been unclear at times.



Maegha Singh/Art Editor

TARTANS TALK

With the end of the year fast approaching, The Tartan's thoughts are skipping ahead to break. So we asked, What are you excited about this summer?



Alyssa Aburachis Neurobiology and Psychology Sophomore

"I'm excited to get started on my research project and to have time to explore Pittsburgh with friends."



Allen Miller Mechanical Engineering Masters

"The first contested convention of my life."



Qilin Cao Chemical Engineering and Biomedical Engineering First-year

"I'm excited to make my traveling plans for this summer and enjoy the long break.'



Matt Powell-Palm Mechanical Engineering Masters

"Bernie sweeping California in June!"



Erin Fingliton Neuroscience Junior

"I'm working in a biochem lab back home. I worked in the same lab in highschool and wasn't very helpful, so hopefully I can redeem myself.'

A10 « thetartan.org/forum The Tartan » April 25, 2016

Carnegie Mellon students lose their hearts and sanity to work

KARISHMA MANGLANI

Junior Staffwriter

Recently, in light of the deaths of two students, our campus decided to reopen the discussion of mental health and stress culture at Carnegie Mellon. Unfortunately, our campus has the memory of a goldfish, and one aspect that remains under-discussed is the fact that some of us take our stress out with alcohol and other drugs

Carnegie Mellon has an alcohol problem. This may seem surprising to most people as we are supposedly stereotyped as a campus of anti-social nerds living in Gates. This, evidently, is not true. In terms of undergraduates who do participate in the drinking culture here (around two-thirds, as specified in the 2014 Healthy U Survey), we are in line with the national average. Carnegie Mellon does have the normal college drinking experience. However, students don't feel validated in this, which adds to the problem — in order to convince ourselves that we do party here, we go too hard.

It was also reported in the 2014 Healthy U survey that 19 percent of undergraduates and 17 percent of graduate students reported drinking to relieve stress. This number may seem small, but it's still a good number of students who use alcohol to deal with stress. It's not that our drug and alcohol behavior is abnormal, it just has an extra layer — while most college students can take a breath and enjoy their life soberly, here students go from working to drinking and back and forth, without a break to just breathe. Had three exams this

week? Get wasted the second you get done. That one notoriously hard CS class? Work till 11 p.m. and get drunk afterwards. Repeat every weekend. The reality is we don't leave time for sober interaction without drinking and without studying. This creates an environment where we take out the worst things that have happened to us in the worst ways possible, leaving this unhealthy culture, eventually causing some people to have dependencies.

Then there's Carnival. We all love

Carnival, as it is sadly the one time a year everyone on this campus seems to drop all responsibilities and leave the libraries, which turns into a drinking fest at the end of day. When do we get a break? When do we get to breathe without being drunk? What's even worse is that I've even heard some instances of people having homework due over Carnival, just adding to this stressed-get-drunk culture. The fact that Carnival is marketed as the only time that we behave like a normal

campus means that how we behave during it says a lot. Because it's the "only" time it can end up in disaster, as students once again push their limits a bit too hard.

This stress-drinking culture, in addition to our need to feel validated in our party culture here, also stems from the fact that there is this image of the ideal Carnegie Mellon student who works hard in their respective STEM field, has a decent social life, does well in school, is involved in

leadership positions, and on top of all of this gets at least seven hours of sleep. But is this possible? The motto of Carnegie Mellon is to put "our heart in the work," but where do you get time to be yourself when you are in the work and then just get drunk?

We are expected to live up to this ideal standard of human, and put our hearts and souls into the work. But the reality is that doesn't actually make for a well-balanced human being; we put our hearts into the work before we put our hearts into ourselves. That's messed up because that's when we define ourselves by our accomplishments and grades rather that just existing and valuing our own existence. Putting our heart into the work is essentially a capitalist idea, that we try to humanize and make apply to us. The idea that we are our work, and our grades are accomplishments, is one of the largest contributors to stress culture here at Carnegie Mellon, and if we don't live up to that we crash. On top of all of that, some of us crash into drinking, drugs, and harder drugs until we can escape everything that is our work, which makes up who we are, and results in the culture we have right now.

So I propose this: let's put our hearts in ourselves before our work. Self care, which is a very simple concept that seems to escape people (especially with finals upcoming) is

If you're constantly going from working to drinking there is not time for you to breathe or to be who you are. Human beings are much more and greater than the work they do and however much we say otherwise, so are the students here.



Jarel Grant/Assistant Art Editor

Boots on the ground" a good decision in fight against ISIS

ZEKE ROSENBERG

On Monday, Secretary of Defense Ash Carter announced that the United States will be sending 217 ground troops to battle ISIS in Iraq. The ground troops will be joining the special operations forces that arrived in October.

Evaluating whether or not this is a good idea is a very complicated process, but there are three basic things that need to be true for a ground invasion to be a good idea. There needs to be some sort of value, strategic or otherwise, that justifies the loss of life in pursuit of a goal; It must be likely that the ground troops will make victory substantially easier; and there must be a viable exit strategy. In this particular case, all these requirements are met. While there are a thousand moving parts to a complete evaluation of the decision to send ground troops to Iraq, this very basic checklist (which has been ignored before) would lead you to approve the decision by Carter.

The first and most obvious litmus test of whether or not to send ground troops is whether or not it is worth the loss of life. Since this is a value judgment, it is the part of warfare subject to public political discourse and the one that is hardest to evaluate.

Given recent history, this litmus test is also commonly used to reject any military action. People felt that the Iraq War from 2003-2007 was completely without purpose. While this isn't an accurate representation, the Iraq War turned out to be a colos-

Former president George W. Bush imfamous National Intelligence Esrest is history. The United States mili-

virtually nothing. Presently, eastern Iraq is doing okay, but western Iraq is controlled by ISIS, hardly a preferable alternative to Hussein. No evidence of WMDs was found.

This experience leads many people to be strongly averse to a renewed ground campaign in Iraq. They see no positive incentive for military engagement or doubt the veracity of any justification given. However, in this case, there are clear and impactful reasons for the United States to be fighting to destroy ISIS.

The first is a moral argument. People across the Middle East are dying due to the brutality of ISIS. There is even an argument that strategic blunders by the United States led to the rise of ISIS, which makes us responsible. From there, it seems sufficient that ISIS must be destroyed or they will continue to kill people in staggering numbers.

Second, ISIS is having noticeably negative effects on the American economy. The devastating effect on the economy of the Levant from the death of people who could otherwise be positive contributors and the effects of globalization mean that this is a significant problem for America as well. Furthermore, ISIS's illegal oil sales are helping to drive down the cost of oil which is damaging the American economy in ways ranging from the stock market to Medicare.

Third, a stable Iraq is an important goal, and ISIS makes it impossible for Iraq to be stable since the group's primary goal is to occupy Iraqi land. A stable Iraq could help counterbalance Iran's military ambition, as it did before the Iraq War. This, in addition to Obama's Iran Deal, could help stabilize the Middle East in the long run by laying the groundwork for peaceful diplomatic negotiations when the region's powers are less trigger-happy.

The second benchmark in pursuing a conflict is whether or not the conflict can be won. It seems easy to just say America has the most powerful military in the world and will win everything, but that is a silly mistake to make. History is littered with overconfident powers taking ill-advised steps into conflicts they never had a chance at winning. American soldiers had no knowledge of Vietnamese jungles and could not get into pitched battles with the Viet Cong, making the Americans susceptible to ambushes and making strategic gains incredibly hard. America also has trouble in rural, mountainous regions like Afghanistan because it is hard to train soldiers for that terrain in America. This is why the war in Afghanistan yielded nothing for so long; the American military was illequipped for the conflict and had no

reasonable expectation of victory. This conflict is different. ISIS is present mostly in or near cities, which provides several avenues for ground troops to help the U.S. achieve victory.

The first way U.S. ground troops have an advantage is that since cities are concentrated, they are easier to police and patrol, making it easier for forces to fight there.

The second is that America has had the world's best military night vision for a very long time. This may seem like a silly advantage for the world's most well-funded fighting force, but seeing in the dark means there are fewer temporal boundaries to Americans fighting. Cities are busy during the day, allowing for tactical operations to happen in secret, while battles can occur at night. When they happen, American soldiers will have a significant edge in battle.

The third is that ISIS is largely made up of foreign fighters, making it difficult for the group to fight in rural areas they are less familiar with. Fighting against ISIS in the Middle East gives the Americans quite a few local allies. This means they can form a coalition similar to the Chindits, a coalition of Burmese, Nepalese, and British troops that fought in Burma during World War II. Japanese soldiers, who were largely confined to cities and the pathways between them, could not protect their supply lines as they moved from city to city when attacked by the coalition. They were eventually forced to abandon Burma entirely despite their initial campaign being one of the most successful invasions by any power during World War II. ISIS is confined in the same way the Japanese soldiers were and they are much worse in terms of training and equipment. Adding American equipment and the ability to call in air strikes to skirmishes between cities could choke off ISIS's ability to get goods to its military bases, quickly cutting off any ability to fight.

The fourth is that airstrikes become much more effective when there are military personnel on the ground. Soldiers on the ground can learn local customs and more easily tell civilian gatherings from ISIS meetings. When airstrikes hit things like parties and weddings, it rightfully makes people angry towards the West and more willing to join ISIS or other similar groups. Having someone who knows the cultural differences call in the attack is a much more effective way to be attacking from the air.

Finally, before embarking on a ground invasion there must be a way to exit the war so that Americans are not paying for this for decades like we do with conflicts such as the Korean War or the Afghan War. It seems the Obama administration thought of this problem months in advance. The special operations forces have been training local police groups, which shows in Iraq's ability to hold Tikrit and Ramadi, two cities that were once held by ISIS, largely on their own. These cities now experience relative peace due to the Iraqi government's ability to keep them secure. If the 217 soldiers are gearing up to take a larger ISIS-held city such as Mosul, the largest city by population in western Iraq before the conflict, the training operations by special forces could make it so that Iraqi forces could hold Mosul, and America could move to a different objective instead of holding the city forever. This would allow America to systematically shrink ISIS territory until local forces could finish it off without having to act as a colonial power, giving America the ability to exit in the short term instead of the very long term.

Even with all of the death and destruction ISIS causes, it is important to be careful in our response. By sending a small team, the Department of Defense has made it clear that these soldiers have a specific objective and the groundwork is laid for this to be a successful intervention. There are plenty of other factors such as strategy and the situation on the ground that can be impossible to know without the right security clearances, but it seems the Obama administration is not playing tiddlywinks with ISIS as the Republicans might have you believe. Instead, Obama has very deliberately made his moves and has put the U.S. in a position to defeat ISIS

Sandra Kang/Staff Artis



April 25, 2016 « The Tartan thetartan.org/sports » A11



Upcoming Events

Men's Track & Field **Gator Invitational** at Allegheny College May 13, 10 a.m.

Men's Golf None

Men's Tennis NCAA Regionals at TBA May 12–15

Women's Track & Field **Gator Invitational** at Allegheny College May 13, 10 a.m.

Women's Golf None

Women's Tennis NCAA Regionals at TBA May 12-15

UAA Tennis Standings

Men's			Women's						
Univ.	W	L	Univ.	W	L				
Emory	20	3	Emory	23	4				
Wash. U.	16	5	CWRU	14	5				
CWRU	20	7	Chicago	11	5				
CMU	16	6	Wash. U.	15	8				
Chicago	15	5	NYU	9	4				
Brandeis	9	9	CMU	15	7				
Rochester	9	9	Brandeis	9	9				
NYU	4	9	Rochester	6	11				

SPORTS BRIEFS

Men's Tennis

The Carnegie Mellon men's tennis team flew south on Saturday to play in the University Athletic Association (UAA) championships in Altamonte Springs, Florida. Ninth-ranked Carnegie Mellon took on fifthranked University of Chicago in an intense back and forth match that ended with Carnegie Mellon winning 5–4, giving them a third place finish in the championship.

Despite their eventual victory, the Tartans found themselves with a deficit after doubles play. The Tartans only managed to earn one of three possible points from doubles play, coming from the duo of first-year students Vayum Arora and Daniel Levine.

The pair won their set 8–6 in the first position, and the Tartans moved into singles play down 2–1. The Tartans were

forced to make a comeback in singles play if they wanted to win, and they did. After dropping another point and falling even further to 3–1, senior Abhishek Alla stepped up and got the Tartans rolling again in first singles. Alla won 6–3, 6–2 and rekindled the fire that the Tartans had for victory. Firstyear Chaz Downing evened out the score for the Tartans at 3–3; winning third singles 6–4, 6–4. Arora followed Downing's lead, but he had a much greater challenge. After a long, grueling set, Arora won 7–5, 6–2 in fifth singles to give the Tartans the lead. Chicago won fourth singles to even the score once again, but Levine would not give the victory away. He earned the final game-winning point in three sets, scoring 6–4, 2-6, 6-1.

The third place victory nearly guarantees the Tartans a place in the National Collegiate Athletics Association (NCAA) tournament because five of the nation's top ten teams are a part of the UAA and Carnegie Mellon is third in that group. The bids for that tournament are released on May 9 and the tournament takes place May 12-15. The Tartans are 16-6 on the year.

Women's Tennis

The Carnegie Mellon women's tennis team competed in the University Athletic Association (UAA) championships on Sunday. Carnegie Mellon faced off against the University of Chicago and fell 6-3, earning them a fourth place finish in the tournament. The loss moves the ninth-ranked Tartans to a 15-7 record on the season.

Doubles play was intense, and many of the sets were back and forth with no clear winner until the very end. However, Carnegie Mellon could not seem to finish a set strongly and ended up dropping all three doubles matches with a score of 8-6.

The Tartans did however manage to earn some consolation points in singles, though. Sophomore Cori Sidell won third singles 5-7, 6-2, 10-3. Right behind her was firstyear Jamie Vizelman, taking fourth singles 5-7, 6-4, 10-2. The final point for the Tartans came from first-year Mariana Selenica in fifth singles, winning 7-6 (8-6), 6-3.

The Tartans must now wait to find out if they have been selected to compete in the upcoming National Collegiate Athletics Association (NCAA) tournament. The bids are released on May 9, and the tournament begins on May 12.

Track and Field

and field teams competed in the University Athletic Association (UAA) championships on Sunday. The men's team scored a total of 137 points and took second place overall in the competition.

Sophomore Jacob Schofel won the hammer toss with a distance of 49.38 meters. Along with Schofel, first-year Rai Walters was crowned a UAA champion by jumping 6.28 meters in the long jump event, a season best for him. Schofel also threw the discus a distance of 42.46 meters to place third in the event.

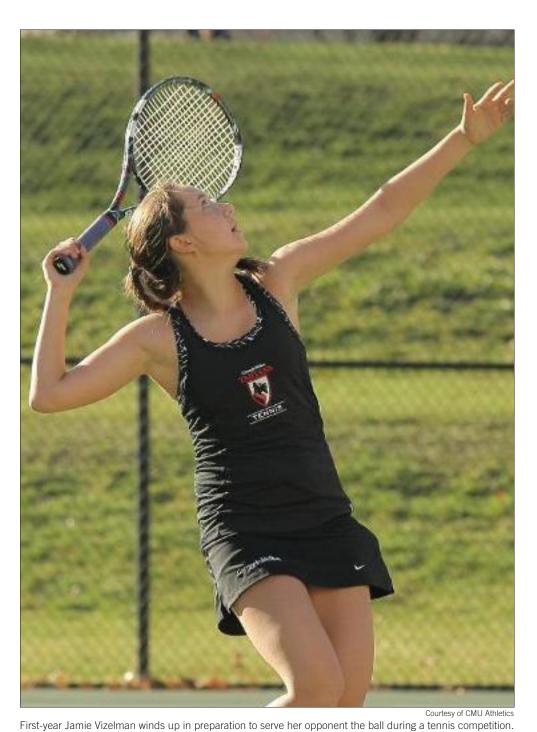
Juniors Don Boyer and Owen Norley, along with senior Marc-Daniel Julien posted career best times in the 110-meter hurdles, the 1,500-meter run and the 800-meter run respectively.

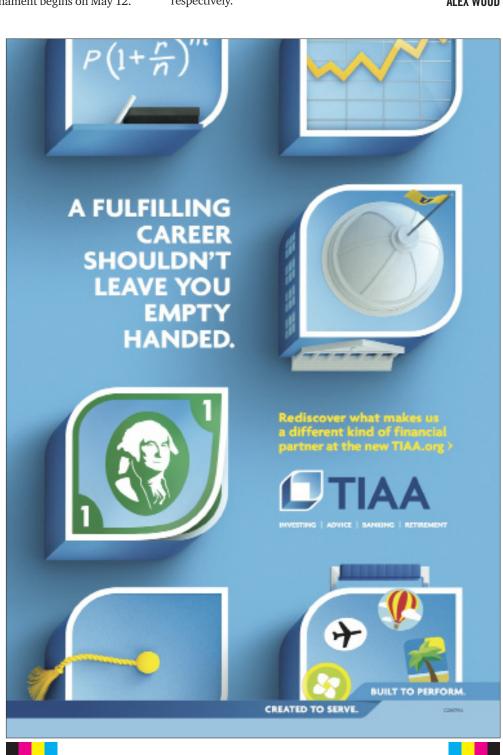
The Carnegie Mellon wom-The Carnegie Mellon track en's track team placed fifth in the UAA championships, and posted two first place finishes along with three school

First-year Tessa Allen broke the school record for the high jump, clearing 1.6 meters. Junior Grace Yee broke the school record for pole vaulting that she set herself last year, vaulting over a bar set at 3.51 meters to win the event. Sophomore Sarah Cook also broke a school record, running the 400-meter dash with a time of 56.67 seconds, taking fourth place in the

The track and field teams will head to Allegheny College in Meadville, Pennsylvania on May 13 at 10 a.m. to compete in the Gator Invitational.

> Compiled by **ALEX WOOD**





A12 « thetartan.org/sports The Tartan » April 25, 2016

Sports

Kevin Durant is not a champion yet, but he's near the top

ZEKE ROSENBERG Senior Staff

Monday night saw the Dallas Mavericks slip by with an 85-84 victory over the Oklahoma City Thunder to steal the home court advantage for the series. The Thunder promptly regained their home court advantage with a win on Thursday, but it did little to calm an increasingly prominent narrative that Thunder forward Kevin Durant is a choker.

The narrative began after the Thunder were stomped on in the 2012 National Basketball Association (NBA) finals by the Miami Heat. The Thunder have found little success in the postseasons since

In 2013, Thunder point guard Russell Westbrook suffered a knee injury during the first round of the playoffs and, despite still having Durant and forward Serge Ibaka, the Thunder were barely able to handle the Houston Rockets, a mediocre eight seed, before being mercifully dispatched by the Memphis Grizzlies in five games.

In 2014, the Thunder got pushed to the brink in round one by a Memphis team that was significantly worse than they were the year before due to personnel changes and injuries. This series prompted an infamous headline from The Daily Oklahoman calling Durant "Mr. Unreliable." The Thunder then beat the Clippers after a very controversial series of calls changed the outcome of one of the games in that series.

The Thunder were then overmatched by the eventual champion Spurs, who beat them by 25 or more points on two different occasions.

After Westbrook and Durant both spent time out of action last season, the Thunder missed the 2015 playoffs entirely.

The Thunder have continuously blown large third quarter leads this season as well.

These playoff failures and Durant's time in the NBA without a title play a significant role in the star player's legacy for many fans. The scene from Monday night's game — featuring Durant badly missing two three-point shots while the Thunder were down four points, before missing a game winning layup in heavy traffic did not help Durant satisfy his detractors.

However, this reputation is unfair. In between those two plays, Durant hit a threepointer that brought the Thunder within one point and put them in a position where they could have won the game. The layup he missed at the end went through two different Mavericks and would have been nearly impossible

His previous performances during the season and in the playoffs show that Durant performs well in high leverage situations.

It's hard to remember now that the Thunder have been consistent contenders in the Western Conference for so long, but Durant's amazing performance in the 2010 playoffs snagged an upstart, young Thunder team two wins

of the Los Angeles Lakers that steamrolled their way to a title after the Thunder gave them fits by defeating them.

The 2012 trip to the Finals saw the Thunder overpower three good teams, including a Spurs team that won 75 percent of its regular season games. The talk of these playoffs was that Westbrook was hurting the team with poor decision making and Durant had saved them.

The 2014 Clippers were a very good team and, even if the game with controversial calls was overturned, it would have forced a game seven in that playoff series. The Thunder still won three games very convincingly. Durant not only made his usual immense scoring contributions, but he also had some notable defensive games that helped the Thunder come out on top.

Durant may not have won an NBA title yet, but that's not a fair way to judge an individual's legacy. Durant has seen bad personnel decisions hurt his teams while he consistently sees juggernauts on the other side of the court.

The infamous James Harden trade that saw the shooting guard move from the Thunder to the Rockets for a number of players who were never nearly as good, had little financial justification, and permanently damaged the Thunder's trajectory by jettisoning a legitimate star. The Thunder consistently surround their stars with subpar players like shooting guards Dion Waiters and Andre Roberson. It's hard to win basketball games when

well-established organization

against a juggernaut iteration the whole team is lacking in performance on the court.

> Further, the Thunder have had incredibly bad luck with the rest of the league. Their first finals appearance came against a Miami Heat team that featured the best player in the world, forward LeBron James, and two other superstars. The Spurs machine won a title in 2014 and no one was particularly competitive with them. The Golden State Warriors just won the most games in a single season by a team in the history of the league after FiveThirtyEight ranked last season's version as the fourth-best team ever by one measure.

> The Thunder, meanwhile, seem to sustain injuries to

because of this have trouble maintaining year-to-year consistency with rotations.

The "choker" narrative has followed just about every great player in history until they win. James was labeled a choke until he won two finals. Former Bulls shooting guard Michael Jordan was considered a choke until he won separate three-peats later in his career.

So were former Philadelphia 76ers, Phoenix Suns and Rockets forward Charles Barkley and former Philadelphia Warriors, 76ers, and Lakers center Wilt Chamberlain despite being some of the greatest players to ever play their positions.

key players consistently and It's an attempt to try to add human features to superhuman feats and it only serves to tarnish legacies of people who were nothing short of extraordinary.

> Despite missing most of last year due to injury, Durant has spent every other year being an undisputed top three player in the league. Durant may not have an NBA Finals victory, and he may never have one, but he's consistently among the league's best players and has been since he was drafted by the Seattle Supersonics in 2007.

It's silly to let incompetent management and bad luck distract from the incredible things we get to see Durant do on a daily basis.



Kevin Durant and two Thunder teammates look distraught during a game, a familiar image for fans this season.

League of Legends takes to international stage after LCS

Sports Editor

cluded, and the season is halfway over. League of Legends is a video game played by teams of five players that each controls a character, known as a champion. These champions duke it out on a fantasy battlefield known as Summoner's Rift, using magical abilities and attacks to defeat their opponents. The Rift has three lanes: bottom, middle, and top along with a jungle in between. Teams all over the world play this game professionally, practicing for multiple hours every day to hone their skills. The best of these teams face off in season-style format called the League Championship Series

(LCS) to determine the best of

the best over three months.

Now that the first three months, called the spring split, is over, the best teams from each region will come together to play in one large international tournament, called the Mid-Season Invitation (MSI). Six teams, the spring split champions from each region, will meet at the Shanghai Oriental Sports Center in China to determine the best team in the world at this halfway point in the season. While it is not the official world championship, MSI is seen as a useful benchmark to determine a region's relative strength going into the summer split. The tournament consists of a group stage in a double roundrobin format, where four of the six teams will advance into the bracket stage. The bracket stage is single elimination, and each match is a best-of-five

The competition at this year's MSI will be fierce. South Korea's representative, SK Telecom T1 (better known simply as SKT), has won the world championship twice in the last three years and is considered the heavy favorite

to win the tournament. Their star mid laner, Lee "Faker" Sang-hyeok is the captain of The 2016 spring split for the team and is considered League of Legends call him the god of gods when it comes to the game. His only loss at an international tournament came at last vear's MSI, where Chinese team Edward Gaming (EDG) drafted a team composition designed to completely counter Faker and nothing else. It worked and SKT lost their first international event, but it seems that only made Faker angry. Although EDG did not qualify for this year's MSI, Faker and SKT will surely be back with a fiery vengeance.

The most heated matchup will be between the North American and European teams, because the League of Legends community loves the rivalry across the pond. Europe's G2 Esports is a new team, entering the LCS at the beginning of this split. They took no time to establish their dominance, however. Behind the prodigal performance of mid laner Luka "Perkz" Perkovic and the consistent play of support Glenn "Hybrid" Doornenbal, G2 took the European LCS by storm and easily took the spring split championship over the defenders, FNATIC. The North American LCS is represented by Counter Logic Gaming (CLG), a

that has competed for a top spot in North America since its inception, and was at one League of Legends has con- the best player to ever play point considered the best team in the world. CLG has undergone some major changes in recent months, however. They lost their star carry player to rival Team SoloMid, who has battled with CLG every year for the top spot in North America. That didn't faze CLG though, because they rode the veteran leadership of support player Zaqueri "Aphromoo" Black all the way to the spring split Aphromoo championship. took a rookie from the lower levels of play, brought him into the LCS and has helped turn him into one of the best carry players in North America. That player, Trevor "Stixxay" Hayes, won the MVP award for the spring split finals against TSM and has shown just how effective a good teacher can be in this game. The Taiwanese Flash Wolves and the Chinese team Royal Never Give Up are also set to provide challenges for the top teams, but there is no clear favorite among the non-Korean regions. This year's MSI will prove to be an exciting one. The competition takes place from May 4 to May 15 and can be watched online at na.lolesports.com. Will we see SKT dominate as expected, or will a dark horse emerge to take down the Goliath? Tune in to find out.



The players gather on stage for a round of applause after last year's MSI.

NHL hockey gets heated as Stanley Cup playoffs begin



The Stanley Cup sits ready to be engraved for the next NHL champion.

ALEX WOOD

Sports Editor

There exists only one major professional sport that accepts physical brawling as a valid way to settle a dispute: ice hockey. Some consider it a barbaric and outdated way of problem solving, but fighting has definitely given hockey the identity of one of the most brutal and physically enduring sports in the world. Hockey teams in the United States and Canada spend the winter and spring facing off against each other in a season style format, where wins earn points toward a team's seeding in the postseason playoffs. The National Hockey League (NHL) playoffs are the pinnacle of competition in ice hockey. 16 teams are admitted to the playoffs, and they play in a best-of-seven series format to determine the winner of each matchup. The ultimate reward is the Stanley Cup, a massive trophy that has the names of winning players and coaches engraved into its chalice. This is the epitome of accomplishments in ice hockey, next to winning the gold medal in the Olympics.

This year's Stanley Cup playoffs have already proven to be unusual, even after just one round of play. For just the second time in NHL history,

none of the seven Canadian teams qualified for the postseason. Also, both Floridabased teams made the Stanley Cup playoffs for only the second time ever. While these are both unusual situations, there are some staple teams that have maintained their spot as consistent postseason contenders. The Detroit Red Wings have qualified for the playoffs for 25 consecutive years, although they've been knocked out already in the first round by the Tampa Bay Lightning. Also, each of the three California-based teams have made the playoffs in the same season for the fourth time in six years. Unusual contenders like the Tampa Bay Lightning and the Florida Panthers are sure to shake things up in the Stanley Cup playoffs

The NHL is divided into two conferences, the east and the west. Each conference brings eight teams to the playoffs, two of which are wild card teams that had to play matches to fight for their spot in the tournament. In the eastern conference, the Washington Capitals look like the team to beat after winning the conference championship for the regular season. The Capitals' star forward Evgeny Kuznetsov along with veteran

winger and captain Alexander Ovechkin are sure to put up a formidable challenge for any team looking to make a run for the Stanley Cup. With the Red Wings knocked out, the Pittsburgh Penguins and each of the Florida teams are looking right at Washington to see if they will slip up.

Pittsburgh will look to young superstar Sidney Crosby along with seasoned goaltender Marc-Andre Fleury to try and stifle their opponents. Fleury will not have an easy job against the explosive offenses of the Florida teams. The Lightning's dynamic trio of Nikita Kucherov, Steven Stamkos, and Victor Hedman have been picking apart defenses all season and they'll look to do the same against their next opponent.

The western conference has less obvious favorites. The Dallas Stars are the immediate contenders to make the finals because they won the western conference championship for the regular season. The Stars are led by captain and forward Jamie Benn, who poses a massive offensive threat to any team looking to get past the first seed in the west. The Anaheim Ducks are the Stars' biggest challenge, and as champions of the Pacific division in the western conference, they're hungry for more. Winger Corey Perry and forward Andrew Cogliano will spearhead the offense for the Ducks, and their experience will make for some interesting

No matter what team you're rooting for, or even if you're not rooting for a team, the 2016 Stanley Cup playoffs will undoubtedly be one the most intense sporting events of the year. The games can be seen on major sports networks, and the fourth and final round will be held in early June. These modern-day gladiators are going to pour their hearts out onto the ice for their teams, and you don't want to miss it.





The Plague in Venice

Guest Director Sasha Iliev presents his take on Venetian Commedia dell'arte • B3

04.25.16 Volume 110, Issue 25



movies, and Marvel made waves this week.

...this week only

3 The Plague in Venice

The Plague in Venice, a commedia dell'arte scenario directed by Sasha Iliev, played at the Philip Chosky stage this past week. Check out our review of this unusual comedy.

4 The Originals: Behind The Scenes

this week.

The Originals, one of Carnegie Mellon's pre-eminent a cappella groups, recently qualified for the International Championship of Collegiate A Cappella Finals. The Tartan got the chance to attend one of their rehearsal sessions and speak to them about their creative process. Check out our experience with this fascinating group!

...diversions

regulars...

Comics We know you're stressed. Take a load off and Advice have a laugh. Our resident guru helps an aspiring singer destroy her life in an artistic manner. 8 **Puzzles** Just in case your homework doesn't exhaust 6 Movies In McConomy your brain, we've got you covered. Catch Deadpool this Friday, and The Hunger 9 Horoscopes Games: Mockingjay - Part 2 this Saturday. The stars have insightful predictions for your week and your life. 6 Movie News 10 Calendar The Nina Simone biopic, the two Jungle Book All the cool stuff happening on and off campus

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Purnell hosts The Plague in Venice

Guest-director-led comedy has stunning set and costume design

Carnegie Mellon's School of Drama is a playground of old styles and fresh experiments, and *The Plague in Venice* was a bit of both. Directed by guest Sasha Iliev, and based on a story by Flaminio Scalia, *The Plague in Venice* premiered on the Chosky stage this month as a spectacular reimagining of a 400-year-old form of Italian theatre.

The Plague in Venice, a comedy about a plague that killed a quarter of Venice's population in the late 16th century, has everything characteristic of Commedia dell'arte: exaggerated archetypal characters, improvisation, and satire on politics and human nature. But this background information, while useful in retrospect, was hardly necessary for me to enjoy this bizarre, yet wonderful, show.

The set and costume designers behind the scenes deserve the loudest shout-out. Everything in this fictionalized Venice was visually stunning, from dreamy wrought iron bridges over canals, to an enormous, black lace-bordered moon that really did hit my eye like a big pizza pie. Fixed throughout the show with few moving parts, the set was not complicated, but elegant.

The costumes were far more extravagant, often wearing the actors more than vice-versa. They perfectly emphasized character types like the Alchemist, with his galoshes and large clusters of boils, the greedy Pantalone, with his gold-trimmed hammer pants, and the Lover, with a tulip-bud skirt reminiscent of a particular part of the female anatomy.

The play's two most threateningly named characters — Plague and Death — got two of the coolest outfits. Plague, played by senior drama major Caroline Pluta, was queenly in her hot lava-like flowing body suit, while Death, played by junior drama major Clay Singer, was more towering puppet than costume, floating menacingly across the stage and grasping up victims with its skeletal metal hands.

Even Plague's squad of rats was alluring, with fur like gossamer rags and red glowing eyes. I could've sat through two hours of *The Plague in Venice* with my hearing turned off, and the sight of it alone would have conquered my attention.

Admittedly, the play packed more of a visual than a comedic punch. Its crude slapstick and stock cast of over-the-top characters, classic to a style of theatre several centuries old, is not too compatible with your average millennial's ironic, postmodern brand of humor. The lines that won

the most laughs were oddly placed yet refreshing references to the contemporary, such as the song lyrics each character would quote when Death asked for their "last words" — everything from "Bohemian Rhapsody" to "Highway to Hell."

I was also tickled by the running joke that one of Plague's rats — Mickey — is a troublemaker with a big mouth and a high-pitched jolly laugh. But even if this comedy didn't exactly put the audience in hysterics, I often found myself grinning at the sheer absurdity of the spectacle.

The spectacle would not have been nearly as effective without the talents of its cast. Pluta dominated the stage as Plague, whose poise and malicious delight never let the show's premise—and its title—become lost in the chaos.

Franceschina, played by senior drama major Kelsey Tarantino, was an interesting, stereotypically masculine twist on a very trope-y role. Instead of sighing and weeping in the name of love, this Lover weaponizes her own stench and dodges marriage to seek the amorous activity she really wants.

The show's most entertaining character was the Alchemist, played by senior drama major Colin Whitney, perhaps because he strayed most often into contemporary territory, fumbling with "spill-proof" flasks and reading off a laundry list of side-effects for a plague antidote that include erectile hyper-function.

As an ensemble, the cast effectively highlighted human silliness in continuing to seek out sex and material wealth even during a time when everyone around you is literally dropping like flies

It's impossible to know how much of the show I saw on Friday night was improvised, as one of the tenets of commedia dell'arte is unpredictability. Paired with outstanding — and obviously professional — visual design, the show's comparatively less polished performances gave off an impression of charm and balance.

The Plague in Venice wasn't intimidating, despite its brilliant artistry, because the performers did not take themselves or the satire too seriously. When the bows came and the cast broke into a final cheerful song, I found myself wishing I knew the words to sing along, so we could better revel in the ridiculousness together.

Ariel Hoffmaier | Training Manager

Adele for awkward people

About artistically letting your life fall apart.

Hello. It's me.

I was wondering if you could help me out. I mean, I hate to turn up out of the blue uninvited, but rumor has it that you're the number one Dr. Feel Good in town. Deep down I must have always known that I'd have to bear my soul at some point, but I never thought that it would be in a reputable and prestigious newspaper, with a circulation of several thousand. So I mean it's not a huge deal, but like it's a pretty big deal to me, ya know? So like I was talking with my friend Madge, and she was telling me how my singing voice is exactly like a Sia-Adele-powerballad love-child, and I was like "Yeah, no, I totally see it." And she was going on about how famous I could totally be if I only tried harder to let my life fall apart artistically rather than letting my life go to shambles and not capitalizing on it.

So now I'm wondering, right, how do I go about having my life artistically fall into shambles? Should I take up some kinda illicit behaviors like stealing candy or walking around town with my top off? I really don't wanna go so far as to start smoking the crack or injecting the marijuanas, but like, I might do it if there's no other option. And like what do I have to write about, ya know? I've got my family, we're as welladjusted as it gets; I've got no addictions, awkward habits, outstanding warrants, or felony charges. So like yeah,

what do I do? I've got the singing voice and the outrageous talent and the femme-fatal beehive down pat, but I don't know how to go about ruining my life right. Help a sistah out?

Sincerely, Amazing Damsel Exploring Live-ruining Escapades

Dear ADELE,

You're correct; I do have much experience with artistically ruining my own life for the sake of art. I think it's important to distinguish between art for art's sake and art for fame's sake. I think you're seeking fame, and really that's the one where a ruined life is more detrimental than advantageous. When you're just an artist doing your little art thing, there's art in like everything. Like the sky is art, and the moon is art, and the lint you find between your big and second toes is like hella art.

But when you're famous, it's all about the glitz and the glamour and the hookers and blow. You can ruin your life for fame, in which case you'll be regarded as a very talented weirdo, or you can ruin your life for art's sake and be worshipped by a small but manic group of art-children. In order to ruin your life for art, you must first know which genre of art you are willing to sacrifice for; consider the possibilities and the potential (dis)advantages for each genre. Only then will you be able to reach the transcendent status of a desolate and despairing artiste.

Love, Joshua "Feel-Good" Brown



The Originals: New York bound for ICCA finals

A behind the scenes look at the innovative a cappella group with ICCA's just around the corner





Apeksha Atal | Assistant Pillbox Editor

Apeksha Atal | Assistant Pillbox Editor

As the clock on my phone creeped towards 9:30 p.m., the 13 members of The Originals' team trickled into Peter-Wright-McKenna. The guys jumped around, humming to themselves and catching up with each other until their Artistic Director, senior electrical and computer engineering major Nitsan Shai, walked over to stand towards the middle of the floor.

Like clockwork, the rest of the guys, still chatty, began to form a circle around where Shai stood, with first-year business administration major, president, and choreographer of The Originals, Leopoldo Galvan, signaling them to quiet down. As chatting turned to murmuring, which turned to hushed whispers, all the members turned their attention towards Shai, who took their quieting down as a signal to begin practice for the day, saying, "Okay guys, let's sing."

Earlier this month, The Originals won the semi-finals for the Central Region Division at the University of Buffalo Center for the Arts, a category that includes 38 groups from Ohio, upstate New York, Western Pennsylvania, and parts of Canada. Now they'll be heading off to the Beacon Theatre in New York City for the International Championship of Collegiate A Cappella (ICCA) finals.

"It's such an honor to be selected for the finals," Galvan said.

"Until this happened, this was literally somewhat of a dream for us," said Originals member, choreographer, and senior industrial design major Gene Hua. "My freshman year was the first time that we made the semi-finals, and even that was crazy."

As The Originals, or The O's as they commonly say, get ready to attend the ICCA finals, their usual nine hours of practice a week are being pushed towards perfecting everything from vocals and choreography to synchronization and expressions. Leading up to the competition, each member has easily put in at least 100 hours of time working on their vocals — both on their own, and with the group. Occasionally the group goes through what they call marathon weekends, where they put around 10 hours into fine-tuning their arrangement in a single weekend.

"One weekend, thanks to Senate funding, we were able to travel to SoJam in Atlanta, where we saw tons of groups that we admire perform," Galvan said. It was through their trip to SoJam that the O's were not only able to see Lark, an incredible all-female a cappella group from Colorado University at Denver, perform, but were also able to meet their coach Erin Hackel.

"One thing that we've definitely done more of this year, which has helped us improve a lot, is taking feedback from other people, and Erin was a huge help in that respect, as were our friends and just people from different backgrounds," said senior BXA mathematics and music technology major Erik Fredriksen, who works on arrangements for the group. "We've tried to keep our sets secret in the past, but we've realized that more than having a great reveal, it helps to have as many eyes on an arrangement as possible."

Last Tuesday, I had the opportunity to be one of these eyes, and learn about some of the things that make The Originals the outstanding group that they are.

Top: The Originals' winning performance at the ICCA semifinals. **Bottom:** The 13 singers begin their warmup at the start of a rehersal.

On Attire:

Dressing up is a pretty important part of any a cappella group, and The Originals have had a long and evolving relationship with a dark color palette and the mixing and matching of style techniques. The Original uniform per se, back in 1996 when the group was conceived, was a suit jacket, vest, and slacks with a plain shirt of any color. Over time, this changed to become a white shirt, blue jeans, black shoes, and a 3" wide "clown tie," as Shai described it. In 2014, the black shirts came in, both the ties and the jeans got slimmer, and the color palette of dark blue and black was strongly established. "It's a sexier look," Shai laughed.

This year the team is striving to embody a theme of innovation, and is letting the outfits bring out the individuality that each member brings to the table, while still adhering to a color scheme that brings coherence to the look. "We let people experiment more with what they're wearing, so that they're comfortable on stage, and just give them suggestions at practice," Shai said. "There are always, however, like two guys in blue ties, as a sort of homage to the original Originals."

On Preparing Arrangements:

While Shai and Fredrikson are mostly responsible for putting the actual notes for arrangements down on the page, The O's follow a very holistic method while putting sets together.

Around October and November, members have plenty of opportunities to submit songs, which are discussed as a group. The O's collectively decide on what they like, don't like, and slowly eliminate songs until they find songs that work well together, that have some individual uniqueness or flavor, and that everyone enjoys.

"People won't sound good if they don't love what they're singing," Fredrikson said, "so we make sure that the set makes sense and that every member can get into it." Once the songs are picked, Shai and Fredrikson meet with one another to pen down notes and host open sessions where any member can come and provide suggestions and contribute to the process. The aim of Shai and Fredrikson, in terms of putting these sets together, is to bring a pop appeal to their arrangement, while staying true to both the artists' and their own artistic integrity. The end result in this case is a three-song masterpiece.

The set that The Originals have been working with for the ICCAs begins with a jazzy and infectiously enjoyable rendition of Nick Jonas' "Levels." The next song in the sequence is Lorde's "Everybody Wants to Rule the World," which alters the lively atmosphere to a much creepier, post-apocalyptic one. Finally, with the mood mellowed out. The O's end with Demi Lovato's soulful "Stone Cold," for which first-year musical theatre major Ramsey Pack took home the award for Outstanding Soloist at the Central Quarterfinals and the Central Semifinals.

"The sign of a great arrangement is when you can practice it for dozens of hours and still not get sick of it, and I'm still not sick of ours," Hua said, with his fellow members smiling and nodding in agreement.

On Choreography and Coherence:

If you went to Almost Midnight A Cappella last semester, then you'll definitely remember the O's performing Vampire Weekends' "I Think Ur a Contra" and the very intricate choreography that they brought to the event. Well, turns out that was one of their least choreographed performances of the year.

"It was very experimental," Galvan chuckled, "Basically the choreography was that there was no choreography except that when you're singing you step and when you're not you stay still." Since then, both Galvan and Hua have worked hard to keep the energy from experimental performances such as that, but to have a set choreography established so that the singers can focus on their voices.

"We listen to these songs hundreds of times and try to figure out what we want to do with it, like with "Everybody Wants to Rule the World" we have Gene largely separated from the group, with the rest of the guys acting like his evil minions or something, just to bring out that dystopian vibe," said Galvan.

The coherence that arose out of such a performance comes a lot from the familiarity the guys have with one another and hours and hours of practice. During practice, Galvan steps out of the group and watches the rest of the members perform, stopping them and readjusting wherever he sees an error, so that the final result is polished, coordinated, and smooth.

On What's Coming:

The Originals are planning to host a fall concert inviting a cappella groups that inspire them from outside Pittsburgh to come and perform in Rangos Ballroom on November 11. This will be the first time that such an event will occur on such a grand scale at Carnegie Mellon. With The Nor'easters (2013 ICCA winners) and Voices in Your Head (2015 ICCA Runners up) already confirmed, and more groups to come, this is definitely a show you don't want to miss.

"We've got new stuff coming out soon too," Galvan hinted, so keep your eyes peeled.



Apeksha Atal | Assistant Pillbox Editor



Apeksha Atal | Assistant Pillbox Editor

Left: The Originals strike a pose for our photographer. Right: The O's practice their choreography — an integral part of any performance.

Movie news: Nina, Marvel, and Jungle Book(s)

From a disappointing biopic to the remake of a childhood favorite, read all the latest movie news

Nina is even worse than expected

The Zoe Saldana led biopic based on singer and civil rights activist Nina Simone was the subject of controversy long before it came out. The casting of Saldana, specifically, has been regarded with derision. Saldana is a relatively light-skinned African-Latino woman. Simone was a defiantly African-American woman with far less delicate features. When reports emerged that Saldana was using dark makeup and a prosthetic nose to compensate for the differences, the chorus of criticism only intensified.

Now that reviews for *Nina* have finally started rolling in, we know that the casting was symptomatic of a much larger problem — the movie is, to put it bluntly, really bad. The movie, currently struggling to hold up a comically low 3 percent rating on Rotten Tomatoes, meanders from act to act as it portrays a uni-dimensionally troubled Simone in a manner that borders on caricature.

Peter Travers of *Rolling Stone* said, "The word on this Nina Simone biopic has been so toxic for so long — it was filmed in 2012 but only released now — I was really hoping to find something good in it. No luck."

The Marvel juggernaut rolls on

As is the case with most weeks leading up to the summer, Marvel dominated the movie news cycle with a flurry of announcements, rumors, and reviews this past week. First, the bad news: the *Inhumans* movie has been pulled from Marvel's movie calendar. The

Inhumans are a subspecies of humans that the Kree (an alien race) experimented on millennia ago. Now, when Inhumans are exposed to the "Terrigen Mist," they suddenly and violently transform into powerful beings.

Marvel's reasons for pulling *Inhumans* are easy to guess — the parallels with X-Men, another Marvel property, are wide ranging. More than anything else though, the head honchos at Marvel have their hands full right now. New entries to the Marvel Cinematic Universe (MCU), from *Spiderman: Homecoming*, to *Ant Man and the Wasp*, give Marvel little space or incentive to launch another brand new franchise.

Kevin Fiege, President of Marvel Studios, said:

"Since we made our initial phase three announcement, we added *Spiderman*, which was a big joyous coup for us. We added *Ant Man and the Wasp*, which was a big fun continuation of that story for us. Walt Disney Company has announced an Indiana Jones film for right around that same time. So I think it will shuffle off the current date [of *Inhumans*] that it's on right now. How far down it shuffles, I'm not sure yet."

On a more positive note, Marvel's Summer 2016 juggernaut, *Captain America: Civil War* has been garnering rave reviews. *Civil War* is currently sitting on a 97 percent rating on Rotten Tomatoes, the highest of any Marvel movie to date. This is absolutely incredible when one considers the monumental ambition of *Civil War*. The movie has to pack in more MCU characters than your average Avengers film,

build a legitimate story that splits these characters down the middle and sends them to war, set the foundations of the MCU through its critical Phase Three, all while being a self contained "popcorn movie" with enough quips and spectacular action set pieces to wow the average viewer. Consider Batman v Superman: Dawn of Justice as an example of everything that can go wrong when a movie tries to do too much.

A tale of two Jungle Books

If you haven't seen the Jon Favreau directed, Disney produced *The Jungle Book*, I'd highly recommend checking it out. As a live action retelling of the animated classic, *The Jungle Book* blends spectacular visuals with the classic, virtually flawless original story. In particular, the voice cast is absolutely top notch. Ben Kingsley as Bagheera, Idris Elba as Shere Khan, and Bill Murray as Baloo work together (with Scarlett Johannson, Lupita Nyong'o, and Neel Sethi), to make for a rollicking and fun retelling.

That said, if you don't get a chance to catch this Jungle Book retelling, worry not! A Warner Brothers production, with an arguably even more impressive director and cast, is on the near horizon. *Jungle Book: Origins,* directed by Andy Serkis, and starring Benedict Cumberbatch, Christian Bale, and Cate Blanchett is on track to come out in early 2018.

Abhishek Tayal | Pillbox Editor

moviesinmcconomy

Deadpool

Friday, April 29 8 p.m. & 11 p.m.

Deadpool is the movie adaptation of Marvel's most unconventional superhero. Wade Wilson (played by Ryan Reynolds) is a fast-talking, potty-mouthed assassin for hire who gets diagnosed with cancer. Running out of options, he undergoes an experimental treatment that gives him superhuman healing abilities and cures him of his cancer, but leaves him looking scarred and disfigured. Adopting the alter-ego of Deadpool, he fuels his dark, twisted sense of humor through his accelerated healing to become the ultimate anti-superhero: going on a merciless rampage to destroy the organization that treated him and ruined his life.

The Hunger Games: Mockingjay — Part 2

Saturday, April 30 8 p.m. & 11 p.m.

The Hunger Games: Mockingjay — Part 2 is the epic conclusion to the Mockingjay saga. Panem is in the grips of a full-blown rebellion, being spearheaded by District 13, and fronted by Katniss Everdeen (Jennifer Lawrence). Peeta Mallark (Josh Hutcherson) has been rescued from the Capitol — brainwashed and led to believe that Katniss is his worst enemy. Katniss herself doesn't entirely trust President Coin (Julianne Moore), or the other leaders of District 13, and is feeling manipulated. Through these circumstances, Mockingjay — Part 2 traces Katniss's journey through to the devastating conclusion of the rebellion of Panem.

Images courtesy of BagoGames via YouTube





Two Guys and Guy by Rickard Jonasson







www.twogag.com

twogag@gmail.com

twogag.com

Amazing Superpowers by Wes and Tony







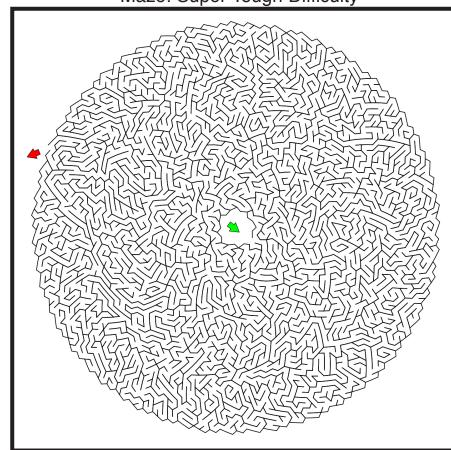
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Sudoku Puzzle: Super Tough Difficulty

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Maze: Super Tough Difficulty



Sudoku courtesy of www.krazydad.com

Maze courtesy of www.krazydad.com

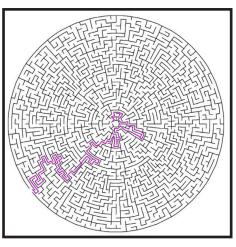
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Sudoku



Maze

Horoscopes Your weekly forecast, literally.

Thunderstorms — There are dangers up ahead. Make sure to prepare for the storm.

taurus april 20-may 20

march 21-april 19

Partly Cloudy — Things may seem a bit dreary, but the clouds will lift soon enough.

gemini may 21-june 21

Windy — Life can change at a moment's notice. Just let the breeze carry you through the week.

cancer june 22-july 22 Drizzle — Most things are better in small doses. Feel free to take your time.

leo july 23-aug. 22

Clear Skies - The future is looking bright! Make sure to enjoy it.

virgo aug. 23-sept. 22

Rain — This is the time to be careful and take care of vourself.

libra

Light Snow — Stop and make sure to take a look around you. You can use a break now and then.

scorpio oct. 23-nov. 21

sept. 23-oct. 22

Hail — Try not to be too harsh on others. They are struggling as well.

sagittarius

Sleet — Don't get distracted by the people around you. In the end, it's your life, not theirs.

capricorn dec. 22-jan. 19 Overcast — You've just overcome a big obstacle, but there is still much work to be done. But soon, your skies will clear.

aquarius jan. 20-feb. 18

Fog — Your future is a bit hazy. It's hard to see what's coming ahead, so be prepared for anything.

pisces feb. 19-march 20

Mist — It's always good to keep a cool and level head. Good decisions take time to make.

Crossword courtesy of FreeDailyCrosswords.com

ACROSS

- 1. Hinge holder
- 6. Clock feature
- 10. "Brainiac" author Jennings
- 13. Crockett's last stand
- 14. Volunteer's cry
- 15. Senate vote
- 16. Barbarian who creates a buzz?
- 18. Mardi Gras king
- 19. B'way "no seats" sign
- 20. Chest part
- 21. Lyricist Lorenz _
- 22. Wipes clean
- 24. Matt of "The Martian"
- 26. Greenish-blue shades
- 28. Very quickly
- 31. Tool with teeth
- 34. "Good Will Hunting" sch.
- 35. Sci-fi master Isaac
- 36. Lawyers' org.
- 37. Waiting uncomplainingly
- 39. Mined asset
- 40. Loss caused by a pothole strike
- 42. Phone no. adjunct
- 43. Hawaiian strings
- 44. Waited in line, say
- 45. Tread heavily
- 47. Welles who played Kane
- 50. Difficult burdens
- 53. Private employer
- 55. Ghastly
- 57. P on a frat pin
- 59. "Chocolate" dog, for short
- 60. Worthless stock contract?
- 62. Swelled head
- 63. Grueling exams
- 64. Hurricane of 2011
- 65. Kinsey research topic
- 66. Truth or _____ (party game)
- 67. Slackens off

Down

- 1. Fifth Avenue retailer
- 2. Author ____ Boothe Luce
- 3. Barbering tool
- 4. Comedian Philips
- 5. Like a pine fragrance
- 6. Shorthand similar to "IMO"
- 7. Prepared to shoot
- 8. Barton of the Red Cross
- 9. Right angle
- 10. Dress designer Donna in a frenzy?
- 11. Admirer from afar, maybe
- 12. Deli counter all
- 14. Ticked off
- 17. Walking tour carry-along
- 21. Pueblo tribe
- 23. Super serve
- 25. Crow's nest support
- 27. Farm enclosures
- 29. Apple throwaway
- 30. Times to revel
- 31. Cheers from the grandstands
- 32. Border on
- 33. Crate of exploding cigars?
- 35. "The Four Seasons" composer Vivaldi
- 37. Elbow guards
- 38. Shakes down
- 41. "Glee" actor Monteith
- 43. Favorable times
- 46. Rich, chocolatey dessert
- 48. Tara family name
- 49. Stock valuation phase
- 51. Great Lakes tribe members of old
- 52. Performed brilliantly
- 53. Brewpub offerings
- 54. Word after "road" or "roid"
- 56. Be the king
- 58. Vending machine inserts
- 60. Dropped for a 10-count, for short
- 61. "La-la" lead-in

Sarah Wang | Comics Editor

Calendar

Tuesday 4/26

Burned Out, Still Glowing

The Mr. Roboto Project. 6:30 p.m. 5106 Penn Ave, Pittsburgh, PA 15224.

Tickets: \$5 Regular. \$8 VIP.

Burned Out, Still Glowing is an alternative musical experiment that originated in Philadelphia six years ago. For every show, besides performing its unique fusion of alternative and folk, the namesake trio invites a wide variety of local acts to diversify the evening's sound. In the process, Burned Out, Still Glowing also provides a platform for other up-and-comers. This week, catch them at their first Pittsburgh show at The Mr. Roboto Project on Tuesday. Local acts include Yes Yes A Thousand Times Yes, Vertigo, Ferdinand the Bull, and Memphis Hill.

Friday 4/29

Dancers' Symposium Spring 2016 Show: Flux Rangos Ballroom, Cohon Center. 8 p.m. Tickets: \$8 Pre-sale. \$10 At the door.

Come be a part of Carnegie Mellon's iconic oncea-semester dance showcase. Dancers' Symposium promises to be a spectacular display of some of the most impressive choreography, performance, staging, lighting, and costume design to come out of Carnegie Mellon this semester. This semester's theme, Flux, emphasizes constant evolution in our lives, in the world of dance, and in the world in general. Dancing styles covering the entire spectrum, from jazz to hip hop, will come together with costume, sound, and stage design in a show that is always a feast for the senses.

Grease

Byham Theater. 7:30 p.m. 101 Sixth Ave, Pittsburgh, PA 15222. Tickets: Starting at \$35.

Catch this rendition of one of the most iconic and well known musicals of all time. When Grease premiered on Broadway in 1972, it was nominated for seven Tony awards. Six years later, by the time the now classic movie adaptation came out, Grease had become one of those productions that everyone had heard of and wanted to see. Grease tells the story of teenage couple Danny and Sandy, as they navigate the politics and social classes of high school in the 1950s.

Saturday 4/30

Art History Class: Hindu, Buddhist, and Islamic Art in India

Carnegie Museum of Art. 10:15 a.m. Tickets: \$40 for students. \$60 Regular.

This daylong course at the Carnegie Museum of Art (CMOA) introduces attendees to the long artistic history of South Asia through the lens of the religions that have played a part in the region's cultural evolution. Starting with the pre-Hindu Indus Valley Civilization, moving onto the advent of Hinduism, its decay and the birth of Buddhism, and finally to the importation of Islam and the Mughal empire, this session of Art History Class examines the Indian Subcontinent as an artistic hub. Also included will be tours of relevant artifacts in the CMOA collection.

Grease

Byham Theater. 7:30 p.m. Tickets: Starting at \$30.

Dancers' Symposium Spring 2016 Show: Flux

Rangos Ballroom, Cohon Center. 8 p.m. Tickets: \$8 Pre-sale. \$10 At the door.

Ongoing

Butterfly Forest

Phipps Conservatory & Botanical Garden. April 22-TBA, 2016.

Admission: \$15 per adult. Free with Carnegie Mellon

The Butterfly Forest is one of Phipps Conservatory's most interesting exhibits in terms of how the flora, as opposed to being the focus, is but a canvas for more animate subjects - butterflies. While educating viewers on the delicate interplay between butterflies and flowers in nature, the exhibit offers a chance to see yellow and black striped zebra longwings, orange and black western Pennsylvania monarchs, and many other species flying around as viewers walk the gardens.

Bike the Burgh Historical Bike Tour

500 First Ave, Pittsburgh, PA, 15219. 10 a.m. April 22-Nov 27, 2016. Admission: \$25

Join a guided bike tour through Pittsbugh's many neighbourhoods — from Downtown and the Cultural District to North Side and South Side.

Compiled by Abhishek Tayal | Pillbox Editor

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

SEXUAL ASSAULT RESEARCH

The University of Pittsburgh Department of Radiology is seeking 18-25 year old women who have experienced sexual assault or sexual misconduct for brain imaging research studies.

- Compensation up to \$700 upon completion
- Contact info: call 412-586-9888 or visit www.addictionstudies.pitt.edu

The University of Pittsburgh's support resources for sexual assault and/or harassment including instructions and contactinformation for reporting can be located at www.SHARE.pitt.edu and www.safety.pitt.edu.





the rembacher competition.









Aisha Han | Staff Photographer

The Rembacher Competition is a biannual, School of Music-organized event that brings together the most innovative chamber music at Carnegie Mellon. This year, on April 20, groups of students and composers from the School of Music came together to break new ground in chamber music performance. Featured here are Flux (top), Connections (bottom left), and All Cut Up (bottom right), three of the entries in the Rembacher Competition.